

On the Evaluation of Endogenous Treatment Effects Correlated with Natural Instruments

Raoul Theler

School of Business, Economics and statistics, Umeå University

Abstract

The conditional independence assumption between an instrument and an outcome variable is a crucial condition for the identification of endogenous treatment effects parameter in causal analysis. However, such a rigorous external validity of instruments is often difficult to be justified in practice. In particular, a spurious association between the outcome and the instruments through the unobserved heterogeneity is considered. In this context, a semi-parametric representation of the outcome enables to identify and estimate both causal effect and policy-relevant parameters depending on the values of the instruments. This approach is illustrated by estimating the effect of the American public health insurance Medicaid on the household savings.