THE INTERNATIONAL TRANSMISSION OF VOLATILITY SHOCKS: AN EMPIRICAL ANALYSIS

Haroon Mumtaz  
Queen Mary, University of London

Konstantinos Theodoridis  
Bank of England

Abstract
This paper proposes an empirical model which can be used to estimate the international transmission of volatility shocks. Using this model we estimate that a one standard deviation increase in the volatility of the shock to US real GDP leads to a decline in UK GDP of 1% relative to trend and a 0.7% increase in UK CPI relative to trend at the two year horizon. Using a non-linear open economy DSGE model, we find that these empirical estimates are consistent with the response to a perturbation to the volatility of foreign 'supply' type shocks, while an increase in the volatility of demand shocks has a negligible impact. (JEL: D11, D12, D82, D83)

The editor in charge of this paper was Fabio Canova.

Acknowledgments: The views expressed in this paper are those of the authors, and not necessarily those of the Bank of England. We would like to thank Fabio Canova, Charlotta Groth, Tony Yates, Emilio Fernandez-Corugedo, Matthias Paustian, Pawel Zabczyk, Martin Andreasen, Juan Rubio-Ramirez, Richard Clarida, Andrew Blake, Richard Harrison, Paulet Sadler, Simon Price, Giancarlo Corsetti, Susanto Basu, Brent Bundick, John Williams, Bruce Preston, Pedro Gomis Porqueras, Nick Bloom, Gunes Kamber, Christoph Thoenissen, Ozer Karagedikli, John McDermott, the participants of the SIRE econometrics workshop series and anonymous referees for their useful comments and suggestions. Charlotte Dendy provided excellent research assistance.

E-mail: h.mumtaz@qmul.ac.uk (Mumtaz); Konstantinos.Theodoridis@bankofengland.co.uk (Theodoridis)

Journal of the European Economic Association
Preprint prepared on 4 August 2014 using jeea.cls v1.0.