"Allocation of Talent, Entrepreneurship and Innovation"

Daniel Metzger

The proposed project aims to understand the role of talent and education for entrepreneurship and innovation and how potential financing or capacity constraints at firm and university level may distort an efficient allocation of talent. In the first part, we plan to study the effect of human capital on the success of potential high-growth ventures. Part of the project will be an evaluation of a governmental program that subsidies early-stage companies. In the second part, we are interested in the role of education and university/program choices for the likelihood of becoming a successful innovator. The research results will be helpful for improving new governmental subsidy programs as well as for helping to allocate resources to specific educational programs at universities with the goal of fostering innovation.

The first part will study the role of governmental grants for the success of startups and to what extent the ability to hire and retain talent is crucial for it. The role of new ventures and skilled innovators as engines for economic development and employment has garnered substantial attention during the last couple of decades. Much of this focus stems from the commonly shared view that such businesses account for a significant part of job creation, productivity growth and innovation (Storey, 1994; Henrekson and Johanson, 2010). For example, net job growth in the United States economy occurs almost exclusively through startup firms. Although being important, however, the prospects of new ventures are very uncertain with the majority of them failing during their five first years of existence (Sarasvathy et al., 2011; Jenkins et al., 2014). These insights regarding the simultaneous importance and vulnerability of new ventures have led governments around the world to develop policies to increase startup rates and support the growth and development of young firms. In Sweden, the Swedish Governmental Agency for Innovation Systems (VINNOVA) operates the program VINN NU ('Win Now'), which awards grants of 300 kSEK (approximately 40 kUSD) to up to 24 new ventures annually. In our project, we will evaluate the success of the program empirically. Besides analyzing surviving rates, growth, and profitability, a special focus will lie on the analysis of hiring and retaining high talent workers. Access to unique Swedish registry data (test scores from enlistment tests as well as high school grades) will help us to construct convincing proxies for talent.

In the second part, we will look directly at determinants of becoming a successful innovators with particular focus on subject/program choices at university. Bell, Chetty, Jaravel, Petkova, and Van Reenen (2015) match patents to social security data. Their analysis suggests a misallocation of talent. They conclude that one could boost innovation by getting more high ability but low income

kids to be inventors, for instance by fostering education. One important question that remains is what type of programs improve entrepreneurial outcomes. We aim to look at this question in the context of university programs. There is evidence that many successful innovators come out of top-engineering programs. Moreover, nowadays there is are multiple initiatives to foster entrepreneurial activity among engineering students by university-run incubators as well as by setting up entrepreneurship programs. Some studies, such as Duval-Couetil, Reed-Rhoads, and Haghighi (2012), have reported positive effects of these programs on levels of entrepreneurial self-efficacy on a number of measures. However, most of these studies rely on uncontrolled, survey evidence. In our project we aim to evaluate the effect of top-engineering programs in Sweden on the likelihood of becoming a successful innovator.

Methodology

Assessing the impact of subsidies is challenging because it is virtually impossible to address the counterfactual. How would recipients of subsidies perform if they had not received the subsidy and vice versa? In order to make a big step towards establishing causation, we plan to exploit a unique feature in the grant allocation process: External experts evaluate the applicants and select a pool of candidates that is suitable for the grants. This pool, however, usually exceeds the funding that is available and, hence, not all candidates will be able to receive these grants. The final selection is not based on the previous evaluation by the experts and is quasi random. In our analysis, the candidates that were in the pool of firms suitable for the grant but did not receive it will be used to construct a control group.

For the second part, we will combine innovator information from patent applications with registry data. This allow us to credibly identify innovators and, by measuring the quality of their applications (e.g., citations), their success. We will combine this data with application data for university-programs and grades from high-school. Given that the number of seats are limited within a program and the selection is mostly based on high-school grades, we can compare students who just made it into the program with students who just ended up below the threshold. In other words, we plan to apply a regression discontinuity design (RDD) which will help us to estimate the causal effect of certain university programs on innovation. The findings of this study will have policy implications for the allocation of funding towards specific university programs.

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Academic Appointment:

2011 –	Stockholm School of Economics, Department of Finance Assistant Professor
2012 –	Swedish House of Finance (SHoF) Research Associate
2007 –	Financial Markets Group (FMG) at London School of Economics Research Associate

Education:

London School of Economics, Ph.D. in Economics, 2011
Advisors: Oriana Bandiera, Daniel Ferreira
Committee: Vicente Cunat, Ulrike Malmendier
University of Bonn, Diplom in Economics, 2006
University of Warwick, M.Sc. in Mathematics, 2003
University of Bonn, Vordiplom (B.Sc) in Mathematics, 2002

Academic Visits:
University of California, Berkeley, Visiting scholar, host: U. Malmendier, summer 2008
University of California, Berkeley, Exchange student (PhD program in Economics), 2005-2006

Research Fields:
Labor and Finance, Entrepreneurship, Corporate Governance, Corporate Finance, Personnel Economics

Honors, Fellowships, and Grants:
Torsten Söderberg Foundation, Research grant (750,000 SEK, with M. Böhm and P. Strömberg), 2015
Hans Dalborg Award (500,000 SEK), 2015
IGC project initiation grant (20,000 GBP, with Claudia Custodio), 2015
Vinnova, Research grant (3,800,000 SEK, with Joakim Bång and Paolo Sodini), 2014
Ragnar Söderberg Foundation, Research grant (600,000 SEK, with M. Böhm and P. Strömberg), 2012
Wallander scholarship, fellowship, 2011-2017
Postgraduate Travel Fund Award, LSE, 2010
Best PhD paper CMNE/UFG prize, European Center of Control Studies (ECCCS), Lille 2010
Best dissertation project, Workshop for PhD students – German Finance Association, Frankfurt 2009
LSE Departmental Scholarship, LSE 2006 – 2010
ESRC Scholarship, ESRC Economic & Social Research Council 2006 – 2010
Graduate Scholarship, German Academic Exchange Service 2007 – 2008 (declined)
Graduate Scholarship, German Academic Exchange Service 2005 – 2006
Graduate Scholarship, European Union 2002 - 2003
Fellow, German Physical Society 2000

Publications:
"Compensation and Competition for Talent: Evidence from the Financial Industry" (with M. Giannetti), December 2014, Finance Research Letters, forthcoming

"Financial expert CEOs: CEO's work experience and firm's financial policies" (with C. Custodio), Journal of Financial Economics, Volume 114, Issue 1, October 2014, Pages 125-154.

"Strategic Trading and Trade Reporting by Corporate Insiders", (with A. Betzer, J. Gider, and E. Theissen), September 2013, Review of Finance (forthcoming)

"How do CEOs matter? The Effect of Industry Expertise on Acquisition Returns." (with C. Custodio), Review of Financial Studies, Volume 26, Issue 8, 2013, Pages 2008-2047.

Working Papers:
"Since you're so rich, you must be really smart: Talent and the finance wage premium" (with M. Böhm and P. Strömberg), August 2015

"Why Do Shareholder Votes Matter?" (with L. Bach), August 2015

"Boards of Banks" (with D. Ferreira and T. Kirchmaier), August 2012

Other publications:
"Cadbury – Kraft", Stockholm School of Economics Case, 2014 (with Bo Becker)

Corporate Governance Systems (with C. Andres, A. Betzer, and M. Goergen), March 2010
Appeared in H. Kent Baker and Ronald Anderson (ed.), Corporate Governance, Companions to Finance Series, Kolb Series in Finance, New York: John Wiley, chapter 3.

Professional Service:

Referee	Journal of Finance, Review of Financial Studies, Review of Corporate Finance Studies, Journal of Labor Economics, Journal of Financial and Quantitative Analysis, Review of Finance, Journal of Financial Intermediation, Management Science, Journal of Empirical Finance

Conference & Seminar Presentations:

Seminars

2016	U Cologne, NHH Bergen (scheduled)
2015	LMU Munich, U Bonn, Swedish Ministry of Finance
2014	Stockholm U, Lisbon Nova/Catolica brownbag, Frankfurt U, Amsterdam FU brownbag, WHU Vallendar
2013	Bonn, Frankfurt School of Finance, Cologne U
2012	ESMT brownbag, IFN Stockholm, St. Gallen
2011	Cologne, Stockholm, Harvard Business School, UNC Chapel Hill, Amsterdam, HEC Paris, Bocconi, Copenhagen, Warwick, IE, IESE, Bergen, ESMT
2010	LSE, Stanford GSB PhD Accounting and Finance Seminar

Conferences (* indicate presentations by co-authors)

2016	AFA San Francisco*, ECCCS 2016 Paris, CEPR First Annual Spring Symposium in Financial Economics London, FIRS Lisbon (scheduled)
2015	AFA Boston*, Gerzensee*, NBER Summer Institute*, EEA Mannheim*, EFA Vienna (2x), CSEF-EIEF-SITE Conference on Labor and Finance, Young Researcher Workshop, SFB-TR15, Tutzing (keynote), Ackerman Conference on Corporate Governance, GEA-Munich
2014	Nordic Corporate Governance Network, 15th Workshop on Corporate Governance and Investment, DGF Karlsruhe 2014
2013	Challenges of Corporate Governance Bath, CEPR Gerzensee 2013 evening session, EFA Cambridge 2013, DGF Wuppertal 2013 (2x), GEA-Konstanz 2013
2012	EFA Copenhagen 2012, Swedish Economic Association 2012, German Finance Association 2012, GEA-Cologne 2012
2011	GEA-Berlin, Western Finance Association 2011
2010	FMA NY 2010, EFA Frankfurt 2010, German Finance Association 2010, Fourth Singapore International Conference on Finance 2010, Labor and Finance Conference in Oxford 2010, Trans-Atlantic Doctoral Conference at LBS 2010, First Ph.D. Symposium on Corporate Control and Governance at ECCCS 2010
2009	PhD workshop at the German Finance Association Conference 2009, EEA- ESEM 2009

Conference discussions / session chair

2016	Corporate Finance Symposium Stockholm (scheduled), Workshop Executive Compensation and Corporate Governance (scheduled)
2015	Adam Smith Corporate Finance conference, IFN workshop on Economics of Corporate Ownership, EFA Vienna, Ackerman Conference on Corporate Governance
2014	NFN PhD Nordic Finance Workshop, EFA Lugano (session chair and discussion), 15th Workshop on Corporate Governance and Investment, DGF Karlsruhe 2014
2013	FIRS Dubrovnik, Challenges of Corporate Governance Bath, CEPR Gerzensee, EFA Cambridge 2013 (session chair and 2 discussions), DGF Wuppertal (2x)
2012	Executive Compensation and Corporate Governance Workshop Rotterdam, Swedish Economic Association 2012, German Finance Association 2012
2010	FMA NY 2010, EFA Frankfurt 2010, German Finance Association 2010, Trans-Atlantic Doctoral Conference at LBS 2010

Teaching Experience:
Topics in Corporate Finance (PhD Finance), 2 sessions, 2016, SSE, instructor
Entrepreneurial Finance and Venture Capital (MSc), 2015, SSE, course manager
Entrepreneurial Finance and Venture Capital (Seminar, BSc), 2015, 2016, U Cologne, instructor
M&As (Financial Analyst Program (executive education)), 2014, SSE IFL Executive Education, instructor
Fundamentals of Corporate Finance (MSc General Management), 2013, 2014, SSE, course manager
Introduction to Corporate Finance (BSc), 2013, 2014, SSE, course manager
M&As – Financial Aspects (MSc), 2011, 2012, 2013, SSE, course manager
Finance (summer school), 2010, LSE, TA
Introduction to Econometrics, 2009-2010, LSE, TA
Microeconomics (undergraduate), 2009, LSE, marking for the external program
Microeconomic Principles II, 2008-2009, LSE, TA
Corporate Finance (undergraduate), 2008, LSE, marking for the external program
Microeconomic Principles II, 2007-2008, LSE, TA
Mathematics for Economists I + II (undergraduate), 2004 - 2005, U Bonn, TA

Supervision:
BSc Theses, 2010- , SSE
MSc Theses, 2010- , SSE

3rd place, Thesis award, The Financial Sector Union of Sweden, 2012, Patrik Kvistrum; Hjalmar Kågerman, "Labor Bargaining Power and Capital Structure: A Study of the Impact of Labor Bargaining Power on Financial Leverage in Sweden"

Other School Service:
Co-organizer of seminar series, 2014 –
Organizer of PhD Course "Topics in Corporate Finance", 2016
Organizer of PhD Mini Course "Text Mining", 2015
Organizer of SIFR Workshop "CEOs, Boards, and other High Potentials", 2013
MSc Finance Admission, SSE, 2012, 2013, 2014, 2015
The Business Committee Case Competition, Academic jury member, SSE, 2011, 2012