

## Recent Developments in Structural Microeconometrics

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EDITORIAL

The papers in this Special Issue of *The Econometrics Journal* arose from the nineteenth meeting of (EC)<sup>2</sup> (European Conferences of the Econometric Community in Econometrics and Quantitative Economics) held in Rome, Italy, on December 19-20, 2008, at "Palazzo Koch" that houses the Bank of Italy. The focus of the Conference was on "Recent Developments in Structural Microeconometrics". Both theoretical and applied contributions were presented.

The Local Organizing Committee consisted of Franco Peracchi (Tor Vergata University and EIEF) and Stefano Siviero (Bank of Italy). The Scientific Committee comprised Jerome Adda (University College London), Jaap Abbring (Free University in Amsterdam), Stephane Bonhomme (CEMFI, Madrid), Moshe Buchinsky (University of California, Los Angeles), Luigi Guiso (European University Institute), Pedro Mira (CEMFI, Madrid), Aviv Nevo (Northwestern University), and Luigi Pistaferri (Stanford University). Jean-Marc Robin (Sciences Po and University College London) acted as Program Chair.

Invited lectures were presented by Costas Meghir (University College London), Jean-Pierre Florens (University Toulouse I), Zvi Eckstein (Tel Aviv University) and Elie Tamer (Northwestern University). In addition, nineteen contributed papers were presented, divided more or less equally between theoretical and empirical topics. The program is available at the internet address <http://www.ec2-rome2008.net/>.

This Special Issue of *The Econometrics Journal* gathers together six of the papers presented at the conference.

The survey paper by Frédérique Fève and Jean-Pierre Florens (Toulouse School of Economics) is concerned with practical issues associated with the solution of inverse problems arising in nonparametric estimation. They study the particular case of transformation models of the form  $\varphi(Y) = \beta'X + U$  under exogeneity or instrumental variable assumptions. Given the increasing importance of inverse problems this paper should be both of interest and a valuable resource for many researchers.

Ivana Komunjer and Andres Santos (UCSD) deal with nonseparable structural models of the form  $Y = m_\alpha(X, U)$  with  $U$  uniformly distributed on  $(0, 1)$  in which  $m_\alpha$  is a known real function parameterized by a structural parameter  $\alpha$  that contains both a finite dimensional and an infinite dimensional component. This type of model is frequently encountered in structural economic applications. They employ a minimum distance from independence criterion. Consistency and rates of convergence are obtained for the esti-

mator of the nonparametric component whereas the estimator of the finite dimensional parameter is consistent and asymptotically normally distributed. Unlike the literature which has been primarily concerned with issues of identification this paper provides an estimation procedure which should appeal to practitioners.

The paper by Leandro Maschietto Magnusson (Tulane University) proposes tests for structural parameters in limited dependent variable models with endogenous explanatory variables which are robust to weak identification. These tests are based upon the generalized minimum distance principle. The paper compares the proposed tests to alternative Wald tests in a simulation experiment. The tests are also used to analyze female labor supply and the demand for cigarettes.

Anne Vanhems (Toulouse School of Economics) analyzes a structural microeconomic relation describing exact consumer surplus in a nonparametric setting with endogenous prices. Consumer surplus here is characterized as the solution of a differential equation involving the observed demand function. This research tackles a particular econometric inverse problem employing nonparametric instrumental variable regression and is a notable contribution to this literature.

The last two papers are more classical examples of structural econometrics applied to employment and retirement issues. Peter Haan (DIW Berlin) and Victoria Prowse (University of Oxford) estimate a dynamic structural life-cycle model of employment, non-employment and retirement. The estimated model is used to evaluate the employment effects of a tax reform focused on low income individuals. Fedor Iskhakov (University of Oslo) provides an empirical analysis of substitution between early retirement and disability as two major exit routes from the labor market in Norway. This paper uses Norwegian register data. Administrative data is a relatively new source of microeconomic data and is becoming increasingly popular in empirical microeconomics.

The (EC)<sup>2</sup> meeting was particularly successful, bringing together both theorists and practitioners in statistics and econometrics. The Special Issue is representative of the very high quality of the papers that were presented. In conclusion I would like to take this opportunity to extend the gratitude of *The Econometrics Journal* to the contributors for their submissions. Especial thanks are owed to the referees of the papers comprising this Special Issue without whose assistance it would not have possible.

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*Editorial*

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