# Annual Report

2011

## Centre for Finance University of Gothenburg





## **Annual Report 2011**

## Centre for finance

University of Gothenburg

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#### Information for

#### Research 2011 - Annual Report

Centre for Finance research catalogue

University of Gothenburg, Dec 21 2011

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1. Economic Research at CFF 2011

Martin skriver en trevlig text

#### 2. Published works during 2011

#### Alexander Herbertsson

Pricing basket default swaps in a tractable shot-noise model <u>Statistics and Probability Letters</u>, 81(8), 1196-1207, 2011 (with Jiwook Jang and Thorsten Schmidt)

Modelling default contagion using Multivariate Phase-Type distributions <u>Review of Derivatives Research</u>, 14(1), 1-36, 2011

Markov chain models of portfolio credit risk Chapter 10 in <u>Oxford Handbook of Credit Derivatives</u>, A. Lipton and A. Rennie (eds), <u>Oxford University Press</u>, 2011 (with Tomasz R. Bielecki and Stéphane Crépey)

#### Jianhua Zhang

"Interactive Mechanism between Resource-based Enterprise Community and Regional Economic Development", *R&D Management, Shanghai Fudan University*, 2011, Volume 23, No. 5, 81-91. (with Qing Zhang).

#### Taylan Mavruk

Local bias dynamics and the risk adjusted portfolio return, *International Journal of Banking, Accounting and Finance* 3, 91-113, 2011.

#### Stefan Sjögren

Productivity for Airline Carriers and its Relation to Deregulation, Privatisation and Membership in Strategic Alliances,. *Transportation Research Part E: Logistics and Transportation Review*, Vol 47, No2. (with Magnus Söderberg)

#### Tommy Gärling

Heuristics and biases making people rich or poor – A psychological account of stock market anomalies. In W. Brun, G. Keren, G. Kirkeboen & H. Montgomery (Eds.), *Perspectives on thinking, judging, and decision making* (pp. 146-156). Oslo: Universitetsforlaget.

#### 3. Unpublished works during 2011

#### Martin Holmén

Foreign Investors and Dual Class Shares, manuscript, Centre for Finance, University of Gothenburg.

Do Option-like Incentives Drive Bubbles? Evidence from Experimental Asset Markets (with Michael Kirchler and Daniel Kleinlercher)

Do antitakeover devices affect the takeover likelihood or the takeover premium? (with Eugene Nivorozhkin and Rakesh Rana)

#### Alexander Herbertsson

Dynamic Modeling of Portfolio Credit Risk with Common Shocks, (2011) <u>submitted</u> <u>to a journal</u> (with Tomasz R. Bielecki, Areski Cousin and Stéphane Crépey), working paper, Centre for Finance, University of Gothenburg.

#### Jianhua Zhang

"How to Avoid Compensating CEO for Luck: The Case of Macroeconomic Fluctuations", in Thomas, R and J. Hill (eds.), *Research Handbook on Executive Pay*. London: Edgar Elgars Publishing, Forthcoming. (with Lars Oxelheim and Clas Wihlborg).

#### Oege Dijk

Expenditure Cascades, working paper, Cornell University.

#### Taylan Mavruk

Individual Investors and local bias in different stock markets, manuscript, Centre for Finance, University of Gothenburg (with Ted Lindblom and Stefan Sjögren).

On the contribution of innovation to the future consumption, manuscript, Centre for Finance, University of Gothenburg (with Stefan Sjögren, Tamir Agmon, and Shubhashis Gangopadhyay).

Keeping it real or keeping it simple? Distributional properties of ownership concentration measures, manuscript, Centre for Finance, University of Gothenburg (with Conny Overland and Stefan Sjögren).

Investment allocation decisions, home bias and the mandatory IFRS adoption, manuscript, Centre for Finance, University of Gothenburg (with Mattias Hamberg and Stefan Sjögren).

Do Ownership Concentration and Executive Compensation Exacerbate Managerial Myopia? manuscript, Centre for Finance, University of Gothenburg.

#### Stefan Sjögren

Savings and Innovation in the US Capital market: Defined Benefit Plans and Venture Capital Funds. Forthcoming; Book chapter C-LEAF. (with Tamir Agmon, Shubhashis Gangopadhyay)

Why are Venture Capital Funds Necessary for Promoting Innovation in Monopolistic Markets? Working paper (with Tamir Agmon, Shubhashis Gangopadhyay)

The Economics of Platforms. Working paper; (Shubhashis Gangopadhyay)

Individual Investors and local bias in different stock markets. Working paper. (with Taylan Mavruk, Ted Lindblom)

Investment allocation decisions, home bias and the mandatory IFRS adoption. Working paper (Mattias Hamberg, Taylan Mavruk)

Keeping it real or keeping it simple? Distributional properties of ownership concentration measures. Working paper (with Conny Overland, Taylan Mavruk)

The Management of Foreign Exchange Exposures, (with Göran Bergendahl):

#### Einar Bakke

Public Information and IPO Underpricing, manuscript, Center For Finance, University of Gothenburg

"Cold" IPOs or Hidden Gems? On the medium-run performance of IPOs, manuscript, Center For Finance, University of Gothenburg

#### Tommy Gärling

Preferences for short-term versus long-term bonuses to stock investors. *Journal of Socio-Economics* (in press) (with Anders Biel, Maria Andersson, and Martin Hedesström)

Near-sighted versus far-sighted stock portfolio construction, manuscript, Department of Psychology, University of Gothenburg (with Anders Biel, Maria Andersson, and Martin Hedesström)

Detrimental performance effects of stock investors' short-term bonuses, manuscript, Department of Psychology, University of Gothenburg (with Anders Biel, Maria Andersson, and Martin Hedesström)

Effects on stock investments of short versus long evaluation intervals, manuscript, Department of Psychology, University of Gothenburg (with Anders Biel, Maria Andersson, and Martin Hedesström)

Belief and trust in stock investor skill, manuscript, Center for Finance, University of Gothenburg (with Anders Carlander, Amelie Gamble, Martin Holmen, and Daniel Petersson)

## 4. Presentations at scientific conferences, symposiums, workshops etc, 2011

#### Martin Holmén

3<sup>rd</sup> Workshop of the Nordic Corporate Governance Network, Helsinki, May 5-6, 2011.

Paper: Foreign Investors and Dual Class Shares

5<sup>th</sup> Workshop on Financial Markets & Risk, Obergurgl, Austria, April 15-16, 2011. Paper: Foreign Investors and Dual Class Shares

2<sup>nd</sup> Experimental Finance Symposium, Innsbruck, Austria, September 22-24, 2011. Paper: Do Option-like Incentives Drive Bubbles? Evidence from Experimental Asset Markets

#### Alexander Herbertsson

Vinnova Workshop on Basel III, CFF, May 26 2011, Göteborg, Sweden

The 2011 INFORMS Applied Probability Society Conference, July 4-10, Stockholm, Sweden

Markov & semi-Markov Processes & Related Fields 2011, September 20-23, 2011, Thessaloniki, Greece (invited speaker to the session "Credit Risk")

Applied Mathematics Colloquia, Department of Applied Mathematics, Illinois Institute of Technology, Chicago, USA, October 24, 2011 (invited speaker)

Séminaire Bachelier, Institut Henri Poincaré, Paris, France, November 4, 2011, (invited speaker)

Financial Mathematics Seminar, Department of Mathematics, Université d'Evry, Paris, France, November 10, 2011 (invited speaker)

#### Jianhua Zhang

"Executive Compensation and Corporate Governance Conference", Genoa, March 12, 2011.

Lunch seminar at the Department of Economics, University of Gothenburg, May 13, 2011.

#### Oege Dijk

Florence Workshop on Behavioural and Experimental Economics, Florence, Italy

5<sup>th</sup> Workshop on Financial Markets & Risk, Obergurgl, Austria, April 15-16, 2011

#### Taylan Mavruk

The 13<sup>th</sup> Annual SNEE European Integration Conference, Mölle, Sweden May 17-20, 2011.

Paper: Do Ownership Concentration and Executive Compensation Exacerbate Managerial Myopia?

#### Stefan Sjögren

Mölle 2011, The 13th Annual SNEE European Integration Conference Paper: The Effects of Changed Policies and Regimes within European Financial Markets on MNCs' Foreign Exchange Exposure Management

9th INFINITI Conference on International Finance 13-14 June 2011, Dublin, Ireland. Paper: The Management of Foreign Exchange Exposure.

SIFR, 13<sup>th</sup> Oct, Seminar. Paper: Market for Ideas.

#### Einar Bakke

European Finance Association, Stockholm August 17-21, 2011 Paper: Public Information and IPO Underpricing

Northern Finance Association, Vancouver September 16-18, 2011 Paper: Public Information and IPO Underpricing (Won Best Paper Award)

#### Tommy Gärling

Andersson, M., Gärling, T., Hedesström, M., & Biel, A. (2011, September). *Detrimental effects of short-term bonuses to stock investors*. Paper presented at the 2nd conference on experimental finance, University of Innbruck, Austria.

Andersson, M, Gärling, T., Hedesström, M., & Biel, A. (2011, April). *Effects on stock investments of short versus long evaluation intervals*. Paper presented in the conference Behavioural finance and economic psychology: Recent developments, Cass Business School, City University of London, UK.

Gärling, T. (2011, April). Behavioral impediments to efficient stock investments. Keynote address in the conference *Behavioural finance and economic psychology: Recent developments* organized by G. Muradoglu & N. Harvey at Cass Business School, City University of London, UK.

Gärling, T., Andersson, M., Hedesström, M., & Biel, A. (2011, July). *Performance in stock markets related to amount of price information*. Paper presented at the 37th annual conference of the International Association of Research in Economic Psychology (IAREP) and Society for the Advancement of Behavioral Economics (SABE), University of Exeter, UK.

Gärling, T., Carlander, A., Gamble, A., Peterson, D., & Holmen, M. (2011, September). *Trust in financial institutions as reduction of uncertainty in consumers*'

*choice of long-term savings options*. Invited paper presented in the workshop "Expectations and forecasting in consumer behavior", University of Cologne, Germany.

#### 5. Presentations outside academia 2011

#### Martin Holmén

Volvo AB Financial Management, Rossared, April 13, 2011.

Topic: Behavioral Finance

#### Einar Bakke

Donatorernas Dag, Handelshögskolan vid GU, November 23, 2011.

Topic: Entrepreneurial Finance

#### 6. Present research projects

#### Martin Holmén

The 2-20 Rule and the Behavior of Experimental Asset Markets, with Michael Kirchler and Daniel Kleinlercher

We experimentally explore the behavior of asset markets when traders' compensation structure resembles the 2-20 rule common in the hedge fund industry, i.e. the hedge fund managers' compensation is equal to 2 percent of the portfolio value plus 20 percent of the profits above a certain benchmark. The subjects trade two assets with different risk characteristics for up to 15 periods. Every third period funds are transferred from low performers to high performers. At the end of the market, the subjects receive 2 percent of their portfolio value and 20 percent of the profits above the expected return on a buy and hold portfolio.

Charity Incentives, with Oege Dijk

We experimentally investigate whether positive affect for an owner (either due to charity foundational ownership or corporate social responsibility) affects principal-agent contracting. Preliminary evidence suggests higher returns for positive affect principals due to increased trust, credibility and reciprocity.

Anticipation of Takeover Transactions by Shifts in the Correlations: Evidence from the U.S. Takeover Market, with Vahid Irani and Johan Stennek

By looking at stock market returns prayious studies document that the market is able to

By looking at stock market returns previous studies document that the market is able to predict the takeover targets but not the acquirer. We take another approach and look at the correlation between target and acquirer stock market returns. In 84 percent of the acquisitions in our sample there is a break in the mean of correlations between the target and the acquirer daily stock returns. On average the break occurs 54 trading days *before* the announcement. Thus, our preliminary results suggest that the market indeed *anticipates* the pair-firms in bid offers.

Corporate Governance in the Nordic Countries (with Tom Berglund and Steen Thomsen)

This project is about how Nordic corporate governance rules and practices affect corporate behaviour and efficiency. The project has three objectives. The first objective is to analyze the differences in the corporate governance codes that have been introduced in Nordic countries since the turn of the millennium and whether the differences have observable consequences and economic relevance. The second objective is to analyze the typical corporate control structures in the Nordic countries and whether the differences have observable consequences and economic relevance. In Denmark and Sweden several large public firms are ultimately controlled by foundations. In Norway the state has a more dominant ownership role in public corporations than in the other countries. Finland does not have a typical ownership type of public corporations. The third objective is to study the interaction of social capital and social democracy, respectively, and formal institutions. The World Bank's general governance scores put the Nordic countries as best in the world. At the same time, Nordic corporations generally receive low scores in international corporate governance indices such as the Corporate Governance Quotient (CGQ). It appears as if the international corporate governance indices fail to take the value of social norms into account.

Asset and Liability Management in Swedish Counties and Municipalities (with Bengt Pramborg)

We survey the financial management and risk strategies within the public sector. The survey was sent to all Swedish counties (21) and municipalities (289). 14 of the counties (67 percent) and 70 of the municipalities (31 percent) responded. The responses suggest that i) all counties and municipalities are more or less underfinanced, ii) the main objective is the real rate of the return, iii) relative performance measure are not frequently used, iv) typically relatively simple risk measures are used, and v) stress testing and probability measures are never used.

#### Alexander Herbertsson

**Project 1:** "Pricing CDS index options in a nonlinear filtering model" jointly with Prof. Rüdiger Frey (Leipzig and Vienna).

<u>Project 2:</u> "Rating asset backed securities using intensity based models" jointly with Prof. Wim Schoutens (Leuven/Belgium) and Dr. Henrik Jönsson (Task Force on Financial Crisis, European Commission's Joint Research Centre, Italy)

<u>Project 3:</u> "Numerical studies of a Dynamic Credit Portfolio Model with Common shocks", joint with Prof. Tomasz R. Bielecki (Chicago), Assoc. Prof. Areski Cousin (Lyon) and Prof. Stéphane Crépey (Paris)

**Project 4:** "Counterparty Risk on Interest Rate Derivatives in a Multiple Curve Setup", joint with Stéphane Crépey (Paris) and Zorana Grbac (Paris)

*Comments:* Project 1-3 are all in a final stage, while project 4 has just started.

#### Jianhua Zhang

"Exchange Rate and Macroeconomic Fluctuations as Sources of Luck in CEO Compensation", with Hsinhui Chiu, Lars Oxelheim, and Clas Wihlborg. External funding: VINNOVA (20%)

Exchange rate and other macroeconomic fluctuations can be considered sources of luck for corporate performance but the effect on performance depends also on the corporation's ability to anticipate and respond to macroeconomic events. Incentive effects of performance-based compensation schemes for management may be weakened or biased by macroeconomic influences on remuneration. We analyze the impact of macroeconomic, industry and firm-specific factors on the compensation of US CEOs using data from 1993 through 2007. We also ask whether remuneration is more responsive to favorable or to unfavorable developments in macroeconomic variables.

"Dividend Policy and Market Segmentation in China", with Yun Feng
This paper investigates the effects of the Chinese firm's dividend policy on the
price differences between the firm's A and B shares in the period 1992-2009, as
well as the two sub periods, 1992-2000, and 2001-2009. The empirical results
indicate that cash dividends and stock dividends have different impacts on the price
differences between the two classes of shares in the different periods when the
investment restrictions for the domestic and foreign investors were gradually
relaxed in this emerging financial market.

#### Oege Dijk

Charity Incentives, with Martin Holmen

We experimentally investigate whether positive affect for an owner (either due to charity foundational ownership or corporate social responsibility) affects principalagent contracting. We find higher returns for positive affect principals due to increased trust, credibility and reciprocity.

Peeking inside a traders head, with Michael Kirchler

With a novel incentive compatible revealed reasoning methodology we investigate stock market bubbles in the laboratory. We show that when reasoning based on past price movements dominate, price bubbles can form.

#### Taylan Mavruk

Individual Investors and local bias in different stock markets

We know from earlier research that investors are prone to local bias and the reason for this bias is either information advantage or familiarity attributes. We explore these reasons and contribute to the previous local bias literature by studying local bias among different investor types, in different stock markets, in different regions and over time.

Financed by: Vinnova 2011-

On the contribution of innovation to the future consumption

In this paper we examine the effect of innovation on consumption goods by studying

the proportion of products that did not exist in the past and to what extent innovation made expenditure goods cheaper.

Financed by: Vinnova 2011-

Keeping it real or keeping it simple? Distributional properties of ownership concentration measures

Based on a sample of 240 Swedish firms listed at the Stockholm Stock Exchange as of December 31, 2008, we analyze measures of ownership concentration found in past governance literature. We find that although measures are significantly correlated, they show different distributional properties. Further, we find the best underlying distribution for each concentration measure and document that inferences regarding the association between ownership concentration and firm performance are contingent on the choice of concentration measure.

Financed by: Vinnova 2010-

Investment allocation decisions, home bias and the mandatory IFRS adoption After the mandatory adoption of IFRS foreign ownership of capital rights and owners of Swedish firms has increased. The increase is driven by investors from countries that adopted IFRS and particularly those from the EU. As Sweden essentially had adopted IFRS prior to 2005 positive effects are likely to stem from an improved ability to compare firms across Europe. These effects are particularly strong in small firms. Decomposition for investor type reveals that foreign institutional investors increased their ownership stake after the mandatory IFRS adoption, whereas foreign non-institutional investments were not affected significantly by the IFRS adoption.

Financed by: Handelsbankernas forskningsstiftelserna 2009-2010

Do Ownership Concentration and Executive Compensation Exacerbate Managerial Myopia?

There exists a large number of research on ownership structure and managerial compensation and their consequences for shareholder value maximization. However, academic research has been less concerned with analysis of explanatory factors for managerial myopia over time, different markets and firms. Using data from Euroclear Sweden, SIS Ownership Service, and Nordic Investor Services, this paper relates ownership concentration and executive compensation to the depreciation rate of firms' capital stock. Results suggest that the average investment length increases by 7 months for an additional increase by 10 percentage points in the average ownership concentration.

Financed by: Mistra 2009-2010

#### Stefan Sjögren

Market for ideas

In this research programme we ask questions as how government can speed up the adoption, and commercialization of revolutionary ideas? What role does venture capital play to spur growth? Which legal frames or product market conditions affect the valuation of innovations? How to price applications in a platform market? Our research program is a constellation of researchers with backgrounds in economics; finance, business, and law with the aim at taking the advantage of the research structure at the School of Business, Economics and Law at Gothenburg University.

#### Einar Bakke

Financing Innovation, Should you bet the Chef or the Recipe? Utilizing a Nordic Data Set of Venture Capital Exits we examine whether the technology (patent) or the technologists (the know how) is adding more value to a start-up company when exited. We are also interested in investors rent extraction and will also try to examine the use of angel financing.

*IPOs and Over-The-Counter Markets*, This research project examines the connection between the Norwegian OTC (NOTC) market and firms listing on the Oslo Stock Exchange (OSE). About half of companies listing on the OSE have been listed and traded on the NOTC for more then 3 months prior to listing on the regulated market. This raises several questions with regards to differences between listing on an Unregulated vs. Regulated market, as well as difference in IPO offer prices.

#### Tommy Gärling

Impact of incentive system and monitoring frequency on portfolio managers' investment decisions

The project aims to explore how changes in how portfolio managers are incentivised and monitored are likely to affect their investment decisions. Counteracting short-termism within the finance sector is believed to facilitate for companies to manage their practices in a way reconcilable with sustainable development. Empirical evidence of whether prolonged monitoring intervals affect investment decisions is however largely lacking. We address this question experimentally, applying insights from psychological decision making research. Specifically, our aim is to investigate how the extent to which information about companies' environmental performance is taken into account in investment decisions is affected by investment horizon, frequency of monitoring, size of performance-related rewards/punishments, the introduction of a "green bonus" parallel with conventional performance-related rewards.

Funded by Mistra

#### 7. Other research related activities

#### Alexander Herbertsson

Reviewer for the following journals; Journal of Banking and Finance, SIAM Journal on Financial Mathematics, Journal of Credit risk, Mathematical Finance

Member of the scientific committee for the conference *Long Term Risks*, Paris, March 10-11, 2011

External evaluator of a PhD-project for the Austrian Academy of Sciences, August-September 2011

#### Research visits:

<u>19-27 October (one week):</u> Department of Applied Mathematics, Illinois Institute of Technology, Chicago, USA, visiting Prof. Tomasz R. Bielecki <u>3-25 November (three weeks):</u> Department of Mathematics, Université d'Evry,

Paris, France, visiting Prof. Stéphane Crépey

Researchers visiting the Centre for Finance in Göteborg:

**11-22 July:** Prof. Stéphane Crépey from Department of Mathematics, Université d'Evry, Paris, France

**18-22 July:** Prof. Tomasz R. Bielecki from Department of Applied Mathematics, Illinois Institute of Technology, Chicago, USA,

#### Stefan Sjögren

Supervision of PhD-project.