Inference for Synthetic Control Methods with Multiple Treated Units

Authors : Ziyan Zhang

Abstract : Although the Synthetic Control Method (SCM) is now widely applied, its most commonly- used inference method, placebo test, is often problematic, especially when the treatment is not uniquely assigned. This paper discusses the problems with the placebo test under the multivariate treatment case. And, to improve the power of inferences, I further propose an Andrews-type procedure as it potentially solves some drawbacks of the placebo test. Simulations are conducted to show the Andrews' test is often valid and powerful, compared with the placebo test.

Keywords : Synthetic Control Method, Multiple treatments, Andrews' test, placebo test

Conference Title : ICES 2020 : International Conference on Econometrics and Statistics

Conference Location : Zurich, Switzerland

Conference Dates : January 13-14, 2020

1