

GIZEM KORKMAZ (CV, NOVEMBER 2011)

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Current Address (till April, 2012):

Virginia Polytechnic Institute and State Uni.
Research Building XV (0477)
1880 Pratt Drive
Blacksburg, VA 24061
USA

EDUCATION

- Visiting Research Associate, current - April, 2012
Network Dynamics and Simulation Science Laboratory (NDSSL)
Virginia Polytechnic Institute and State University (Virginia Tech.), USA
Mentors: Assoc. Prof. Achla Marathe - Prof. Madhav Marathe
- Ph.D., Economics exp. June, 2012
European University Institute (EUI), Florence, Italy
Supervisors: Prof. Fernando Vega-Redondo - Prof. Elena Carletti
- Master of Research, Economics 2008
European University Institute (EUI), Florence, Italy
- M.A., Economics 2007
Boğaziçi University, Istanbul, Turkey
Supervisors: Prof. E. Ünal Zenginobuz - Prof. Fikret Adaman
Thesis: *Explorations on the Accountability of Independent Regulatory Agencies*
- B.A., Economics 2005
Boğaziçi University, Istanbul, Turkey
Research Project: *The Political Economy of Budget Deficits in Turkey*

RESEARCH PAPERS

- R&D Collaboration in Collusive Networks with Market Sharing Agreement
- Congestion in R&D Collaboration Networks with Degree Externalities
- Optimal Accountability and Independence of Regulatory Agencies
- Communication, Coordination and Contagion of Collective Action through Online and Social Contact Networks – joint project with NDSSL (*work-in-progress*)
- Neighbourhood Structure and Risk-Taking Behaviour: The Limits of Social Collateral Trust and Moral Hazard in Social Networks – coauthor David Pothier (*work-in-progress*)

RESEARCH AND TEACHING INTERESTS

Applied Microeconomic Theory, Game Theory, Contract Theory, Industrial Organization, Collusion, Social and Economic Networks, Social Contagion, Collective Action, Political Economy

TRAINING & PROFESSIONAL EXPERIENCE

RESEARCH EXPERIENCE:

- Currently employed as a Visiting Research Associate (till April, 2012)
Virginia Tech., Network Dynamics and Simulation Science Laboratory (NDSSL)
- Researcher and Country Team Leader of *EU Profiler* (First Europe-wide Voting Advice Application for 2009 European Parliamentary Elections), Sep.2008-Jun.2009
For Prof. Alexander H. Trechsel, Department of Political and Social Sciences - EUI
- Research Assistant for Environmental Project of *TUBITAK* (The Scientific and Technological Research Council of Turkey), Sep.2006-Sep.2007
- Research and Teaching Assistant, Boğaziçi University, Economics Department (2005-2007)
- Experimental Economics Project Assistant for Dr. Benedikt Herrmann (Centre for Decision Research and Experimental Economics, University of Nottingham), Mar. 2006
- Research Assistant, Independent Regulatory Agencies for Prof. E. Unal Zenginobuz
Center for Economic Design, Boğaziçi University - Economics Department, (2005 - 2006)

TEACHING EXPERIENCE:

- Graduate Teaching Assistant, EUI, Ph.D. Level Spring 2009
Course: *Complex Social Networks* (Prof. Fernando Vega-Redondo)
- Graduate Teaching Assistant, EUI, Ph.D. Level Fall 2008
Course: *Microeconomics I* (Prof. Piero Gottardi)
- Teaching Assistant, Boğaziçi University 2005 - 2007
Courses: *Microeconomics I-II, Game Theory, Contract Theory, Public Economics I-II, Development Economics*
- Undergraduate Teaching Assistant, Boğaziçi University
Courses: *Game Theory* Spring 2005
Mathematics for Economics Fall 2003

Teaching Certificate - EUI Teaching Skills Week 2010:

- “*Course Design and Teaching Portfolio, Student Assessment and Teaching Writing Skills, Teaching Large Groups*” by Neil McLein (LSE Teaching and Learning Center),
- “*Effective Communication in Academic Teaching*” by Angela O’Neill (Director of Communications and Languages, College of Europe, Bruges)
- Course Presentation (Final): “*Introduction to Game Theory*”

CONFERENCES & WORKSHOPS

Presentations:

“R&D Collaboration in Collusive Networks”

- *Spanish Economic Association (SAEe) 2011 Meeting*, Malaga, Spain. (to be) December 2011
- *52nd Annual Conference of Italian Economic Association (SIE)*, Roma Tre University, October 2011
- *Governance, Market Structure, Networks and Innovation Conference*, University of Greenwich, London, September 2011
- *5th CLEEN (Competition Law and Economics European Network) Workshop*, European University Institute, Florence, May 2011,
- *UECE Lisbon Meetings 2010: Game Theory and Applications*, Lisbon
- *Seminar at the Department of Economics*, Public University of Navarra, November 2010, Pamplona
- *Annual Meeting of ASSET 2010* (the Association of Southern European Economic Theorists), University of Alicante, October 2010

“Congestion in R&D Collaboration Networks”

- *Spanish Economic Association (SAEe) 2011 Meeting*, Malaga, Spain. (to be) December 2011
- *7th UK Social Network Conference 2011*, University of Greenwich, London, July 2011

“On the Accountability of Independent Regulatory Agencies”

- *Annual Meeting of ASSET 2009* (the Association of Southern European Economic Theorists), Boğaziçi University, Istanbul, October 2009

Workshops/Summer Schools:

- SSECO 2011 Summer School in Economics, Carlos III University of Madrid “*Supermodularity and Complementarity*” by Prof. Rabah Amir (University of Arizona)
- Sunbelt XXX: Social Network Analysis Conference 2010, Trento, Italy
“*Introduction to the Modelling of Networks*” by Prof. Matthew O. Jackson (Stanford University)

Other Conferences attended:

- DIME Conference 2010: Organizing for Networked Innovation, Milano
- Annual Meeting of ASSET 2008, European University Institute, Florence
- SED (Society for Economic Design) 2006 Conference, Bodrum, Turkey

SKILLS

- Languages: Turkish(native), English(fluent), Italian(intermediate), German(basic)
- Software & Programming: Mathematica, NetLogo, Pajek, SWP, LaTeX, Stata, Eviews

SUCSESSES AND AWARDS

- PhD Grant to the XXXVI Symposium of Spanish Economic Association Nov. '11
- PhD Bursary for the 7th UK Social Network Conference 2011, Jul. '11
University of Greenwich, London
- Scholarship for SSECO 2011 Summer School in Economics, May '11
Carlos III University of Madrid
- EUI Graduate Scholarship by Italian Ministry of Foreign Affairs '07 – '11
- EUI Graduate Teaching Assistantships Fall '08, Spring '09
- Graduate Scholarship of TUBITAK Sep.'06 - Aug.'07
(The Scientific and Technological Research Council of Turkey)
- Boğaziçi University Teaching and Research Assistantship Sep.'05 - Jul.'07
- Boğaziçi University Departmental honour Jul. '05
- Boğaziçi University Undergraduate Teaching Assistantships Fall '03, Spring '05
- GRE Quantitative Score 800(/800) - TOEFL-CBT Essay Rating: 6.0(/6.0) '05
- Scholarship of Istanbul Metropolitan Municipality '03-'05
- Turkish Ministry Success Grant '00-'05
- LeoClub International Youth Exchange Exam, Istanbul, rank 13th '03
- Acceptance to Science High School (Adana), Majors: Natural Sciences and Mathematics '97
- TUBITAK High School Mathematics Olympics Team, Adana, Turkey '96

PERSONAL INFORMATION

- Sex: Female
- Nationality: Turkish
- Date/Place of birth: 29 March 1982 / Adana, Turkey

REFERENCES

Prof. Fernando Vega-Redondo
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Boğaziçi University
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R&D Collaboration in Collusive Networks

This paper studies the R&D incentives of oligopolistic firms that can form both R&D collaborations and reciprocal market sharing agreements, which restrain them from entering each other's market. We develop a model to examine the architecture of strategically stable networks and the relation between individual incentives and social welfare focusing on regular networks. We find that in absence of R&D collaboration links, collusive market sharing agreements results in increasing industry profits at the expense of R&D investments and social welfare. When firms undertake collaborative R&D and collude in the market, we show that besides the degree, the configuration of the network becomes crucial in determining the equilibrium outcomes. We find that some network structures, in particular bipartite networks, could lead to higher R&D levels and profits than other networks with the same size and the degree. Moreover, in the complete bipartite network social welfare attained is even higher than in absence of collusive links. We also show that the complete network is always stable but not socially optimal, while the stability of the empty network depends on the number of firms and the level of R&D spillovers. In addition, networks composed of complete components are also stable when R&D spillovers are low.

PAPER ABSTRACT

Congestion in R&D Collaboration Networks with Degree Externalities

The paper aims at analyzing the trade-off between the positive spillovers arising from the research collaborations among firms that compete in the product market and the negative externalities resulting from their indirect connections. We argue that due to the fixed supply of resources that can be devoted to R&D, firms allocate these resources among their collaborators which generate negative externalities on each neighbour (similar to co-author effect). We develop a model to examine the architecture of strategically stable networks and the relation between individual incentives and social welfare in networks. The first results suggest that if negative externalities are low, R&D effort level of an individual firm decreases as the number of its R&D partners increases when they compete in the product market. The connectivity of its collaborator leads to a higher level of R&D effort. We show that profits and welfare are maximized at low levels of collaboration under high level of negative externalities due to the degree. Stability also requires high connectivity and empty network is never stable when creating links is cost-free. Introducing linking costs, we find that there is a range of negative externalities from indirect links above which the complete network is not stable and in addition, there exists an intermediate level of collaboration that is pair-wise stable.

Optimal Accountability and Independence of Regulatory Agencies

This paper aims at analyzing in a game theoretical framework the behaviour of a regulator to be appointed by a government that may follow an objective different than the (social) objective that was used at the initial regulatory-design stage. More specifically, the paper is centered around analyzing the trade-off between independence and accountability of a regulatory authority to be appointed by politically-biased governments subject to reelection, and it aims to contribute to the regulatory design literature by analyzing the performance of an independent regulatory authority subject to differing degrees of accountability under these circumstances. Analyzing the optimal contracts for the games studied, we show how the level of corruptibility of the agency affects the optimal level of investigation to be taken. Certain amount of accountability is necessary to reach the optimum as long as the regulator is not benevolent. However, we find that the politically polarized government can use the accountability as a tool to benefit a certain group in the economy by distorting the output level and hence the social welfare.

Neighbourhood Structure and Risk-Taking Behaviour: The Limits of Social Collateral

We analyse how neighbourhood structure interacts with individuals' risk-taking behaviour. We propose a model of informal credit markets where borrowers must choose how to finance a risky entrepreneurial project by borrowing from friends. We show how the identity of the lender changes as the entrepreneurial project becomes more or less risky. Specifically, for very high-risk projects, the borrower will ask an isolated friend to finance the project, as this minimizes the punishment in case of default. For low-risk projects, the borrower will instead obtain financing from a lender with whom he shares many common friends, as this reduces his effective cost of borrowing. The model we develop provides a formal justification for theories put forth in the sociology literature that link the development of capitalism and market mechanisms to the structure of extended kinship groups.