

The Response of the Central Bank to the Exchange Rate Movement: A Dynamic Stochastic General Equilibrium-Vector Autoregressive Approach for Tunisian Economy

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Abstract : The paper examines the choice of the central bank toward the movements of the nominal exchange rate and evaluates its effects on the volatility of the output growth and the inflation. The novel hybrid method of the dynamic stochastic general equilibrium called the DSGE-VAR is proposed for analyzing this policy experiment in a small scale open economy in particular Tunisia. The contribution is provided to the empirical literature as we apply the Tunisian data with this model, which is rarely used in this context. Note additionally that the issue of treating the degree of response of the central bank to the exchange rate in Tunisia is special. To ameliorate the estimation, the Bayesian technique is carried out for the sample 1980:q1 to 2011 q4. Our results reveal that the central bank should not react or softly react to the exchange rate. The variance decomposition displayed that the overall inflation volatility is more pronounced with the fixed exchange rate regime for most of the shocks except for the productivity and the interest rate. The output volatility is also higher with this regime with the majority of the shocks exempting the foreign interest rate and the interest rate shocks.

Keywords : DSGE-VAR modeling, exchange rate, monetary policy, Bayesian estimation

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