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Modeling the Effect of Inflation Targeting Influenced by China's Interest Rate Liberalization

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Abstract

We employ a new Keynesian dynamic stochastic general equilibrium (DSGE) model to analyze the effect of strict and flexible inflation targeting influenced by China's Interest rate liberalization. Using three kinds of analysis method—impulse response, unconditional standard deviation and the central bank's loss function analysis, through simulation of output and inflation volatility when rising the steady-state interest rates under both types of inflation targeting, we find that, Firstly, impulse response shows that implementing flexible inflation targeting leads to smaller output volatility and greater inflation volatility relative to strict inflation targeting when facing a positive technology shock; the result is opposite when facing a positive interest rate shock. Secondly, the result of unconditional standard deviation shows that the output and inflation volatility will be reduced under both types of inflation targeting when facing technology and interest shocks simultaneously. Thirdly, the central bank's loss functions are decreased under both types of inflation targeting, and the loss functions are smaller under flexible inflation targeting than under strict targeting. These conclusions imply that flexible inflation targeting is an attractive strategy of monetary policy in China's interest rate liberalization.

Keywords: Interest rate liberalization, DSGE model, strict inflation targeting, flexible inflation targeting.

1. Introduction

China has been implementing interest rate liberalization reform to reap the full benefit of a market-based interest rate environment. This reform will affect the country's monetary policy as well as the effect of inflation targeting. In other words, what is the effect of strict and flexible inflation targeting influenced by China's Interest rate liberalization, and which is more appropriate for China during this reformation period? The answers to these two questions are very important for China's monetary authorities, as it is vital to minimize disruptions to China's economic development and maintain economic stability. While China's current inflation rate is more or less steady, its output is still declining. Relative to stable inflation, economic growth is the key. To answer the