RICAFE Newsletter
Welcome to the first edition of RICAFE2 newsletter. This newsletter will keep you informed of the recent developments in the RICAFE2 project.

New Node joins RICAFE2

Following the Commission's call for proposals to support the extension of existing European research networks to third countries, the RICAFE2 Consortium has been successful in ensuring funding for integrating the Belgrade Laboratory for Quantitative Finance (LQF) of the Institute of Physics in Belgrade (http://lqf.phy.bg.ac.yu/).

The Institute was founded in 1961 with a mission to conduct high quality research in the physical sciences. It has amply fulfilled this mission, and at present contributes more than 10% of the total scientific output of Serbia. With 170 employees (of which 70 researchers with Ph.D. degrees, and an administrative and support staff of 30), and a growing number of graduate students, it constantly ranks at the very top of the R&D institutions in the Balkans region and is responsible for the maintenance of the Internet backbone of the whole Balkan area. The LQF aims to position itself at the forefront of the development of modern finance and economics, and, in particular, the development and application of advanced quantitative methods and emerging technologies in these fields. The main goal of LQF is to become a focal point for modern finance and economics in the South East Europe region. LQF currently has 11 staff members (6 senior and 2 junior researchers, 2 graduate students and 1 technician). The laboratory has at its disposal a state-of-the-art high performance computing facility and communication infrastructure, making it possible for LQF to focus on the development and application of emerging technologies to the fields of finance and economics. The principle expertise of LQF's researchers are in the area of risk management, asset pricing, insider trading, corporate governance and evolution of corporate ownership, real estate finance and economics, globalization, technology and innovation, emerging markets, and development of financial markets and financial institutions in transition economies.

The researchers working at LQF will contribute to RICAFE2's interdisciplinary effort through their unique expertise, combining such diverse methods as heuristic model building, computer simulations, risk analysis, and data mining and whose aim is to understand and predict the behavior of the human networks underlying social, political and financial systems. This approach is rooted in the 'complex systems' science that is being created through the interaction of physics with social sciences. Complex systems analysis has led to: (1) the understanding of many complex systems as networks; (2) the conceptualization of the emergence of novel behaviour of a complex system as a whole, i.e. of behaviour not present in the systems components; (3) the analysis of risk and of the "robustness" of complex systems (e.g. the robustness of the Internet to terrorist attack); (4) the predictability of catastrophic events (e.g. stock market crashes); (5) the uncovering of new laws and regularities through massive data mining of large amounts of available data. It is already becoming apparent that the cross-cultural effects of these applications will have important effects. One of the first areas in which these effects are starting to manifest themselves (and have wider impact) is in the field of modern finance and economics.

The Belgrade node will be represented by **Prof. Branko Urosevic** while other eresearhcers working in the project are: **Dr. Ashok Bardhan, Prof. Dejan Soskic, Rasa Karapandza**

RICAFE2 Discussion Forum

In the second phase of our RICAFE programme, we developed a dissemination plan that aims to communicate our ongoing research activities and results to end-users at different stages and through a variety of tools that will allow us to integrate their feedback. Integral to this dissemination plan is the RICAFE2 website which is increasingly becoming the primary medium of internal and external communication. To enhance user participation and interaction we introduced an open ongoing forum on the project's results and our ongoing research. We envisage that this forum will serve as an important tool in receiving feedback from the wider community and incorporating it in our research. To this effect we invite members and others who are interested to contribute issues/research ideas / questions or to start discussions related to our project's objectives to do so by participating in the RICAFE2 Discussion Forum.

RICAFE2 CONFERENCE

The first RICAFE2 (fourth in the RICAFE series) conference was held on 5th and 6th of October, 2006 at the Financial Markets Group. The conference attracted some of the top venture capital researchers from both US and Europe.

The morning session on Thursday (October 5) consisted of four paper presentations. The first paper of the session was titled "Motivating Innovation" and was presented by **Gustavo Manso** (MIT Sloan School of Management). The main point of the paper is that the standard pay-for-performance incentive schemes are not suitable for motivating innovation. This was shown theoretically by embedding a bandit problem into a principal-agent framework. The second paper of the session was presented by **David Hsu** (Wharton School) titled "The Impact of Intellectual Property Rights on the Market for Ideas: Evidence from Patent Grant Delays" (joint work with Joshua Gans, Melbourne Business School and Scott Stern, Northwestern). The paper dealt with the question of how uncertainty over patent scope impacts the timing of cooperation between start-up and more established firms. Most prior research treats the timing of invention and granting of patents as the same, whereas in this paper patent grant delays allows the authors to statistically identify the role of patent grants in the market for ideas. The third paper of the session was presented by **Marco Da Rin** (Tilburg and Turin University) on "The Importance of Trust for Investment: Evidence from Venture Capital" (joint work with Laura Bottazzi, Bocconi University, Milan and Thomas Hellmann, University of British Columbia). The paper empirically studies the effect of trust in micro-data (venture capital investments) and poses two main questions does trust affect investment and does contracting attenuate the effects of trust ? These questions are answered by analysing 1300 deals of 109 European VCs and the Eurobarometer Trust measure undertaken by the EU. Based on the analysis the authors found that trust plays an important in VC investing and that sophisticated contracting cannot (fully) substitute for lack of trust. The final presentation of the session was by **Yael Hochberg** (Kellogg School, Northwestern) on "Networking as a Barrier to Entry and the Competitive Supply of Venture Capital" (joint with Alexander Ljungqvist and Yang Lu, both New York University). The paper argues that networking features prominently in the VC industry and the traditional benefits of networking are numerous like better screening, access to deal flow, ability to draw on other VCs expertise etc. However one other reason for networking could be the ability to reduce competition by deterring entry. Incumbent VCs could potentially deter entry to new VCs by controlling access to deal flow, refusing to syndicate and other externalities.

The second session, which consisted of three papers dealing with different aspects of the design of venture capital contracts, was chaired by **Giovanna Nicodano** (University of Torino). The opening speaker, **Zsuzsanna Fluck** (Michigan State and The William Davidson Institute), presented joint work with Kedran Garrison (MIT) and Stewart Myers (MIT and NBER) on "Venture Capital Contracting: Staged Financing and Syndication of Later-Stage Investments". The authors study the issue of how venture capital contract provisions introduced to deal with certain financial imperfections may at the same time be aggravating (or introducing) others, and what the optimal design of contracts in the face of multiple imperfections is. **Roman Inderst** (University of Frankfurt) presented the second paper of this session, a theoretical analysis into "Venture Capital Financing and Firm Growth in New Industries", co-authored with **Holger Müller** (New York University). The observations that motivate their work are that (1) the growth profile of new industry start-up firms is much steeper in the US than in Europe, and that (2) practically all of the cases of high-technology firms which grow very fast from start-up into major international enterprises take place in the U.S. They rationalise the first observation by introducing a simple model of monopolistic competition in the product market where venture capital investors are

characterised by their level of involvement in the project; more hands-on U.S. investors obtain informative signals about the true worth of the venture earlier and will thus promote (terminate) a profitable (unprofitable) project earlier than a European financier would. The last seminar of the second session was given by **Carsten Bienz** (Norwegian School of Economics and Business Administration), who presented joint empirical work with Uwe Walz (CFS, Frankfurt) on the evolution of decision and control rights in venture capital contracts. Based on a unique data set that the authors have compiled, they study how decision and control rights evolve by financing rounds, through time (especially focusing on what happened before, during and after the late nineties stock market expansion) and relative to time-to-exit. They find that there is a shift from debt to more equity over time, and that, contrary to what other authors have found, the amount of decision and control rights does not decrease over time, but rather its composition changes (operational rights decrease in favour of exit rights).

The morning session on the 6th of October included three papers. The first presenter was **Richmond Mathews** (Duke University, Fuqua School of Business) who presented the paper "Market Structure, Internal Capital Markets, and the Boundaries of the Firm", which is joint work with David Robinson (Duke University, Fuqua School of Business). The paper contains a theoretical analysis of the importance of internal capital markets for the organizational structure of the firm. The analysis is cast in a framework with uncertainty regarding the potential size of the product market. Consequently, firms with different organizational structures have different abilities to commit capital to product market competition.

The sessions' second paper was titled "Knowing Who You are Matters: A Theory of Young Firms versus Mature Firms. The paper was presented by **Masako Ueda** (School of Business, University of Wisconsin) and was joint work with Kyriakos Frantzeskakis (School of Business, University of Wisconsin). The paper analyses the difference in the project selection process between young and established firms. The analysis is performed in a framework where firm types and project types need to be matched in order for the production process to be successful. The last paper of the session was presented by **Rebecca Zarutskie** (Duke University, Fuqua School of Business), and was titled "Do Venture Capitalists Affect Investment Performance? Evidence from First-time funds". The paper attempts to shed light on the importance of the identity of venture capital fund managers, as measured by their academic and professional history, for the performance of the venture capital fund. In order to better ensure that the performance is driven by the educational characteristics of the fund manager, the author limits the analysis to first time funds. The econometric analysis is based on 318 U.S. based funds founded between 1980 and 1998. Of these funds, 45% where engaged in seed, or early stage financing. The author finds a significant positive correlation between the performance of seed stage funds and prior venture capital experience by the manager. However, this relationship turns out to be significant only when the venture fund also has a manager with start-up experience.

The afternoon session on Friday (October 6) consisted of three presentations. The whole session was oriented towards explanation of the relationship between the venture capital industry and human capital. The first paper of the session was titled "Human Capital Investment, Entrepreneurship and New Firm Creation" and was presented by **Merih Sevilir** (The University of North Carolina at Chapel Hill). She develops a model which rationalises why do established firms encourage entrepreneurship of their own employees, who may—if they are successful in their innovative activity—leave the firm and start their own business. The second paper of the session was presented by **Manju Puri** (Duke University and NBER) titled "Who are Entrepreneurs and Why Do They Behave That Way?" (joint work with David Robinson, also Duke University). The paper sheds light on who the entrepreneurs are as it explains some puzzling facts about their choices found in past research. In particular, why are entrepreneurs poorly diversified, bear excessive risk and accept lower median life-time earnings than wage-earners? The paper comprehensively explores three potential explanations: high non-pecuniary benefits associated with being self-employed and having own private business, different attitudes toward risk, and optimism as a special behavioural characteristic of an entrepreneur. The paper finds that entrepreneurs who start/buy businesses are optimistic but less likely to be extreme optimists. At the same time they have high risk tolerance and never want to retire. On the other hand, entrepreneurs who inherit businesses show no difference in optimism than the general population, are risk-averse, and the economic significance of "never stop working" is low. The presented results suggest that entrepreneurs differ from non-entrepreneurs in terms of attitudes of optimism and risk taking and how they view their work. The conference was concluded by the presentation by **April Franco** (University of Iowa) of the paper on "Covenants not to Compete, Labour Mobility and Industry Dynamics" (joint with Matthew Mitchell, University of Iowa). The paper models the evolution of innovative firms as some employees spin-out and create new companies. In particular, the analysis focuses on how contractual restrictions on employee mobility can lead to a difference in creation of start-up firms and evolution

of the new industries. The analysis is well motivated by the opposing legal climates of California and Massachusetts which are believed have resulted in different evolution of the respective electronics industries. It is shown that if employees have private information, the region that enforces non-compete clause initially dominates but the region that does not enforce covenants not to compete eventually overtakes. This happens when the competition between spin-outs and their parent firm becomes tough compared to competition between unrelated firms.

Second Management Committee Meeting

The second management committee meeting was held in the sidelines of the RICAFE2 conference and was attended by Marc Goffart of the European Commission, who is RICAFE2's project officer. The meeting reviewed the progress of the project so far. The first progress report to the commission is due in March 2007.

Conference Papers

The authors of the papers presenting at the conference have been invited to submit their papers as part of the RICAFE Working Paper series. These papers will soon be available in the RICAFE2 website.

Second RICAFE2 Conference

The next RICAFE conference will be held in Riga, Latvia in 2007. A call for papers will be published soon. The details will be announced at the RICAFE2 website.

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