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The optimal prediction simultaneous equation model selection

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Abstract

Notes on unsolved problems The standard linear simultaneous equation model is considered. a) The problem is to compare analytically the estimated reduced (unrestricted and derived) and the structural form of SEM from prediction point of view (for different estimators). Simulations show that estimated structural equations can outperform the reduced form equations. b) The problem is to obtain the matrices of the mean squared prediction error for the underfitted and the overfitted structural forms of a simultaneous equation system (Hale et al, 1980, "Finite Sample Analysis of Misspecification in Simultaneous Equation Models", Journal of the American Statistical Association 75, N.370, 418-427). c) The problem is to derive the unbiased information criterion for selecting the structural form of SEM with different number of parameters in each structural equation (Bedrick et al., 1994, "Model selection for multivariate regression in small samples" Biometrics 50, 226-231).

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