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Analyzing the Effects of Supply and Demand Shocks in the Spanish Economy

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Abstract : In this paper we use a small open economy Dynamic Stochastic General Equilibrium Model (DSGE) for the Spanish economy to search for a deeper characterization of the determinants of Spain's macroeconomic fluctuations throughout the period 1970-2008. In order to do this, we distinguish between tradable and non-tradable goods to take into account the fact that the presence of non-tradable goods in this economy is one of the largest in the world. We estimate a DSGE model with supply and demand shocks (sectorial productivity, public spending, international real interest rate and preferences) using Kalman Filter techniques. We find the following results. First of all, our variance decomposition analysis suggests that 1) the preference shock basically accounts for private consumption volatility, 2) the idiosyncratic productivity shock accounts for non-tradable output volatility, and 3) the sectorial productivity shock along with the international interest rate both greatly account for tradable output. Secondly, the model closely replicates the time path observed in the data for the Spanish economy and finally, the model captures the main cyclical qualitative features of this economy reasonably well.

Keywords : business cycle, DSGE models, Kalman filter estimation, small open economy
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