

On Unbiased Estimation with Infinite Variance in Likelihood-Based Econometric Models

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Abstract :

Standard errors become irrelevant for quantifying estimation precision of unbiased estimators with infinite variance. I study a distinct condition that implies certain unbiased estimators can only have infinite variance. I analyse model overspecifications that arise in empirical economic studies and satisfy this condition, such as modelling self-selection, endogenous switching, or skewness, without knowing that these are not characteristics of the unknown population. I describe a non-standard confidence interval to quantify estimation precision in these models.