Maria Caterina BRAMATI: CURRICULUM VITAE

Personalia :

Date and place of birth: May 14, 1976 in Rome

Nationality: Italian

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Education :

1989–95: Highschool: Liceo Classico Sperimentale *Bertrand Russel*, Rome.

1995–99: Statistical Sciences at Sapienza, Università di Roma: Master's degree obtained with greatest distinction (cum laude) on July 12, 1999. Title of master's thesis: "Seasonal adjustment methods: methodological issues and application to the Italian foreign trade time series". Supervisor: Prof. S. Fachin.

2000–2002: Master of Sciences in Economics and Statistics at the Université Libre de Bruxelles (ULB), Brussels, Belgium. Master's degree obtained from the ULB with distinction in June 2002. Title of master's thesis: "Robust Estimators for the Fixed Effects Panel Data Model". Supervisor: Prof. C. Croux.

2001–2005: Doctoral studies and research at the ULB. PhD degree obtained from the Université Libre de Bruxelles on October 7, 2005. Title of thesis: "Some robust methods in the analysis of multivariate time series". Supervisors: Prof. M. Hallin and Prof. D. Paindaveine.

Grants :

2000–2001: Scholarship *Borsa per specializzazione post-lauream allestero*, Università di Roma La Sapienza

2001–2003: Teaching Assistant grant, Université Libre de Bruxelles, Department of Mathematics, Faculty of Science.

2003–2005: Teaching Assistant grant, Université Libre de Bruxelles, Department of Mathematics, Faculty of Science.

2005–2007: Teaching Assistant grant, Université Libre de Bruxelles, Department of Mathematics, Faculty of Science.

Languages :

Italian: mother tongue;

French: very good knowledge, spoken (understanding, speaking) and written (reading, writing);

English: good knowledge, spoken and written. Cambridge Certificate of Advanced English (CAE) obtained in January 2003;

Dutch: good understanding, writing at elementary level;

Spanish: at elementary level.

Computer skills :

Languages: Pascal, HTML, LaTeX

Operating systems: Windows.

Econometric and Statistical packages: SAS(proficient user), Eviews, Matlab, GiveWin, Time Series Expert (TSE), STATA, SPSS, R;

Database management : SAS, SPSS, Microsoft Access.

Academic career :

2001–2006: Teacher and Research Assistant at the Department of Mathematics of the ULB. Exercise session and practical organization (exams, student assistance, assignments) of:

- Statistics and Probabilities (2nd year undergraduate students in science); taught in French.
- Time Series (graduate course for Master and 1st year PhD students in Economics and Statistics); taught in English.
- General Mathematics (1st year undergraduate students in science); taught in French.

Main fields of research: robust inference applied to panel data models, multivariate time series, parametric and nonparametric hypothesis testing, asymptotic inference.

2006–2007: Maître d'enseignement at ULB. Teaching activities and practical organization (exams, seminars, tutorials) of the Statistics and Probability II-year course for undergraduate students in Economics. Course duration: 36 hours per year (taught in French).

20006–2008: Part time associate professor at Università Europea di Roma (2-year contract), Facolt di Economia e Gestione Aziendale. Teaching and practical organization (exams, seminars, tutorials) of the Mathematical Analysis course for the 1st year undergraduate students in Economics. Course duration: 39 hours per year (taught in Italian). I have also undertaken the writing out of lecture notes for this course.

2009– : Full time Assistant Professor at Università di Roma 'La Sapienza', Faculty of Economics. Courses: Econometrics, Advanced Statistical Methods.

Non-Academic career :

10/1998-03/1999: Internship at the Italian Institute for Foreign Trade (Istituto Nazionale per il Commercio Estero), *Statistical division*. Rome, Italy. Topic of studies: analysis and seasonal adjustment of italian import-export time series.

01/2000–09/2000: Consultant at CONSIP S.p.A, (Italian Ministry for Economics), *Econometric Modelling Division*. I provided research assistance and technical support (database management) for the Italian Treasury Econometric Model (ITEM).

02/2007- 10/2008: Civil Servant at the Belgian Statistical Office, *Survey Design Unit*. Main duties: integration and coordination of business surveys, elaboration of the structure of the Belgian IBS (Integrated Business Survey), sampling design, robust calibration for outliers and non-response, statistical methods for reducing business response burdens using administrative data, training statisticians to the use of SAS software (Data-Management, Reports, Basic Statistics). Courses taught: SAS Enterprise-Guide (taught in French).

11/2008–02/2010: Head of Methodological Research Unit the Federal Public Service - Economy, *Sectors, Markets and Monitoring Division*. Main responsibilities: coordinator and principal investigator for the AGORA project in collaboration with KULeuven (Prof. Verboven) and HUBrussel (Prof. Eyckmans).

The aim of this project is the construction of statistical indicators for the sectoral performance of the Belgian economy and the development of a mathematical dynamic model. Main duties: Advanced Econometric and Statistical Analysis concerning markets of goods and services, with the objective of monitoring supply and demand prices, competitive behavior for the sectors of the Belgian economy. Besides this, I also provide a substantial contribution and statistical support to the quarterly reports on price evolution, specific studies on sectors of economic activities (especially food and energy). I developed lecture notes that I use now for training economists to Statistics and Econometrics to the use of SAS software (ETS/STAT/BASE). Courses taught: SAS Data-Management and Programming (taught in French), SAS Enterprise Guide (taught in French).

(Post)graduate courses :

June 2000: Econometrics Summer School, CIDE (Consortium between Bologna, Pisa and Florence Universities), Bertinoro (FO), Italy. Topics in PANEL DATA AND NONPARAMETRIC ECONOMETRICS. Instructors: Prof. C. Hsiao, Prof. A. Ullah.

September 2005: ECAS 2005 (European Courses in Advanced Statistics). La Roche en Ardenne, Belgium. Topics in REGRESSION QUANTILES AND APPLICATIONS. Instructors: Prof. R. Koenker, Prof. I. Mizera, Prof. B.J. Werker.

August 2007: Université d'Eté en Economie 2007. Brussels, Belgium. Topics in MACROECONOMIC MODELLING AND BUSINESS CYCLE INDICATORS. Instructors: F. Bossier (Bureau Fédéral du Plan), I. De Greef (National Bank of Belgium), P. Bisciari (National Bank of Belgium)

2007-2008: I received specific training and courses with final certification taught by SAS official instructors in

- SAS Enterprise Guide
- SAS Programming I
- SAS Programming II
- SAS Web Report Studio
- SAS OLAP e Office Adds-in.

11-02- 2008 to 13-02-2008 Training for Statistical Trainers. Cologne, Germany (ICON Institute).
Instructors: Duncan Miles, Denis Greer (ICON Institute)

05-04-2008 to 08-04-2008 Survey Methodology and Sampling Techniques. Bruz, France (ADETEF).
Instructors: Eric Lesage (INSEE), Guillaume Chauvet (INSEE), Paul-André Salamin (SFSO), Jean-Pierre Renfer (SFSO)

09-06- 2008 to 11-06-2008 Survey Non-Response. Stockholm, Sweden (ADETEF).
Instructors: Prof. Carl-Erik Sarndal, Prof. Sixten Lundstrom (Statistics Sweden)

08-09-2008 to 12-09-2008 Data Analysis and Data Modelling. Neuchâtel, Switzerland (EFTA, SFSO - Swiss Federal Statistical Office).
Instructor: Prof. Juerg Huesler (University of Bern)

30-11-2009 to 02-12-2009: Nomenclatures, classifications and their harmonisation. Vienna, Austria (Statistics Austria).
Instructor: Prof. Norbert Rainer (Statistics Austria).

June 2010: Third Spatial Econometrics Advanced Institute (SEAI 2010), Rome. Topics in SPATIAL STATISTICS AND ECONOMETRICS.
Instructors: Prof. B. Baltagi, Prof. H. Kelejian, Prof. I. Prucha, Prof. G. Arbia, Prof. R. Giacomini.

Research :

My research started in robust inference in econometric models but after two years I got the opportunity to go back to my first love: time series analysis. I worked on asymptotic hypothesis testing in VAR models. This involved theoretical work as well as empirical studies on macroeconomic data, such as the presence of instantaneous causality between real and monetary variables and the effect on the temporal aggregation.

Survey sampling in general do also belong to my field of interest. I am looking to stratification designs which are robust to the presence of outliers in both auxiliary and survey data. I investigate also the problem of sample coordination, the algorithm for optimal size and strata bounds determination in the case of time-variant multiple survey variables.

I also kept my interest in some applied work to microeconomics. More precisely I like working on firm's behavior in the domestic and international markets, price transmission in the food chains, entrepreneurship and group of enterprises of immigrants, economic impact of social pension reforms.

All of these fields provide challenging questions for further research. I intend to continue to work on these topics, in collaboration with others. My aim is to exploit existing connections between these fields and to find new ones.

Another point of interest is applications of statistics to other applied sciences. I am currently collaborating with engineers and doctors. Some projects I am working on: procrustes analysis for dental care, short-term forecast models for wind power.

Publications and Working Papers :

1. Bijvank, M.,. Bramati, M.C., Mohammadi, L. et al. (2006) Bullet-proof Math: modeling the proportion of bullets that pass through a vest. Proceedings 55th European Study Group Mathematics with Industry (SWI2006).
2. Bramati M.C., Croux C. (2007) Robust Estimators for the Fixed Effects Panel Data Model. Econometrics Journal, Vol.10, No. 3, pp 521-540.
3. Seethepalli, K., Bramati, M.C., Veredas, D. (2008). How relevant is infrastructure to growth in East Asia? Policy Research Working Paper n.4597, World Bank.
4. Nonparametric Optimal Tests for Independence in the Elliptical VAR Model, joint with M. Hallin and D. Paindaveine. Université Libre de Bruxelles, 2004.
5. Bramati, M.C. (2005). Testing for instantaneous noncausality in Elliptical VAR Models. Université Libre de Bruxelles.
6. Bramati, M.C. (2008). The Integrated Business Survey (IBS): a challenge at Statistics Belgium. Methodology Working Paper n.19, Statistics Belgium.
7. Bramati, M.C. (2009). Generalized Hidiroglou-Lavallée vs ad-hoc strata bounds determination: a simulation study based on the SBS sampling design at Statistics Belgium. Proceedings of New Techniques and Technologies for Statistics (NTTS 2009), EUROSTAT.
8. Bramati, M.C. and Gaggero, A. A. (2010). International trade and domestic competition: evidence from Belgium. Working paper n. **74**, *Dipartimento di Metodi e Modelli per l'Economia, il Territorio e la Finanza*, Sapienza University of Rome.

In preparation:

1. Bramati, M.C (2009), Price transmission and market power in the food chain: some evidence in the Belgian meat market. SPF Economie, Brussels.
2. Bramati, M.C. (2010). Integrating Business Surveys: guidelines and principles based on the Belgian experience. Submitted.
3. Bramati, M.C. (2010). Robust Hidiroglou-Lavallée stratified sampling strategy. Sapienza University of Rome, Rome.
4. Bramati, M.C. (2010). Optimal signed-rank tests for block exogeneity in Vector Autoregressions. Submitted.
5. Bramati, M.C. (2010). Trade dynamics in Belgium. Sapienza University of Rome, Rome.

6. Real versus Nominal variables: the effectiveness of the ECB monetary policy in the current economic and financial crisis. Sapienza University of Rome, Rome.

Course material:

1. M.C. Bramati, *Appunti di Analisi Matematica per Economisti*. Course slides 2006-2008, Facoltà di Economia, Università Europea di Roma, 2006.
2. M.C. Bramati, *Esercitazioni di Metodi Statistici Avanzati*. Course slides, Facoltà di Economia, Sapienza Università, 2010.
3. M.C. Bramati, *Analisi della Varianza*. Dispensa, Facoltà di Economia, Sapienza Università, 2010.
4. M.C. Bramati, *Introduzione all'Analisi delle Serie Storiche*. Slides della parte specialistica del corso di Metodi Statistici Avanzati, Facoltà di Economia, Sapienza Università, 2010.

Organisation of scientific seminars :

2010 Co-organiser of the "statistical and econometric seminars" jointly with the Head of the Department *Metodi e Modelli per l'Economia, il Territorio e la Finanza* at Sapienza University of Rome.

2011 Executive Secretary of the Spatial Econometrics Advanced Institute (SEAI2011)

Attended Conferences and Seminars :

Talks and poster presentations

10th Annual Meeting of the Belgian Statistical Society. Kerkrade (The Netherlands), 8th -9th October 2002.

ICORS 2003 (International Conference on Robust Statistics). Anvers (Belgium), July 2003.

58th European Meeting of the Econometric Society (ESEM 2003). Stockholm (Sweden), August 2003.

JAMBOREE 2004 (ENTER network). Barcelona (Spain), January 2004.

12th Annual Meeting of the Belgian Statistical Society. Vielsalm (Belgium), October 2004.

ECARES, Université Libre de Bruxelles. Brussels, November 26th 2004.

JAMBOREE 2005 (ENTER network). Brussels (Belgium), January 2005.

1st Italian Congress of Econometrics and Empirical Economics (ICEEE). Venice (Italy), January 2005.

ECARES-CORE-KUL joint econometric seminar, Universit Libre de Bruxelles. Brussels (Belgium), April 18th 2005 (poster session).

New Techniques and Technologies for Statistics (NTTS 2009). Brussels (Belgium), February 19th 2009.

Prima Giornata della Ricerca Dip. Studi Geoeconomici, Linguistici, Statistici, Storici per lAnalisi Regionale. Università di Roma La Sapienza, Rome (Italy), February 24th 2009.

Seconda Giornata della Ricerca Dip. Studi Geoeconomici, Linguistici, Statistici, Storici per lAnalisi Regionale. Università di Roma La Sapienza, Rome (Italy), February 28th 2010.

SIS Annual Conference of the Italian Statistical Society. Padoua (Italy), June 2010.

Prague Stochastic 2010. Prague (Czech Republic), 29th August 2010.

Advances in Economics and Economic Dynamics, a conference in honor of Giancarlo Gandolfo. Rome, 21st September 2010.

Recent Issues in Economic Geography, K.U.Leuven and International Network for Economic Research (INFER). Leuven (Belgium), 2-3 December 2010.

New Techniques and Technologies for Statistics (NTTS 2011). Brussels (Belgium), February 21st 2009.

Visiting Professors :

1. May 24–26, 2010: Prof. D. Giannone (ULB, Belgium);
2. June 3–4, 2010: A.A. Gaggero, PhD (University of Essex).

Thesis supervision :

I was the supervisor of several bachelor theses and PhD tutor of Matteo Luppi (SeSS PhD, 2010–2011).

Member of :

2010- Internal Board of the European PhD in Socio-Economic and Statistical Studies (Sess.EuroPhD, http://europhd.org/)

2011- Internal Board of the PhD in Statistics and Economics at Sapienza University (http://w3.uniroma1.it/dcnaps/servizi/dottorato.htm)

Econometric Society, European Mathematical Society, Belgian Statistical Society, Belgian Mathematical Society, Time-Series Working Group of the Italian Statistical Society (SIS).

Referee for :

Journal of Time Series Analysis, The Econometrics Journal, Journal of Official Statistics.