Did the Slope of the Phillips Curve Actually Become Flat in the U.S.? A Bayesian DSGE Approach

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Summary

The literature has shown that the Phillips curve in the U.S. has flattened recently and lost its explanatory power for inflation, based on single equation estimation approach. This research paper investigates whether the slope of the Phillips curve has actually become flat by estimating a dynamically richer version of a prototypical New Keynesian model using a full-information Bayesian approach. In order to examine the change of the slope, the time period of the data sample used in this estimation is divided at the year 2000, which is the year the Phillips curve slope is said to have changed, into two subsamples. The first subsample is from the third quarter of the year 1987 to the fourth quarter of 1999, and the second subsample is from the first quarter of 2000 to the fourth quarter of 2019. Contrary to the conventional wisdom in the literature, the analysis yielded the result that the slope has actually increased and therefore, agrees with some recent studies on the possibility of successfully strengthening the relationship between economic slack and inflation. The decreasing price stickiness parameter and price indexation parameter are revealed to be responsible for this change. A robustness check, which uses shadow rates instead of actual federal funds rates during the zero interest rate policy era in the estimation, confirms this result.

Keywords: Phillips curve, Monetary policy, Inflation forecasting, Bayesian estimation

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