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HeiKaMEtrics-Seminar

Joint Heidelberg, Karlsruhe and Mannheim research seminar in Econometrics

Asymmetric Impulse Responses

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Wednesday, January 10, 2018
17:00 – 18:00
AWI Room 01.030

Abstract:

The empirical analysis of dynamic macroeconomic models is typically based on Structural Vector Autoregressions (SVAR). An important limitation of such linear models is that positive and negative shocks possess a similar effect on the variables of interest but with a different sign. In this paper we propose a nonlinear framework for modelling asymmetric impulse responses. Specifically we assume that the state of the moving average representation of the time series vector depends on the sign of the (unobserved) structural shock. We develop a maximum likelihood estimator for estimating the state-dependent SVAR model and a simple Lagrange Multiplier (LM) test for asymmetric impulse responses is proposed. The methodology is illustrated by studying asymmetric responses of GDP to government expenditure shocks in the U.S.