Estimation and Testing An Additive Partially Linear Model in a System of Engel Curves

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The form of the Engel curve has long been a subject of discussion in applied econometrics and until now there has no been definitive conclusion about its form. In this paper an additive partially linear model is used to estimate semiparametrically the effect of total expenditure in the context of the Engel curves. Additionally, we consider the nonparametric inclusion of some regressors which traditionally have a non linear effect such as age and schooling. To that end we compare an additive partially linear model with the fully nonparametric one using recent popular test statistics. We also provide the p-values computed by bootstrap and subsampling schemes for the proposed test statistics. Empirical analysis based on data drawn from the Spanish Expenditure Survey 1990-91 shows that modelling the effects of expenditure, age and schooling on budget share deserves a treatment better than that adopted in simple semiparametric analysis.

Fuente: https://www.banrep.gov.co/en/news/events/estimation-testing-additive-partially-linear-model-23-february-2007