Treatment effect estimation in high-dimension: An inference-based approach

Ulrich Aiounou,* Emmanuel Flachaire,* Sullivan Hué,* Sébastien Laurent*†

February 15, 2024

Abstract

Post-Lasso and Post-Double-Lasso are becoming the most popular methods for estimating average treatment effects from linear regression models with many covariates. However, these methods can suffer from substantial omitted variable bias in finite sample. We propose a new method called Post-Double-Autometrics, which is based on Autometrics, and show that this new method outperforms Post-Double-Lasso in some realistic situations.

JEL Classification: C21, C52, C55.
Keywords: Treatment effect, High dimension, Lasso, Autometrics.