ivprobit:An R package to estimate the instrumental variables probit model

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Summary

ivprobit (Zaghdoudi 2017) is an open source R package that fit the instrumental variables probit model. The package comprises function that deal with endogeneity misspecification especially when correlation between regressors and error term is determined and which produce inconsistent results. To avoid this problem, authors applied the instrumental variable method in which they use the correlated variables as instruments. Nevertheless, a two-stage method are used by some authors (Blundell and Powell 2004) to fit the probit model but it produce non efficient result.

However, (Newey 1987) expose an efficient way to estimate limited-dependent variable model by using the Amemiya's Generalized Least Squares estimators (AGLS) (Amemiya 1978). Likewise, in the ivprobit package we use the AGLS method and we include in the two-stage model a continuous endogenous regressor. This method is used when the maximum likelihood method (MLE) fail to estimate the model.

ivprobit is GPL-3 licensed and can be retrieved from GitHub:

- Repository
- ivprobit CRAN
- Archive

References

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