

The Impact of Monetary Policy on Trust-Based Economic Network

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Abstract

This study investigates the influence of monetary policy, implemented solely through adjustments to the reserve rate, on trust-based economic networks. The research focuses on how changes in the reserve rate affect trust formation, wealth distribution, and economic growth within a networked society. By utilizing an agent-based model (ABM), this research examines the dynamics between monetary policy and social interactions, emphasizing trust-based investments, financial decisions, and reciprocal behaviors. The proposed model simulates agents operating within a social network where their economic activities are driven by trust and influenced by reserve-rate-based monetary policy. Agents' investment decisions, borrowing capacities, and economic outcomes are affected by the money supply dictated by the central bank's reserve rate adjustments. This study aims to explore how these factors shape overall wealth distribution, trust dynamics, and economic stability. The study hypothesizes that a well-calibrated reserve rate can promote economic growth and reduce wealth inequality by enhancing credit availability and trust-based cooperation. Conversely, overly restrictive monetary policies may stifle investment and exacerbate wealth disparities. The findings aim to provide insights into how monetary policy, through reserve rate management, can foster sustainable economic outcomes and equitable wealth distribution in trust-based networks.

Keywords: agent-based mode; monetary policy; reserve rate; trust-based economic network; wealth distribution