

Abstract: We investigate the effect of incorporating zero lower bound (ZLB) in monetary policy rule and asymmetric adjustment costs (AAC) in firm's price setting mechanism in a standard New Keynesian DSGE model on explaining the unique experience of Japanese economy over the last three decades. To improve the accuracy of evaluating the nonlinear feature of the model, the projection method is employed in solving the model. We estimate the model using the Bayesian method combined with a particle filter and show that the estimated model with both ZLB and AAC outperforms the benchmark model in term of explaining the data. The adjustment cost in reducing prices is estimated to be 24 to 32 percent higher than raising prices. The presence of this downward price rigidity is likely to play a role in preventing further deflation by mitigating the deflationary pressure from the reduction of productivity.