Annual Report

2016

Centre for Finance
University of Gothenburg

GÖTEBORGS UNIVERSITET

VINNOVA

RESEARCH AND INNOVATION

FOR SUSTAINABLE GROWTH

Annual Report 2016

Centre for Finance

University of Gothenburg

Visiting address:
Vasagatan 1, D5

Postal address:
Box 640
405 30 Göteborg, Sweden

Tel: +46-31-786 52 40
Fax: +46-31-786 51 14
cff@handels.gu.se
www.cff.handels.gu.se

Research 2016 – Annual Report

Centre for Finance research catalogue

University of Gothenburg, February 2016

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1. Research at CFF

1.1. Mission and Vision

In 2010 the Centre for Finance (CFF) received a grant from VINNOVA to establish one of Sweden's three new research centers within finance. The Centre is also financed by the business community, the University of Gothenburg and the School of Business, Economics and Law.

CFF's mission is to contribute to a sustainable financial system through:

- Excellent research focusing on financial intermediation, specifically the interaction between financial institutions and business/households.
- An open and creative interdisciplinary research environment.
- Close interaction with practitioners, education and society at large.

CFF's vision is to advance the understanding and practice of financial intermediation and to be the leading Nordic research center in this field, with expertise in great demand. It is also to be a highly regarded and exciting arena for collaboration among researchers, students, financial practitioners and policy makers.

1.2. Highlights 2016

During 2016 several CFF researchers had papers accepted for publication in top-journals such as Review of Financial Studies, Journal of Financial and Quantitative Analysis, Journal of Financial Intermediation, and Journal of Corporate Finance. See section 2 for a complete list.

CFF researcher Anders Carlander received a grant from the highly competitive Swedish Research Council (Vetenskapsrådet) for an application with the title "Trust instead of uncertainty" (Tillit istället för osäkerhet). Viktor Elliot secured a research grant from the Handelsbanken Foundations.

CFF organized two conferences together with stakeholders. Together with the Second Swedish National Pension Fund (AP2) the conference "Return Predictability" was run June 7. Speakers were e.g. Tim Bollerslev from Duke University and Ian Martin from London School of Economics. November 11 we ran a conference together with SKF and Volvo on Enterprise Risk Management (ERM). Keynote speaker was Professor Mark Beasley from North Carolina State University.

We also organized a workshop together with the Knut Wicksell Center in Lund. Junior researchers and PhD students presented ongoing work and researchers from the other center acted as discussant.

In June, Professor Anjan Thakor, member of CFF's International Scientific Advisory Board, gave a PhD course with the title Lectures in Theoretical Banking. PhD students from the Nordic countries and one from South-Africa followed the course. A fund-manager from AP2 also followed the course.

Our job-market candidate, Reda Moursli, did well on the international job market and he now holds an assistant professorship and Wesleyan University in Connecticut.

2. Published works during 2016

Journal articles

Bakke, E., T. Leite, and K. Thorburn. Partial Adjustment to Public Information in the Pricing of IPOs, ***Journal of Financial Intermediation,*** Forthcoming.

Benos, E., J. Brugler, E. Hjalmarsson, and F. Zikes. Interactions among High-Frequency Traders. ***Journal of Financial and Quantitative Analysis***, Forthcoming.

Berglund, T. and M. Holmen. Employees on Corporate Boards. ***Multinational Finance Journal,*** Forthcoming.

Dahlquist, M., A. Farago, and R. Tedongap. Asymmetries and Portfolio Choice. ***Review of Financial Studies,*** Forthcoming

Elliot, V. H. 2016. Institutional entrepreneurship and change: A contemporary history of the Swedish banking industry and its performance management systems. ***Journal of Accounting & Organizational Change*** 12(2), 223-251.

Fang, D. Dry Powder and Short Fuses: Private Equity Funds in Emerging Markets. ***Journal of Corporate Finance***, Forthcoming.

Fang, D., M. Holmen, M. Kirchler, and D. Kleinlercher. How Tournament Incentives Affect Asset Markets: A Comparison Between Winner-Take-All Tournaments and Elimination Contests. ***Journal of Economic Dynamics and Control,*** Forthcoming.

Gärling, T., M. Andersson, T. M. Hedesström, and A. Biel. An experimental study of influences of performance-related payments on timing of delegated stock purchases. ***Journal of Behavioral Finance*** Forthcoming.

Gärling, T., M. Blomman, and T. A. Carle. Affect account of the disposition effect and consequences for stock prices. ***Review of Behavioral Finance*** Forthcoming

Hauff Carlsson, J., A. Carlander, A. Gamble, T. Gärling, and M. Holmén. 2016. Breaking the ice of low involvement: Does narrative information format from a trusted sender increase savings in mutual funds? ***International Journal of Bank Marketing*** 34, 151-170.

Lindblom, T., T. Mavruk, and S. Sjögren. East or West, Home is Best: The Birthplace Bias of Individual Investors. ***Journal of Banking and Finance***, Forthcoming.

Lundqvist, S.A. and A. Vilhelmsson. Enterprise Risk Management and Default Risk: Evidence from the Banking Industry. ***Journal of Risk and Insurance,*** Forthcoming.

Mavruk, T. and H. N. Seyhun. 2016. Do SEC’s 10b5-1 Safe Harbor Rules Need to Be Rewritten? ***Columbia Business Law Review***, 133—183.

Book chapters

Elliot, V. and Lindblom, T. 2016. Basel III. Liquidity Risk and Regulatory Arbitrage. In Carbó-Valverde, S., P.J. Cuadros-Salas and F. Rodriguez-Fernádez (Eds.) *Liquidity Risk, Efficiencey and New Bank Business Models,* Palgrave Macmillan Studies in Banking and Financial Institutions, Springer Nature.

3. Presentations at scientific conferences, symposiums, workshops etc, 2016

Fang, D. Max Planck Institute for Tax and Public Finance, Munich, May 31-June 1.
Paper: *Skewing the Odds: Taking Risks for Rank-Based Rewards*

Fang, D. Financial Management Association Annual Meeting, Las Vegas, Oct 19-22.
Paper: *Skewing the Odds: Taking Risks for Rank-Based Rewards*

Fang, D. European Financial Management Association Annual Meeting, Basel, June 29-July 2.
Paper: *How tournament incentives affect asset markets: A comparison between winner-take-all tournaments and elimination contests*

Fang, D. Finance Seminar, Lancaster University Management School, Lancaster, Dec 7.
Paper: *How tournament incentives affect asset markets: A comparison between winner-take-all tournaments and elimination contests*

Fang, D. Brown Bag Lecture, Chapman University, Orange City, Oct 17.
Paper: *Selection Contests are Always Clubby*

Farago, A. 43rd European Finance Association (EFA) Annual Meeting, Oslo, August 17-20.
Paper: *Asymmetries and Portfolio Choice*

Gärling, T. Research in behavioral finance conference (RBFC), Free University of Amsterdam, September.
Paper: *Buy and sell preferences in financial markets: Laboratory experiments investigating influences of anticipatory and anticipated emotions*.

Gärling, T. 42th annual conference of the International Association of Research in Economic Psychology (IAREP) and Society for the Advancement of Behavioral Economics (SABE), Wageningen University, July.
Paper: *From desire to despair: Scarcity mindset and young adults' borrowing to purchases of consumer products*.

Herbertsson, A. 9th World Congress of the Bachelier Finance Society, New York, July.
Paper: *CVA of CDS contracts in contagion models*

Hjalmarsson, E. Microstructure of Foreign Exchange Markets, University of Cambridge, May.
Paper: *The Need for Speed: Minimum Quote Life Rules and Algorithmic Trading*

Hjalmarsson, E. Southampton Finance and Econometrics Workshop, University of Southampton, May.
Paper: *Stock-price co-movement and the foundations of pairs trading*

Hjalmarsson, E. Stockholm Business School, October.
Paper: *The Need for Speed: Minimum Quote Life Rules and Algorithmic Trading*

Hjalmarsson, E. Lund University, April.

Paper: *Stock-price co-movement and the foundations of pairs trading*

Holmen, M. Financial Intermediation Research Society Annual Meeting, Lisbon, June 2-4.
Paper: *How tournament incentives affect asset markets: A comparison between winner-take-all tournaments and elimination contests*

Lindblom, T. European Association of Teachers of Banking and Finance annual conference, Wolpertinger Verona, August 31 -September 3.
Paper: *The Swedish Mortgage Market – Funding and Bank Margins*

Lundqvist, L. Enterprise Risk Management Seminar, Gothenburg, November 11.
Paper: *Enterprise Risk Management in Nordic Firms: Incentives and Practices.*

Mavruk, T. World Finance Conference, St Johns University, New York, USA,
July, 29-31.
Paper: *Keeping it real or keeping it simple? Ownership concentration measures compared.*

Mavruk, T. Stockholm Business School, September 26.
Paper: *Printed news is the old news: The role of local media in local trading activity and local stock returns.*

Mavruk, T. Swedish House of Finance, October 26.
Paper: *Printed news is the old news: The role of local media in local trading activity and local stock returns.*

Mavruk, T. Conference in Behavioral Economics and Financial Literacy, UOC Universitat Oberta de Catalunya, Barcelona, November 28-29.
Paper: *Printed news is the old news: The role of local media in local trading activity and local stock returns.*

Zamojski, M., SoFiE: Financial Econometrics and Empirical Asset Pricing Conference, Lancaster, June 30-July 1.
Paper: *Filtering with Confidence: In-sample Confidence Bands for GARCH Filters*

4. New Working Papers 2016

Basu, A., V. Elliot, T. Lindblom, L.-G.Malmberg, and J. Woxenius. 2016. Different Perspectives on Supply Chain Finance – In search of a holistic approach. Manuscript School of Business, Economics & Law, and Centre for Finance, University of Gothenburg.

Elliot, V. and T. Lindblom. 2016. *The Swedish Mortgage Market – Bank Funding, Margins and Risk Shifting*. Manuscript, Centre for Finance, University of Gothenburg.

Elliot, V. and N. Kostitcyna. 2016. *Bank risk shifting, covered bond spreads and abnormal returns.* Manuscript, Centre for Finance, University of Gothenburg.

Elliot, V., J. Marton, A.-K. Stockenstrand, R. Söderström, and P. Öhman. 2016. *When best practice isn't good enough - debating developments in Swedish financial regulation and supervision.* Manuscript School of Business, Economics & Law, and Centre for Finance, University of Gothenburg.

Fang, D. and T. Noe. 2016. Selection Contests are Always Clubby. Manuscript, Centre for Finance, University of Gothenburg.

Farago, A., and E. Hjamarsson. 2016. Stock price co-movement and the foundations of pairs trading. Manuscript, Centre for Finance, University of Gothenburg.

Gärling, T., A. Gamble, V. Klass, and D. Duxbury. 2016. Review, Conceptual Analysis, and Account of Emotions in Financial Markets. Manuscript, Department of Psychology and Centre for Finance, University of Gothenburg.

Herbertsson, A. and R. Frey. 2016. CDS index options under incomplete information. Manuscript, Centre for Finance, University of Gothenburg.

Hjamarsson, E. 2016. Maximal predictability under long-term mean reversion. Manuscript, Centre for Finance, University of Gothenburg.

Kajonius, J. P. and A. Carlander. 2016. Who gets ahead: Personality as a determinant for economic success? Manuscript, Department of Psychology and Centre for Finance, University of Gothenburg

Lundqvist, S.A. and Vilhelmsson, A., 2016. Operationalizing Enterprise Risk Management. Manuscript, Centre for Finance, University of Gothenburg

Lundqvist, L. 2016. Enterprise Risk Management: Incentives and Practices in Nordic Firms. Manuscript, Centre for Finance, University of Gothenburg

Mavruk, T. 2016. Printed news is the old news: The role of local media in local trading activity and local stock returns. Manuscript, Centre for Finance, University of Gothenburg.

5. Ongoing research projects

Over-indebtedness among young adults (*Anders Carlander, Viktor Elliot, Amelie Gamble, Tommy Gärling, Jeanette Hauff, Ted Lindblom, Jonas Nilsson)*
We investigate the economic and physiological problems related to over-indebtedness among young adults. The project focuses on three levels; the regulatory tools to mitigate over-indebtedness and its implications, the relationship between the supply-side actors and borrowers and the implications of over-indebtedness at an individual level.

Cross-national comparison and modeling of financial literacy *(Anders Carlander, Tommy Gärling, Jeanette Hauff, Gianni Nicolini)*
We are part of a large research project investigating financial literacy, how it can be modeled using psychometrics (IRT), and how it relates to the financial savings behavior of private investors.

Trust instead of uncertainty (*Anders Carlander and Lars-Olof Johansson*)
We investigate how trust in financial advisers and perceived risk in a stock portfolio varies over time. We also compare perceived risk in portfolios depending on how the portfolio was constructed (active management, mean, value, random).

Supply Chain Finance: New roles for the logistics and transport industry (*Viktor Elliot, Ted Lindblom, Abhinayan Basu, Lars-Göran Malmberg, Trisha Rajput, and Johan Woxenius*)
Supply chains are obviously not stronger than their weakest link and thus supply chain efficiency needs to be studied from a holistic systems perspective in order to create visibility for the transport sector to purposefully meet the competitive and environmental challenges faced. This project is part of a broader research effort at the School of Business, Economics and Law (SBEL) at the University of Gothenburg, which adopts such a holistic systems perspective within the framework of supply chain finance (SCF). The project aims to contribute to the political transport goals by analyzing and developing new and innovative systems and procedures for integrating flows along supply chains. In particular, the project brings together logistics, finance and law to address the functionality goal at a business level by focusing on platforms for electronic information sharing as a means for increased supply chain efficiency.

Funds Transfer Pricing in Banks under Different Market Structures (*Viktor Elliot and Ted Lindblom*)
Funds transfer pricing (FTP) is widely acknowledged as an important part of banks' asset and liability management (ALM). This paper develops existing FTP-theory also to cover the case of kinked demand and supply curves on oligopolistic and oligopsonistic competition, respectively.

Regulatory Arbitrage *(Viktor Elliot and Magnus Willesson)*
The project analysis how recent bank regulations affect bank behavior and specifically focus on areas where banks act opportunistically by exploiting regulatory discrepancies to gain arbitrage.

Skewing the Odds: Taking Risks for Rank-Based Rewards (*Dawei Fang and Thomas Noe*) Resubmit at the *Journal of Political Economy*.

In competitions for rank-based rewards, how does the structure of rewards affect risk-taking? We answer this question in a framework where, subject only to a mean-performance constraint, contestants compete for rank-based "prizes" by choosing random performance levels. We derive the unique equilibrium of this game and provide a comprehensive analysis of the relation between the equilibrium performance distribution---including modality, symmetry, tail behavior, dispersion, and skewness---and the contest structure. Increasing the real gain inequality of prizes, adding contestants, or scaling up contest size increases performance dispersion but not necessarily skewness while convexifying the prize schedule increases both dispersion and skewness.

R&D Contests, Risk-Taking Strategies, and Social Welfare (*Dawei Fang and Thomas Noe*)
We study R&D contests where firms strategically take risks that affect the speed of an innovation. We show that competition induces firms to play excessively safer strategies. Increasing the number of competing firms induces more risk-taking and benefits social welfare via both a statistical channel and a strategic channel. However, interestingly, social welfare can be higher under monopoly (no competition) than under competition. We find that monopoly leads to higher social welfare than duopoly when society is sufficiently patient or when the expected innovation speed is sufficiently low.

Comparative Statics of All-Pay Contests (*Dawei Fang, Thomas Noe, and Philipp Strack*)
We provide comprehensive comparative statics of all-pay contests with homogeneous contestants and weakly convex effort cost functions. We find that there are three factors---average prize, prize inequality, and contest size---each having an independent effect on the expected individual effort and the expected maximum effort. Particularly, both the expected individual effort and the expected maximum effort are increasing in the average prize, but the expected individual effort is decreasing in prize inequality and contest size whereas the expected maximum effort is increasing in prize inequality and contest size. These results explain why in practice, contests that aim to induce individual effort, e.g., sales contests, often have a more equal prize structure whereas contests that aim to raise the maximum effort, e.g., R&D contests, often have a winner-take-all prize structure.

Influences of Tournament Incentives on Risk-Taking and Herding (*Dawei Fang, Tommy Gärling, Martin Holmen, Patrik Michaelsen)*
Our aim is to investigate whether in financial markets incentive structures depending on social comparisons improve performance. We will also take into account the moderating role of several of the factors that are mediated by social comparisons. If a price is awarded a winner of a tournament it is generally believed that knowledge of the price induces competition that will increase effort. Garcia, Tor, and Schiff (2013) argue that self-other (social) comparisons is a mediator of competition. A number of factors influencing social comparisons will therefore have indirect effects that strengthens or weakens competition. In their review of previous research, Garcia, Tor, and Schiff (2013) identify possible such indirect effects of personal factors (social comparison orientation, competitive disposition, orientation towards performance goals), relational factors (relevance of performance dimension, similarity and closeness to competitor), and situational factors (incentive structure, access to comparison standard, number of competitors, similar or different social category, e.g. profession).

Downside Risks and the Cross-Section of Asset Returns (*Adam Farago and Romeo Tedongap*) 2nd round Revise and Resubmit at the *Journal of Financial Economics*

In an intertemporal equilibrium asset pricing model featuring disappointment aversion and changing macroeconomic uncertainty, we show that besides the market return and market volatility, three disappointment-related factors are also priced. We refer to these as the disappointment factor, the market downside factor, and the volatility downside factor. We find that expected returns on different asset classes reflect premiums for bearing undesirable exposures to these factors. The signs of estimated risk premiums are consistent with the theoretical predictions. Our most general, five-factor model is very successful in jointly pricing stock, option, and currency portfolios, and provides a considerable improvement over nested specifications previously discussed in the literature.

Disappointment Aversion, Stock Market Participation and the Demand for Put Options (*Adam Farago*)
I study the portfolio choice of an investor with asymmetric attitudes towards gains versus losses who invests in a stock, a bond and a put option. I demonstrate that a generalized disappointment-averse investor, who is loss averse around a reference point that is lower than her certainty equivalent, optimally holds long positions in put options. This resolves the puzzling finding in previous literature that a wide range of expected and non-expected utility functions fail to generate demand for put options. Moreover, I demonstrate that this investor always holds risky securities, independently of her degree of loss aversion. This is in stark contrast to previous findings on market non-participation of a sufficiently disappointment-averse investor, who is loss averse around her certainty equivalent. My results highlight that the endogenous reference point distinguishing gains and losses plays an important role in determining the optimal asset allocation.

Stock price co-movement and the foundations of pairs trading (*Adam Farago and Erik Hjalmarsson*)
We study the theoretical implications of cointegrated stock prices on the profitability of pairs trading strategies. If stock returns are fairly weakly correlated across time, cointegration implies very high Sharpe ratios. To the extent that the theoretical Sharpe ratios are "too large," this suggests that either (i) cointegration does not exist pairwise among stocks, and pairs trading profits are a result of a weaker or less stable dependency structure among stock pairs, or (ii) the serial correlation in stock returns stretches over considerably longer horizons than is usually assumed. Empirically, there is little evidence of cointegration, favoring the first explanation.

Mutual fund managers' behavior, fund performance, and risk-taking (*Adam Farago, Martin Holmen, Michael Kirchler, and Michael Razen*)
In this project we will investigate the economic preferences and decision heuristics of financial professionals through online experiments. Almost all of the finance experiments published over the past decades were conducted with student subject pools that differ from professionals in almost all crucial aspects such as age, education, income, gender, and experience. Our main goal is to close this research gap and provide reliable conclusions about financial professionals' behavior in general which both science and the finance industry can benefit from. We would like to focus on the behavior of individual mutual fund managers and relate it to fund performance and fund risk data.

Credit Value Adjustment of CDS-contracts in contagion models (*Alexander Herbertsson)*
We study unilateral CVA in a CDS contract in the contagion model of Herbertsson (2008b), Herbertsson (2008a). In this model there are m obligors interconnected in a network (where m can be very large) creating default contagion by letting the individual intensities jump when

other defaults occur in the network. The investor A in a CDS contract buys protection from B on potential credit losses due to a default on obligor C. The seller of CDS-protection B and the underlying entity C are both belonging to the interconnected network and are both thus affected by default of other obligors in the network, as well as each other, which will imply a very strong wrong way risk in the CDS contract seen from the buyers A's point of view. Since the default contagion is modeled by letting individual intensities jump when other defaults occur, but be constant between defaults, the model can be translated into a Markov jump process which represents the default status in the credit portfolio. As in the previous papers, Herbertsson (2008b), Herbertsson (2008a), matrix-analytic methods are used to derive compact, computationally tractable closed-form expressions for the quantities involved in the CVA expression. These CVA expressions needs numerical integration which is very quick, and no Monte-Carlo simulations are required to find the CVA values. In this model we then perform several numerical investigations. For example, for fixed CDS and FtD spreads calibrated to the model, we study the interconnectnes/systemic risk impact on the CVA value (i.e dependence of m) and show that in the calibrated model the CVA value can increase several hundred percent with only moderate increases in the size of m. Several other numerical investigations are performed, such as sensitive studies of the CVA value with respect to CDS and FtD spread, recovery rates, and other parameters. No Monte-Carlo simulations are required. We also study the CVA of CDS when calibrated to historical iTraxx CDO data and show drastically increasing CVA values comparing pre and post 2008-crises data.

The Need for Speed: Minimum Quote Life Rules and Algorithmic Trading (*Erik Hjalmarsson, Alain Chaboud and Clara Vega*)
We study the impact of a 250 millisecond minimum-quote-life (MQL) rule in the euro-dollar currency pair. The MQL rule appears to have caused a decrease in depth in the market, while average bid-ask spreads were mostly unaffected. Consistent with the recent theoretical literature on HFT, we find that "slow" traders pay a premium when they transact with better informed high-frequency traders, and that these costs declined after the MQL rule was implemented. The lack of impact on average spreads is, at least partly, explained by the resulting re-distribution of trading costs between fast and slow traders. Finally, the MQL rule also seems to have caused a decrease in trading volume on the EBS trading platform, suggesting that some market participants may have moved to other trading venues without MQL rules.

Behavioral determinants of financial professionals (*Martin Holmen, Felix Holzmeister, Michael Kirchler, and Erik Wengström*)
This project will combine experimental data (via online experiments) on financial professionals' risk and time-preferences, moral and cheating behavior, competitiveness, and social status concerns, with individual biographic and socioeconomic background data such as family descent, education, income/wealth, cognitive and non-cognitive abilities. In particular we ask the questions about drivers of successful careers in finance and about the differences in economic preferences and behavior between financial professionals and other industries (including general population). Moreover, we ask to what extent higher salaries and higher levels in the financial hierarchy are driven by personal traits, by family descent, by economic preferences and by the (relative) absence of behavioral biases and dishonest behavior? Finally, we will explore to what extent and why the general public generally delegates financial decisions and how finance professional behave when they decide how to allocate other peoples' money.

Individual investor's portfolio choice (*Ted Lindblom, Taylan Mavruk, and Stefan Sjögren*)
We introduce the concepts of "birthplace bias" and "counterfactual bias" to examine individual investors' bias towards their birthplace and to the new location after they move from their birthplace. We also measure the capital invested in the average portfolio of proximity biased investor. We find that the proximity bias phenomenon is largely an urban phenomenon. We also find that individuals who move to a new district tend to increase their local bias, in the new location, overtime while their birthplace bias remains more or less constant. None of the proximity biased portfolios earn abnormal returns. We partly explain this by the familiarity hypothesis, but we cannot rule out "overconfidence". Moreover, we find that the average proximity biased portfolio does not underperform the market. Individual investors who face equal costs may simply prefer the familiar stocks. This implies "indisputable preference" among investors, which supports rationality of the average individual investor.

Incentive Based Dimensions of Enterprise Risk Management (*Sara Lundqvist and Niclas Andren*)
We provide a structured and substantiated way of conceptualizing ERM that captures and organizes the already existing discourse. We propose that there are essentially three dimensions of ERM: governance, integration, and strategy. Through a survey to all publicly traded companies in the Nordic countries (Sweden, Denmark, Norway, and Finland), we show that the three dimensions are areas where firms that do ERM excel relative non-ERM firms. In order to further evaluate and refine the three dimensions, we did in-depth interviews with responsible risk officers in Swedish non-financial firms with long and wide experience in working with ERM. We propose a categorization of six underlying incentives for ERM: to (i) achieve risk oversight, (ii) provide structure to the risk management system, (iii) increase organizational risk awareness, (iv) manage portfolios of risk, (v) develop strategy, and (vi) improve strategic decision-making.

Challenges in the Transition to Enterprise Risk Management: ERM in Full Gear (*Sara Lundqvist, Marcus Olsson and Linda Waern*)
Through the case of Saab AB, we identify challenges facing firms in transition to enterprise risk management. We observe the processes and guidelines used in their risk management via access to Saab's intranet, as well as observe and attend different meetings and workshops. Most importantly, we conduct in depth interviews with key employees, all of who have a function connected to project-level or firm-level risk management. We identify seven challenges in the transition to ERM: deficiencies in the framework, adapting and not adopting ERM, follow-up, falling back into silos, engaging all levels, lacking focus on opportunities and being reactive not proactive. We suggest that in order to overcome these challenges the firm needs to ensure sufficient support from all three "gears" of ERM: governance, integration and strategic setting.

How do Intellectual property law regimes within the EU affect innovation activity? *(Taylan Mavruk, Stefan Sjögren, and Claes Martinson,)*
This paper examines the relationship between patent law regimes and innovation activity. We use an index of patent strength developed by Ginarte & Park (1997) and regress this against two proxies for innovation activity: patent applications and patent grants. We control for legal origin, and conduct partial analyses for EU and non-EU countries. We find that the patent strength has an inversed U-shaped relation with innovation activity. We observe that this inversed U-shaped relation is stronger for abroad patent applications than domestic innovation

activity. We observe the opposite effect within the EU countries sample. The relation between the patent strength and the innovation activity is U-shaped. We observe also that this relation is driven by the abroad patent applications. Our conclusions are that patent regimes seem to be more effectual on attracting abroad innovations and that integration, common agreement and strong patent law within the EU countries induce innovators to apply for abroad patents. We obtain similar results in our robustness analyses when we use patent grants as proxy for the innovation activity and re-run our regressions.

Keeping it real or keeping it simple? Ownership concentration measures compared *(Taylan Mavruk, Conny Overland, and Stefan Sjögren)*
Based on a sample of 240 Swedish firms listed at the Stockholm Stock Exchange as of year-end 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. We also identify the best underlying distribution for each concentration measure, and we are able to distinguish between measures in terms of what dimensions of ownership they describe. Finally, we document that inferences regarding the association between ownership concentration and firm performance are contingent on the choice of concentration measure.

The catch and release of patents – How patent trusts increase welfare *(Stefan Sjögren and Shubhashis Gangopadhyay)*
We investigate how patent trusts can be used to counteract the otherwise negative effects of non-competitive behavior of incumbents.

Generalized Autoregressive Method of Moments *(Marcin Zamojski, Drew Creal, Siem Jan Koopman, and André Lucas)*
*We intr*oduce Generalized Autoregressive Method of Moments (GaMM) dynamics. GaMM extends Generalized Method of Moments (GMM) to a setting where a subset of the parameters are expected to vary over time with unknown dynamics. To filter out the dynamic path of the time-varying parameter, we approximate the dynamics by an autoregressive process driven by the score of the local GMM criterion function. Our approach is completely observation driven, such that estimation and inference are entirely straightforward. Moreover, the approach provides a unified framework for modeling parameter instability in a context where the model and its parameters are only specified through (conditional) moment conditions, thus generalizing previous approaches built on fully specified parametric models. We provide three examples of increasing complexity to highlight the advantages of GaMM.

Filtering with Confidence: In-sample Confidence Bands for GARCH Filters *(Marcin Zamojski, André Lucas, and Anders Rahbek)*
This paper is the first to propose a robust method of computing in-sample confidence bands for time-varying parameters estimated with misspecified observation-driven models. As an example of this class, I look at the family of GARCH models which are used to estimate time-varying variances and covariances. I propose a novel bootstrap procedure and a new moving-window resampler which together generate confidence bands around estimated volatility paths. The approach accounts for various sources of uncertainty, including parameter and filtering uncertainty. I illustrate the method by applying it to S&P 500 returns. Moreover, I investigate finite sample properties of the confidence bands and their convergence in a range of simulation experiments. I find that the average coverage is close to the nominal level in finite samples and that it converges to the nominal level as the sampling frequency is increased. The procedure can be used as a smoother to substantially reduce average root mean

square error of GARCH paths. The new method is easily implementable and does not significantly increase the computational burden.

Hedge Fund Innovation *(Marcin Zamojski, Arjen Siegmann, and Denitsa Stefanova)*
We study first-mover advantages in the hedge fund industry by clustering hedge funds based on the type of assets and instruments they trade in, sector and investment focus, and fund details. We find that early entry in a cluster is associated with higher excess returns, longer survival, higher incentive fees and lower management fees compared to funds that arrive later. Moreover, the latest entrants have a high loading on the returns of the innovators, but with lower incentive fees, and higher management fees. Cross-sectional regressions show that the outperformance of innovating funds are declining with age. The results are robust to different parameters of clustering and backfill-bias, and are not driven by the possible existence of flagship and follow-on funds. Our results show that the reported characteristics of hedge funds can be used to infer strategy-related information and suggest that specific first-mover advantages exist in the hedge fund industry.

Dynamic Term Structure Models with Score-Driven Time-Varying Parameters: Estimation and Forecasting *(Marcin Zamojski, Siem Jan Koopman, and André Lucas)*
We consider score-driven time-varying parameters in dynamic yield curve models and investigate their in-sample and out-of-sample performance for two data sets. In a univariate setting, score-driven models were shown to offer competitive performance to parameter-driven models in terms of in-sample fit and quality of out-of-sample forecasts but at a lower computational cost. We investigate whether this performance and the related advantages extend to more general and higher-dimensional models. Based on an extensive Monte Carlo study, we show that in multivariate settings the advantages of score-driven models can even be more pronounced than in the univariate setting. We also show how the score-driven approach can be implemented in dynamic yield curve models and extend them to allow for the fat-tailed distributions of the disturbances and the time-variation of variances (heteroskedasticity) and covariances.

6. CFF Seminars and Conferences

CFF Research Seminars 2016

January 21
Sanjay Banerji, University of Nottingham
Collusion, Incentives and Reputation: The role of Experts in Corporate Governance

February 11
Michel Habib, University of Zurich
Multifaceted Transactions, Incentives, and Organizational Form

March 17
Ashok Thampy, Indian Institute of Management Bangalore
The Effect of Relationships with Government-Owned Banks on Credit Constraints: Evidence from India

April 7
Konrad Raff, Norwegian School of Economics
Learning from Other Firms' Investments: Corporate Governance and Firm Entry

April 11
Ludovic Phalippou, University of Oxford
Private Equity Portfolio Company Fees

April 14
Utz Weizel, Utrecht University
Sold below value? Why takeover offers can have negative premiums

April 21
Gunther Strobl, Frankfurt School of Finance and Management
The Effect of Speculative Monitoring on Shareholder Activism

May 2
Ryan Peters, Wharton
Venture Capital investment relationships

May 12
Kathrin Schlafmann, IIES
Housing, Mortgages, and Self Control

May 19
Janis Berzins, BI Norwegian Business School
Tax concerns and agency concerns in dividend policy: Holding companies as a separating device

September 1
Denis Sosyura, University of Michigan
Family Descent as a Signal of Managerial Quality: Evidence from Mutual Funds

September 15
Sangin Park, Seoul National University
Structure, Governance and Finance of Korean Chaebols

September 29
Gonul Colak, Hanken School of Economics
CEO Mobility and Corporate Policy Risk

October 13
Sami Vähämaa, University of Vaasa
Evaluating Publications across Business Disciplines: Inferring Interdisciplinary "Exchange Rates" from Intradisciplinary Author Rankings

October 27
Tamas Kiss, CFF
Vanishing predictability and non-stationary regressors

November 14
Bart Yueshen, INSEAD
Uncertain Market Making

December 1
Eirik Gaard Kristiansen, Norwegian School of Economics
Competitive Compensation Contracts

December 8
Anna Lindahl, CFF
Price discrimination of customers in the foreign exchange market

December 15
Samson Mukanjari, University of Gothenburg
Was Paris an ambitious climate agreement? Evidence from fossil markets

Professional Seminars 2016

February 10
Björn Sandberg & Christian Peters, Amundi
Hedging Climate Risk

March 2
Manuel Stan & Dimiter Pantaleev, Unibet
Data - transforming marketing from Good to Great

March 9
Joachim Gahm, Chairman Arise
Blowing in the Wind – Wind Power and Arise

April 27
Lars Stugemo, CEO HiQ
Knowledge based companies driven by strong corporate values

May 24
Jane Ambachtsheer & Toby Buscombe, Chair of Responsible Investment at Mercer
Risky returns? EU financial policy and climate change

June 1
Richard J. Sweeney, Georgetown University
The U.S. Election

September 14
Malin Omberg & Karl Hjert, Finansinspektionen
Why we need to protect consumers in finance

September 21
Markus Granlund, CEO Semcon
International product development – Innovation, opportunities and trends

September 28
Peter Zachrisson, CEO Stena Renewable
Investments in Renewable Energy – How technology disrupts an old business model

October 5
Karl Thedéen, Infinera
Up & Down in the Telecom Industry - a Tour of Transactions and Governance

October 12
Fredrik Palmstierna, Latour
Vad skapar Latours framgång?

October 26
Jan Gurander, CFO and Deputy CEO AB Volvo
The Volvo Group Transformation Journey

December 7,
Henrik Larsson & Martin Gustafsson, SEB Private Banking
SEB Private Banking - A holistic financial partner tailored for personal needs

December 14
Martin Bolander, Swedbank
A banking perspective on the global financial flows

AP2-CFF Conference on Return Predictability, June 7

Predicting future returns of stocks and other financial assets is a constant subject of fascination for academics and practitioners alike. Despite many decades of empirical research, there is little consensus on whether asset returns can be predicted in any meaningful way. Any predictable component of returns is bound to be small, and conclusive empirical evidence one way or the other appears unlikely. Nevertheless, the study of return predictability remains central to financial economics, and the countless number of studies in this area have greatly enhanced, and continues to enhance, our understanding of asset returns.

9.00-9.30	Coffee
9.30-9.45	Erik Hjalmarsson, University of Gothenburg **Return Predictability: Introduction**
9.45-10.30	Ian Martin, London School of Economics **What is the Expected Return on a Stock?**
10.30-11.00	Coffee Break
11.00-11.45	Marie Briere, Amundi Asset Management **Factor-Based v. Industry-Based Asset Allocation**
11.45-12.30	Jesper Rangvid, Copenhagen Business School **Macroeconomic Growth and Return Predictability**
12.30-14.00	Lunch
14.00-14.45	Tim Bollerslev, Duke University **Modeling and Forecasting (Un)Reliable Realized Covariances for More Reliable Financial Decision**
14.45-15.30	Ron Kaniel, University of Rochester and University of Gothenburg **The Predictive Role of Volume and Order Flow**
15.30	Reception

CFF-SKF-Volvo Seminar on Enterprise Risk Management, November 11

Implementing Enterprise Risk Management and Integrating with Business Strategy, Finance and Operations – Seminar with Discussions with a Nordic Perspective

The Centre for Finance in cooperation with Volvo and SKF is organizing an Enterprise Risk Management Seminar at the School of Business Economics and Law, University of Gothenburg on November 11th 2016.
The seminar will consist of talks and discussions addressing challenges and best practices of enterprise risk management implementation and an overview of the current state of ERM implementation in Nordic firms. The purpose of the seminar is to gather together researchers, professionals and other interested parties to share different perspectives on ERM implementation with the aim of supporting implementation and developing the academic understanding.
The workshop is free and open to industry professionals and academics.

Session 1: Enterprise Risk Management: What We Know and How Do We Move Forward
Session Chair: Martin Holmen, Centre for Finance

9.30-9.45 Welcome

9.45-10.30 Mark Beasley, North Carolina State University
Enterprise Risk Management: What We Know and How Do We Move Forward

10.30-11.00 Coffee Break

Session 2: State of ERM in the Nordic Countries
Session Chair: Petter Rönnborg, SKF

11.00-11.45 Per Åkenes, Allevo AB

11.45-12.30 Sara Lundqvist, Centre for Finance

12.30-14.00 Lunch

Session 3: Best Practices
Session Chair: Nils Lindgren, Volvo

14.00-14.45 Annette Schütt Fiig, Novo Nordisk

14.45-15.30 Per Åkesson, WSP Sverige

CFF-KWC workshop, May 3-4

May 3

Session 1
Session Chair: Martin Holmén, CFF

13.00 – 13.30	*Patent Licensing and Duplication in Cournot Structures* Aineas Mallios, CFF
13.30-14.00	*Precautionary savings and wealth accumulation: The effect of unexpected inheritances* Alessandro Martinello, KWC
14.00-14.30	*Unbalanced regression and return predictability* Tamas Kiss, CFF

Session 2
Session Chair: Frederik Lundtofte, KWC

14.45-15.30	*Determinants of Systemic Risk in the European Banking System; A CoVaR Approach* Hassan Sabzevari, KWC Discussant: Ted Lindblom, CFF
15.30-16.15	*Asymmetry of CEO Compensation and the Role of Relative and Macroeconomic Shocks in Risk Taking Incentives* Jian Hua Zhang, CFF Discussant: Martin Strieborny, KWC

Session 3

Session Chair:	Einar Bakke, CFF
16.45-17.30	*Incentive Based Dimensions of Enterprise Risk Management: Between the Promises and Muddled Theory* Sara Lundqvist, CFF Discussant: Håkan Jankensgård, KWC

May 4

Session 4

Session Chair: Erik Hjalmarsson, CFF

9.00-9.45	*Dry powder and short fuses: Private equity funds in emerging markets* Dawei Fang, CFF Discussant: Shubashis Gangopadhyay, India Development Foundation and CFF
9.45-10.30	*Finance, Comparative Advantage, and Resource Allocation* Martin Strieborny, KWC Discussant: Ryan Peters, Wharton

Session 5

Session Chair: Jens Forsbaeck, KWC

10.45-11.30	*Bayesian Estimation of the Global Minimum Variance Portfolio* Stepan Mazur, KWC Discussant: Stefano Herzel, University of Rome Tor Vergata and CFF
11.30-12.15	*Downside Risks and the Cross-Section of Asset Returns* Adam Farago, CFF Discussant: Frederik Lundtofte, KWC

<u>Job Talks</u>

January 25
Zhao Li, Pompeu Fabra
Self-fulfilling Fire sales, Bank Runs and Contagion: Implications for Bank Capital and Regulatory Transparency

January 28
John Crosby, Imperial College
Hedge Funds? Is it better to invest in one or own one?

February 1
Xia Qing, Stockholm School of Economics
Creditor Rights and Innovation: Evidence from China

February 2
Marcin Zamojski, VU Amsterdam
Filtering With Confidence: In-sample Confidence Bands For GARCH Filters

February 4
Min Park, London School of Economics
What drives corporate insurance demand? Evidence from directors' and officers' liability insurance in Korea

February 8
Egle Karmaziene, Stockholm School of Economics
Motives for Entrepreneurial Saving: Evidence from Sweden

February 26
Shuo Yan, Bocconi University
Financial Repression and the Finance-Growth Nexus: Evidence From China

7. Visiting Researchers 2016

Professor Tamir Agmon, College of Management, Tel Aviv
April–May and September
Invited by Stefan Sjögren

Professor Shubhashis Gangopadhyay, India Development Foundation
May and September-October
Invited by Stefan Sjögren

Professor Stefano Herzel, University of Rome
April-June
Invited by Martin Holmen

Professor Ron Kaniel, University of Rochester
June-July and December
Visiting Professor Programme

Professor Michael Kirchler, University of Innsbruck
April and August
Invited by Martin Holmen

Professor Richard Sweeney, Georgetown University
June
Invited by Martin Holmen