Heteroskedasticity and the weak instrument problem in the Blundell-Powell estimator: a Monte-Carlo simulation study

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Abstract

In this paper, we propose a numerical simulation aimed to estimate the relevance of the Blundell & Powell (2004) non-parametric approach in binary models where endogeneity arises. Using Monte-Carlo simulation, we show the non-parametric approach is preferable to parametric ones when we suspect data to exhibit, alongside with endogeneity, heteroskedasticity. We finally show that this two stage approach is very sensitive to the weak instrument problem that causes large bias.