TFP, NEWS, AND "SENTIMENTS:" THE INTERNATIONAL TRANSMISSION OF BUSINESS CYCLES

Andrei A. Levchenko
University of Michigan

Nitya Pandalai-Nayar
University of Texas at Austin

Abstract
We propose a novel identification scheme for a non-technology business cycle shock, that we label "sentiment." This is a shock orthogonal to identified surprise and news TFP shocks that maximizes the short-run forecast error variance of an expectational variable, alternatively a GDP forecast or a consumer confidence index. We then estimate the international transmission of three identified shocks – surprise TFP, news of future TFP, and sentiment – from the US to Canada. The US sentiment shock produces a business cycle in the US, with output, hours, and consumption rising following a positive shock, and accounts for the bulk of US short-run business cycle fluctuations. The sentiment shock also has a significant impact on Canadian macro aggregates. In the short run, it is more important than either the surprise or the news TFP shocks in generating business cycle comovement between the US and Canada, accounting for over 40% of the forecast error variance of Canadian GDP and over one-third of Canadian hours, imports, and exports. The news shock is responsible for some comovement at 5-10 years, and surprise TFP innovations do not generate synchronization. We provide a simple theoretical framework to illustrate how US sentiment shocks can transmit to Canada. (JEL: E32, F41, F44)

The editor in charge of this paper was Dirk Krueger.

Acknowledgments: We would like to thank the editor, three anonymous referees, Marios Angeletos, Rudi Bachmann, Regis Barnichon, Kenza Benhima, Christoph Boehm, Fabio Canova, Olivier Coibion, Jordi Galí, Kyle Jurado, Alejandro Justiniano, Lutz Kilian, André Kurmann, Jennifer La'O, Franck Portier, Eric Sims, Fabrizio Venditti, Jaume Ventura, and workshop participants at several institutions for helpful suggestions. We are especially grateful to Zhen Huo for his input on the model and for the code that implements the Huo-Takayama model.

E-mail: alev@umich.edu (Levchenko); npnayar@utexas.edu (Pandalai-Nayar)