Identification in Nonseparable Models with a Binary Endogenous Variable

Takahide Yanagi*

Abstract

This paper examines identification of triangular simultaneous equations models whose unobservables enter the model in a possibly nonadditive and nonseparable way and that have a binary endogenous regressor. We provide nonparametric interval identification conditions of values of a structural function. The values of the structural function can also be point identified under conditions of local exogeneity of the binary endogenous regressor. In addition, we provide identification conditions of a partial difference with respect to the binary endogenous variable.

Keywords: endogeneity, nonseparable models, nonparametric identification, local identification, partial identification

^{*}Graduate School of Economics, Kyoto University. Yoshida-Honmachi, Sakyo-ku, Kyoto, Kyoto, 606-8501, Japan. Email: yanagi.takahide.87w@st.kyoto-u.ac.jp