Evaluating the Impact of Macroeconomic Policies in a Partially Dollarized Economy: The Case of Cambodia

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Thesis Summary

Introduction

Evaluating the impact of macroeconomic policies on Cambodia's economy, this thesis examines specifically two macroeconomic policies: the loan currency policy issued by the National Bank of Cambodia (NBC) to reduce dollarization within the banking system (Chapter 3) and how global interest rate shock, as a foreign macroeconomic policy, influences the dynamics of macroeconomic variables in the dollarized Cambodia (Chapter 4). Cambodia is a highly dollarized country, with dollarization measured by the ratio of foreign currency deposits to total deposits at 95%. To de-dollarize the economy, NBC implemented the loan currency policy in 2016, encouraging lending in the local currency (KHR) and discouraging lending in USD by imposing a ratio for KHR lending to total lending at 10%, to be achieved in three years. However, compliance has been challenging in Cambodia due to the predominant demand for USD loans. Despite the eventual compliance with the regulation, institutions were expected to incur costs, prompting this thesis to examine the policy's unintended effects on banking and financial institutions. The extensive scale of dollarization also piques our interest in exploring the impact of world interest rates on the country's macroeconomic variables through the lens of the DSGE model.

Methodologies

To address the impact of the loan currency policy on banking and financial institutions in Chapter 3, we assess the policy's effect on total loan disbursement, which is the major product of the industry. These loans can be categorized into those provided by banks and those by microfinance institutions (MFIs). We construct a counterfactual series for bank loans during the policy intervention period using MFI loans as the predictor. Subsequently, we compare this counterfactual with the actual loan data to examine if the difference is significant. We employ a state-space model using the CausalImpact R package with aggregate loan data to estimate the counterfactual and evaluate the policy's impact on banking and financial institutions in Cambodia. The rationale behind using MFI loans as the predictor is that the aggregate ratio of KHR loans to total loans for MFIs has consistently exceeded the 10% threshold; therefore, we conclude that aggregate MFI loans are indifferent to the policy despite MFIs being also subject to the new policy. Consequently, it is reasonable to employ MFIs as the predictor of the bank loan counterfactual during the intervention period. As aggregate MFI loans are unaffected by the policy, the impact of the policy on total loans translates into the effects on bank loans alone.

Chapter 4 assesses the impact of foreign interest rate shock on Cambodia's small open and dollarized economy using the small open economy real business cycle (SOE-RBC) model following Schmitt-Grohe and Uribe (2003). We also assess the responses to preference and technology shocks. The model is originally used to estimates a standard or non-dollarized small open economy with an incomplete asset market where residents purchase risk-free foreign bonds to insure their wealth. We frame Cambodia's economy to fit the model due to its high level of dollarization, where people make deposits and transact in USD to hedge against risks and by assuming specific features of the economy. This allows us to apply the model by substituting the interest rate on foreign bonds in the original model with the domestic term deposit interest rate in USD. We use Bayesian estimation and Cambodian data to generate impulse responses.

Results

In Chapter 3, contrary to our initial hypothesis that the policy might have resulted in losses for the banking system, it had a positive side effect as the total loans of banks in both currencies exceeded the counterfactual by the deadline. We explained the mechanism and concluded that the NBC's liquidity easing facilities and interbank lending accommodate the compliance.

In Chapter 4, we find the foreign interest rate shock negatively related to domestic consumption and investment while positively associated with the trade balance and current account, as expected. However, the Bayesian variance decomposition shows that foreign interest rate shock is not the primary driver of the business cycle, which is contrary to our expectations. This could be due to the traditional model specifications, which allow for limited direct interaction between the interest rate and the macroeconomic variables.

Conclusions

Despite Cambodia's entrenched dollarization issue, optimism stems from the positive impact of the loan currency policy on the banking system. Sustaining and expanding this regulatory framework could aid de-dollarization efforts, although a balanced approach is needed to mitigate potential losses. Understanding the true cost of dollarization is crucial, as it can catalyze more effective solutions and garner stakeholder support. Educating the public about the pros and cons of dollarization is essential to foster support for these initiatives. A comprehensive approach involving regulation, stakeholder engagement, and public awareness offers promise for a gradual but impactful transformation toward a de-dollarized economy in Cambodia.

References

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