ABSTRACT

This thesis employs a New Keynesian Model to investigate impacts of nominal rigidities and incomplete exchange rate pass-through in Thailand. Moreover, this study aims to estimate structural parameters of the model in order to analyze the reaction behaviors of the Thai economy when the Bank of Thailand adopts inflation targeting. Understanding these reactions is crucial for conducting effective monetary policy.

In order to reach the objective of this thesis, we formulate and estimate a DSGE (dynamic stochastic general equilibrium) model which is an optimization-based model based on micro foundations. The New Keynesian DSGE model is the Keynesian model with explicit nominal rigidities (e.g. price and/or wage stickiness, incomplete pass-through) to replicate the empirical persistence of the Thai data. The small open economy assumption is also imposed on the New Keynesian DSGE model.

The thesis adopts the Bayesian approach to combine prior information and Thailand's historical data with Markov chain Monte Carlo (MCMC) method to estimate the parameters of the model. The impulse-response functions are utilized to examine the dynamic effects of specific type of shocks. The Kalman filter is employed to compute the maximum log-likelihood function.

The results of the study suggest a habit formation induce significant hump-shaped response of consumption to various shocks. The average duration of the price stickiness is three quarters for domestic producers and two quarters for importers. It confirms the existence of stickiness of domestic and import prices as well as incomplete exchange rate pass-through.