

# Luca Di Gennaro

BORN ON 16TH NOVEMBER 1975

Universitat Pompeu Fabra  
Departament d'Economia i Empresa  
Ramon Trias Fargas, 25-27  
08005 Barcelona, Spain  
Email: luca.digennaro@upf.edu  
In progress: [www.econ.upf.edu/~digennaro/](http://www.econ.upf.edu/~digennaro/)  
Main mail: [lucagreen@yahoo.com](mailto:lucagreen@yahoo.com)

University of Bologna  
Department of Statistics  
Via Belle Arti, 41  
40126 Bologna, Italy  
Email: [digennaro@stat.unibo.it](mailto:digennaro@stat.unibo.it)  
Skype: lucazul

## Actual position

---

- |              |                                                                                                                 |
|--------------|-----------------------------------------------------------------------------------------------------------------|
| 2006 - Pres. | <b>University Pompeu Fabra</b> , Barcelona, Spain.<br>•Adjunct professor (Department of Economics and Business) |
| 2006 - Pres. | <b>University of Bologna</b> , Bologna, Italy.<br>•Post-PhD in <b>Statistics</b> (Department of Statistics)     |

## Education

---

- |      |                                                                          |
|------|--------------------------------------------------------------------------|
| 2006 | PhD in <b>Statistics</b> , University of Bologna, Italy.                 |
| 2001 | Degree in <b>Economics and Statistics</b> , University of Bologna, Italy |

## Publication *in progress*

---

- Di Gennaro, Luca and Garibaldi, Ubaldo, (2008) "Economic growth and the Ehrenfest fleas: The convergence among countries", *International Journal of Modern Physics C*, Volume: 19, Issue: 1, Page 33 - 47.
- Di Gennaro, Luca, (2007) "What exactly is financial integration? A household approach", *Integration and globalization: challenges for developed and developing countries*. Proceedings volume.
- Di Gennaro, Luca, "Equity home bias: Household portfolios in Italy": Submitted.
- Di Gennaro, Luca, "Asymmetric Shocks and Fiscal Federalism in EU": Submitted. (see also [www.grandcoalition.com](http://www.grandcoalition.com))
- Di Gennaro, Luca, "Household participation in international markets: Empirical evidence from Italy": (2006). Available at SSRN. Conference Proceedings: Knowledge Extraction and Modelling (KNEMO'06) IASC-INTERFACE-IFCS Workshop, 3-6 September 2006, Anacapri, Italy.

## Teaching

---

- 2006 - Pres. Faculty of Economics and Business, **University Pompeu Fabra**, Barcelona, Spain.  
●Adjunct Professor **Data analysis**, Undergraduate Course, (180 students first year. Students' evaluation on teaching quality: 7.37 over 10).
- Nov 2004 - Sept 2005 Faculty of Statistics, University of Bologna, Italy.  
●TA **Advanced Econometrics**, Graduate Course.  
●TA **Forecasting**, Undergraduate Course.  
●TA **Econometrics**, Undergraduate Course.
- Sept 2002 - Sept 2003 Faculty of Economics, University of Bologna (Rimini), Italy .  
●TA **Statistics and probability**, Undergraduate Course.  
●TA **Sample theory**, Undergraduate Course.  
●TA **Tourism Statistics**, Undergraduate Course.

## Presentations

---

- 56th Session of the **ISI INTERNATIONAL STATISTICAL INSTITUTE** 22 - 29 August, 2007 Lisbon, Portugal.
- Workshop on "Regional and Micro-Level Effects of Globalization", 17 - 18 July 2007, Tuebingen, Germany.
- APFA 6 - **Applications of Physics in Financial Analysis**, 6th International Conference, 4 - 7 July 2007, Lisbon, Portugal.
- INFER Workshop on "Integration and Globalization: Challenges for Developed and Developing Countries", 29-30 June , 2007, Faculty of Economics, University of Coimbra, Portugal
- The 12th International Conference on Applied Stochastic Models and Data Analysis, 29 May-1 June 2007, Chania, Greece.
- 1st European Job Market In Finance And Accounting, 3rd Europlace Institute Of Finance, Job Market Forum In Finance, December 20, 2006, Paris, France (Grant).
- **European Meeting of the Econometric Society**, August 24-28, 2006, Vienna, Austria.
- Knowledge Extraction and Modelling (KNEMO'06) IASC-INTERFACE-IFCS Workshop, September 3-6 2006, Anacapri, Italy.

- **European Financial Integration and China**, Fudan University – May 12-13, 2006, Shanghai, China.
- The 4th EUROPAEUM Economic Workshop, University of Bologna – September 30, 2005, Bologna, Italy.
- **The 14th World Congress of the International Economic Association** – August 29 - September 2, 2005, Marrakech, Morocco.
- First Spain Italy Netherlands Meeting on Game Theory – June 24 - 26, 2005, Maastricht, The Netherlands.
- The New Frontiers of European Union – March, 16-17, 2005, Marrakech, Morocco.
- (co-autor S. Ponzio) Second PhD conference in Economics, Research in economics: Aims and Methodologies – September 23-25, 2004, University of Pavia, Italy.

### Referee activity for

---

- Phisica A: Statistcal Mechanics and its Applications
- The European Physical Journal B
- 7th INFER (International Network for Economics Research) Workshop on International Economics, organised jointly with the Spanish Association of International Economics and Finance.

### Fellowship, Grants and Academic Scholarship

---

Dec-Mar 2006	<b>Marco Polo Grant</b> sponsored by the University of Bologna: spent at the University Autonoma, Barcelona, Spain, (IX tornata).
2005-2006	Grant sponsored by the University of Bologna for <b>study abroad</b> .
2005	<b>Ettore Pezzoli Prize</b> for thesis, Department of Statistics, University of Bologna.
Gen 2002-Nov 2004	<b>Fellowship of Italian Research Minister</b> , PhD student of Statistics, University of Bologna.
Jul 2004	<b>Summer school Grant</b> sponsored by the <b>Fundation Urrutia Elejalde</b> . Economics and Philosophy: the design and the consequences of constitutions, San Sebastian, Spain.
Gen-Mar 2004	<b>Marco Polo Grant</b> sponsored by the University of Bologna: spent at the University Pompeu Fabra, Barcelona, Spain, (V tornata).

June 2002

Computational Data, Statistics Department **University of Bologna**, Italy.

## Languages

---

Italian	mother tongue
English	fluent
Spanish	fluent
Catalan and French	Basic

## Computational Skills

---

<b>Usually I use</b>	STATA, R, WinEdt, Moodle (course management system).
<b>Programming in</b>	R, GAUSS, WinEdt, HTML, FORTRAN and TURBO PASCAL.
<b>Advanced use of</b>	STATA, SPSS, PCFIML, S-PLUS, E-VIEW, X11 ARIMA (Dreamweaver and Photoshop).

## Affiliation

---

- Member of COFIN (National Research group of Italian Research Minister), “**Financial market, business cycle, economic risk, risk sharing**”
- Member of the **Econometric Society, European Economic Association**

## Summer school

---

Sept 2006	<b>Application of Complex Systems to Social Sciences</b> , GIACS Summer School, Kazimierz Dolny (Poland).
Jul 2004	<b>Economics and Philosophy: the design and the consequences of constitutions</b> , University of San Sebastian and Foundation Urrutia Elejalde, (Spain).
Jul 2002	<b>Statistics inference in Biology</b> , Asti Studi Superiori, Ciba Specialty Chemicals S.p.A., University di Bologna, Associazione Antropologica Italiana. (Italy).

## Working Experience

---

- |      |                                                                                                                            |
|------|----------------------------------------------------------------------------------------------------------------------------|
| 2001 | Computer and Internet Use <b>Survey</b> on University of Bologna students: <i>Use of Internet</i> , University of Bologna. |
| 1999 | <b>Assistant Manager</b> , Pizzeria “Il Barone”.                                                                           |
| 1996 | <b>Junior Manager</b> Cultural Center “1799”, Naples, as organiser of seminars, discussions and other cultural events.     |

## Extra-Curricular Activities

---

- President of the Young European Federalist Catalunya-Barcelona. Member of the Federal Committee Young European Federalist Europe (2008-).
- Elected Professor councillor Departament d’Economia i Empresa of Universitat Pompeu Fabra, (2007-, Spain).
- Elected PhD councillor in Department of Statistics of University of Bologna (2004-2006, Italy).
- Elected student councillor in Faculty of Statistics of University of Bologna (2000-2001, Italy).
- Active Member of Centre Municipal de Vela de Barcelona (Sailing).
- Reading, Travelling, Cooking.

## Major Topics of Interest

---

- Statistics, Complexity and Stochastic Process.
- International Financial Integration, Risk Sharing and Federalism.
- Special Interest: Politics and Survey.

## Desired Teaching

---

- Statistics, Probability, Econometrics, Game theory, Microeconomics, Finance.

## Papers

---

- (co-author Ubaldo Garibaldi) **Economic growth and the Ehrenfest fleas: The convergence among countries.** The aim of this work is to predict the economic convergence among countries by using a generalization of Ehrenfest's urn. In particular this work shows that the Ehrenfest model captures the convergence among countries. A empirical analysis is presented on the European Union countries, the G7 countries and the emerging countries.

*Keywords:* Markov Chain, Ehrenfest model, Economic Growth Theory, Convergence.

- (co-author Domenico Costantini) **Farjoun and Machover and Keynes and a probabilistic political economy.** In their book, "Law of Chaos, A probabilistic approach to political economy", E. Farjoun and M. Machover, note that their survey "is an attempt to construct a non-deterministic theoretical framework for the foundation of political economy". In the call for paper of this Conference one reads that the publication in 1983 of this work "was an event of genuine theoretical innovation in the field of political economy". This statement misses a important element. It is true that 'Law of Chaos' was the first attempt to treat explicitly economics in a probabilistic way but in their effort, Farjoun and Machover completely forgotten Keynes' though. In other words, Keynes' work has passed over in silence by these two authors. Ironically, through history, Keynesian's political economy is usually treated as a deterministic theory; as a theory having nothing to do with probability concept and notions. The fact that Keynes begun his scientific work studying the foundations of probability and statistics for more than ten years is usually neglected. His famous, but not so much read book, "A Treatise on Probability" published in 1921, summarizes these studies. Through his study, Keynes gave an original contribution to the philosophy of probability, a widespread and deep review of the inferential statistics as it was understood in the nineteenth century especially in Germany and a penetrating analysis of statistical and probability notions. Were these long and accurate researches fully forgotten by the economic theorist Keynes? In our opinion they were not. In his economic theorizing Keynes accepted many mathematical concepts forged in the physical science. In addition, he extensively but implicitly used probability notions. The standpoint of Keynes is very different from that of Farjoun and Machover. It would be very usefull to take a closer look on how much of the probabilistic ideas of Keynes are in. One can find many examples that related with the concept of propensity in the contributions of Keynes's, especially in 'The general theory' and in the works he published later on. This notion has been considered a deterministic one. A parameter with a fixed value. On the contrary, there is at least an occasion in which the 'propensity to spent' is explicitly considered as a probability distribution. In recent years has grown the interest about the influence of Keynes's researches on the foundation of probability and statistics on Keynes' economics thought. It seems to us that it is worth to take Keynes's probabilistic ideas into account in order to build up a probabilistic political economy that carries on and surpasses the seminal work of Farjoun and Machover.
- **What exactly is financial integration? A household approach.** This paper is a comment on financial integration and its definitions. I summarize the main empirical and theoretical results and discuss of the literature in this topics. In particular, I include

some discussions on the definition of financial integration and its possible definitions at household level.

*Jel classification:* D14, F15, F36, G15, H31.

*Keywords:* Financial Integration, Household Finance, Stock Market Participation.

- **Household participation in international markets: Empirical evidence from Italy.** This paper investigates the equity home bias and household participation in international markets under a new prospective of financial integration with a new methodology. It develops a simple methodology to make a contribution to current thinking about household participation in international markets. I combine standard microeconomics with a latent model (multivariate statistics). This type of model is usually applied in the social sciences, but here it helps us to better identify the gap between actual international investor and potential international investor. The heterogeneity of agents can be useful to explain the behaviour of Italian families and its related economic problems, like equity home bias and equity premium puzzle.

*Jel classification* D01, D14, C25, C42, F36.

*Keywords:* Latent Class Model, Household Financial Market participation, Equity Home Bias

- **Equity home bias: Household portfolios in Italy.** This paper represents a new use of micro data to analyse the equity home bias. First, we observe a very low level of participation (only 1%) by Italian families in foreign stock markets. Second, we are able to identify the characteristics of families that do actually invest abroad. The data indicate a clear link between foreign stock-market participation and the wealth and education level of families. We can thus better identify the causes of equity home bias: asymmetric information, risk aversion and entry costs.

*Jel classification:* D14, H31, F36

*Keywords:* Equity home bias, Household Behaviour, Financial Integration.

- **Asymmetric Shocks and Fiscal Federalism in EU.** This work attempts to make some progress in the normative analysis of the European institutional architecture. The purpose of this paper is to identify the advantages and disadvantages of cooperative behaviour between national states. In particular, the current situation in Europe will be examined by modelling monetary union and European fiscal federalism. The paper will illustrate the inadequacy of European economic policy, especially in the context of asymmetric shocks. The author proposes fiscal federalism as a solution and also gives consideration to the problems that might derive from its introduction. The principal problem, that of moral hazard, is resolved using contract and signalling theory, with an appropriate solution being found in what is known as a threshold contract.

*Jel classification:* E62, F15, D86, D82.

*Keywords:* Asymmetric shocks, Fiscal Federalism, Contract Theory.

- (co-author S. Ponzio) **Growth and Markov chains: an application to Italian provinces.** Distribution dynamics is a method for studying the evolution in time of an entire cross-section distribution and has been initially employed to assess cross-country convergence of per capita incomes. It has subsequently seen a widespread application in many different economic areas. When describing the law of motion of the distribution as a markovian stochastic process, working in a discrete state-space set up has several advantages, but the arbitrary discretisation of a continuous state-space process can have

the undesired effect of removing the Markov property. This paper outlines advantage and limits linked with the use of this approach and propose a methodology to use in this kind of research. The methodology is then applied to per capita income data for 92 Italian provinces over the period 1952-1995. In order to overcome the main criticism underlined in literature, that is the time homogeneity of Markov transitional Matrix, we propose the use of generalized Ehrenfest urn. It is a particular markovian stochastic process characterized by a time varying entries of the transitional matrix at each iteration.

## Papers in progress

---

- “Microeconomic of financial integration”
  - “Latent class model and household survey”
  - “Economic Integration and European Monetary Union: A simple game-theoretic approach”
- 

UPDATE 2007