

On the Empirical (Ir)Relevance of the Zero Lower Bound Constraint*

Davide Debortoli

Universitat Pompeu Fabra, CREI
and Barcelona GSE

Jordi Galí

CREI, Universitat Pompeu Fabra
and Barcelona GSE

Luca Gambetti

Universitat Autònoma de Barcelona
and Barcelona GSE

January 2018

Abstract

We estimate a time-varying structural VAR that describes the dynamic responses of a number of U.S. macro variables to different identified shocks. We find no significant changes in the estimated responses over the period when the federal funds rate attained the zero lower bound (ZLB). This result is consistent with the hypothesis of "perfect substitutability" between conventional and unconventional monetary policies. Montecarlo simulations based on artificial time series generated from a standard New Keynesian model point to the validity of our empirical approach to detect the changes in equilibrium dynamics associated with ZLB episodes.

JEL Classification No.: E44, E52

Keywords: regime changes, liquidity trap, unconventional monetary policies, time-varying structural vector-autoregressive models.

*E-mails: davide.debortoli@upf.edu, jgali@crei.cat, and luca.gambetti@uab.cat. The authors acknowledge the financial support of the Spanish Ministry of Economy and Competitiveness, through grants ECO2014-55555-P (Debortoli), ECO2017-87827-P (Galí) and ECO2015-67602-P (Gambetti), and the support of the Severo Ochoa Programme for Centres of Excellence in R&D (SEV-2015-0563) and the Barcelona Graduate School of Economics.