Federico Belotti

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Positions

Assistant Professor of Econometrics - Department of Economics and Finance, University of Rome Tor Vergata (2016-present);

Post-doctoral Researcher, CEIS - University of Rome Tor Vergata (2011-2016);

Research assistant, CEIS - University of Rome Tor Vergata (2009-2011);

Visiting scholar at Hunter College CUNY (NY), Faculty of Economics (September 2010-April 2011);

Researcher, ISTAT (2005-2008).

Fields of Research Interest

Theoretical and applied econometrics

Education

B.A. Economics, University of Rome Tor Vergata, 2004.

M.Sc. Economics, University of Rome Tor Vergata, 2005.

Ph.D. Econometrics and Empirical Economics, University of Rome Tor Vergata, 2011.
  Dissertation: "Three Essays on Applied Econometrics".
  Committee: V. Atella, P. Deb, W. Greene.

Research

Publications

2017 | Atella, V., Belotti, F., Depalo, D. "Drug Therapy Adherence and Health Outcomes in Presence of Physician and Patient Unobserved Heterogeneity". *Health Economics*, (forthcoming).

Belotti, F., Ilardi, G. "Consistent Inference in Fixed-effects Stochastic Frontier Models". *Journal of Econometrics*, (forthcoming).

Belotti, F., Hughes, G., Piano Mortari, A. "Spatial Panel Data Models using Stata". *Stata Journal*, 17(1), 139-180.

Arslan, A., Belotti, F., Lipper, L. "Smallholder productivity and weather shocks: Adoption and impact of widely promoted agricultural practices in Tanzania". *Food Policy*, 69, 68-81.

2015   Belotti, F., Deb, P., Norton, E.C., Manning, W.G. "Estimating Two-part Models". *Stata Journal*, 15(1), 3-20.

Atella, V., Kopinska, J., Medea, G., Belotti, F., Tosti, V., Piano Mortari, A., Cricelli, C., Fontana, L. "Excess Body Weight Increases the Burden of Age-Associated Chronic Diseases and their Associated Health Care Expenditures". *Aging*, 7(10), 882-892.

Bartolucci, F., Belotti, F., Peracchi, F. "Testing for Time-invariant Unobserved Heterogeneity in Generalized Linear Panel Data Models". *Journal of Econometrics*, 184(1), 111-123.

2014   Atella, V., Belotti, F., Depalo, D., Piano Mortari, A. "Measuring Spatial Effects in Presence of Institutional Constraints: The Case of Italian Local Health Authority Expenditure". *Regional Science and Urban Economics*, 49, 232-241.

2013   Belotti, F., Daidone, S., Ilardi, G., Atella, V. "Stochastic Frontier Analysis using Stata". *Stata Journal*, 10(3), 458-481.

2010   Belotti, F., Depalo, D. "Translation from Narrative Text to Standard Codes Variables with Stata". *Stata Journal*, 13(4), 719-758.

Arduini, D., Belotti, F., Denni, M., Giungato, G., Zanfei, A. "Technology Adoption and Innovation in Public Services. The Case of E-Government in Italy". *Information Economics and Policy*, 22(3), 257-275.

Manuscripts Under Review

1. Belotti, F., Di Porto, E., Santoni, G., "The Effect of Local Taxes on Firm Performance: Evidence from Geo-referenced Data". (WP version). Revise and resubmit to *Journal of Urban Economics*.

2. Belotti, F., Di Porto, E., Santoni, G., "Spatial differencing: estimation and inference". (WP version). Revise and resubmit to *CESifo Economic Studies*.

Working Papers

1. Belotti, F., Porto, E. D., and Santoni, G. (2017a). Spatial Differencing: Estimation and Inference. CSEF Working Papers 474, Centre for Studies in Economics and Finance (CSEF), University of Naples, Italy.

2. Belotti, F., Porto, E. D., and Santoni, G. (2017b). Spatial Differencing: Estimation and Inference. Working Papers 2017-10, CEPII research center.

3. Atella, V., Belotti, F., Carrino, L., and Mortari, A. P. (2017a). The future of Long Term Care in Europe. An investigation using a dynamic microsimulation model. CEIS Research Paper 405, Tor Vergata University, CEIS

4. Atella, V., Belotti, F., Cricelli, C., Dankova, D., Kopinska, J., Palma, A., and Mortari, A. P. (2017b). The Double Expansion of Morbidity Hypothesis: Evidence from Italy. CEIS Research Paper 396, Tor Vergata University, CEIS

5. Arslan, A., Belotti, F., and Lipper, L. (2016). Smallholder productivity and weather shocks: Adoption and impact of widely promoted agricultural practices in Tanzania. CEIS Research Paper 388, Tor Vergata University, CEIS.

6. Belotti, F., Hughes, G., and Mortari, A. P. (2016c). Spatial panel data models using Stata. CEIS Research Paper 373, Tor Vergata University, CEIS.

7. Belotti, F., di Porto, E., and Santoni, G. (2016a). The effect of local taxes on firm performance: evidence from geo referenced data. Working Papers 2016-03, CEPII research center.

8. Belotti, F., Di Porto, E., and Santoni, G. (2016b). The effect of local taxes on firm performance: evidence from geo-referenced data. Working Paper Series 2016:3, Uppsala University, Department of Economics.

9. Belotti, F., Porto, E. D., and Santoni, G. (2016d). The Effect of Local Taxes on Firm Performance: Evidence from Geo-referenced Data. CSEF Working Papers 430, Centre for Studies in Economics and Finance (CSEF), University of Naples, Italy.

10. Atella, V., Belotti, F., Conti, V., Cricelli, C., Kopinska, J., and Mortari, A. P. (2016). Modeling public health care expenditure using patient level data: Empirical evidence from Italy. CEIS Research Paper 367, Tor Vergata University, CEIS.

11. Atella, V., Belotti, F., Depalo, D., and Mortari, A. P. (2014). : Measuring spatial effects in presence of institutional constraints: the case of Italian Local Health Authority expenditure. Temi di discussione (Economic working papers) 967, Bank of Italy, Economic Research and International Relations Area.

12. Bartolucci, F., Belotti, F., and Peracchi, F. (2013). Testing for Time-Invariant Unobserved Heterogeneity in Generalized Linear Models for Panel Data. EIEF Working Papers Series 1312, Einaudi Institute for Economics and Finance (EIEF).

13. Atella, V., Belotti, F., Depalo, D., and Mortari, A. P. (2013). Measuring spatial effects in presence of institutional constraints: the case of Italian Local Health Authority expenditure. CEIS Research Paper 278, Tor Vergata University, CEIS.

14. Belotti, F., Daidone, S., Ilardi, G., and Atella, V. (2012). Stochastic frontier analysis using Stata. CEIS Research Paper 251, Tor Vergata University, CEIS.

15. Belotti, F. and Ilardi, G. (2012). Consistent Estimation of the "True" Fixed-effects Stochastic Frontier Model. CEIS Research Paper 231, Tor Vergata University, CEIS.

16. Atella, V., Belotti, F., Daidone, S., Ilardi, G., and Marini, G. (2012). Cost-containment policies and hospital efficiency: evidence from a panel of Italian hospitals. CEIS Research Paper 228, Tor Vergata University, CEIS.

17. Atella, V., Belotti, F., and Depalo, D. (2011). Disentangling true determinants of drug therapy effectiveness: A double fixed effects approach. CEIS Research Paper 186, Tor Vergata University, CEIS.

18. Arduini, D., Belotti, F., Denni, M., Giungato, G., and Zanfei, A. (2008). Technology Adoption and Innovation in Public Services.The Case of E-Government in Italy. Working Papers 0804, University of Urbino Carlo Bo, Department of Economics, Society & Politics - Scientific Committee - L. Stefanini & G. Travaglini.

Work in Progress

1. Belotti, F., Ilardi, G., Peracchi, F., "Trusting Inference in Presence of High-leverage Points".

2. Atella, V., Belotti, F., Gaudette, E., Goldman, D., Michaud, P. C., Piano Mortari, A. "Disease Dynamics and the Education-mortality Gradient: Evidence from the U.S., Canada and Europe".

3. Atella, V., Belotti, F., Bhattacharya, J., Eggleston, K., Goldman, D., Michaud, P. C., Piano Mortari, A. "The Disability Burden Dynamics: Evidence from the U.S., Canada, Europe and Japan".

4. Atella, V., Belotti, F., Kopinska, J., Piano Mortari, A. "Health System Sustainability or Disease Eradication? Assessing the Economic Impact of New Treatments for Hepatitis C".

5. Atella, V., Belotti, F., Kopinska, J., Palma, A., Piano Mortari, A. "The Future of European Elderly Population: a Dynamic Microsimulation Model using SHARE Data".

6. Atella, V., Belotti, F., Bhattacharya, J., Depalo, D., "Rethinking the Informative Content of Randomised Clinical Trials: The Role of Bound Estimates with Real World Data".

7. Belotti, F., Ilardi G., "Robust Stochastic Frontier Analysis: a Minimum Density Power Divergence Approach".

8. Belotti, F., Di Porto, E., Santoni, G., "Testing for Spatially Smooth Unobserved Heterogeneity".

9. Belotti, F., Deb, P. "Minimum Density Power Divergence Estimation of m-Components Mixtures Regression Models".

10. Atella, V., Belotti, F., Bojke, C., Castelli, A., Grasic, K., Kopinska, J., Piano Mortari, A., Street, A. "Productivity of the National Health System: A Comparison of Italy and UK".

11. Atella, V., Belotti, F., Depalo, D., Piano Mortari, A. "Instruments Selection in Spatial Panel Data Models".

12. Arslan, A., Belotti, F., Lipper, L. "Welfare Impacts of Climate Shocks: Evidence from Tanzania".

Scientific Software

For unpublished Stata software: `net from http://www.econometrics.it/stata`

1. Belotti, F. and Daidone, S. (2010). RUNNINGPROD: Stata Mata module to obtain the running product of a vector. Statistical Software Components, Boston College Department of Economics.

2. Belotti, F. and Ilardi, G. (2010). RTNORM: Stata Mata module to produce truncated normal pseudorandom variates. Statistical Software Components, Boston College Department of Economics.

3. Belotti, F. and Deb, P. (2012). TWOPM: Stata module to estimate two-part models. Statistical Software Components, Boston College Department of Economics.

4. Belotti, F., Hughes, G., and Mortari, A. P. (2013c). XSMLE: Stata module for spatial panel data models estimation. Statistical Software Components, Boston College Department of Economics.

5. Belotti, F., Daidone, S., Atella, V., and Ilardi, G. (2013a). SFCROSS: Stata module for cross-sectional stochastic frontier models estimation. Statistical Software Components, Boston College Department of Economics.

6. Belotti, F., Daidone, S., Atella, V., and Ilardi, G. (2013b). SFPANEL: Stata module for panel data stochastic frontier models estimation. Statistical Software Components, Boston College Department of Economics.

7. Belotti, F. (2013a). TIHTEST: Stata module to test for time invariant unobserved heterogeneity in GLMs for panel data. Statistical Software Components, Boston College Department of Economics.

8. Belotti, F. (2013b). TTAB: Stata module to produce formatted tables with t-test for two-groups mean-comparison. Statistical Software Components, Boston College Department of Economics.

Awards

Best Italian Ph.D. thesis in Applied Statistics and Demography discussed in 2011. 46th Italian Statistical Society Scientific Meeting, Rome, IT.

Best "Young Researcher" Paper. "Consistent Estimation of the True Fixed-effects Stochastic Frontier Model". European Workshop on Efficiency and Productivity Analysis, 2011, Verona, IT.

Conference and Seminar Presentations

Introducing the OECD-Schaeffer-CEIS Future Elderly Model

6th World Congress of the International Microsimulation Association, Torino, IT, June 21, 2017.

Drug Therapy Adherence and Health Outcomes in Presence of Physician and Patient Unobserved Heterogeneity

Health Econometrics Workshop, Bari, IT, July 23, 2016.

Robust Stochastic Frontier Analysis: a Minimum Density Power Divergence Approach

CSEF seminar, Napoli, IT, March 23, 2016.

Workshop on the Econometrics and Statistics of Efficiency Analysis: Recent Developments and Perspectives, Lecce, IT, June 21, 2015.

Consistent Inference in Fixed-effects Stochastic Frontier Models

Italian Stata Users Group meeting, Milan, IT, November 13, 2014.

European Workshop on Efficiency and Productivity Analysis, Verona, IT, June 21, 2011.

Minimum Density Power Divergence Estimation of m-Components Mixtures Regression Models

Italian Stata Users Group meeting, Florence, IT, November 14, 2013.

Stochastic Frontier Analysis using Stata

Italian Stata Users Group meeting, Florence, IT, November 19, 2009.

Testing for Time-invariant Unobserved Heterogeneity in Generalized Linear Panel Data Models

Fifth Italian Congress of Econometrics and Empirical Economics, Genova, IT, January 16, 2013.

Annual Health Econometrics Workshop, New York, NY, September 28, 2012.

Seminar, Department of Statistical Science, University of Padua, IT, March 29, 2012.

The Role of Drug Adherence in Therapy Effectiveness: A Double Fixed-effects Approach

Annual Health Econometrics Workshop, Detroit, MI, October 1, 2010.

Professional Activities

Reviewer for *Energy Economics*, *Biometrical Journal*, *Health Economics*, *Journal of the Royal Statistical Society*, *Journal of Probability and Statistics*, *Labour*, *Spatial Economic Analysis*, *Stata Journal*, *Journal of Productivity Analysis*, *Value in Health*, *International Journal of Technology Assessment in Health Care*, *Journal of Applied Economics*.

Teaching

Tor Vergata University

Microeconometrics: Spring 2017.

Stata Programming for Microeconometrics (M.Sc. in Ecomomics): Spring 2016.

Stochastic Frontier Analysis (ERASMUS Intensive Programme on Efficiency and Productivity Analysis): Summer 2014.

Introduction to Stata (M.Sc. in Development Economics): Spring 2011, Spring 2009.

LUISS University

Econometrics pre-course (Bachelor): Fall 2013, Fall 2012.

Stata pre-course (Bachelor): Spring 2012.

Macroeconomics (Bachelor): Fall 2008, teaching assistant for Giovanna Vallanti.

Econometrics and Statistics for Economics (Bachelor): Spring 2007, Fall 2007, teaching assistant for Giovanna Vallanti.

Professional Experience

University of Rome Tor Vergata, Centre for Economics and International Studies, Post Doctoral Researcher, February 2011–November 2016.

Food and Agriculture Organization of the United Nations, Empirical Analysis Specialist, March 2013–present.

Italian Society of General Practice, Empirical Analysis Specialist, September 2008–present.

Confcommercio, Research Assistant, May 2008–February 2009

Italian National Institute of Statistics, Researcher, September 2005–December 2008

Miscellaneous

OS: Linux, MacOSX, Windows (Server 2003/2008, 7,Vista, XP).

Stat-programming: Stata and Mata (advanced programming, certified), R (advanced), SAS (intermediate), SPSS (intermediate), Eviews (intermediate), Matlab (intermediate), C++ (intermediate), Octave (basic), Sage (Basic), Mathematica (basic), Maple (basic), Fortran90 (basic).

Scripting: BASH (advanced), Python (intermediate).

Database: MS Access, MySQL, MS SQL, PosgreSQL.

Word processing: MS Word, LaTeX.

Presentation - drawing: LaTeX beamer, MS Powerpoint, Adobe Photoshop, Corel Draw.

Web-Server: Apache, Zope.

Web Design: PHP (basic), HTML, DHTML. Advanced use of Dreamweaver, Flash, Fireworks, MS Frontpage. Webmaster and Co-founder of the econometrics.it and sisper.istat.it web sites. Developer of the web-based interface to the Economics and Accounting student database and temporary maintenance of the CUNY (Economics) website.

CMS: Plone, Joomla, WordPress.

References

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06123. Perugia, IT
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Faculty of Economics
Hunter College, CUNY
695 Park Avenue
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