Author's Accepted Manuscript

www.elsevier.com/locate/jedc

Testing for identification in SVAR-GARCH models

Helmut Lütkepohl, George Milunovich

PII: S0165-1889(15)30008-7
DOI: http://dx.doi.org/10.1016/j.jedc.2016.09.007
Reference: DYNCON3347

To appear in: *Journal of Economic Dynamics and Control*

Received date: 25 May 2015
Revised date: 24 July 2016
Accepted date: 13 September 2016

Cite this article as: Helmut Lütkepohl and George Milunovich, Testing fo identification in SVAR-GARCH models, *Journal of Economic Dynamics an Control,* http://dx.doi.org/10.1016/j.jedc.2016.09.007

This is a PDF file of an unedited manuscript that has been accepted fo publication. As a service to our customers we are providing this early version o the manuscript. The manuscript will undergo copyediting, typesetting, an review of the resulting galley proof before it is published in its final citable form Please note that during the production process errors may be discovered whic could affect the content, and all legal disclaimers that apply to the journal pertain

ACCEPTED MANUSCRIPT

Testing for Identification in SVAR-GARCH Models[1]

Helmut Lütkepohl
DIW Berlin and Freie Universität Berlin, Mohrenstr. 58, 10117 Berlin, Germany
email: hluetkepohl@diw.de

and

George Milunovich
Macquarie University, Sydney, NSW, 2109, Australia
email: george.milunovich@mq.edu.au

September 21, 2016

Abstract. Changes in residual volatility in vector autoregressive (VAR) models can be used for identifying structural shocks in a structural VAR analysis. Testable conditions are given for full identification for the case where the volatility changes can be modelled by a multivariate GARCH process. Formal statistical tests are presented for identification and their small sample properties are investigated via a Monte Carlo study. The tests are applied to investigate the validity of identification conditions in two studies. First, we test an identifying condition employed in a study of the impact of financial market uncertainty on real activity. Second, we illustrate our tests in the context of an investigation of the effects of U.S. monetary policy on exchange rates. In the first application the identification conditions are confirmed, and in the second application they are partly not supported by the data.

Key Words: Structural vector autoregression, conditional heteroskedasticity, GARCH, identification via heteroskedasticity
JEL classification: C32

Accepted manuscript

---

[1] We thank Aleksei Netšunajev, Minxian Yang, Till Strohsal, Adrian Pagan, an anonymous referee and the editor for helpful comments on an earlier version of this paper. The paper was written while the first author was a Bundesbank Professor at the Freie Universität Berlin. Part of the research was carried out while he was visiting Macquarie University, Sydney, and parts were done while the second author was visiting the Freie Universität Berlin. Financial support was provided by the Deutsche Forschungsgemeinschaft through the SFB 649 “Economic Risk”. Milunovich also acknowledges support from Australian Research Council Discovery Grant DP120102239.

Download English Version:

https://daneshyari.com/en/article/5098103

Download Persian Version:

https://daneshyari.com/article/5098103

Daneshyari.com