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[Publications](#)

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**Research Interests:** Empirical I.O., Industrial Dynamics, International trade, Theory of the Firm


**Links:** [My page at Ideas Repec](#)

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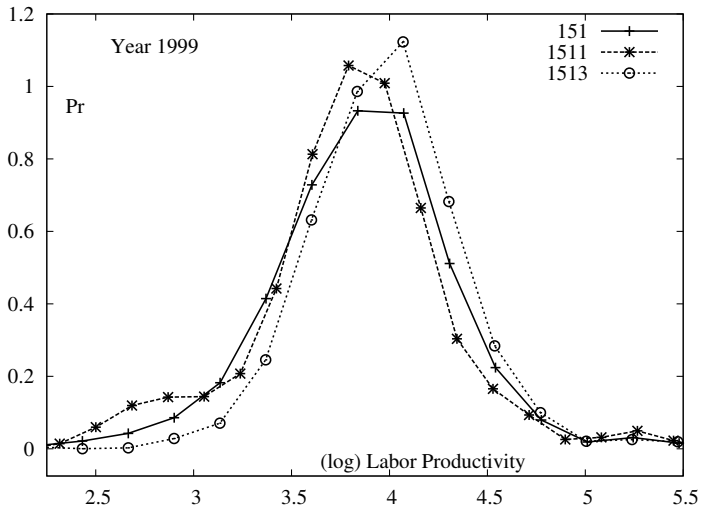
# Short Bio

- Working Experience
  - From 2015 profess. associato, Università di Bologna
  - From 2012 ricercatore TI, Università di Bologna
  - 2008-2012 ricercatore TD, Scuola Sup. Sant'Anna
  - 2007-2008 docente a contratto, Università di Bolzano
- Education
  - PhD 2006 Scuola Sup. Sant'Anna Pisa
  - 2005 Visiting Scholar, Wharton School (UPenn)
  - 2002 Laurea, Univ. di Firenze
- Visiting positions
  - Sept-Oct 2015 Visiting Professor, University of Cambridge, UK.
  - Apr 2015 Visiting Professor, University of Notre Dame, Indiana, USA.
  - Oct 2010 - Oct 2011 Visiting Professor, Università di Pisa.
  - Jul 2007 - Sep 2008 Visiting Professor, University of Bozen.
- Projects and Fundings
  - French INSEE project: trade, technology & employment dynamics (04-2016)
  - Cassa di Risparmio di Forlì (Organization of Industries, innovation and trade)
  - Participation to several EU funded projects, i.e. FINNOV, ISIGrowth
  - Ongoing Collaboration with ISTAT (J. Ec Soc Measur, 2013)

# Research and Teaching

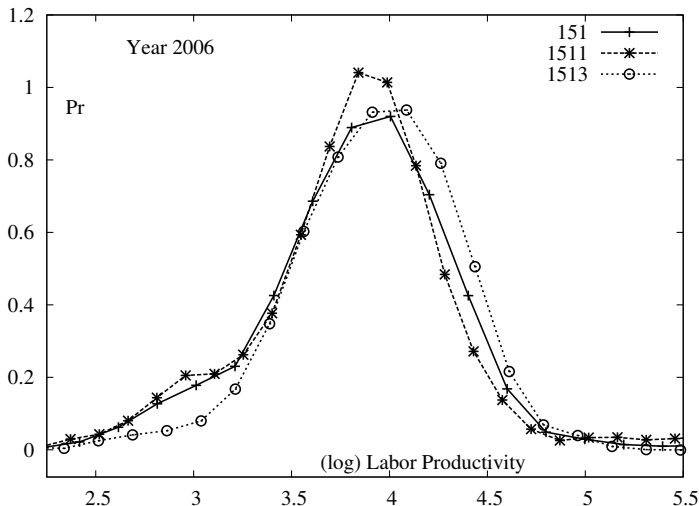
- Fields of research
  - International Trade
  - Industrial Dynamics (comparative)
  - Theory of the firm Firm heterogeneity
- Bibliometrics (as of April 25th)
  - Googlescholar: 566 citations
  - ISI Web of Science: 77 citations from 12 articles
  - Scopus: 110 citations from 17 articles
- Teaching
  - In Italian: Microeconomia (UniPi, UniBo); Econ Internaz (UniBo); Econ. Industriale Avanzata (Unibo);
  - In English: Advanced Micro (UniBozen); Economics of Comp. Policy (UniBo)
  - In French: Macroeconomics and growth (Post-graduate, CEUB-UniBO)
  - PhD (in English): Consumer and Production theory, Industrial Dynamics (Sant'Anna, Pisa)

# Heterog. performances Meat Products (1999)



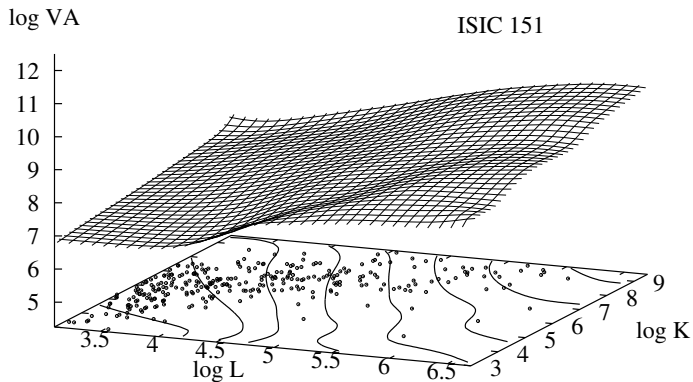
$\exp(3) \approx 20$  th. euro;  $\exp(4.5) \approx 90$  th. euro

# Heterog. in performances is persistent (year 2006)



$\exp(3) \approx 20$  th. euro;  $\exp(4.5) \approx 90$  th. euro

# Firm level heterogeneity



# Implications of firm-level heterogeneity

- Interesting in itself, provide a more informative representation
- Rethinking of the standard theories. i.e. firm-level heterogeneity and firms in international trade
- Macro: implications for the aggregate? How to evaluate gains from trade?
- Measurement issues: How to measure tech change with such widespread differences across firms?
- Lack of strong selection: what implications for “selection of the fittest hp” in industrial dynamics

# Firms in International Trade: from Micro to Macro

- Technology and costs in international competitiveness
  - Patents and investments do matter, more relevant for the *intensive* (volumes) than the *extensive* (selection) margin
  - Wages: capture more differential skills (even controlling for labour productivity). Overall, not a hindrance to export strategy.
  - Product innovation is more relevant than process innovation in determining firms export success (ResPol 2015)
- Different categories of firms involved in Int. Trade
  - The role of intermediaries in international trade
  - Lower per-product fixed cost
  - Export share by Interm. is larger in countries with higher market costs
  - Exports to countries with large Interm share are less reactive to a RER variation (NBER, 2011; REStat 2015)
  - Contribute to explain the incomplete ERPT puzzle
  - Higher relevance of Whol for countries with small firm bias
- Productivity sorting into export and import
  - Indirect (and direct) exporters and importers (RoWE Forthcoming)
  - Effects of source-country characteristics on different modes of trade



# Empirical Industrial Organization

- Intra-industry firm heterogeneity
  - Performance of firms within narrowly defined industries is persistently different (Riv Pol Econ, 2005; ICC 2006)
  - Export activities are also related to firms' differences: Exporters are bigger, more productive, pay higher wages
  - Italian specificity: on average, growth rates of exp and non-exp are not distinguishable (J. Ind Comp Trade, 2012)
- Industrial dynamics
  - Firm Growth and productivity growth (Physica A, 2005)
  - Reallocation of market share (Small Business Econ, 2012)
  - Firm exit: Financial and economic determinants of firm default (J. of Evolutionary Economics, 2011)
- Size-wage premium (Cambridge J. Econ, 2010; Bulletin Econ Research, 2014)

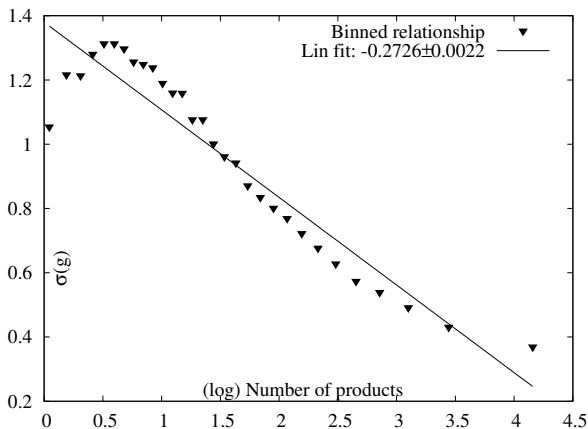
# Sources of firm level heterogeneity: theoretical and measurement issues

- Measurement issues
  - How to measure firm heterog when firms are different over several dimensions?
  - How does heterog vary over time?
  - How to measure tech. change in presence of heterog? (J. Industrial Econ, forthcoming)
- Investment in tangible assets
  - Propose a new method to identify inv. spike which corrects for size-inv. relation
  - Improvements in firm performance, but less so in Italy (Empirical Economics forthcoming)
- Underlying knowledge bases
  - Firms' performance are persistently different
  - Difference in the underlying knowledge bases is related to observed differences in performance (ICC 2006; Cambridge J Econ, 2010; CUP Chapter, 2013)
- Patterns of diversification as shaped by different bases of knowledge
  - Matching of firm-level, product-level (custom data) and patent data
  - New methodology to link the patent to relevant product(s)
  - Study coherence in diversification both in terms of patents and products (LEM WP, 2015/05)

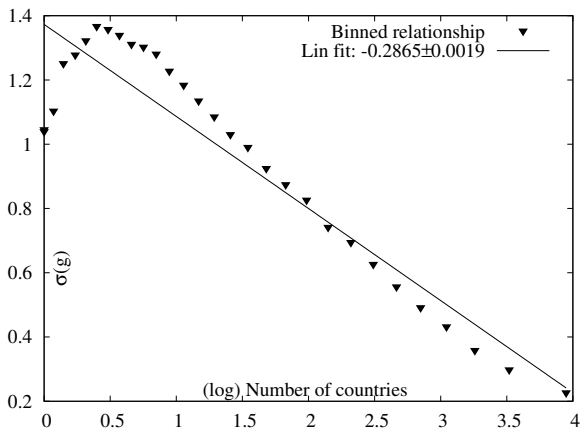
# Ongoing and future research

- Export and firm diversification (Grazzi & Moschella)
- Persistence of profits in the long run (Grazzi et al.)
- Entrepreneurship: the case of born-global firms (Grazzi & Moschella, LEM WP 2016/07)
- Coordination of a project on French firm-level data (INSEE): Commerce, technologie et dynamique d'emploi (joint with Moschella, Treibich, et al)
- Industrial dynamics and institutional change: the case of China (WP)
  - Role of institutions: State and Collective Vs Foreign and Private
- Export and productivity sorting in developing economies (India)
  - The role of “learning” in developing countries
- Software development for the zonotope project (JIndEc article)
  - R (Open Source) and Stata (proprietary) packages

# Volatility and product diversification: binned relationship



## Volatility and country diversification: binned relationship



# Terza Missione

- Articles on non-scientific journals
  - Dictionary-Encyclopedia
  - ItalianiEuropei
- Non-academic invited talks
  - Notre Dame University
  - Sant'Anna Science Cafe'
  - Camaldoli
  - Summer School of "school of Excellence network" (Normale, Sant'Anna)"
- Business Angel activities, joint with other Sant'Anna Alumni

# References I

- Bernard, A. B., M. Grazzi, and C. Tomasi (2011, December). Intermediaries in international trade: Direct versus indirect modes of export. NBER Working Papers 17711, National Bureau of Economic Research, Inc.
- Bernard, A. B., M. Grazzi, and C. Tomasi (2015). Intermediaries in International Trade: Products and Destinations. *The Review of Economics and Statistics* 97(4), 916–920.
- Bottazzi, G. and M. Grazzi (2009). Produttività, costo del lavoro e dimensione d'impresa. In L. Rondi and F. Silva (Eds.), *Produttività e cambiamento nel sistema produttivo italiano. Indagini Quantitative*. Bologna: Il Mulino.
- Bottazzi, G. and M. Grazzi (2010). Wage–size relation and the structure of work-force composition in Italian manufacturing firms. *Cambridge Journal of Economics* 34(4), 649–669.
- Bottazzi, G., M. Grazzi, and A. Secchi (2005a). Characterizing the production process: A disaggregated analysis of Italian manufacturing firms. *Rivista di Politica Economica Jan-Feb(I-II)*, 243–270.
- Bottazzi, G., M. Grazzi, and A. Secchi (2005b). Input output scaling relations in Italian manufacturing firms. *Physica A* 355, 95–102.
- Bottazzi, G., M. Grazzi, and A. Secchi (2006). Characterizing the production process: A disaggregated analysis of Italian manufacturing firms. In M. Malgarini and G. Piga (Eds.), *Capital Accumulation, Productivity and Growth. Monitoring Italy 2005*, Central issues in contemporary economic theory and policy 7, pp. 241–268. Basingstoke: Palgrave Macmillan.

## References II

- Bottazzi, G., M. Grazzi, A. Secchi, and F. Tamagni (2011, August). Financial and economic determinants of firm default. *Journal of Evolutionary Economics* 21(3), 373–406.
- Dosi, G., A. Gambardella, M. Grazzi, and L. Orsenigo (2008). Technological revolutions and the evolution of industrial structures: Assessing the impact of new technologies upon the size and boundaries of firms. *Capitalism and Society* 3(1).
- Dosi, G., A. Gambardella, M. Grazzi, and L. Orsenigo (2013). Technological revolutions and the evolution of industrial structures: assessing the impact of new technologies upon the size, pattern of growth, and boundaries of firms. In G. Dosi and L. Galambos (Eds.), *The Third Industrial Revolution in Global Business*. Cambridge University Press.
- Dosi, G. and M. Grazzi (2006). Technologies as problem-solving procedures and technologies as input–output relations: some perspectives on the theory of production. *Industrial and Corporate Change* 15(1), 173–202.
- Dosi, G. and M. Grazzi (2009). Energy, development and the environment: An appraisal three decades after the “limits to growth debate”. In P. A., C. U., G. A., and K. T. (Eds.), *Recent Advances in Neo-Schumpeterian Economics: Essays in Honour of Horst Hanusch*. Edward Elgar, Cheltenham UK.
- Dosi, G., M. Grazzi, L. Marengo, and S. Settepanella (forthcoming). Production theory: accounting for firm heterogeneity and technical change. *Journal of Industrial Economics*.
- Dosi, G., M. Grazzi, and D. Moschella (2015a). Technology and costs in international competitiveness: from countries and sectors to firms. *Research Policy* 44(10), 1795–1814.



## References III

- Dosi, G., M. Grazzi, and D. Moschella (2015b). What do firms know? What do they produce? A new look at the relationship between patenting profiles and patterns of product diversification. LEM Papers Series 2015/05, Sant'Anna School of Advanced Studies, Pisa, Italy.
- Dosi, G., M. Grazzi, C. Tomasi, and A. Zeli (2012, November). Turbulence underneath the big calm? The micro-evidence behind Italian productivity dynamics. *Small Business Economics* 39(4), 1043–1067.
- Grazzi, M. (2012a). Eterogeneità. In *Economia e Finanza*, pp. 498. Roma: Istituto della Enciclopedia italiana.
- Grazzi, M. (2012b). Export and firm performance: Evidence on productivity and profitability of Italian companies. *Journal of Industry, Competition and Trade* 12(4), 413–444.
- Grazzi, M. (2012c). Fattore di produzione. In *Economia e Finanza*, pp. 519–520. Roma: Istituto della Enciclopedia italiana.
- Grazzi, M. (2012d). Produttività. In *Economia e Finanza*, pp. 301. Roma: Istituto della Enciclopedia italiana.
- Grazzi, M. (2014). Innovazione e sviluppo industriale: limiti e opportunità per il sistema italia. *Italianieuropei* (2014:5).
- Grazzi, M., N. Jacoby, and T. Treibich (forthcoming). Dynamics of investment and firm performance: Comparative evidence from manufacturing industries. *Empirical Economics*.

## References IV

- Grazzi, M. and D. Moschella (2016). Small, young, and exporters: New evidence on the determinants of firm growth. LEM Papers Series 2016/07, Sant'Anna School of Advanced Studies, Pisa, Italy.
- Grazzi, M., R. Sanzo, A. Secchi, and A. Zeli (2013). The building process of a new integrated system of business micro-data 1989-2004. *Journal of Economic and Social Measurement* 38(4), 291–324.
- Grazzi, M. and C. Tomasi (forthcoming). Indirect exporters and importers. *Review of World Economics*.
- Yu, X., G. Dosi, M. Grazzi, and J. Lei (2015). Inside the Virtuous Cycle between Productivity, Profitability, Investment and Corporate Growth: An Anatomy of China Industrialization. LEM Papers Series 2015/03, Sant'Anna School of Advanced Studies, Pisa, Italy.