

## Real Exchange Rate Overshooting RBC Style ‡

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The objective of this paper is to establish the ability of a Real Business Cycle model to account for the behaviour of the real exchange rate (RXR), using UK experience as our empirical focus. We specify a dynamic general equilibrium open economy model based on optimising decisions of rational agents; the first order conditions from the households' and firms' optimisation problem are used to derive the behavioural equations of the model. As we model the UK, a medium-sized open economy, we take the world economy as given. We keep the model in its non-linear form and hence solve it numerically. The interaction with the rest of the world comes in the form of uncovered real interest rate parity and current account both of which are explicitly micro-founded. The paper discusses simulation results of a 1 percent productivity shock, which shows clearly that on impact RXR appreciates and then goes back to equilibrium, producing a business cycle. This deterministic simulation is very encouraging to the idea that the behaviour of RXR may be explicable within an RBC context. Ultimately to test whether our model is consistent with the facts, we bootstrap our model to generate pseudo RXR series and check if the ARIMA parameters estimated for the data lie within 95% confidence limits implied by our model. We find that our model tells quite a good story, the gyrations of the RXR can be explained within an RBC framework.

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