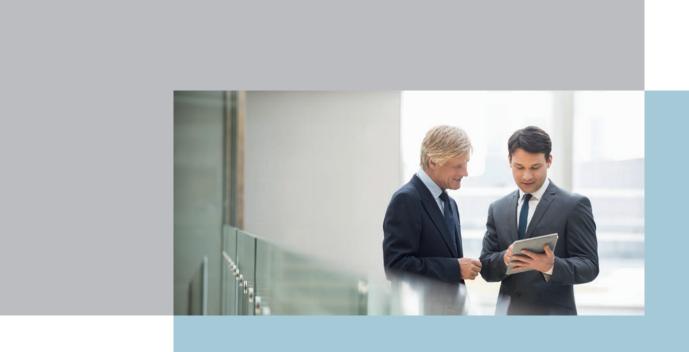


Activity Report 2015



swiss:finance:institute

As a world-leading financial center building on a rich history, Switzerland's financial sector has the natural ambition of housing a world-leading research and training center in banking and finance. Swiss Finance Institute is the product of this ambition.

Established at the initiative of the Swiss Bankers Association, it is a private foundation created in 2006 with the support of the Swiss banking and finance community, the Swiss stock exchange, the Swiss Confederation, the Swiss National Science Foundation, and several Swiss universities, with the aim of advancing research activities in finance and executive education in the banking and finance sector.

Swiss Finance Institute unites three pre-existing foundations – the International Center for Financial Asset Management and Engineering (FAME), the Swiss Banking School, and the Stiftung Banking und Finance an der Universität Zürich. This merger has led to the creation of one of the major European providers of research, doctoral training, and advanced executive education in banking and finance.

This report gives an overview of Swiss Finance Institute's activities from January to December 2015.

A Word from the Board

Preparing for the Next Decade

In 2015 SFI reached further milestones and thus is proud to highlight certain substantial achievements. The further strengthening of collaboration among SFI activity areas, SFI members, and the institute's external partners was the year's overall focus. The results of these efforts have been substantial: we raised our profile, we attracted more students, we launched programs, we streamlined our organization, and – last but not least – we maintained and even improved our rankings in the financial world.

In the context of this progress, we were also able to successfully finalize a refinancing round among Foundation Members. The existing and newly raised funds will allow SFI to continue its work and to further pursue its ultimate goals of strengthening the Swiss Financial Center, of generating top research, and of educating the best for the best. We greatly appreciate the commitment and the engagement of our Foundation Board Members. It is anything but common, in these difficult times for the finance industry, to see funds committed to further fostering a visionary initiative such as the one that SFI embodies. This makes us unique. We are grateful to have this opportunity and thank all Foundation Board Members for making it possible.

Research

Swiss Finance Institute strives for excellence in research in order to build academic expertise with lasting power. SFI's goal is to be a top-ranking research institute in the field of finance. We have achieved that goal in recent years and intend to maintain that position. One way of measuring our performance against this goal is to look at the number and quality of publications that are authored by SFI researchers and appear in top academic journals. We are also proud to see our professors recognized and rewarded by numerous prizes and awards. Beyond its faculty, SFI has one of the

world's largest and most competitive PhD programs in Finance. SFI PhD graduates go on to work in top industry organizations or take up careers at outstanding academic institutions. This is one of our direct contributions to our stakeholders and founders. The best people working for the best companies in the finance industry.

Education

Moving markets, evolving requirements, new initiatives, and a continuously changing industry have driven the further transformation of our product offering. Streamlining the content, adapting to e-learning, and focusing on current topics have made SFI Education a powerful tool. It focuses on providing insight into key knowledge and trends in the financial industry, both on a strategic and an operational level. In 2015, SFI Education offered more than 30 courses and conducted more than 5'100 participant days. To maintain the quality of its offering, Education aims to collaborate with the best in class. Lecturers, teachers, and keynote speakers all contribute to our overall success. We greatly appreciate this collaboration, and the support and the engagement of SFI members and contributors.

Knowledge Center

SFI Knowledge Center again achieved impressive results with its publications and events: over 2'000 event participants (of which 20 percent were new contacts for SFI), more than 2'000 podcast downloads, and 40 media articles that took SFI publications as their subject and broadcast them on to a combined total of almost 6 million readers. A new concept, SFI White Papers, has proven that it reaches a vast reader community, which makes SFI confident to continue with this activity going forward. With our new publication series, "Practitioner Roundups", we reach out to the broad investment population. Furthermore, a financial literacy

campaign with NZZ has been initiated by the end of 2015 and will be launched in the beginning of 2016, contributing further to raising the profile of SFI and its faculty. In this campaign, SFI professors explain financial buzzwords from their area of expertise to the wider public in an easy, entertaining, and understandable way.

Corporate

Many initiatives and a significant portion of the institute's administrative burden have been taken by individual departments. A streamlining of corporate activities was launched and opportunities analyzed. We discovered potential synergies and areas for improvement. The business environment itself is also forcing SFI to be up-to-date and state-of-the-art in

its approach to handling corporate functions, tasks, and duties. A reorganization of functions has thus taken place. Further adaptations will prove key to the success of the institute overall.

With regards to the Foundation Board we would like to welcome Yves Flückiger, Romeo Cerutti and Christian Pörschke as new members and would like to take this opportunity to thank the departing Jean-Dominique Vassalli, Michael Auer, and Hans-Ulrich Meister for their contributions to SFI.

Without the ongoing commitment and dedication of such members, SFI would not be the institute it is today.



Olivier Steimer

Chairman of the Foundation Board



Court Caller

Claudio Loderer Managing Director

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Swiss Finance Institute Faculty

Swiss Finance Institute (SFI) has an extensive network of over 60 local and international faculty members who support its research and education activities.

Research Faculty (as of December 2015)

The SFI Research Faculty is made up of exceptional researchers from SFI academic partner institutes. Their outstanding publications contribute to the international research community and ensure that Switzerland makes its mark on the international research agenda.

Hansjörg Albrecher	52	Loriano Mancini*	69
Anastasia-Angeliki		Antonio Mele*	70
Andrikogiannopoulou	52	Erwan Morellec*	70
Philippe Bacchetta*	53	Johannes Muhle-Karbe	71
Giovanni Barone-Adesi*	53	Artem Neklyudov	72
Tony Berrada	54	Boris Nikolov	72
Rajna Gibson Brandon*	54	Eric Nowak	73
Ines Chaieb	55	Kjell G. Nyborg*	73
Marc Chesney	55	Steven Ongena*	74
Pierre Collin-Dufresne*	56	Per Östberg	75
François Degeorge*	57	Marc Paolella	76
Theodosios Dimopoulos	57	Alberto Plazzi	76
Paul Embrechts*	58	Jean-Charles Rochet*	77
Rüdiger Fahlenbrach*	59	Michael Rockinger	77
Walter Farkas	59	Yuki Sato	78
Damir Filipovic*	60	Olivier Scaillet*	79
Francesco Franzoni*	60	Karl Schmedders	79
Patrick Gagliardini	61	Paul Schneider*	80
Manfred Gilli	61	Norman Schürhoff*	80
Amit Goyal*	62	Martin Schweizer	81
Michel Habib	62	Halil Mete Soner*	81
Henrik Hasseltoft	63	Didier Sornette	82
Harald Hau*	63	Pascal St-Amour	83
Thorsten Hens	64	Josef Teichmann	84
Martin Hoesli	64	Fabio Trojani*	85
Julien Hugonnier*	65	Anders Trolle*	85
Eric Jondeau	66	Philip Valta*	86
Philipp Krüger*	66	Paolo Vanini	86
Felix Kübler*	67	Alexander Wagner*	87
Markus Leippold	68	Mario Wüthrich	87
Henri Loubergé	68	Alexandre Ziegler	88
Semyon Malamud*	69		

Education Adjunct Faculty (as of December 2015)

The title of SFI Adjunct Professor is awarded to selected academics from recognized universities and universities of applied science. Recipients are chosen because of the importance of their contribution to SFI's industry training programs.

Teodoro D. Cocca 90
Christopher Culp 90
Rudolf Gruenig 91
Erwin W. Heri 91
Roger M. Kunz 92
François-Serge Lhabitant 92
Alfred Mettler 93
Conrad Meyer 93

SFI works with its academic partners to create and establish academic expertise and excellence:













^{*} SFI chair-holder

Research Highlights

Swiss Finance Institute (SFI) strives for excellence in research to build academic expertise with staying power. SFI's goal is to be a top-ranking research institute in finance. One way to measure progress toward this goal is through the number and quality of publications by SFI researchers that appear in top academic journals. Currently, SFI is one of the top three finance institutes in Europe and is on a par with some of the foremost international institutions.

Academic excellence is guaranteed by the SFI Scientific Council, an independent committee composed of internationally renowned professors of banking and finance from around the world. The council places extra weight on publications appearing in journals that historically have been first in promoting the ideas that have changed financial practice: the Journal of Finance, the Journal of Financial Economics, the Review of Financial Studies, the American Economic Review, the Journal of Political Economy, the Quarterly Journal of Economics, Econometrica, and the Review of Economic Studies. In 2015 the following 15 articles were published by SFI researchers:

2015

On Bounding Credit-Event Risk Premia, J. Bai, P. Collin-Dufresne, R. Goldstein, and J. Helwege, Review of Financial Studies, vol. 28(9), pp. 2608–2642.

Dividend Dynamics and the Term Structure of Dividends Strips, F. Belo, P. Collin-Dufresne, and
R. Goldstein, Journal of Finance, vol. 70(3),
pp. 1115–1160.

Modeling Credit Contagion via the Updating of Fragile Beliefs, L. Benzoni, P. Collin-Dufresne, R. Goldstein, and J. Helwege, Review of Financial Studies, vol. 28(7), pp. 1960–2008.

Do Prices Reveal the Presence of Informed Trading? P. Collin-Dufresne and V. Fos, *Journal of Finance*, vol. 70(4), pp. 1555–1582.

Structured Debt Ratings: Evidence on Conflicts of Interest, M. Efing and H. Hau, Journal of Financial Economics, vol. 115(2), pp. 411–428.

Asset Pricing with Arbitrage Activity, <u>J. Hugonnier</u> and <u>R. Prieto</u>, *Journal of Financial Economics*, vol. 27(12), pp. 3502–3546.

Capital Supply Uncertainty, Cash Holdings, and Investment, J. Hugonnier, S. Malamud, and E. Morellec, Review of Financial Studies, vol. 28(2), pp. 391–445.

Dynamic Competitive Economies with Complete Markets and Collateral Constraints, F. Kübler and
P. Gottardi, Review of Economic Studies, vol. 82(3),
pp. 1119–1153.

Uncertainty, Information Acquisition and Price Swings in Asset Markets, <u>A. Mele</u> and <u>F. Sangiorgi</u>, *Review of Economic Studies*, vol. 82(4), pp. 1533–1567.

Social Interaction at Work, <u>H. Hvide</u> and <u>P. Östberg</u>, *Journal of Financial Economics*, vol. 117(3), pp. 628–652.

Dynamics of Innovation and Risk, <u>B. Biais,</u> <u>J.-C. Rochet,</u> and <u>P. Woolley,</u> *Review of Financial Studies*, vol. 28(5), pp. 1353–1380.

A Theory of the Stakeholder Corporation, M. Magill, M. Quinzii, and J.-C. Rochet, Econometrica, vol. 83(5), pp. 1685–1723.

A Polynomial Optimization Approach to Principal-Agent Problems, K. Schmedders and P. Renner, *Econometrica*, vol. 83(2), pp. 729–769.

Generalized Risk Premia, P. Schneider, *Journal of Financial Economics*, vol. 116(3), pp. 487–504.

Are Institutions Informed About News?

T. Hendershott, D. Livdan, and N. Schürhoff, *Journal of Financial Economics*, vol. 117(2), pp. 249–287.

Other Publications

Research Paper Series

In 2015 SFI had 68 research papers included in the Swiss Finance Institute Research Paper Series hosted on the Social Science Research Network (SSRN). A complete list of the 2015 papers is available on page 44 of this report.

SFInsight

The **SFInsight** reports on recent research findings by SFI professors and the relevance of these findings to the industry. It also highlights developments in the SFI Knowledge Center and SFI Education activities, as well as upcoming SFI events and news. The SFInsight can be accessed via the institute's website.

November 2015

Focus on Industrial Production and Lead-Time

- Interview with Prof. Suzanne de Treville and Prof. Norman Schürhoff, UNIL
- Offshore Production and Valuing Lead-Time

July 2015

Special Issue – Should Switzerland Adopt the Euro?

- Introduction by Prof. Claudio Loderer, UNIBE
- Survey: Should Switzerland Adopt the Euro?

June 2015

Focus on Banks, Interest Rates, Investment, and Collateral

- Interview with Professors Jean-Charles Rochet and Steven Ongena, UZH
- How Important Is Collateral for Borrowers and Creditors?

SFI Research Days

Over 75 academics and PhD students from across Switzerland get together each year at the SFI Research Days to present and discuss their current research. The Research Days, held at the Study Center Gerzensee, are structured into academic research sessions, ending with a keynote speech, and doctoral workshops and sessions (held in parallel). In 2015, the keynote speech was given by Prof. Philip Valta, SFI Junior Chair at the University of Geneva, and was entitled "How Does Corporate Investment Respond to Increased Entry Threat?". The SFI Best Paper and Best Discussant awards are nominated at the Research Days.



Prof. J.-C. Rochet, SFI Head of Research, introducing the Best Paper Awards

Awards and Honors for SFI Faculty 2015

Pierre Collin-Dufresne

Amundi Smith Breeden Distinguished Paper for best paper published in the Journal of Finance in 2015, for "Do Prices Reflect the Presence of Informed Trading?".

Felix Kübler

Alexander von Humboldt Foundation Research Award 2015.

Philip Krüger

- Moskowitz Prize from the Haas School of Business, University of California Berkeley, for "Climate Change and Firm Valuation: Evidence from a Quasi-Natural Experiment".
- The American Society of Neuroradiology Summa Cum Laude Award.

Semyon Malamud

INQUIRE UK and INQUIRE Europe Best Paper Prize Seminar "Portfolio Selection with Options".

Artem Neklyudov

Best Teacher Award 2015 at HEC Lausanne.

Paul Schneider

<u>2015 Jack Treynor Prize Winner</u> for "Low Risk Anomalies?".

Norman Schürhoff

 $\frac{\hbox{The Review of Asset Pricing Studies Best Paper}}{\hbox{Award 2015, for "Rating-Based Investment Practices}}$ and Bond Market Segmentation".

Outstanding Paper Award

The Outstanding Paper Award winners for 2015 were Arvind Krishnamurthy (Stanford University) and Annette Vissing-Jorgensen (University of California Berkeley) for their paper entitled "The Impact of Treasury Supply on Financial Sector Lending and Stability".

The Swiss Finance Institute's Outstanding Paper Award is given annually in recognition of an unpublished research paper circulated over the previous 12 months that makes an outstanding contribution to the field of finance. The jury selecting the winning paper is composed of all Swiss Finance Institute chaired professors and fellows and is headed by Prof. Jean-Charles Rochet, SFI Head of Research, and Prof. Norman Schürhoff, Chairman of the Jury.



Research Projects

Swiss Finance Institute (SFI) supports and promotes promising research projects in selected subject areas through funding received from the State Secretariat for Education, Research and Innovation (SERI). Research funds are awarded on a strictly competitive basis to researchers based in Switzerland under the supervision of the SFI Project Evaluation Committee.

In 2015, 19 projects, across eight Swiss universities (EPFL, ETHZ, UNIBE, UNIGE, UNIL, UNISG, USI, and UZH), saw their funding extended. They focus on the following areas of expertise: asset pricing and asset allocation, behavioral and experimental finance, corporate finance, financial markets, and international finance.

The goal of this fundamental research – "why" research – is to better understand the mechanisms at work in financial economics. Industry-relevant findings help the financial industry make better decisions.

Project Summaries

Asset Pricing and Asset Allocation Asset Pricing with Regime-Dependent Preferences and Learning

Develop a benchmark model to improve the understanding of co-movements of bonds and stock markets across the business cycle.

This project studies the impact of regime-dependent preferences on equilibrium asset prices when information pertaining to the state of the economy is incomplete. The key insight is that the marginal utility of the representative agent is influenced by the probability of hidden states and in particular by its volatility. This additional source of risk is priced and allows the model to address a number of empirical asset pricing puzzles.

<u>Project leader: Prof. Tony Berrada (University of Geneva and SFI).</u>

The Role of Betas versus Characteristics in Cross-Sectional Asset Pricing

Assist managers in estimating the expected cost-ofcapital of projects in an optimized and more systematic fashion. The question of expected returns is of fundamental importance in capital budgeting.

By developing a new methodology for cross-sectional asset pricing tests, this study disentangles the relative importance of betas and firms' and characteristics in explaining the cross-sectional variation in expected returns. This research can help managers estimate the expected cost-of-capital of projects in a better and more systematic way. Data suggests there is evidence of positive beta premiums on the profitability, market, and investment factors, a negative premium on the size factor, and no reliable pricing evidence for the book-to-market and momentum factors; yet, firms' characteristics consistently explain a much larger proportion of variation in estimated expected returns than all combined factors.

<u>Project leader: Prof. Amit Goyal (University of Lausanne and SFI).</u>

Financial and Health-Related Allocations over the Life Cycle

How do savings, decisions regarding work and health expenditure influence whether a person is insured or not at a given point in their life?

This project develops a tractable dynamic framework capable of modeling the joint determination of a household's work-, financial-, and health-related choices over its life cycle. The project is innovative in that it regroups spheres of analysis (financial-, work-, and health-related) that have, up to now, been treated separately. The project focuses on the implications for health and financial allocations. It gauges whether financial and human assets are sufficient or not, studies the effects of exogenous changes in health insurance coverage on health, consumption, leisure, welfare, and survival rates; and

analyzes how people invest in their work-related human capital (e.g., education) in the light of employment risks. This project has clear policy implications for the reform of pension plans and of health and unemployment insurance.

Project leader: Prof. Pascal St-Amour (University of Lausanne and SFI).

CDS Market Liquidity

Are there liquidity effects in prices of credit default swap (CDS) contracts and what are the implications for trading, pricing, hedging, and the risk management of CDSs?

With liquidity effects in the credit default swap (CDS) market in mind, this study constructs a new measure of market-wide CDS illiquidity and assesses the impact of liquidity risk on the expected returns of CDS contracts. The advantage of the illiquidity metric developed within this project is that it captures the many dimensions of illiquidity in the CDS market and that its innovations can be closely tracked by a tradable liquidity factor. The research finds that liquidity risk is priced: sellers of credit protection earn higher expected excess returns on CDS contracts with higher liquidity exposures.

<u>Project leader: Prof. Anders Trolle (Ecole</u> <u>Polytechnique Fédérale de Lausanne and SFI).</u>

Term Structures and Cross Sections of Asset Risk Premia

Obtain a correct understanding of the relevant risk-returns in financial sectors such as the hedge fund industry during economic and financial crises.

This project sheds further light on the price formation of individual financial assets across different markets, in dependence of the level and term structure of these assets' uncertainty. Project contributions include a class of general trading strategies for replicating and hedging the distinct characteristics of market uncertainty, and multi-factor parametric models able to describe the joint dynamics of the term structure of volatility risks, volatility risk premia, and option

returns. The models developed address risk understatement challenges, enabling a more suitable portfolio and risk management strategy to be developed.

 $\frac{\text{Project leader: Prof. Fabio Trojani (University of Lugano and SFI)}.$

Behavioral and Experimental Finance

Contagious Defaults in Credit Markets – an Experimental Analysis

Explore whether mortgage defaults are driven by inability to pay or strategic behavior and the influence of the economic climate.

This project explores how moral constraints and social norms affect loan repayment behavior. Initial findings show that adverse economic conditions soften moral constraints and weaken the enforcement of social norms that encourage borrowers to repay debt.

Project leader: Prof. Martin Brown (University of St. Gallen).

Sentiment and Risk in Financial Markets

Improving the understanding of security pricing and risk evolution in securities markets can lead to a revision of the expectations and decisions of investors, regulators, and risk managers.

This project measures investor sentiment – optimism and overconfidence in particular – and models its evolution through time. It also studies the implications of investor sentiment on asset management. Findings show that early identification of mispricing can help revise the expectations and decisions of investors, regulators, and risk managers.

<u>Project leader: Prof. Giovanni Barone Adesi</u> (University of Lugano and SFI).

Corporate Finance

The Corporate Aging Phenomenon

Is there a corporate life cycle? As firms get older, do they benefit from greater experience or become obsolete?

This project documents and explains the aging of companies. To focus on their core competences, firms choose organizational structures, incentives, and processes that make them, on average, increasingly inflexible and unable to embrace radical innovation. Predictably, they become more efficient producers, but their profitability and growth opportunities decline over time. They invest less, are less active in R&D, and prefer to divest assets and return money to investors. To fight obsolescence, firms have to be ready and willing to restructure significantly. Project leader: Prof. Claudio Loderer (University of Bern and SFI).

Corporate Liquidity, Governance, and Agency Costs

The relationship between debt enforcement and firms' investment and risk depends on the firm-specific probability of default.

This project sheds light on the magnitude of manager-shareholder and shareholder-debtholder conflicts around the world, on their effects on corporate behavior and economic growth, and on the effectiveness of governance mechanisms in alleviating such agency conflicts. Empirical estimates show that agency costs are high, vary widely between and within countries, and have important value effects. Legal origin, bankruptcy proceedings, and provisions for investor protection affect agency costs, but their impact is small compared to the within-country variation.

<u>Project leader: Prof. Erwan Morellec (Ecole</u> Polytechnique Fédérale de Lausanne and SFI).

The End of Germany Incorporated

The impact major tax reform has on corporate ownership.

This project studies the effects of a major tax reform on corporate ownership and the consequences of ownership changes for firms' investment decisions and performance. The repeal of a capital gains tax on minority holdings has led to a dramatic reduction

of cross-holdings among companies and has been beneficial for shareholders and firms. <u>Project leader: Prof. Rüdiger Fahlenbrach (Ecole</u> <u>Polytechnique Fédérale de Lausanne and SFI).</u>

Merger Activity in Industry Equilibrium

Determine when M&As can be beneficial for both shareholders and the economy in general.

This project characterizes the interactions across the business cycle between merger activity, on the one hand, and firms' entry, exit, and investment decisions, on the other. The model developed shows that merger activity does not just reduce the number of existing firms in a sector, it – interestingly – encourages the entry of new firms and increases the average productivity of firms in the sector.

Project leader: Prof. Theodosios Dimopoulos (University of Lausanne and SFI).

Words and Deeds: Communication in Capital Markets

Understand how managerial communication can affect stock prices.

This project advances knowledge on the reasons behind variations in styles of managerial communication, what investors can learn from implicit facets of communication, and how firms achieve credible communication. Data reveals that the understanding of communication in capital markets is still largely limited.

<u>Project leader: Prof. Alexander Wagner (University of Zurich and SFI).</u>

Financial Markets

Analyzing Microfinance Markets

Half of the world remains unbanked; this study uses microfinance data from different countries around the world in the last decade to contribute to the transparency of the microfinance industry.

Using worldwide data on microfinance markets, this project analyzes differences in the development of microfinance across countries and constructs an index of both the financial and social performance of microfinance investments. The data is used to examine which causal drivers policy makers and investors should target in order to increase financial inclusion at the bottom of the pyramid.

Project leader: Prof. Urs Birchler (University of Zurich).

Institutional Trading: Liquidity Provision, Managerial Incentives, and High-Frequency Trading

Can hedge funds that are liquidity providers in calm periods continue to perform this function during more turbulent times when capital availability becomes more expensive and scarce?

This project investigates whether hedge funds' liquidity provision varies along market cycles. Further, it explores how different hedge fund characteristics affect hedge funds' exposure to changes in funding conditions. The project contributes to the debate on the role of financial intermediaries in stabilizing/ destabilizing financial markets at times of crisis. It shows the influence of hedge fund market participation in affecting market liquidity, for example the bid-ask spread. The project also studies financial-conglomerate-affiliated hedge funds and shows that they have more stable funding and lower flow-performance sensitivity than other funds. Project leader: Prof. Francesco Franzoni (University of Lugano and SFI).

Liquidity and Leverage

Understand the precise mechanisms through which financing frictions influence inflation and economic growth.

This project analyzes the interactions between leverage, liquidity, and asymmetric information and their feedback effects on the real side of the economy. New theoretical models developed in this project provide new results with which to understand the amplification mechanisms through which financial shocks propagate in financial and real sectors. These results have important implications for institutional investors. A new element to the research model is the cross-sectional distribution of cash in the economy, which shows that stronger financing constraints may spur economic growth because they reduce entry and stimulate R&D.

<u>Project leader: Prof. Semyon Malamud (Ecole</u> Polytechnique Fédérale de Lausanne and SFI).

Nonlinear Effects in Financial Markets

Develop models and methods for analyzing and handling the nonlinear effects in financial markets that are caused by illiquidity and other imperfections.

This project studies the effects of nonlinearities in imperfect financial markets by concentrating on the combined issues of transaction costs and price impact, transaction costs and dividends, and financial bubbles as a possible manifestation of nonlinearities. The results give guidance to investors and risk managers on how they can specify their questions in a quantitative way and find exact or approximate answers under precise conditions.

Project leader: Prof. Martin Schweizer (ETH Zurich and SFI).

Opacity in Financial Markets

Understand the implications of hidden and/or asymmetric information in financial markets for investor behavior, asset prices, and welfare.

This study investigates how the opacity of investment companies and of financial products affects investor behavior, asset prices, and social welfare. Opacity occurs at both the fund level (e.g., mutual vs. hedge)

and at the asset level (e.g., plain vanilla vs. structured), and investors ignore both the funds' and assets' payoffs. The study's model shows that opaque funds take on excessive leverage, causing overpricing of opaque assets. This research also addresses how and why asymmetric information in delegated portfolio management leads to the bubble-like price dynamics of innovative assets.

 $\frac{\text{Project leader: Prof. Yuki Sato (University of Lausanne}}{\text{and SFI)}.}$

Over-the-Counter Financial Markets

Better inform market participants and policy makers on the trade-offs between existing market structures and optimal financial market design.

In view of recent regulatory initiatives regarding over-the-counter markets in Europe and the US, this project studies the interrelation between financial market structure, liquidity, and asset price formation. This research is particularly relevant for policy makers and the general public in light of the recent financial and economic crisis and various regulatory initiatives in Europe (MiFID I & II) and the US (Dodd – Frank). The project has received wide attention among regulators as it contributes to an understanding of a variety of issues that were at the core of the recent financial crisis. This project improves the know-how necessary for designing and implementing financial market regulation.

<u>Project leader: Prof. Norman Schürhoff (University of Lausanne and SFI).</u>

International Finance

Market Integration

Improve our understanding of the economic determinants of sovereign bond markets' integration with implications for funding costs, develop an international asset pricing model that prices liquidity risk for partially segmented markets, and offer a tool with which to evaluate the liquidity-risk exposure of emerging market equity.

This project seeks to better understand what drives sovereign bond market integration. Results show substantial dispersion in the level and dynamics of market integration across countries and maturities. Countries with better credit quality, lower political risk, higher liquidity, and more stable inflation are better integrated. The project also examines how assets are priced in an increasingly global environment when market frictions such as transaction costs are present. Results show that liquidity risk is globally and locally priced for emerging markets specifically in crisis

<u>Project leader: Prof. Ines Chaieb (University of Geneva and SFI).</u>



PhD Program in Finance

The Swiss Finance Institute PhD Program in Finance enables the pursuit of academic excellence. It aims to provide rigorous and inspiring PhD studies in Finance with an intellectual environment and curriculum comparable with the top PhD programs in Europe and North America. SFI students benefit from regular contact with outstanding local and international academics. The program seeks to offer the best training possible both to future academics and those contemplating a career in the industry.

As of January 2015, there were 85 active students enrolled. The program runs across the three SFI centers with students in Léman (38), Lugano (22), and Zurich (25). The 2014/2015 academic year had an intake of 20 students, mostly from Europe, but also from farther afield. SFI supports students financially in their first year of the program so they can study full-time. In subsequent years, students often work as teaching or research assistants in local institutions while writing their theses, following advanced courses, and pursuing their research interests. SFI provides further support that enables program participants to travel to international conferences and workshops and helps them prepare for the job market.

PhD Awards & Support: Swiss Finance Institute Best Paper Doctoral Award

The annual SFI Best Paper Doctoral Award recognizes a PhD student for an outstanding research paper presented at the Research Days organized by SFI. The winning paper is nominated by a committee formed of external experts participating in the Research Days and is selected by faculty representatives of each SFI Academic Center. The award is presented at the SFI Annual Meeting and the recipient also receives a financial prize. In 2015, the award was won jointly by Matthias Efing, (University of Geneva) for his paper entitled "Arbitraging the Basel Securitization Framework: Evidence from German ABS Investment" and Thomas Geelen (Ecole Polytechnique Fédérale de Lausanne) for his paper entitled "Debt Maturity and Lumpy Debt".

Swiss Finance Institute Best Discussant Doctoral Awards

The annual SFI Best Discussant Doctoral Awards recognize Swiss doctoral students in Finance for an outstanding discussion of a paper presented at the SFI Research Days. Recipients are selected by the chairpersons of the respective workshop sessions. The awards are presented at the SFI Annual Meeting and the recipients also receive a financial prize. In 2015, the award winners were Sabine Elmiger (University of Zurich) and Elisabeth Pröhl (University of Geneva).



Best Discussant winner Sabine Elmiger with Olivier Steimer (right) and Claudio Loderer



Best Paper winners Thomas Geelen (center left) and Matthias Efing (center right) with Olivier Steimer (right) and Claudio Loderer

Advanced Doctoral Grants and PhD Study Ahroad

- <u>Piotr Orłowski</u> from the University of Lugano is visiting Kellogg School of Management, USA from September 2015 to August 2016 (faculty sponsor: Prof. Viktor Todorov).
- <u>Elisabeth Pröhl</u> from the University of Geneva visited Princeton University, USA from September 2015 to January 2016 (faculty sponsor: Prof. René Carmona).
- <u>Jakub Rojcek</u> from the University of Zurich visited Simon Fraser University, Canada from February to August 2015 (faculty sponsor: Prof. Ramo Gencay).
- <u>Carlo Sommavilla</u> from the University of Lugano visited Columbia Business School, USA from May 2015 to May 2016 (faculty sponsor: Prof. Marco Di Maggio).

SFI PhD Skills Workshop

In 2015, SFI launched a series of workshops to help PhD students improve their ability to communicate about their research. These skills workshops are run in parallel with the academic job market workshop that prepares students for job interviews.

SFI PhD Skills Workshop: What are you talking about?

In today's world, time is short – and attention spans are shorter. The goals of this workshop were to help SFI PhD students talk about their research findings and those findings' importance in a non-technical manner, and in a way that would see their work stand out from the crowd. The participants were taught to give an interesting and brief introduction to their work and its importance in less than three minutes.

A total of 24 PhD students from one of six Swiss universities attended the workshops. The satisfaction rate was high with 85 percent of the participants saying they would recommend the workshop to a peer.

"Personally, it made me rethink my approach to presenting and communicating my scientific ideas and research papers. I will most certainly use the acquired knowledge for my future talks and presentations."

SFI PhD student from the University of Zurich

PhD Graduate Placements



Europe/Africa

- 13. NHH Norwegian School of Economics
- 14. BI Norwegian School of Management
- 15. Copenhagen Business School
- 16. University of Amsterdam
- 17. London School of Economics
- 17. Queen Mary University of London
- 17. University of Oxford
- 18. Goethe University Frankfurt
- 19. HEC Paris

- 19. Université Paris-Dauphine
- 20. University of St. Gallen
- 21. University of Zurich
- 22. University of Bern
- 23. University of Lausanne
- 24. University of Geneva
- 25. Bocconi University
- 26. ISCTE Business School
- 27. Akdeniz University
- 28. African School of Economics



"The SFI PhD program is a vibrant intellectual environment. The curriculum provides students with analytical tools and a vast knowledge of established theories and recent advancements in the broad field of finance."

SFI has one of the world's largest and most competitive PhD programs in Finance. SFI PhD graduates go on to work in top industry organizations or take up posts at outstanding academic institutions.

SFI PhD Graduates 2015

The following students graduated from the SFI PhD Program during 2015:

- <u>Stefano Colonnello</u>, Assistant Professor, IWH Halle and Otto von Guericke University, Magdeburg, Germany.
- Kagba Kousse, Visiting Assistant Professor of Finance, African School of Economics, Cotonou, Benin
- <u>Alper Odabasioglu</u>, postdoctoral position, London Business School, London, United Kingdom.
- <u>Gianpaolo Parise</u>, Economist, Bank for International Settlements, Basel, Switzerland.
- <u>Stefanie Schraeder</u>, Lecturer in Finance, University of New South Wales, Sydney, Australia.
- <u>Lujing Su</u>, Senior Risk Analyst, Deutsche Bank, Berlin, Germany.
- <u>Francesca Zucchi</u>, an economist to the Board of Governors of the Federal Reserve, Washington DC, USA.

Industry Placement Examples

Allianz, Bank for International Settlements, Banque Cantonale Vaudoise, Banque Centrale du Luxembourg, Credit Suisse, Deloitte, Deutsche Bank, Federal Reserve, Goldman Sachs, Lombard Odier & Cie, Morgan Stanley, Norway Ministry of Finance, PricewaterhouseCoopers, Qatar Investment Authority, State Secretariat for International Finance Matters, Swiss Life, Swiss National Bank, Swiss Re, UBS, Zürcher Kantonalbank

Education

2015 Highlights

The year 2015 witnessed further transformations for SFI Education, marked by major developments on the offering side and a number of operational and staff quality and efficiency changes. The Education team continued to broaden its degree program offering by launching the new Certificate of Advanced Studies in Asset Management together with the SFI Managing International Asset Management Program. The team also adapted to the important paradigm shift in education by focusing on customized and scalable programs, and further developed a state-of-the-art e-learning series that enables SFI Education to provide blended learning in the most effective manner.

Swiss Finance Institute Education offered over 50 courses and conducted more than 5'100 participant days in 2015.

- 5 degree offerings for a total of 16 weeks' study (plus a re-certification program for an earlier non-degree program).
- 3 executive offerings for a total of 9 weeks' study.
- 18 specialist offerings for a total of 6 weeks' study.
- 25 in-house training courses for a total of 11 weeks' study.

A total of over 730 participants took part in one or more of the institute's courses and 700 participated in at least one of our e-learning offerings in 2015.

Once again, the Education unit of Swiss Finance Institute finished the year with a positive financial result, absorbing its investments in new programs and e-offerings, in spite of a difficult and increasingly fragmented market environment. Financial institutions around the world are continuing to refocus their external education demands in response to the challenging market and cost situation. The international trend toward certified courses and more in-house programs continues. These programs are increasingly customized, representing excellent quality at a competitive price. SFI is constantly evaluating the finance industry's need for further specialized certificate programs. Aiming at a

competitive and sustainable education offering, we have made substantial progress in broadening the degree programs: The Certificate of Advanced Studies (CAS) in Real Estate Finance – a joint venture with IAZI AG, one of the leading service companies in the Swiss real estate industry – started in 2014 and is a great success. In fall 2015 we ran another new Certificate of Advanced Studies with a special focus on asset management. Participants in this first cycle of the program came from different parts of the financial sector and their feedback was very positive.

In 2015 SFI Education successfully redesigned its offerings implementing and adding FinTech content to all of them. In July the institute also launched a specific one-day event on understanding and learning from technology pioneers and fast movers. This exceptional event attracted participants from beyond the banking industry.

SFI Education has also strengthened its ability to deliver international in-house programs providing highly successful customized offerings for global clients. Among these are Singapore Management University and the Wealth Management Institute, both of which have been clients for over 10 years. Since 2003 we have welcomed more than 600 students of the Master of Science in Wealth Management Program to a Wealth Management study block in Switzerland.

SFI Education succeeded in winning the pitch for providing a "Bank Directors Training Program" in Vietnam, as an implementing agency of the Swiss State Secretariat for Economic Affairs (SECO). This two-year training program is a comprehensive course of study for senior figures in Vietnamese banking, who are nominated by their bank and the State Bank of Vietnam. The program is comprised of five components: a) 100 hours of e-learning in math, statistics, and finance, b) fourteen three-day training sessions conducted in Hanoi and Ho Chi Minh City each on topics relevant to leading bankers in Vietnam, c) a change management program,

d) providing advice to the State Bank of Vietnam's training division, and e) a train-the-trainer module designed to encourage sustainable banking training in Vietnam in the future.



Participants of the Bank Directors Training Program in Vietnam

Together with its partner, the Centro di Studi Bancari (CSB), SFI has extended its cross-border seminars, and now offers them alongside open-enrolment programs as in-house training courses for specific banks. While we are well aware of the competitive nature of this market, we are confident that our high-caliber, customized offerings will continue to attract Swiss and international banks. In 2015, we extended our Cross-Border Wealth Management certifications for client advisors, independent asset managers, and assistants.

The 2015 Education Offering

The focus of the SFI Education offering is to provide insight into key knowledge and trends in the financial industry, both on a strategic and an operational level. The concepts underlying these trends are presented by academics and practitioners selected for their extensive industry involvement and their understanding of the implications of these concepts for the finance industry. Senior executives are invited to give presentations on their institution's experience of these developments.

A systematic and regular update of the topics and course structure ensures that the needs of the market are constantly met. Finally, the carefully selected participants are of the highest caliber, ensuring a critical peer discussion of the ideas presented and the benefit of outstanding networking and interaction platforms.

The Education Offering

C-Level Offerings for Top Management International Wealth Management Retreat

The 2015 cycle of SFI's most prestigious offering — the International Wealth Management Retreat for senior executives — was postponed until Spring 2016 in order to align the retreat with a major international event: the 5th Swiss Asset Management Day, which will be run for the first time jointly by the Office of Economy of Kanton Schwyz and SFI.

University Degree Offerings

Diploma of Advanced Studies in Banking

A total of 43 participants have registered for this German-language, part-time bank management program for 2015/2016. The aim of the program is to reach a broadened understanding of the finance industry, improve the quality of decision-making, and develop skills that will enhance interaction with colleagues from other business areas.

Participants are taught how to interpret their own responsibilities as part of the financial system and how to apply these in line with modern thinking and the requirements of all market players. A great deal of attention is therefore paid to the study of the latest international developments in this context.

The Diploma of Advanced Studies in Banking runs for seven weeks spread over a two-year period. It is aimed at young vice presidents and is offered in collaboration with the Rochester–Bern Executive Programs.

Certificate of Advanced Studies in Asset Management

In response to the growing significance of asset management, both in Switzerland and abroad, we offered the CAS in Asset Management for the first time in 2015. The CAS in Asset Management was simultaneously offered both as a degree program and an SFI Executive Offering without final exams or a final paper.

Certificate of Advanced Studies in Real Estate Finance

The Certificate of Advanced Studies in Real Estate Finance provides an unparalleled opportunity for professionals and executives from the finance and real estate industry to obtain state-of-the-art insights and skills with regard to the key factors and investment strategies driving real estate markets. The program highlights aspects such as valuation, real estate portfolio management, and real estate financing, but also devotes time to the legal and tax aspects of real estate investments. The certificate program is held in German and is targeted at real estate specialists from finance and other industries. It comprises 12 days of classroom study and leads to a Certificate of Advanced Studies issued by the University of Bern.

Executive Offerings

Advanced Executive Program

The SFI Advanced Executive Program helps senior managers and experts from financial and related sectors to strengthen their management competences, broaden their factual knowledge, and promote integrated thinking around the current dramatic trends observed in the financial industry. The program, held predominantly in German, consists of 25 days spread over roughly one year.

International Bank Management Program in Banking

The SFI International Bank Management Program is an international executive course of study that explores the drivers behind the developments confronting the industry today. On the one hand, the program explores critical finance concepts pitched at a level that is tailored to non-specialists. On the other, it addresses managerial responses to the production and delivery of modern financial services in these challenging times. The program, taught in English, attracts and brings together a dynamic international faculty, industry leaders, and international peers. It takes place in one block of 10 days.

Both executive offerings are comparable in style to a shortened MBA program, with extensive use of cases, class discussions, and group presentations to incorporate the experience of the highly diverse participants. Each of the two programs calls on around a dozen academics selected from Swiss and foreign universities, who are responsible for leading one specific module each. These are then supported by up to eighty senior executives who join the programs for special presentations and in-depth discussions.

Managing International Asset Management (MIAM)

As a response to the growing significance of asset management, both in Switzerland and abroad, we offered the Managing International Asset Management Program for the first time in 2015. This course of study was simultaneously offered both as an SFI Executive Offering without final exams or a final paper and as a degree program.

Certification Courses

Cross-Border Seminars

Following a request from a group of Swiss private banks in 2012, SFI in collaboration with Centro di Studi Bancari now offers cross-border seminars on Austria, Belgium, Brazil, France, Germany, Italy, Spain, and the UK and – since 2015 – on Russia. We also offer these seminars exclusively to specific banks as in-house training courses. In 2015, SFI and Centro di Studi Bancari conducted 16 cross-border seminars as both open-enrollment and in-house courses.

More about SFI certification courses to follow in 2016.

Customized Bank Seminars

The Singapore Master's Program

SFI is also responsible for a one-week Swiss module of the Master of Science in Wealth Management offered by the Singapore Management University and Wealth Management Institute. The Swiss module was held in March in 2015, bringing together 12 participants from China, 12 from Singapore, 8 from East and Southeast Asia, and 1 from Japan. The program includes wealth management related lectures from both academics and senior bank executives as well as a site visit to a bank in Zurich.

Customized Training Courses for China

In recent years, we have been approached by various organizations requesting in-house training courses for major Chinese banks. A successful collaboration developed, which we hope to continue in the future.

In-House Offerings

As mentioned above, in addition to its open-enrolment programs, SFI also provides company-specific, in-house training offerings both to Swiss and international financial institutions. These courses, workshops, and focused certification programs are tailored to clients' individual requirements.

Why In-House Offerings from SFI?

- Our focus on the finance industry: SFI's focus on financial institutions results in a profound understanding of the needs and challenges of the financial industry. With a teaching faculty of more than 60 SFI professors, a total faculty of around 120 educators from academia and industry specialized in banking and finance, and an open architecture approach to lecturing, SFI offers in-depth and unmatched expertise.
- A strong and experienced partner in education:
 Building on more than 25 years of experience
 in banking and finance education, SFI offers
 customized training courses not only in
 Switzerland, but also in Europe and Asia. Clients
 include Swiss and international banks, universities
 and bankers' associations, and the Swiss
 State Secretariat for Economic Affairs (SECO).
- Thought leaders: A unique network of leading researchers, teachers, and senior bank practitioners puts SFI in a position to offer exceptional value in education. The institute's lecturers are aware of the challenges facing the finance industry, can combine theoretical concepts and practical examples, and ensure best-practice knowledge transfer to the client company.

Training Development Process

In order to address company-specific needs, detailed preparation takes place for each client institution:

- Identification of training goals & learning framework
- Analysis of status quo & internal courses conducted
- Determination of company-specific needs
- Development of customized curriculum
- Conduct of in-house training sessions
- Certification & review process

The process begins with education strategists working in close collaboration with the client's internal training representatives to establish client-specific training goals and requirements. This stage takes previous training courses and content into account with a view to using existing content as the basis for a customized curriculum. It also examines individual participant experience and background alongside company-specific training needs. This leads to the development of an individual, tailor-made training program that can also involve internal experts.

The next stage is to select the most appropriate lecturers from both academia and industry from SFI's first-class pool of lecturing talent. The client and the chosen lecturers then work in close collaboration to devise the ideal structure for the training offering. This might be teacher- centered training, case-study based, or workshop-based learning. Tailor-made support documentation, based on the contents of the training course, is then prepared. Depending on the client's requirements, the in-house training offering can also include the organization of training locations and the preparation and management of examinations

Following successful completion of the program, each participant is awarded a certificate by SFI. Once the customized training course is complete, a detailed review is carried out in order to improve the program

so it can be delivered again and, potentially, implemented within the client's own training framework. Refresher courses can also be designed to maintain knowledge levels and support continuous learning.

SFI e-Finance Series

SFI Education continues to develop its own e-learning offering, the SFI e-Finance Series. The offering is primarily tablet-based and applications are available for iPad and Android tablets. The content is presented in the form of interactive e-books. The e-learning offering is used within our programs and in-house training courses. An interactive forum and Q&A sessions leverage the learning success in addition.

SFI e-education follows a twofold content approach, focusing on the one hand on core knowledge for finance such as mathematics, statistics, and basic finance, and on the other on more specific finance topics such as mortgaging, trade finance, or the regulatory environment.

Collaborations

SFI has been collaborating with the SECO since 2009. As described above, SFI has launched a significant training program in Vietnam as part of the SECO's macroeconomic stability support for the country.

SFI and zeb consulting jointly presented the initial results of their Swiss Asset Management Survey – the most comprehensive survey of the industry in Switzerland to date – at SFI's 10th Annual Meeting on November 12

Successful collaborations have also continued with the Centro di Studi Bancari, IAZI AG, Rochester-Bern Executive Programs, Singapore Management University, and Wealth Management Institute Singapore.



Alumni Association

The Swiss Finance Institute Alumni Association (SFIAA) includes graduates of any of the Swiss Finance Institute training programs or further education offerings, in particular the Executive Program, the Diploma of Advanced Studies (DAS) in Banking, the Certificate of Advanced Studies (CAS) program, the Advanced Executive Program, the Financial Asset Management and Engineering Program, and the International Bank Management Program are all eligible to join. The SFIAA currently has 1'366 members.

The SFIAA promotes:

- Networking among its members
- Further education of its members by means of seminars and lectures (in collaboration with SFI)
- Contributions to the ongoing development of SFI

In addition to an annual assembly of the association's members, the SFIAA and SFI jointly organize the Alumni Luncheons with prominent guest speakers on key topics of interest, after-work aperitifs in Zurich and Basel, luncheons in Bern, and networking dinners in Geneva, as well as the SFIAA Golf Trophy. Furthermore, in 2015, for the first time, a new type of social event has been conducted starting with a one-day company visit to Mercedes-AMG in Affalterbach.

2015 Alumni Luncheons

March 11, 2015

Networking Dinner Romandie

March 19, 2015

General Assembly & Luncheon Zurich. Speaker: Matthias Reinhart, President of the management board, VZ Group

April 8, 2015

Luncheon Bern

April 21, 2015

After-Work Apéro Basel

May 21, 2015

After-Work Apéro Zurich

June 3, 2015

Networking Dinner Romandie

June 10, 2015

Luncheon Bern

August 18, 2015

After-Work Apéro Basel

August 26, 2015

After-Work Apéro Zurich

August 27, 2015

Social Event Mercedes-AMG

September 2, 2015

Networking Dinner Romandie

September 9, 2015

Luncheon Bern

September 18, 2015

Golf Trophy

September 24, 2015

Evening Seminar & Alumni Dinner. Speaker: Elizabeth Corley, CEO, Allianz Global Investors GmbH

November 3, 2015

Luncheon Zurich. Speaker: Rainer Greifeneder, Social Psychology, University of Zurich

November 10, 2015

Luncheon Bern

November 12, 2015

10th Annual Meeting

November 18, 2015

Networking Dinner Romandie

December 1, 2015

After-Work Apéro Basel

Women's Luncheons

This event was launched in 2008 to promote networking among female members of the SFIAA. A total of 120 women participated in this year's events:

June 4, 2015

Speaker: Petra Wüst, CEO, Wüst Consulting

October 27, 2015

Speaker: Carmen Tanner, Professor of Business Psychology and Director of the Center for Responsibility in Finance, University of Zurich

Knowledge Center

The year 2015 saw further strong progress from the Swiss Finance Institute Knowledge Center (SFI KC). Delivering excellent results, SFI KC considerably increased awareness, and the visibility, of SFI knowledge transfer activities, notably gained recognition for industry-oriented SFI research, received great feedback from practitioners, and generated an outstanding media response.

SFI Industry-Oriented Publications

In 2015, SFI KC published two White Paper studies (www.sfi.ch/whitepaper) and launched a new publication series called SFI Practitioner Roundups (www.sfi.ch/practitionerroundups). SFI White Papers address practitioners, giving new stimulus to relevant topics from banking and finance and contributing to ongoing discussions of those topics.

April 2015 – The Future of Investment Banking

This study was carried out by SFI Professor Semyon Malamud and investigates the impact of recent regulatory changes and technological advances on investment banking, detailing resultant trends and opportunities for Swiss investment banks to remain competitive.

The paper reveals that strict capital requirements and market regulation will continue to push investment banks further away from their market-making and trading activities. In addition, securitization markets will continue to grow and the disintermediation of financing will be further encouraged. Numerous opportunities exist for Swiss investment banks to remain competitive, but banks should react fast, fostering in-house FinTech innovations, working together to create multi-bank portals, and building strategic collaborations.

June 2015 – Structured Products: Performance, Costs, and Investments

Shedding light on the performance and costs of structured products and the investment opportunities such products offer, SFI carried out this study – the first of its kind – in response

to a mandate from the Swiss Structured Products Association. The study proved to be very extensive with a preparation time of eleven months. The main challenge was the data – around 80 percent of the effort required was spent preparing a representative and qualitatively acceptable data set. Prof. Dietmar Maringer, Dr. Walter Pohl, and SFI Professor Paolo Vanini investigated the performance of structured products for the period 2008–2014, measuring positive median returns of between 5 and 15 percent per annum under normal market conditions. The median total expense ratios (TERs) of structured products, including net margin and all production and distribution fees, are in the range of approximately 0.3 to 1.7 percent per annum. Swiss investors prefer to invest in barrier reverse convertibles on stocks, tracker certificates, and – if the time value of money is positive – also in capital protection structured products. Behavioral motives appear to play a major role in investment decisions.

July 2015 - SFI Practitioner Roundups

In the summer, SFI KC launched a new monthly publication called SFI Practitioner Roundups (www.sfi.ch/practitionerroundups), in response to suggestions from practitioners and academics. These roundups present the latest industry-oriented research findings and ideas from SFI faculty in a concise, focused manner. Recently covered themes include risk management, structured products, secondary buyouts, real estate, and regulation.

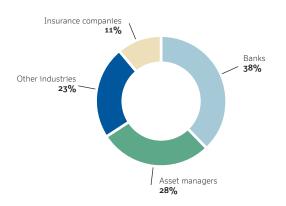
The number of media references to SFI KC publications reached an all-time high in 2015, showing how popular these publications are with the media. In all, 22 print and 15 online articles appeared. The SFI White Paper on structured products enjoyed substantial and wide media coverage, due to the relevance of the topic and the thoroughly prepared press documentation. The press conference was well attended and the results were outstanding in terms of quality and quantity. Overall, SFI KC – through its communication channels – reached more than 6 million people in 2015.

SFI Knowledge Catalyst

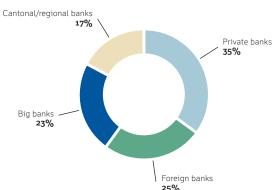
The SFI Knowledge Catalyst program (www.sfi.ch/catalyst) enables industry partners to engage students for research projects or internships. In all, 80 collaborative projects between Master's or PhD students and industry partners were successfully completed in 2015; including several with existing industry partners and many with referrals.

The biggest beneficiaries of SFI Knowledge Catalyst projects since the program's launch have been SFI's founding members, accounting for 38 percent of the total number of completed projects. Several non-bank organizations and industry partners from other sectors have also been able to profit from SFI finance know-how.

SFI Knowledge Catalyst Projects 2012–2015: A Breakdown



Broken down by bank type



Here is a concrete example of how an industry partner benefited from our Knowledge Catalyst

offering: Solvency II and Swiss Solvency Test requirements and the long-term nature of liabilities force life insurance providers to find ways of assessing the behavior of their liabilities under different economic scenarios. Replicating portfolios is a relatively new but established technique that many of the biggest European insurers are using for that purpose.

The findings of the theses enabled us to have new software built that is expected to save us over 50 percent of our team's IT operating expenses.

The team at Zurich Insurance needed scientific proof for its business case to build better software and engaged three students for the necessary research. The students' results showed which specific techniques work in practice and that it was mathematically possible to replace the existing software used for such calculations. This enabled Zurich to mandate a company to build and implement a new software solution that is expected to save over 50 percent of the team's IT operating expenses. For more details visit: www.sfi.ch/kcsuccessstories.



Lucio Fernandez-Arjona and Regine Scheder, Zurich Insurance Company

Further Initiatives for the Swiss Financial Center

SFI KC continued to connect academic experts with industry partners, enabling knowledge to be shared, advice to be provided, and company-specific research to be carried out. The center saw increased demand for this service offering from its founding members.

In a further development, SFI Professor Norman Schürhoff and Prof. Suzanne de Treville created a tool that allows Swiss companies to easily calculate the hidden costs of production outsourcing. This enables companies to assess from which point on an outsourced supply chain is no longer profitable. The tool was demonstrated at, and introduced to, many companies and in spring 2015 SFI KC collaborated with the SECO to promote the application to SMEs in Switzerland, with the goal of improving Swiss companies' competitiveness and keeping production in the country.

When supply-chain managers put on finance glasses, they see a whole new set of opportunities.



Suzanne de Treville (UNIL) and Norman Schürhoff (SFI & UNIL)

Manufacturing companies have been offshoring production to low-wage countries. The resulting need to make production decisions before knowing demand has exposed these companies to demand volatility, and managers have seen expected profits melt away. Prof. Suzanne de Treville was searching for a way to capture the value of supply-chain responsiveness and teamed up with SFI Prof. Norman Schürhoff. Together, they created the Cost-Differential Frontier (CDF) Calculator (http://cdf-oplab.unil.ch/). Introduced by the US Department of Commerce, the CDF tool helped US companies to profitably relocate their production to America. The White House welcomed the results and announced that Commerce will promote the tool to US SMEs. Companies such as Nestlé Switzerland, Nissan Europe, and GSK Vaccines have also benefited from the insights provided by the CDF calculator. And SFI and the SECO have supported the researchers in promoting the tool to SMEs in Switzerland.

Knowledge Transfer Seminars

Swiss Finance Institute Knowledge Transfer (SFI KT) seminars remained highly successful in 2015, providing further opportunities to foster dialogue between academics and professionals. In terms of participant numbers – at breakfast, lunch, and evening seminars – SFI KT achieved its best ever results.

SFI KT activities started in 2006 and expanded steadily. In the ten intervening years, awareness of the seminar series in particular, and SFI's activities in general, has been substantially enhanced.

Reaching Our Audience via Multiple Channels

In terms of numbers for 2015, a total of over 2'500 participants attended the events organized; 4 breakfast, 4 lunch, and 15 evening seminars took place, as did the 10th Annual Meeting – our one and only conference in 2015.

The overview presented in the figure below shows which target audiences were reached by all Knowledge Center activities combined. Marketing

and communication are especially crucial for seminars and conferences. SFI KT therefore promotes all activities via a multichannel approach. While initially seminars and conferences were mainly promoted using mailings or newsletters, in 2015 SFI KT began to selectively use social media – including Facebook, Twitter, and LinkedIn – to raise awareness of these activities.

A Heartfelt "Thank-you" to Our 39 KT Speakers

One reason for our success in 2015 was our focus on relevant and cutting-edge issues – a crucial tactic for keeping our activities attractive. New research findings applicable to the business context – for example, innovation or risk – certainly draw in prospective participants. A second and even more important reason for this success was our list of distinguished speakers. People want to see role models, personalities, and visionaries, who are able to present a subject in-depth. In 2015, KT was once more successful in attracting charismatic and outstanding personalities as speakers, including Prof. Tim Jenkinson, Oxford University; Prof. Martin

Overview 2015 Swiss financial industry audience

50—80 key contacts (expert community)

5,000 senior practitioners

from banking & finance

24 seminars & 1 conference

39 outstanding speakers

(cash and non-cash)

20–30 key supporter relationships

Substantial sponsoring contributions

New partners e. g. Canton of Schwyz

• 850 new contacts for SFI

Achievements

- 2,500 event participants
- Over 3,000 podcast downloads

6,200,000 general public

multipliers, e. g. journalists, associations, and other ambassadors

- Successful White Paper press conference with sell-out audience
- 22 print and 15 online media articles
- Increasing number of requests from the industry

Weber, University of Mannheim; Nobel Prize Winner Prof. Thomas J. Sargent, New York University; Prof. Andrew W. Lo, MIT; Prof. Stephen Schaefer, London Business School; and Prof. Jean-Pierre Danthine, Swiss National Bank. Our audiences were also addressed by industry professionals, decision makers, and senior executives, including Claudio Saputelli, UBS; David Fransen, Vitol; Duncan Innes-Ker, The Economist Intelligence Unit; David Cole, Swiss Re; and Dr. Hans-Joachim Jaeger, Ernst & Young.

Partners

The demand to collaborate with us increased in 2015. While such collaborations are attractive for our partners because they give them access to our large contact base, SFI KT need to carefully balance the benefits of such partnerships with the coordination efforts required. It is important to carefully evaluate potential collaborations with regards to SFI brand awareness and organizational possibilities. In 2015, SFI KT continued its collaboration with a range of partners, including the University of Zurich, ETH Zurich, the Swiss Risk Association, and the Swiss Bankers Association.

Generous Sponsors

SFI KT is very grateful that, in 2015 yet again, it received significant support and contributions from its generous sponsors. Especially outstanding are the engagements of SIX Group, Aberdeen Asset Management, and Zürcher Kantonalbank. Other sponsoring partners included SIX Structured Products and the Associazione Bancaria Ticinese (ABT).

SFI 10th Annual Meeting

The SFI Knowledge Center has the role of a bridge: it seeks to bring cutting-edge academic research to the world of the financial industry, and ensure that practical insights flow in the opposite direction – from the field to academia. On 12 November 2015, the institute celebrated its tenth anniversary. And the SFI 10th Annual Meeting stayed true to the institute's core mission – exponents from both worlds coming together to share insights, and explain the issues they are facing.

A Day to Remember

"Opportunities in Asset Management" was the broad theme of the one-day conference, held in the offices of the SIX Swiss Exchange in Zurich. The auditorium was packed as Alexandre Zeller, member of the SFI Foundation Board and Chairman of the Board of Directors at SIX, officially opened the proceedings. Participants from the fields of banking, asset management, and academia could look forward to a day of presentations and conversations on topics ranging from the future of asset management in Switzerland to the very specific challenges facing today's pension funds, or the market outlook for 2016.

In order to cover the abundance of relevant issues on the agenda, the day was split into a fundamental research stream and an applied stream. In each, participants were treated to contributions both from invited guests and from SFI's own researchers. Participants in each stream then came together for the awards ceremony, the plenary session on global macroeconomics, and the evening's panel discussion.

Hot Button Pension Funds

"With 60 percent of our assets, we are not making money."

Pension fund investments are a large part of asset management, especially in Switzerland, which boasts one of the best pension systems in the world. Prof. Roger Kunz, SBB Pension Fund & University of Basel, illustrated the various challenges faced by these funds, using the example of SBB, the Swiss public rail provider. He showed how, as they face

historically low interest rates, institutional investors are struggling to comply with the legally stipulated returns on assets. Portfolio composition is rooted in tradition and hampered by regulation, resulting in 60 percent of assets failing to make money.

Prof. Kunz remained reasonably positive about the future, however: "Most pension funds will be able to pay pensions," but also advised against taking higher risks because of the influence of any particular market environment.

A Theorist's Approach

Prof. Kunz' points dovetailed nicely with Prof. Eric Jondeau's presentation in the fundamental research stream. Highlighting some of the same challenges as Prof. Kunz, he added to the mix cultural issues, such as the difference in world views between actuaries and asset managers, as a barrier to success. Prof. Jondeau very much stressed the need for a long-term approach, including duration matching of assets and liabilities. This is currently impossible. In his models, he therefore simulates the ability to "go negative" – that is, to borrow cash in order to buy long-duration assets.

Both professors agreed, the overall problems of pension funds – demographic change, low interest rates, costs – cannot be solved by the asset management function alone. But asset management can help make the pension system more sustainable.

Practical Investing vs. Theoretical Approaches

In other areas, there were signs of daylight between the proverbial ivory tower and the halls of industry.

Factor Investing

Described as an investment strategy in which securities are chosen based on attributes that are associated with higher returns, factor investing took off in the 1970s with the efficient market theory. However, it has since gone beyond pure data mining. Prof. Stephen Schaefer revealed that factor investing, as it is practiced today, lacks a sound theoretical

framework. This, in turn, also has practical consequences. Letting investments be guided by factors means deviating from the market portfolio and that means someone has to be on the other side of the trade: "At present it seems as if it's just 'smart investors' who take factor exposure and less smart investors who provide it."

Destroying Value Through Asset Management?

Asset managers and their clients will agree that it is extremely hard to outperform the market. Prof. Olivier Scaillet showed just how hard. In his analysis of after-fee performance by American equity mutual funds, only 0.2 percent have managed to beat the market in recent times – this is not a typo, as the professor is keen to point out. Fees tend to destroy any added value. In fact, he finds that the mutual fund industry as a whole destroys value, and that this has gotten worse over time as the industry has ballooned. Furthermore, chance plays a large role in the performance of funds, though clever statistical analysis can reveal the likelihood of a particular performance being based on luck as opposed to skill.

Many other themes and discussions provided food for thought. The participants in the fundamental research stream learned that bubbles in financial markets could be the result of rational actors making rational decisions. Who knew? They also saw how the University of Zurich trains tomorrow's asset managers, how illiquidity can be used to predict positive hedge fund performance and, not least, how an academic researcher approaches asset management in the first place.

Tread Carefully in 2016

In the plenary sessions, Giles Keating of Credit Suisse invited everyone to join him for a look into the future. In 2016, he postulated, we can look forward to the Fed tightening, China slowing, Europe stabilizing, and Brazil surging. It is a mixed bag, but it seems to warrant a dose of cautious optimism.

The Panel Says Yes

In closing, a panel – moderated by Dr. Gabriela Maria Payer, and with the participation of Prof. Damir Filipovic (EPFL & SFI and Board of Directors, Swiss Life), Dr. Paul Woolley (London School of Economics and Political Science), Dr. Zeno Staub (CEO Bank Vontobel AG), and Christian Staub (Managing Director country head for Germany, Switzerland, Austria, and Eastern Europe) – was asked: Is asset management the right strategic initiative for Swiss banking?

The consensus seemed positive. Switzerland can be a hub for innovative investment solutions by building on its comparative advantages in education and financial engineering. These are synergies between the traditional strengths in wealth management and the untapped potential in asset management. Asset management is a crucial and integral element in the Swiss financial services landscape. But the road ahead is steep: get better, get bigger, ramp up the quality, and always keep the client in mind.

This is a task that needs to be tackled both in industry and academia. Swiss Finance Institute is uniquely positioned at the intersection of these worlds. The $10^{\rm th}$ annual meeting showed that it is ready to step up and fulfill its role.

SFI Awards

Swiss Finance Institute (SFI) gave its Outstanding Paper Award to "The Impact of Treasury Supply on Financial Sector Lending and Stability", a research paper by Arvind Krishnamurthy of Stanford University and Annette Vissing-Jorgensen of the University of California Berkeley that studies how government debt crowds out financial sector short-term debt.

Governing and Advisory Bodies

The main governing body of Swiss Finance Institute (SFI) is the Foundation Board. It includes representatives of its founding members as well as representatives of its academic regional centers. The Foundation Board is advised by the Scientific Council on matters of scientific content.

In 2015, the Executive Education Advisory Board transformed into the Education and Knowledge Advisory Board, it now advises not only on matters of professional education but also on knowledge transfer to industry. The Foundation Board has four committees: the Executive Committee, the Fund Management Committee, the Audit and Risk Committee or the Faculty Appointment and Research Project Committee. The aim of the committees is to discuss financial and faculty issues in detail before each meeting of the Foundation Board in order to bring recommendations to the members of the Board. All Foundation Board members have a secondary role on one of the four committees.

Foundation Board

Foundation Board members represent the entire finance and banking community in Switzerland, both locally and internationally. SFI gratefully acknowledges the participation of Jean-Dominique Vassalli representative of the SFI Léman Center and Michael Auer, representative of Raiffeisen Group. Both finished their mandate on the Foundation Board during 2015.

Swiss Finance Institute Foundation Board – December 2015

Chairman

<u>Olivier Steimer</u>¹, Chairman of the Board of Directors, Banque Cantonale Vaudoise

Deputy Chairmen

Lukas Gähwiler¹, CEO, UBS Switzerland

<u>Hans-Ulrich Meister</u>¹, Head Private Banking & Wealth Management and CEO Region Switzerland, Credit Suisse until end of October 2015

Members

<u>Marco Bizzozero</u>², CEO, Deutsche Bank (Switzerland) Ltd. – as representative of the Association of Foreign Banks in Switzerland

<u>Boris Collardi</u>³, CEO, Julius Baer Group Ltd. – as representative of the Association of Swiss Commercial and Investment Banks in Switzerland

<u>Dr. Renaud de Planta</u>³, Managing Partner, Pictet <u>Group – as representative of Swiss Private Bankers</u> <u>Association</u>

<u>Prof. Yves Flückiger</u>⁴, Rector, University of Geneva – as representative of Swiss Finance Institute Léman Center

<u>Prof. Dr. Michael Hengartner</u>⁴, President of the University of Zurich – as representative of Swiss Finance Institute Zurich Center

<u>Dr. Stephanino Isele</u>², Head of Institutionals & Multinationals and Member of the Executive Board, Cantonal Bank of Zurich

<u>Claude-Alain Margelisch</u>⁴, CEO and Delegate of the Board of Directors, Swiss Bankers Association

<u>Prof. Dr. Piero Martinoli</u>⁴, President, Università della Svizzera italiana – as representative of the Swiss Finance Institute Lugano Center

<u>Dr. Christian Poerschke</u>³, Head of Department Services and Member of the Executive Board, Raiffeisen Group

<u>Luca Soncini</u>², Executive Board Member, Chief Financial & Risk Officer, PKB Privatbank SA – as representative of the Ticino Bankers Association

<u>Alexandre Zeller</u>², Chairman of the Board of Directors, SIX Group Ltd. Zurich

¹ Executive Committee, ² Audit and Risk Committee

³ Fund Management Committee, ⁴ Faculty Appointment and Research Project Committee

Scientific Council

The Swiss Finance Institute Scientific Council is comprised of international experts nominated as a result of a wide consultation with SFI's university partners. Its aim is to arrive at a broad consensus on the representation of the Scientific Council of Swiss Finance Institute's main fields of research: corporate finance, financial econometrics, financial mathematics, and investments. SFI's Foundation Board has committed to make decisions regarding scientific content exclusively under the recommendation of its Scientific Council. SFI is very fortunate to count on the enthusiastic support of the following internationally renowned experts:

Chairman

<u>Prof. Dr. René Stulz</u>, Fisher College of Business, Ohio State University

Members

<u>Prof. Dr. Tim Bollerslev</u>, Fuqua School of Business, Duke University

<u>Prof. Dr. Patrick Bolton</u>, Columbia Business School, Columbia University

<u>Prof. Dr. Markus Brunnermeier</u>, Department of Economics, Princeton University

<u>Prof. Dr. Darrell Duffie,</u> Graduate School of Business, Stanford University

<u>Prof. Dr. Maureen O'Hara</u>, Johnson Graduate School of Management, Cornell University

Education and Knowledge Advisory Board

The Education and Knowledge Advisory Board is the main supervisory body concerned with Education and Knowledge Center. The Board ensures that SFI's Education offering is of the highest quality, addresses the needs of the industry, and is synchronized with other initiatives within Switzerland. The Board advises the Knowledge Center on its initiatives and future strategy.

The members of the Education and Knowledge Advisory Board as of December 2015 are:

Chairperson

Dr. Philipp Halbherr

Members

Roland Altwegg, Head Private Clients, Raiffeisen Schweiz

<u>Hans Baumgartner</u>, Head Private & Wealth Management Clients Region Mittelland, Credit Suisse AG

<u>Christian Donzé</u>, Head of Professional Training, BCV

 $\underline{\text{Judith Eberl}}, \text{Head of HR Training, Development \& Internal Communications, BSI SA}$

<u>Christophe Lapaire</u>, Chairman SFI Alumni Association and SIX Securities Services AG

<u>Lukas Stucky</u>, Head Julius Baer Academy, Bank Julius Baer & Co. Ltd

<u>Markus Tanner</u>, Senior Talent Partner, UBS Schweiz

<u>Johannes Toetzke</u>, Global Head Talent Development Private Banking & Wealth Management, Head Talent Development Region Switzerland, Credit Suisse AG

<u>Dr. Thomas Ulrich</u>, Regional Head Greater Zurich area, Managing Director, UBS AG Secretary

 $\underline{\text{Matthias Wirth}}, \text{Swiss Bankers Association until end} \\$ of December 2015

Project Evaluation Committee

The SFI Project Evaluation Committee is an independent committee of professors selected from around the world for their expertise in financial economics. Projects are assessed on the basis of their scientific rigor and their potential impact on financial economics, in particular through publication success.

The members of the SFI Project Evaluation Committee as of December 2015, are:

Chairperson

<u>Prof. Dr. Jean-Charles Rochet</u>, University of Zurich and Swiss Finance Institute (Head of Research)

Members

<u>Prof. Dr. Suleyman Basak</u>, Institute of Finance and Accounting, London Business School

Prof. Dr. Bruno Biais, CRM, University of Toulouse

<u>Prof. Dr. Arnoud Boot</u>, Faculty of Economics and Econometrics, University of Amsterdam

<u>Prof. Dr. Wayne Ferson</u>, Marshall School of Business, University of Southern California

<u>Prof. Dr. Alexander Ljungqvist</u>, Stern School of Business, New York University

<u>Prof. Dr. Josef Zechner</u>, Institute for Finance, Banking and Insurance, Vienna University of Economics and Business







Summary of Swiss Finance Institute Financial Accounts 2015

Balance Sheet as of 31 December	2015 CHF	2014 CHF
Assets		
Current Assets		
Cash and cash equivalents	6'131'293	32'059'431
Trade receivables	152'457	291'571
Other current receivables	28'715	97'273
Accrued income and prepaid expenses	298'440	126'944
Total Current Assets	6'610'906	32'575'219
Capital Assets		
Financial assets	38'630'436	23'277'284
Tangible fixed assets	65'212	82'790
Total Capital Assets	38'695'648	23'360'074
Total Assets	45'306'554	55'935'293
Liabilities and Founders' Equity		
Short-Term Liabilities		
Trade creditors	28'869	27'899
Other current liabilities	324'670	524'837
Deferred income and accrued expenses	2'549'136	3'342'311
Total Short-Term Liabilities	2'902'675	3'895'047
Long-Term Liabilities		
Other long-term liabilities	6'000'000	8'000'000
Total Long-Term Liabilities	6'000'000	8'000'000
Total Liabilities	8'902'675	11'895'047
Founders' Equity		
Foundation capital	17'000'000	15'000'000
Statutory capital reserves	37'564'785	37'564'784
Statutory retained earnings	-8'524'535	-4'010'969
Result of the period	-9'636'370	-4'513'569
Total Founders' Equity	36'403'879	44'040'246
Total Liabilities and Founders' Equity	45'306'554	55'935'293

Income from Education courses 176 587 477 473 176 587 477 473 176 587 477 473 176 587 17	Profit and Loss Account for for the period ending 31 December	2015 CHF	2014 CHF
Expenses from Education Courses and Knowledge Center 3/300/898 3/132/929	Income from Education courses	3'124'311	3'085'456
Expenses from Education courses	Income from Knowledge Center	176'587	47'473
Expenses from Research Expenses from PhD Program Expenses from Knowledge Center Total Expenses from Education, Research, PhD & KC Net Result before General Expenses -3'531'292 -3'072'256 Audit services -12'000 -11'800 Other professional services -12'000 -11'800 Other professional services -14'3900 -61'392 Office expenses -128'459 -132'190 Marketing expenses Other operational expenses Total Other Operational Expenses -252'986 -482'695 -9'775'085 Depreciation of tangible assets -17'578 Earnings before Interest, Depreciation, and Amortization Earnings before Interest -17'578 -10'608 Financial income Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'693 Net result on investments -1'936'034 -3'449'672 Net non-operational income -1'781'100 -1'800'000 Extraordinary, non recurring, or prior-period result -22'924	Income from Education Courses and Knowledge Center	3'300'898	3'132'929
Expenses from PhD Program	Expenses from Education courses	-1'279'396	-1'230'755
Expenses from Knowledge Center	Expenses from Research	-6'666'569	-7'150'343
Net Result before General Expenses -5'445'268 -6'220'134 Personnel expenses -5'445'268 -6'220'134 Personnel expenses -3'531'292 -3'072'256 Audit services -12'000 -11'800 Other professional services -178'336 -176'492 IT services -43'900 -61'392 Office expenses -128'459 -132'190 Marketing expenses -128'459 -132'190 Marketing expenses -128'459 -132'190 Marketing expenses -128'655 -94'849 Other operational expenses -526'986 -482'695 Earnings before Interest, Depreciation, and Amortization -9'503'546 -9'775'085 Depreciation of tangible assets -17'578 -10'608 Earnings before Interest -9'521'124 -9'785'693 Financial income 11'027 5'769 Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net ron-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	,	-574'080	-754'111
Net Result before General Expenses	Expenses from Knowledge Center	-226'120	-217'855
Personnel expenses -3'531'292 -3'072'256 Audit services -12'000 -11'800 Other professional services -178'336 -176'492 IT services -43'900 -61'392 Office expenses -128'459 -132'190 Marketing expenses -122'805 -94'849 Other operational expenses -122'805 -94'849 Other operational expenses -526'986 -482'695 Earnings before Interest, Depreciation, and Amortization -9'503'546 -9'775'085 Depreciation of tangible assets -17'578 -10'608 Earnings before Interest -9'521'124 -9'785'693 Financial income 11'027 5'769 Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	Total Expenses from Education, Research, PhD & KC	-8'746'165	-9'353'064
Audit services -12'000 -11'800 Other professional services -178'336 -176'492 IT services -43'900 -61'392 Office expenses -128'459 -132'190 Marketing expenses -122'805 -94'849 Other operational expenses -41'485 -5'971 Total Other Operational Expenses -526'986 -482'695 Earnings before Interest, Depreciation, and Amortization -9'503'546 -9'775'085 Depreciation of tangible assets -17'578 -10'608 Earnings before Interest -9'521'124 -9'785'693 Financial income 11'027 5'769 Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	Net Result before General Expenses	<u>-5'445'268</u>	-6'220'134
Audit services -12'000 -11'800 Other professional services -178'336 -176'492 IT services -43'900 -61'392 Office expenses -128'459 -132'190 Marketing expenses -122'805 -94'849 Other operational expenses -41'485 -5'971 Total Other Operational Expenses -526'986 -482'695 Earnings before Interest, Depreciation, and Amortization -9'503'546 -9'775'085 Depreciation of tangible assets -17'578 -10'608 Earnings before Interest -9'521'124 -9'785'693 Financial income 11'027 5'769 Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	Parsannal avanasas	7'571'202	7'072'256
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Total Other Operational Expenses —526'986 —482'695 —9'775'085 Earnings before Interest, Depreciation, and Amortization —9'503'546 —9'775'085 Depreciation of tangible assets —17'578 —10'608 Earnings before Interest —9'521'124 —9'785'693 Financial income 11'027 5'769 Financial expenses —18'852 —6'241 Earnings before Non-Operational and Extraordinary Results —9'528'949 —9'786'165 Net result on investments —1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	5 1	_	
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Financial income Financial expenses -18'852 -9'528'949 -9'786'165 Net result on investments Financial income Financial expenses Fin	Depreciation of tangible assets	-17'578	-10'608
Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	Earnings before Interest	-9'521'124	<u>-9'785'693</u>
Financial expenses -18'852 -6'241 Earnings before Non-Operational and Extraordinary Results -9'528'949 -9'786'165 Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924			
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Net result on investments -1'936'034 3'449'672 Net non-operational income 1'781'100 1'800'000 Extraordinary, non recurring, or prior-period result 47'513 22'924	·	_	
Net non-operational income1'781'1001'800'000Extraordinary, non recurring, or prior-period result47'51322'924	Earnings before Non-Operational and Extraordinary Results	<u>-9'528'949</u>	<u>-9'786'165</u>
Net non-operational income1'781'1001'800'000Extraordinary, non recurring, or prior-period result47'51322'924	Net result on investments	-1'076'074	z'440'672
Extraordinary, non recurring, or prior-period result 47'513 22'924			
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Swiss Finance Institute Research Paper Series 2015

The aim of the Swiss Finance Institute Research
Paper Series is to disseminate original theoretical
or empirical research with relevance to banking
and finance. The series includes research
contributions carried out at Swiss Finance
Institute by faculty, PhD students, and affiliated
researchers. Papers issued in 2015 were included
on the Social Science Research Network's
Financial Economics Network. To access the Swiss
Finance Institute Research Paper Series, please
use the following link: www.ssrn.com/link/
swiss-finance-institute.html.



N°68

Are Financial-Conglomerate-Affiliated Hedge Funds Special?

<u>Francesco Franzoni</u>, University of Lugano and Swiss Finance Institute Mariassunta Giannetti, Stockholm School of

Economics, CEPR, ECGI, and Swedish House of Finance

N°67

The Granular Nature of Large Institutional Investors

<u>Itzhak Ben-David</u>, Ohio State University and NBER <u>Francesco Franzoni</u>, University of Lugano and Swiss Finance Institute

Rabih Moussawi, Villanova University and University of Pennsylvania

John Sedunov, Villanova University

N°66

Does the Pricing Kernel Anomaly Reflect Forward Looking Beliefs?

<u>Carlo Sala</u>, University of Lugano and Swiss Finance Institute (PhD Program)

N°65

How Do Investors and Firms React to an Unexpected Currency Appreciation Shock?

Matthias Efing, University of Geneva and Swiss Finance Institute (PhD Program)

Rüdiger Fahlenbrach, Ecole Polytechnique Fédérale de Lausanne and Swiss Finance Institute

Christoph Herpfer, Ecole Polytechnique Fédérale de Lausanne and Swiss Finance Institute (PhD Program)

Philipp Krüger, University of Geneva and Swiss

Finance Institute

N°62

The Pricing Kernel Density: The Case of the Information that Did Not Bark

<u>Carlo Sala</u>, University of Lugano and Swiss Finance Institute (PhD Program)

<u>Giovanni Barone-Adesi</u>, University of Lugano and Swiss Finance Institute

N°63

Countercyclical Foreign Currency Borrowing: Eurozone Firms in 2007–2009

<u>Philippe Bacchetta</u>, University of Lausanne and Swiss Finance Institute Ouarda Merrouche, University of Lausanne and CEPR

N°6

Secular Bipolar Growth Rate of the Real US GDP per Capita: Implications for Understanding Past and Future Economic Growth

<u>Sandro Claudio Lera</u>, ETH Zurich <u>Didier Sornette</u>, ETH Zurich and Swiss Finance Institute

N°61

An Anatomy of the Equity Premium

<u>Paul Schneider</u>, University of Lugano and Swiss Finance Institute

Divergence and the Price of Uncertainty

<u>Paul Schneider</u>, University of Lugano, Swiss Finance Institute, and Boston University <u>Fabio Trojani</u>, University of Geneva and Swiss Finance Institute

N°59

Herding and Stochastic Volatility

<u>Walter Farkas</u>, ETH Zurich and Swiss Finance Institute <u>Ciprian Necula</u>, University of Zurich and Bucharest University of Economic Studies Boris Waelchli, University of Zurich

N°58

Sentiment Lost: The Effect of Projecting the Empirical Pricing Kernel onto a Smaller Filtration Set

<u>Carlo Sala</u>, University of Lugano and Swiss Finance Institute (PhD Program) Giovanni Barone-Adesi, University of Lugano and

Swiss Finance Institute

N°57

Birth or Burst of Financial Bubbles: Which One Is Easier to Diagnose?

<u>Guilherme Demos</u>, ETH Zurich <u>Qunzhi Zhang</u>, ETH Zurich <u>Didier Sornette</u>, ETH Zurich and Swiss Finance Institute

N°56

Statistical Testing of DeMark Technical Indicators on Commodity Futures

Marco Lissandrin, ETH Zurich
Donnacha Daly, ETH Zurich
Didier Sornette, ETH Zurich and Swiss Finance
Institute

N°55

Informed Trading and Option Prices: Evidence from Activist Trading

<u>Pierre Collin-Dufresne</u>, Ecole Polytechnique Fédérale de Lausanne, Swiss Finance Institute, and NBER <u>Vyacheslav Fos</u>, Boston College Dmitriy Muravyev, Boston College

N°54

A Two-Factor Cointegrated Commodity Price Model with an Application to Spread Option Pricing

Walter Farkas, ETH Zurich and Swiss Finance
Institute
Elise Gourier, University of London
Robert Huitema, University of Zurich
Ciprian Necula, Bucharest University of Economic
Studies

N°53

A General Closed Form Option Pricing Formula

Spencer Wheatley, ETH Zurich
Vladimir Filimonov, ETH Zurich
Didier Sornette, ETH Zurich and Swiss Finance
Institute

N°52

Model Uncertainty, Recalibration, and the Emergence of Delta-Vega Hedging

<u>Sebastian Herrmann</u>, ETH Zurich <u>Johannes Muhle-Karbe</u>, ETH Zurich, Swiss Finance Institute, and University of Michigan

N°51

Liquidity Management in Banking: What is the Role of Leverage?

Quynh-Anh Vo, University of Zurich

Conditioning the Information in Portfolio Optimization

<u>Carlo Sala</u>, University of Lugano and Swiss Finance Institute

Giovanni Barone-Adesi, University of Lugano and Swiss Finance Institute

N°49

Leverage and Risk Taking

Santiago Moreno-Bromberg, University of Zurich Guillaume Roger, University of Sydney

N°48

Has the Pricing of Stocks Become More Global?

<u>Ivan Petzev</u>, University of Zurich <u>Andreas Schrimpf</u>, Bank for International Settlements <u>Alexander Wagner</u>, University of Zurich and Swiss Finance Institute

N°47

Average Skewness Matters!

<u>Eric Jondeau</u>, University of Lausanne and Swiss Finance Institute Qunzi Zhang, Shandong University

N°46

The Impact of Treasury Supply on Financial Sector Lending and Stability

<u>Arvind Krishnamurthy</u>, Stanford University and NBER <u>Annette Vissing-Jorgensen</u>, NBER, University of California, Berkeley, and CEPR

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VaR and CVaR Implied in Option Prices

<u>Giovanni Barone-Adesi</u>, University of Lugano and Swiss Finance Institute

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Optimal Rebalancing Frequencies for Multidimensional Portfolios

<u>Ibrahim Ekren</u>, ETH Zurich <u>Ren Liu</u>, ETH Zurich <u>Johannes Muhle-Karbe</u>, ETH Zurich and Swiss Finance Institute

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Early Warning Signals of Financial Crises with Multi-Scale Quantile Regressions of Log-Periodic Power Law Singularities

<u>Qun Zhang</u>, ETH Zurich and South China University of Technology

Qunzhi Zhang, ETH Zurich

 $\underline{\hbox{Didier Sornette}}, \hbox{ETH Zurich and Swiss Finance}\\ \underline{\hbox{Institute}}$

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What Affects Children's Outcomes: House Characteristics or Homeownership?

Steven C. Bourassa, Florida Atlantic University

<u>Donald R. Haurin</u>, Ohio State University

<u>Martin Hoesli</u>, University of Geneva, University
of Aberdeen, and Swiss Finance Institute

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Liquidity, Innovation and Endogenous Growth

Semyon Malamud, Ecole Polytechnique Fédérale de Lausanne, Swiss Finance Institute, and CEPR <u>Francesca Zucchi</u>, an economist to the Board of Governors of the Federal Reserve, Washington DC, USA

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Climate Change and Firm Valuation: Evidence from a Quasi-Natural Experiment

<u>Philipp Krüger,</u> University of Geneva and Swiss Finance Institute

Technological Progress and Ownership Structure

Heng Geng, University of Hong Kong Harald Hau, University of Geneva and Swiss Finance Institute Sandy Lai, University of Hong Kong

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A Result on Integral Functionals with Infinitely Many Constraints

<u>Tahir Choulli</u>, University of Alberta <u>Martin Schweizer</u>, ETH Zurich

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<u>Semyon Malamud</u>, Ecole Polytechnique Fédérale de Lausanne, Swiss Finance Institute, and CEPR

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The Price of the Smile and Variance Risk Premia

<u>Peter H. Gruber</u>, University of Lugano <u>Claudio Tebaldi</u>, Bocconi University, IGIER, and CAREFIN Fabio Trojani, University of Geneva and

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Swiss Finance Institute

Information and Inventories in High-Frequency Trading

<u>Johannes Muhle-Karbe</u>, ETH Zurich and Swiss Finance Institute Kevin Webster, Princeton University

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Mario Wüthrich, RiskLab, ETH Zurich, and Swiss Finance Institute Michael Merz, University of Hamburg

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Sandro Lera, ETH Zurich

Didier Sornette, ETH Zurich and Swiss Finance
Institute

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Outperforming Naive Diversification Using Stock Level Information

Tony Berrada, University of Geneva and Swiss Finance Institute Sebastien Coupy, University of Geneva and Swiss Finance Institute (PhD Program)

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Real-Time Prediction and Post Mortem Analysis of the Shanghai 2015 Stock Market Bubble and Crash

Didier Sornette, ETH Zurich and Swiss Finance Institute

Guilherme Demos, ETH Zurich
Qun Zhang, ETH Zurich and South China University
of Technology
Peter Cauwels, ETH Zurich
Vladimir Filimonov, ETH Zurich

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Qunzhi Zhang, ETH Zurich

The Acceleration Effect and Gamma Factor in Asset Pricing

<u>Diego Ardila-Alvarez</u>, ETH Zurich <u>Zalán Forro</u>, ETH Zurich <u>Didier Sornette</u>, ETH Zurich and Swiss Finance Institute

Size and Momentum Profitability in International Stock Markets

Peter S. Schmidt, University of Zurich
Urs Von Arx, ETH Zurich
Andreas Schrimpf, Bank for International Settlements
Alexander Wagner, University of Zurich and
Swiss Finance Institute
Andreas Ziegler, University of Kassel

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Multiple Outlier Detection in Samples with Exponential and Pareto Tails: Redeeming the Inward Approach and Detecting Dragon Kings

<u>Spencer Wheatley</u>, ETH Zurich <u>Didier Sornette</u>, ETH Zurich and Swiss Finance Institute

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<u>Martin Herdegen</u>, ETH Zurich <u>Johannes Muhle-Karbe</u>, ETH Zurich and Swiss Finance Institute

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Consistent Re-Calibration in Yield Curve Modeling: An Example

<u>Mario Wüthrich</u>, RiskLab, ETH Zurich, and Swiss Finance Institute

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Does Market Irrationality in the Media Affect Stock Returns?

Rajna Gibson Brandon, University of Geneva and Swiss Finance Institute <u>Christopher Hemmens</u>, University of Geneva Mathieu Trépanier, University of St Gallen

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Collateralization, Leverage and Stressed Expected Loss

<u>Eric Jondeau</u>, University of Lausanne and Swiss Finance Institute Amir Khalilzadeh, University of Lausanne

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High-Frequency Trading in Limit Order Markets: Equilibrium Impact and Regulation

<u>Jakub Rojcek</u>, University of Zurich and Swiss Finance Institute

<u>Alexandre Ziegler</u>, University of Zurich and Swiss Finance Institute

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Nonparametric Empirical Evidence for Krugman's Target Zone Model

<u>Sandro Claudio Lera</u>, ETH Zurich <u>Didier Sornette</u>, ETH Zurich

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Agency Conflicts Around the World

Erwan Morellec, Ecole Polytechnique Fédérale de Lausanne and Swiss Finance Institute Boris Nikolov, University of Rochester Norman Schürhoff, University of Lausanne, Swiss Finance Institute, and CEPR

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Uniqueness of Equilibrium in a Payment System with Liquidation Costs

<u>Hamed Amini</u>, Ecole Polytechnique Fédérale de Lausanne

<u>Damir Filipovic</u>, Ecole Polytechnique Fédérale de Lausanne and Swiss Finance Institute <u>Andreea Mincaz</u>, Cornell University

Hedging with Small Uncertainty Aversion

Sebastian Herrmann, ETH Zurich
Johannes Muhle-Karbe, ETH Zurich and
Swiss Finance Institute
Frank Thomas Seifried, University of Trier

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Human Capital and Employment Risks Diversification

<u>Pascal St-Amour</u>, University of Lausanne and Swiss Finance Institute

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Portfolio Selection with Active Risk Monitoring

Marc S. Paolella, University of Zurich and Swiss Finance Institute Pawel Polak, University of Zurich, Swiss Finance Institute, and Columbia University

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Evolutionary Behavioural Finance

Igor Evstigneev, University of Manchester Thorsten Hens, University of Zurich, Norwegian School of Economics, and Swiss Finance Institute Klaus Reiner Schenk-Hoppé, University of Manchester and Norwegian School of Economics

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Locally Phi-Integrable Sigma-Martingale Densities for General Semimartingales

<u>Tahir Choulli</u>, University of Alberta <u>Martin Schweizer</u>, ETH Zurich and Swiss Finance Institute

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A Civil Super-Manhattan Project in Nuclear Research for a Safer and Prosperous World

<u>Didier Sornette</u>, ETH Zurich and Swiss Finance Institute

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Cross-Sectional and Time-Series Tests of Return Predictability: What Is the Difference?

Amit Goyal, University of Lausanne and Swiss Finance Institute
Narasimhan Jagadeesh, Emory University

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Estimating the Joint Tail Risk Under the Filtered Historical Simulation. An Application to the CCP's Default and Waterfall Fund

Giovanni Barone-Adesi, University of Lugano and Swiss Finance Institute Kostas Giannopoulos, Neapolis University, Pafos Les Vosper, London Clearing House Limited

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State-Dependent Risk Preferences: Evidence from Individual Choices and Applications in Investment Behavior

Angie Andrikogiannopoulou, University of Geneva and Swiss Finance Institute Filippos Papakonstantinou, Imperial College London

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Central Bank Collateral Frameworks

<u>Kjell Nyborg</u>, University of Zurich, Swiss Finance Institute, and CEPR

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Noisy Arrow - Debreu Equilibria

Semyon Malamud, Ecole Polytechnique Fédérale de Lausanne and Swiss Finance Institute

Pricing and Disentanglement of American Puts in the Hyper-Exponential Jump-Diffusion Model

Markus Leippold, University of Zurich and Swiss Finance Institute <u>Nikola Vasiljevic</u>, University of Zurich and Swiss Finance Institute (PhD Program)

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Super-Exponential Endogenous Bubbles in an Equilibrium Model of Fundamentalist and Chartist Traders

<u>Taisei Kaizoji</u>, International Christian University <u>Matthias Leiss</u>, ETH Zurich Alexander Saichev, ETH Zurich and Nizhni Novgorod

State University

 $\underline{\underline{\text{Didier Sornette}}}, \text{ETH Zurich and Swiss Finance} \\ \underline{\text{Institute}}$

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Delegated Portfolio Management, Optimal Fee Contracts and Asset Prices

 $\frac{\text{Yuki Sato}}{\text{Institute}}, \text{University of Lausanne and Swiss Finance}$

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Strong Bubbles and Strict Local Martingales

<u>Martin Herdegen</u>, ETH Zurich <u>Martin Schweizer</u>, ETH Zurich and Swiss Finance Institute

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The Shadow Costs of Repos and Bank Liability Structure

Nataliya Klimenko, University of Zurich Santiago Moreno-Bromberg, University of Zurich

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Innovation, Delegation and Asset Price Swings

<u>Yuki Sato</u>, University of Lausanne and Swiss Finance Institute

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Tips and Tells from Managers: How Analysts and the Market Read Between the Lines of Conference Calls

 $\underline{\mathsf{Marina\ Druz}}$, University of Lugano and Swiss Finance Institute

Alexander Wagner, University of Zurich, Swiss Finance Institute, CEPR, and ECGI Richard J. Zeckhauser, Harvard University and NBER

N°1

How Effective Are Social Norm Interventions? Evidence from a Laboratory Experiment on Managerial Honesty

Rajna Gibson Brandon, University of Geneva and Swiss Finance Institute Carmen Tanner, University of Zurich Alexander Wagner, University of Zurich and Swiss Finance Institute



SFI Faculty Guide - Research



Prof. **Hansjörg Albrecher**SFI Faculty Member (since 2010)

University of Lausanne

Hansjoerg.Albrecher@sfi-research.ch +41 21 692 33 71

Hansjörg Albrecher is Full Professor of Actuarial Science at the University of Lausanne and has been an SFI faculty member since 2010. Prof. Albrecher is a regular speaker at leading conferences on insurance. He has published extensively and also serves on the editorial board of the top academic journals in his areas of research expertise.

Research Interests

His research focuses on the quantitative aspects of insurance and risk management.

Recent Research

Among his recent studies, Prof. Albrecher and his co-authors study the possibilities of insurance risk transfer for floods in Europe. Due to the specificity of floods – low occurrence probability but large financial damage – the authors apply extreme value methodology to model the respective risks. Their results quantify the potential to exploit Europe's

magnitude and geographical diversity related to flood risk if a single-global risk pool for all EU countries were used. The resulting capital requirements would be substantial. Even if such a large-scale scheme was not to be realized, the effects of the creation of initiatives within subsets of European countries should be considered.

Publications 2015 and Forthcoming

Dividends and the Time of Ruin under Barrier Strategies with a Capital-Exchange Agreement, H. Albrecher and V. Lautscham, *Anales del Instituo de Actuarios Españoles*, vol. 3, pp. 1–30, 2015.

The Impact Factor of IME, R. Kaas, H. Gerber, M. Goovaerts, E. Shiu, and H. Albrecher, *Insurance: Mathematics & Economics*, vol. 62, pp. 1–4, 2015.

Exit Identities for Levy Processes Observed at Poisson Arrival Times, H. Albrecher, J. Ivanovs, and X. Zhou, *Bernoulli*, forthcoming.

Reinsurance: Actuarial and Financial Aspects (Statistics in Practice), H. Albrecher and J. Teugels, Wiley Blackwell, forthcoming.

Asymmetric Information and Insurance, in *Les Cahiers Louis Bachelier*, H. Albrecher, Institut Louis Bachelier, Paris, forthcoming.



Prof.

Anastasia-Angeliki

Andrikogiannopoulou

SFI Assistant Professor from 2011 to 2015 University of Geneva

Angie.Andrikogiannopoulou@sfi-research.ch +41 22 379 80 08

Anastasia-Angeliki Andrikogiannopoulou was SFI Assistant Professor of Finance at the University of Geneva from 2011 to 2015. She obtained her PhD in Economics from Princeton University. Prof. Andrikogiannopoulou has received several grants and awards during her undergraduate and graduate studies in Finance.

Research Interests

Her research interests lie in household finance, behavioral finance, and mutual fund performance evaluation.

Recent Research

In one of her recent papers, Prof. Andrikogiannopoulou and her co-author revisit the question of individual $% \left(1\right) =\left(1\right) \left(1\right)$ risk preferences within the prospect-theory paradigm. Individual online sports betting panel data is used to proxy the real-world financial-market environment. The rationale behind this choice is that such data facilitates preference estimation as it is made up of a large variety of assets available that bear no systematic risk, that such investment decisions are short-lived, and that they bear an exogenously determined terminal payoff. Empirical results show that individuals are mildly risk averse over gains, moderately loss averse, and overestimate the probabilities of extreme outcomes. The data also reveal that risk attitude, at the individual level, is widely heterogeneous and history-dependent.



Prof.

Philippe Bacchetta

SFI Senior Chair (since 2013)

SFI Faculty Member (since 2006)

University of Lausanne

Philippe.Bacchetta@sfi-research.ch +41 21 692 34 73

Philippe Bacchetta is Full Professor of Economics at the University of Lausanne. He joined SFI in 2006, and has been an SFI Senior Chair since 2013. He holds a PhD in Economics from Harvard University. He was a visiting scholar at the International Monetary Fund on several occasions and has been a consultant at numerous central banks around the world. From 1998 to 2007, he was Director of the Study Center Gerzensee founded by the Swiss National Bank. Since 2015, he has been Program Director of the International Macroeconomics and Finance program of the Centre for Economic Policy Research.

Research Interests

His research focuses primarily on international finance, financial crises, and monetary economics.

Recent Research

One of Prof. Bacchetta's recent co-authored studies analyzes the relationship between liquid assets, corporate saving, and international capital flows in fast-growing emerging economies. The researchers develop a model in which the demand for liquid assets emanating from firms is proportional to their savings. Contrary to what the current literature states, this demand for liquid assets generates a current account surplus in fast-growing emerging economies, where firms face tighter credit constraints, and the demand for foreign bonds becomes a complement to investment. The model developed also predicts a decline in global capital imbalances when growth declines.

Publications 2015 and Forthcoming

The Demand for Liquid Assets, Corporate Saving, and International Capital Flows, Ph. Bacchetta and K. Benhima, *Journal of the European Economic Association*, vol. 13, pp. 1101–1135, 2015.

The Great Recession: A Self-Fulfilling Global Panic, Ph. Bacchetta and E. van Wincoop, *American Economic Journal: Macroeconomics*, forthcoming.



Prof. **Giovanni Barone-Adesi**SFI Center Head – Lugano

SFI Senior Chair (since 2011)

SFI Faculty Member (since 2006)

Università della Svizzera italiana

Giovanni.Barone-Adesi@sfi-research.ch

+41 58 666 47 53

Giovanni Barone-Adesi is Full Professor of Economics at the Università della Svizzera italiana. He held an SFI Distinguished Service Chair from 2006 to 2011. Since 2011, he has held an SFI Senior Chair. He acts as Head of the SFI Center at the Università della Svizzera italiana. Prof. Barone-Adesi is a founding partner at OpenCapital, an asset management firm based in Lugano. His recent research has focused on developing specialized investment funds to support international trade.

Research Interests

His research interests lie in derivative pricing, studies of market volatility, and the relationship between capital levels and risk-taking in banks.

Recent Research

In recent research, Prof. Barone-Adesi and his co-authors investigate the use of filtered historical simulation in quantifying potential losses central counterparties could face in the case of multiple defaults. Their methodology provides an estimate of the joint expected shortfall, calculated on the basis of tail risk and tail dependency, and an estimate of the financial resources needed to absorb multiple defaults. Theoretical results reveal that joint risk estimates at the extreme of tails are blurry and that simulation trials, in large numbers, are needed to increase estimate precision. Further research will focus on contagion risk.

Publications 2015 and Forthcoming

Modern Multi-Factor Analysis of Bond Portfolios: Critical Implications for Hedging and Investing, G. Barone-Adesi and N. Carcano, eds., Palgrave Macmillan, Basingstoke, forthcoming.



Prof.

Tony Berrada

SFI Faculty Member (since 2006)
University of Geneva

Tony.Berrada@sfi-research.ch +41 22 379 81 26

Tony Berrada is Associate Professor of Finance at the University of Geneva and has been an SFI faculty member since 2006. Prof. Berrada is a regular speaker at leading finance conferences and workshops worldwide. He teaches executive education courses on portfolio management.

Research Interests

His main research interests lie in the pricing of financial assets and the modeling of market volatility dynamics, with a particular emphasis on the role of information.

Recent Research

In a recent paper, Prof. Berrada and his co-author revisit optimal portfolio allocation decisions. Using an unbalanced panel of 18'000 stocks covering a 45-year period, the researchers generate portfolios based on the factor loadings of individuals stocks and the risk premia of common factors. Considered portfolios outperform naive diversification by offering higher Sharpe ratios and certainty equivalents, as well as low turnover. These results are based on a 2-pass regression approach that uses all available information to compute the common risk premia.

Publications 2015

Beta Arbitrage Strategies: When do They Work and Why?, G. Oderda, T. Berrada, R. J. Messikh, and O. Pictet, *Quantitative Finance*, vol. 15, pp. 105–203, 2015.



Prof. **Rajna Gibson Brandon**SFI Senior Chair (since 2007)

SFI Faculty Member (since 2006)

University of Geneva

Rajna.Gibson@sfi-research.ch +41 22 379 89 83

Rajna Gibson Brandon is Full Professor of Finance at the University of Geneva and Managing Director of the Geneva Finance Research Institute. She joined SFI in 2006, has held an SFI Senior Chair since 2007, and was SFI Head of Research from 2007 to 2014. Prof. Gibson Brandon has been a member of the board of directors of Swiss Re since 2000. From 1997 to 2004 she was a member of the Swiss Banking Commission and from 2012 to 2015 she was a member of the board of directors of Banque Privée Edmond de Rothschild.

Research Interests

Her research areas include asset pricing, experimental finance, corporate governance, and risk management.

Recent Research

In a recent study, Prof. Gibson Brandon and her co-authors investigate the impact of irrational language in media news coverage of stock returns. Empirical analysis is conducted using, on the one hand, a market irrationality sentiment measurement based on text data from the Dow Jones Newswire, and on the other hand, S&P 500 and DJIA listed company prices from 1998 to 2012. The researchers find evidence that an increase in the market irrationality sentiment measurement decreases subsequent stock market returns and increases stock market volatility. The impacts are large: a onestandard-deviation increase in market irrationality sentiment can make the S&P 500 and DJIA drop by up to 4.8 bps and 3.4 bps, respectively.

Publications 2015 and Forthcoming

Protected Values and Economic Decision Making, in *Handbook of Value: Perspectives from Economics, Neuroscience, Philosophy, Psychology and Sociology*, R. Gibson Brandon, C. Tanner, and A. Wagner, eds. T. Brosch and D. Sander, pp. 223–241, Oxford University Press, New York, forthcoming.



Prof.

Ines Chaieb

SFI Assistant Professor from 2010 to 2015

SFI Faculty Member (since 2010)

University of Geneva

Ines.Chaieb@sfi-research.ch +41 22 379 85 68

Ines Chaieb has been Associate Professor of Finance at the University of Geneva since 2015. She was SFI Assistant Professor of Finance from 2010 to 2015 and is now an SFI faculty member. She obtained her PhD in Finance from McGill University in Canada. Prof. Chaieb is a regular speaker at major academic conferences and finance workshops worldwide.

Research Interests

Her main research interests lie in international finance and emerging markets.

Recent Research

One of Prof. Chaieb's recent co-authored studies contributes to the burgeoning literature on financial market integration by accounting for real exchange risk when investigating the level and dynamics of market integration. Empirical analysis of 20 emerging markets, from 1988 to 2010, suggests that financial markets price not only world market and global currency risks, but also local market and local currency risks. Currency risk factors do not seem to affect market integration except during crisis periods, such as the Russian crisis of 1998 or the global financial crisis of 2008–2009.



Prof.

Marc Chesney

SFI Faculty Member (since 2006)

University of Zurich

Marc.Chesney@sfi-research.ch +41 44 634 45 80

Marc Chesney is Full Professor of Finance at the University of Zurich and has been an SFI faculty member since 2006. Prior to his appointment in Zurich, he was a professor and the associate dean at HEC Paris. Prof. Chesney's papers have been published in the leading academic journals of quantitative finance. He also writes regular op-eds on topics such as environmental finance and ethics in finance.

Research Interests

His main research interests lie in quantitative finance and environmental finance.

Recent Research

One of Prof. Chesney's latest co-authored research papers studies the role of investment advisors in sustainable investing (SI). Three main learnings stem from the researchers' quantitative analysis, based on data collected from three Swiss banks. First, advisors' expectations regarding the returns of SI have a

strong effect on their activity in communicating about SI. Second, asymmetry appears regarding which aspects matter for advisors in terms of decision making compared to what matters for investors; advisors seem to neglect both risk issues and ethical aspects. Finally, advisors that see SI as an overly complex topic seem to simply refrain from discussing SI. In terms of policy implications, it seems that investors might be an important barrier to sustainable development.

Publications 2015 and Forthcoming

More Than Money: Exploring the Role of Investment Advisors for Sustainable Investing, F. Paetzold, T. Busch, and M. Chesney, *Annals in Social Responsibility*, vol. 1, pp. 195–223, 2015.

Detecting Abnormal Trading Activities in Option Markets, M. Chesney, R. Crameri, and L. Mancini, *Journal of Empirical Finance*, vol. 33, pp. 263–275, 2015.

Is There Room for Geoengineering in the Optimal Climate Policy Mix?, O. Bahn, M. Chesney, J. Gheyssens, R. Knutti, and A. C. Pana, *Environmental Science & Policy*, vol. 48, pp. 67–76, 2015.

Endogenous Trading in Credit Default Swaps, M. Chesney, D. Coculescu, and S. Gokay, *Decisions* in *Economics and Finance*, forthcoming.



Prof.

Pierre Collin-Dufresne

SFI Senior Chair (since 2011)

Ecole Polytechnique Fédérale de Lausanne

Pierre.Collin-Dufresne@sfi-research.ch +41 21 693 01 36

Pierre Collin-Dufresne is Full Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne and has held an SFI Senior Chair since 2011. Prior to his appointment in Switzerland, he held a chair in Business at the Graduate School of Business at Columbia University. Prof. Collin-Dufresne has worked at Goldman Sachs Asset Management, where he was in charge of fixed income and credit trading strategies. He currently sits on the academic advisory boards of Lombard Odier and Kepos Capital (a US asset management firm). He also provides expert advice for Cornerstone Research, and serves on the editorial board of various academic journals. Prof. Collin-Dufresne was awarded the Amundi Smith Breeden Distinguished Paper Prize in 2015 for his paper Do Prices Reveal the Presence of Informed Trading?.

Research Interests

His primary research interest lies in credit and fixed income markets.

Recent Research

One of the recent topics Prof. Collin-Dufresne and his co-authors have been investigating is how generational experiential biases impact the dynamics of macro aggregates, asset pricing, and risk premiums. Such biases arise as the younger generation are

endowed with ex ante beliefs that are more dispersed than the older generation's posterior beliefs this can be interpreted as one's inability to efficiently process information regarding events that occurred before one's own lifetime. In terms of size, this generational perception glitch generates market over- and undervaluation of the order of $\pm\,20$ percent relative to rational expectations.

Publications 2015 and Forthcoming

Dividend Dynamics and the Term Structure of Dividend Strips, F. Belo, P. Collin-Dufresne, and R. Goldstein, *Journal of Finance*, vol. 70, pp. 1115–1160, 2015.

Do Prices Reveal the Presence of Informed Trading?, P. Collin-Dufresne and V. Fos, *Journal of Finance*, vol. 70, pp. 1555–1582, 2015.

Modeling Credit Contagion via the Updating of Fragile Beliefs, L. Benzoni, P. Collin-Dufresne, R. Goldstein, and J. Helwege, *Review of Financial Studies*, vol. 28, pp. 1960–2008, 2015.

On Bounding Credit-Event Risk Premia, J. Bai, P. Collin-Dufresne, R. Goldstein, and J. Helwege, *Review of Financial Studies*, vol. 28, pp. 2608–2642, 2015.

Insider Trading, Stochastic Liquidity and Equilibrium Prices, P. Collin-Dufresne and V. Fos, *Econometrica*, forthcoming.

Parameter Learning in General Equilibrium: The Asset Pricing Implications, P. Collin-Dufresne, M. Johannes, and L. A. Lochstoer, *The American Economic Review*, forthcoming.



Prof.

François Degeorge

SFI Senior Chair (since 2010)

SFI Faculty Member (since 2006)

Università della Svizzera italiana

Francois.Degeorge@sfi-research.ch +41 58 666 46 34

François Degeorge is Full Professor of Finance at the Università della Svizzera italiana. He joined SFI in 2006 and has held an SFI Senior Chair since 2010. Prof. Degeorge obtained his PhD from Harvard University and is a former Fulbright scholar. He teaches executive education courses on corporate finance for wealth managers on a regular basis, and has received numerous teaching and research awards. Prof. Degeorge was the President of the European Finance Association during 2015.

Research Interests

His research tackles several topics in corporate finance. Most recently he has investigated the influence of analysts on corporate policies, the growing phenomenon of secondary buyouts, and the stock market impact of news dissemination by firms.

Recent Research

One of Prof. Degeorge's most recent co-authored projects looks at how investor attention changes when firms adopt modern news dissemination technologies. To shed light on this topic, the researchers focus on the consequences of the adoption of an Englishlanguage electronic wire service by European firms to disseminate news on stock market behavior. Quantitative results suggest that firms that start disseminating news through Englishlanguage wire services experience smaller price stock drifts and larger abnormal trading volumes following earnings announcements. Overall, the findings highlight the importance of the format of company news when seeking to capture investor attention.

Publications 2015 and Forthcoming

News Dissemination and Investor Attention, R. Boulland, F. Degeorge, and E. Ginglinger, *Review of Finance*, forthcoming.

On Secondary Buyouts, F. Degeorge, J. Martin, and L. Phalippou, *Journal of Financial Economics*, forthcoming.



Prof. **Theodosios Dimopoulos**SFI Assistant Professor (since July 2011)

University of Lausanne

Theodosios.Dimopoulos@sfi-research.ch +41 21 692 33 98

Theodosios Dimopoulos has been SFI Assistant Professor of Finance at the University of Lausanne since 2011. He obtained his PhD in Finance from London Business School with a dissertation on how the incentives that managers get (e.g. shares, options, bonuses) influence the decisions they take for their company. Prof. Dimopoulos has received several grants and awards during his studies in finance.

Research Interests

His research interests lie in mergers and acquisitions, corporate finance, and corporate governance.

Recent Research

In a recent paper, Prof. Dimopoulos and his co-author study how technological differences influence corporate investment. The paper's main contribution lies in the fact that the authors' modelling acknowledges differences, at the firm level, in the depreciation rate of capital, in the persistence and volatility of the productivity shock, in the marginal return to capital, and in adjustment costs. Empirical analysis of more than 1'000 US firms during the 1972–2006 period reveals the following results: average fixed adjustment costs represent 1.15 percent of the average firm's capital and more than 80 percent of total adjustment costs. Further analysis also reveals that adjustment costs decline with firm size and are positively related to firm expenditures on M&A.



Prof.

Paul Embrechts

SFI Senior Chair (since 2009)

SFI Faculty Member (since 2007)

ETH Zurich

Paul.Embrechts@sfi-research.ch +41 44 632 34 19

Paul Embrechts is Full Professor of Mathematics at ETH Zurich. He joined SFI in 2007 and has held an SFI Senior Chair since 2009. Prof. Embrechts' research has been published in top academic journals worldwide and enjoyed international media coverage. He is a regular speaker at leading international conferences on risk management, aimed at both academics and industry professionals. He also serves on the editorial board of several international journals and is a member of numerous international advisory panels.

Research Interests

Prof. Embrechts is the director of RiskLab. Founded in 1994, RiskLab is a center for studies in the areas of insurance mathematics and quantitative risk management (QRM). His main areas of research are the modelling of extremal events in insurance and finance, and statistical methods for QRM.

Recent Research

In a recent paper, Prof. Embrechts and his co-authors address the problem of risk sharing among agents, using a two-parameter class of quantile-based risk measures as their preferences. This family includes the Value at Risk (VaR) and the Expected Shortfall (ES), the two popular and competing regulatory risk measures, as special cases. The researchers show that, in general, a robust optimal allocation exists if and only if none of the underlying risk measures is a VaR. In terms of implications for risk management and policy makers, they show how the use of a regulatory risk measure can lead to certain desirable or undesirable properties of risk sharing among firms. Several novel advantages of ES over VaR from the perspective of a regulator are thereby revealed.

Publications 2015 and Forthcoming

Aggregation-robustness and Model Uncertainty of Regulatory Risk Measures, P. Embrechts, B. Wang, and R. Wang, *Finance and Stochastics*, vol. 19, pp. 763–790, 2015.

Seven Proofs for the Subadditivity of Expected Shortfall, P. Embrechts and R. Wang, *Dependence Modeling*, vol. 3, pp. 126–140, 2015.

Quantitative Risk Management: Concepts, Techniques and Tools, P. Embrechts, R. Frey, and A. J. McNeil, Princeton University Press, Princeton, 2015.

Duality in Risk Aggregation, in Innovations in Quantitative Risk Management. Springer Proceedings in Mathematics & Statistics, P. Embrechts, R. Hauser, and S. Shahverdyan, eds. K. Glau, M. Scherer, and R. Zagst, pp. 375–392, Springer International Publishing, Munich, 2015.

An Extreme Value Approach for Modeling Operational Risk Losses Depending on Covariates, V. Chavez-Demoulin, P. Embrechts, and M. Hofert, *Journal of Risk and Insurance*, forthcoming.

Bernoulli and Tail-Dependence Compatibility, P. Embrechts, M. Hofert, and R. Wang, *Annals of Applied Probability*, forthcoming.

Space-Time Max-Stable Models with Spectral Separability, P. Embrechts, E. Koch, and C. Robert, *Advances of Applied Probability*, forthcoming.

Dependence Uncertainty for Aggregate Risk: Examples and Simple Bounds, in The Fascination of Probability, Statistics and their Applications. In Honour of Ole E. Barndorff-Nielsen, P. Embrechts, and E. Jakobsons, eds. M. Podolskij, R. Stelzer, S. Thorbjørnsen, and A. E. D. Veraart, pp. 395–417, Springer International Publishing, forthcoming.



Rüdiger Fahlenbrach
SFI Senior Chair (since 2012)
SFI Faculty Member (since 2009)
Ecole Polytechnique Fédérale de Lausanne

Ruediger.Fahlenbrach@sfi-research.ch +41 21 693 00 98

Rüdiger Fahlenbrach is Associate Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne and has held an SFI Senior Chair since 2012. He graduated with a PhD in Finance from the Wharton School of Business. Before joining the faculty in Lausanne in 2009, Prof. Fahlenbrach was an assistant professor of finance at the Ohio State University. Prof. Fahlenbrach's research has been published in the top finance journals worldwide and featured in the international press. He is a regular speaker at leading academic conferences and also serves on the editorial boards of the top academic journals in finance.

Research Interests

His research focuses primarily on corporate governance and on understanding the causes and consequences of the recent financial crisis.

Recent Research

One of Prof. Fahlenbrach's latest co-authored studies investigates investors' and firms' reactions to the unexpected currency shock that occurred in Switzerland a year ago. Studying publicly listed companies, the researchers find large negative announcement returns for firms with significant currency exposure. Such firms experienced, on average a 9.7 percent drop in profitability compared to other Swiss firms, which took a 4.9 percent hit. The appreciation of the Swiss franc also had real effects. The most exposed firms experienced a large drop in sales and profitability, significantly reduced their capital expenditures, and shifted production abroad.

Publications 2015 and Forthcoming

Why Don't All Banks Practice Regulatory Arbitrage? Evidence From Usage of Trust-Preferred Securities, N. Boyson, R. Fahlenbrach, and R. Stulz, *Review of Financial Studies*, forthcoming.



Prof.

Walter Farkas

SFI Faculty Member (since 2013)
University of Zurich

Walter.Farkas@sfi-research.ch +41 44 634 39 53

Walter Farkas is Full Professor of Quantitative Finance at the University of Zurich, Associate Professor at the Department of Mathematics at ETH Zurich, and member of the SFI Knowledge Catalyst, an industry placement program for Master's students enrolled at SFI academic partner institutions. Prof. Farkas also acts as the program director of the Master of Science in Quantitative Finance, a degree jointly offered by ETH Zurich and the University of Zurich since 2003.

Research Interests

His research focuses primarily on mathematical finance and quantitative risk management.

Recent Research

In a recent study, Prof. Farkas and his co-authors

investigate the impact of cointegration of commodity prices on the premiums of options written on the spreads on the futures prices of these commodities. The authors innovate by developing a model that has an exponential affine structure that allows for an arbitrary number of cointegration relationships. Simulations on pricing spread options reveal that cointegration creates an upward sloping term structure of correlation, which lowers the volatility of spreads, and consequently the price of options on them.

Publications 2015 and Forthcoming

Akkurate Messung der Portfoliorisiken im Pensionskassengeschäft, W. Farkas, and S. Schmid, Schweizerische Zeitschrift für Sozialversicherung und berufliche Vorsorge, vol. 59, pp. 406–414, 2015.

Measuring Risk with Multiple Eligible Assets, W. Farkas, P. Koch-Medina, and C. Munari, *Mathematics and Financial Economics*, vol. 9, pp. 3–27, 2015.

Valuations of Options on Discretely Sampled Variance, G. Drimus, W. Farkas, and E. Gourier, *Journal of Computational Finance*, forthcoming.



Prof. **Damir Filipovic**SFI Senior Chair (since 2010)

Ecole Polytechnique Fédérale de Lausanne

Damir.Filipovic@sfi-research.ch +41 21 693 01 08

Damir Filipovic holds the Swissquote Chair in Quantitative Finance at the Ecole Polytechnique Fédérale de Lausanne (EPFL) and has held an SFI Senior Chair since 2010. Since 2011, Prof. Filipovic has been a member of the board of directors of Swiss Life Holding Ltd. He is the recipient of numerous research grants and a regular speaker at leading quantitative finance conferences and workshops worldwide.

Research Interests

His research interests lie in quantitative finance and risk management.

Recent Research

Prof. Filipovic and his co-authors recently focused on the systemic risk induced among banks by a network of interbank liabilities. Such liabilities can, during periods of economic turmoil, force early asset liquidation with financial discounts. Their research shows that the introduction of central counterparty clearing (CCP) can help reduce bank liquidation and shortfall losses, but that fee and guarantee fund policies must be carefully

designed in order to reduce systemic risk. Further simulations also show that their proposed guarantee fund design gives banks the incentive to join the CCP.

Publications 2015 and Forthcoming

Fed Funds Futures Variance Futures, D. Filipovic and A. Trolle, *Quantitative Finance*, forthcoming.

Linear-Rational Term Structure Models, D. Filipovic, M. Larsson, and A. Trolle, *Journal of Finance*, forthcoming.

Model Uncertainty and Scenario Aggregation, M. Cambou and D. Filipovic, *Mathematical Finance*, forthcoming.

Polynomial Preserving Diffusions and Applications in Finance, D. Filipovic and M. Larsson, *Finance and Stochastics*, forthcoming.

Quadratic Variance Swap Models, D. Filipovic, E. Gourier, and L. Mancini, *Journal of Financial Economics*, forthcoming.

To Fully Net or Not to Net: Adverse Effects of Partial Multilateral Netting, H. Amini, D. Filipovic, and A. Minca, *Operations Research*, forthcoming.

Uniqueness of Equilibrium in a Payment System with Liquidation Costs, H. Amini, D. Filipovic, and A. Minca, *Operations Research Letters*, forthcoming.



Prof.

Francesco Franzoni

SFI Senior Chair (since 2012)

SFI Faculty Member (since 2007)

Università della Svizzera italiana

Francesco.Franzoni@sfi-research.ch +41 58 666 41 17

Francesco Franzoni is Full Professor of Finance at the Università della Svizzera italiana. He joined SFI in 2007 and has held an SFI Senior Chair since 2012. Prof. Franzoni obtained his PhD in Economics from the Massachusetts Institute of Technology. His research has been published in the top finance journals worldwide and has featured in the international press. He is a regular speaker at leading academic conferences on finance.

Research Interests

His general research interests are in asset pricing, hedge funds, private equity, mutual funds, and ETFs. He focuses, in particular, on the impact of institutional investors on market prices and liquidity.

Recent Research

In a recent paper, Prof. Franzoni and his co-author investigate the determinants of limits of arbitrage for liquidity providers. Using data on institutional transactions, the researchers compare hedge fund trades to those of other institutions and find that hedge funds' liquidity supply is more relevant for stock-level liquidity, but is also more exposed to financial conditions than that of other institutions. They also identify leverage, low redemption restrictions, asset illiquidity, and reputational capital as a sufficient set of characteristics that explain the

exposure of hedge funds' liquidity supply to funding conditions. Finally, data suggest that the trades of financially constrained hedge funds underperform, for

at least one quarter, following negative funding shocks.



Prof. **Patrick Gagliardini**SFI Faculty Member (since 2008)

Università della Svizzera italiana

Patrick.Gagliardini@sfi-research.ch +41 58 666 46 60

Patrick Gagliardini is Full Professor of Econometrics and Dean of the Faculty of Economics at the Università della Svizzera italiana. He has been an SFI faculty member since 2008 and held an SFI Junior Chair from 2008 to 2012. He obtained his PhD in Econometrics from the Università della Svizzera italiana. Prof. Gagliardini's papers have been published in the top academic journals in finance, economics, and financial econometrics.

Research Interests

His main research interests lie in financial econometrics, with applications to credit risk and asset pricing models.

Recent Research

In recent research, Prof. Gagliardini and his coauthors seek to determine the way equity risk premia evolve with time. The novelty of their approach consists in using large panels of returns on individual stocks, instead of portfolios, to avoid possible aggregation biases. When using a conditional linear factor model estimated on the return histories of thousands of US stocks during a 45-year period, their study reveals that risk premia are large and volatile in crisis periods, and follow macroeconomic cycles. Further empirical analysis shows that asset pricing restrictions are rejected for a conditional four-factor model capturing market, size, value, and momentum effects.

Publications 2015 and Forthcoming

Time-Varying Risk Premium in Large Cross-Sectional Equity Datasets, P. Gagliardini, E. Ossola, and O. Scaillet, *Econometrica*, forthcoming.



Prof.

Manfred Gilli

SFI Faculty Member (since 2006)

University of Geneva

Manfred.Gilli@sfi-research.ch +41 22 379 82 22

Manfred Gilli is Emeritus Professor at the University of Geneva and has been an SFI faculty member since 2006. Prof. Gilli has published extensively and has contributed many chapters to books on computational finance. He is a regular speaker at leading finance conferences worldwide.

Research Interests

His research interests lie primarily in the implementation and empirical validation of computational methods in finance.

Recent Research

In one of his latest papers, Prof. Gilli and his coauthor share their views on the importance of precision and accuracy in financial modelling, and how researchers and practitioners often mistake the former for the latter. To do so, they provide the reader with a convincing theory in the specific case of quantitative portfolio management. The researchers find that no tool actually needs to be "exact" and that "good enough" is actually all that is needed; a numerically precise solution may actually not add quality to a model, but may provide investors with the wrong feeling of being on the safe side. They conclude by hinting that future analysis should be much more qualitative and rely more on non-mechanical insights and research, and that findings should be accepted when they are empirically replicated.



Prof. **Amit Goyal**SFI Senior Chair (since 2008)

University of Lausanne

Amit.Goyal@sfi-research.ch +41 21 692 36 76

Amit Goyal is Full Professor of Finance at the University of Lausanne and has held an SFI Senior Chair since 2008. Prof. Goyal's research has been published in the top finance journals worldwide and featured in the international press. He is a regular speaker at leading academic conferences on finance.

Research Interests

His main research interests lie in empirical asset pricing.

Recent Research

In a recent study, Prof. Goyal and his co-authors examine sellers' and buyers' motivations when

initiating a trade. Existing models often make opposite predictions about the relation between trading decisions and past returns. To shed further light on this topic, the researchers examine the factors that affect buying and selling decisions separately, instead of jointly, as is commonly done. Empirical analysis reveals that the number of both buyer- and seller-initiated trades increases with past returns. The difference between the two is negatively related to short horizon returns but positively related to returns over longer horizons up to a year. Further analysis finds that, on the one hand, buyer-initiated trades generally support momentum trading; whilst, on the other, seller-initiated trades generally support contrarian trading.

Publications 2015 and Forthcoming

Buyers Versus Sellers: Who Initiates Trades And When?, T. Chordia, A. Goyal, and N. Jegadeesh, *Journal of Financial and Quantitative Analysis*, forthcoming.



Prof.

Michel Habib

SFI Faculty Member (since 2006)

University of Zurich

Michel.Habib@sfi-research.ch +41 44 634 25 07

Michel Habib is Full Professor of Finance at the University of Zurich and has been an SFI faculty member since 2006. After graduating from the Wharton School of Business, he taught at the London Business School from 1993 to 2002. Prof. Habib was director of the Swiss National Centre of Competence in Research in "Financial Valuation and Risk Management", FINRISK, between 2009 and 2013.

Research Interests

His primary research interest is corporate finance.

Recent Research

In one of his most recent research papers, Prof. Habib analyzes the desirability of high-powered incentives. He distinguishes between value creation and value allocation, and establishes that while value creation does indeed call for high-powered incentives, value allocation does not. His results can be used to shed a certain light on the recent LIBOR scandal: traders were promised high bonuses for generating trading profits; unable to generate bona fide profits because of intense competition, and unwilling to forego the bonuses, traders chose to generate fictitious profits through manipulation. No such manipulation would have taken place had the traders not been promised high bonuses – that is, had the traders not been provided with high-powered incentives.

Publications 2015 and Forthcoming

Sovereign Debt Sustainability in Advanced Economies, F. Collard, M. Habib, and J.-C. Rochet, *Journal of the European Economic Association*, vol. 13, pp. 381–420, 2015.

The Quality-Assuring Role of Mutual Fund Advisory Fees, D. Bruce Johnsen and M. Habib, *International Review of Law and Economics*, forthcoming.



Prof. **Henrik Hasseltoft**SFI Faculty Member (since 2009)

University of Zurich

Henrik.Hasseltoft@sfi-research.ch +41 44 634 44 83

Henrik Hasseltoft is Assistant Professor of Finance at the University of Zurich and has been an SFI faculty member since 2009. He obtained his PhD in Finance from the Stockholm School of Economics. Before pursuing an academic career, Prof. Hasseltoft worked for two years in the trading department of UBS London.

Research Interests

His main research interests lie in empirical and theoretical asset pricing, and in international finance.

Recent Research

In recent research, Prof. Hasseltoft and his co-author contribute to the growing literature on bonds by focusing on the predictability of international bond risk premia. Empirical results suggest that the expectations hypothesis is violated in an international perspective, as the researchers find considerable time variation in bond risk premia. Forecasting analysis further reveals a global factor, closely related to US bond risk premia, that predicts local bond returns significantly. Overall, US bond risk premia matter for international bond returns and the dynamics of the global factor are consistent with classical asset pricing theory.



Prof. **Harald Hau**SFI Senior Chair (since 2011)

University of Geneva

Harald.Hau@sfi-research.ch +41 22 379 95 81

Harald Hau is Full Professor of Finance at the University of Geneva, where he has held an SFI Senior Chair since 2011. He obtained his PhD in Economics from Princeton University. Prof. Hau is currently pursuing several ongoing collaborations with colleagues at the European Central Bank. His work has been published in top academic journals and has featured in the international press.

Research Interests

His research focuses on international finance, financial stability, asset pricing, and asset management.

Recent Research

One of Prof. Hau's latest co-authored studies focuses on asset allocation and monetary policy within the eurozone. The researchers exploit short-term interest rate variation across eurozone countries to quantify its impact on money market and equity market flows. Data from 2003 to 2010 reveals that fund investors in countries with decreased real interest rates shift their investments out of the money market and into the riskier equity market. Such swings create significant equity price inflation, suggesting that accommodating monetary policies may contribute to financial instability within the currency union.

Publications 2015 and Forthcoming

Dealer Intermediation Between Markets, P. Dunne, H. Hau, and M. Moore, *Journal of the European Economic Association*, vol. 13, pp. 770–804, 2015.

Incentive Pay and Bank Risk-Taking: Evidence from Austrian, German and Swiss Banks, M. Efing, H. Hau, P. Kampkötter, and J. Steinbrecher, *Journal of International Economics*, vol. 96, pp. 123–140, 2015.

Structured Debt Ratings: Evidence on Conflicts of Interest, M. Efing and H. Hau, *Journal of Financial Economics*, vol. 116, pp. 46–60, 2015.

Asset Allocation and Monetary Policy: Evidence from the Eurozone, H. Hau and S. Lai, Journal of Financial Economics, forthcoming.



Prof. **Thorsten Hens**SFI Faculty Member (since 2006)

University of Zurich

Thorsten.Hens@sfi-research.ch +41 44 634 37 06

Thorsten Hens is Full Professor of Financial Economics at the University of Zurich. He has been an SFI Faculty Member since 2006. He was an SFI Research Fellow from 2008 to 2013. Prof. Hens is the founder of the UZH spin-off Behavioral Finance Solutions, which assists financial firms in developing and implementing investor profiling methods that make use of behavioral finance principles.

Research Interests

His research focuses mainly on behavioral finance.

Recent Research

In one of his latest research projects, Prof. Hens and his co-authors study the factors affecting household debt portfolio choices using two approaches simultaneously: a traditional one, a time-discounting factor, and a behavioral one, national culture. Data analysis reveals that the long-term discount factor is a strong predictor of household debt maturity, but that national culture may actually have more

importance. Societies showing higher levels of individualism and seeking to avoid uncertainty tend to prefer long-term debt.

Publications 2015 and Forthcoming

Improving Investment Decisions with Simulated Experience, M. Bradbury, T. Hens, and S. Zeisberger, *Review of Finance*, vol. 19, pp. 1019–1052, 2015.

Investment Competence and Advice Seeking, K. Bachmann and T. Hens, *Journal of Behavioral* and *Experimental Finance*, vol. 6, pp. 27–41, 2015.

On the Determinants of Household Debt Maturity Choice, W. Breuer, T. Hens, A. J. Salzmann, and M. Wang, *Applied Economics*, vol. 47, pp. 449–465, 2015.

The War Puzzle: Contradictory Effects of International Conflicts on Stock Markets, A. Brune, T. Hens, M. O. Rieger, and M. Wang, *International Review of Economics*, vol. 62, pp. 1–21, 2015.

Mathematical Financial Economics: A Basic Introduction, Springer Texts in Business and Economics Series, I. Evstigneev, T. Hens, and K. R. Schenk-Hoppe, Springer International Publishing, Basel, 2015.

A Rigorous Approach to Business Services Offshoring and North-North Trade, B. Dluhosch and T. Hens, *Applied Economics*, forthcoming.



Prof.

Martin Hoesli

SFI Faculty Member (since 2006)
University of Geneva

Martin.Hoesli@sfi-research.ch +41 22 379 81 22

Martin Hoesli is Full Professor of Real Estate Investments and Finance at the University of Geneva and has been an SFI faculty member since 2006. He is the author of several books on real estate investments and serves on the editorial board of several leading international real estate journals.

Research Interests

His research relates mainly to the area of property finance.

Recent Research

In one of his recently published papers, Prof. Hoesli and his co-author revisit the various linkages between the economy and the real estate market, and contribute to the existing literature by introducing a modelling technique that incorporates long-term structural relationships. Swiss, multi-family residential data shows that four long-run relationships exist between inflation, long- and short-term interest rates, GDP, construction expenditures, market rents, and capitalization rates. For example, should the Swiss National Bank decide to increase interest rates to contain inflation, this may not only reduce GDP

growth and inflation, but may also impact the real estate market through a reduction in construction activity and rents, and an increase in capitalization rates. Overall, the ultimate outcome may be a recession and falling real estate prices.

Publications 2015 and Forthcoming

Contagion Channels between Real Estate and Financial Markets, M. Hoesli and K. Reka, *Real Estate Economics*, vol. 43, pp. 101–138, 2015.

Determinants of the Homeownership Rate: An International Perspective, S. C. Bourassa, D. R. Haurin, P. H. Hendershott, and M. Hoesli, *Journal of Housing Research*, vol. 24, pp. 193–210, 2015.

Transaction-Based and Appraisal-Based Capitalization Rate Determinants, A. Chaney and M. Hoesli, *International Real Estate Review*, vol. 18, pp. 1–43, 2015.

Multifamily Residential Asset and Space Markets and Linkages with the Economy, A. Chaney and M. Hoesli, *Journal of Property Research*, vol. 32, pp. 50–76, 2015.

Do Public Real Estate Returns Really Lead Private Returns?, M. Hoesli, E. Oikarinen, and C. Serrano, *Journal of Portfolio Management*, vol. 41, pp. 105–117, 2015

Commonality in Liquidity and Real Estate Securities, M. Hoesli, A. Kadilli, and K. Reka, *Journal of Real Estate Finance and Economics*, forthcoming.

Robust Hedonic Price Indexes, S. C. Bourassa, E. Cantoni, and M. Hoesli, *International Journal of Housing Markets and Analysis*, forthcoming.

What Affects Children's Outcomes: House Characteristics or Homeownership?, S. C. Bourassa, D. R. Haurin, and M. Hoesli, *Housing Studies*, forthcoming.



Prof.

Julien Hugonnier

SFI Senior Chair (since 2012)

SFI Faculty Member (since 2006)

Ecole Polytechnique Fédérale de Lausanne

Julien.Hugonnier@sfi-research.ch +41 21 693 01 14

Julien Hugonnier is Associate Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne (EPFL) and the head of its Master in Financial Engineering program. He joined SFI in 2006 and has held an SFI Senior Chair since 2012. Prior to joining EPFL, he held positions at Carnegie Mellon University, HEC Montreal, and the University of Lausanne. Prof. Hugonnier is a regular speaker at finance conferences worldwide and serves on the editorial board of various academic journals in the areas of mathematical finance and financial economics.

Research Interests

His main research area is theoretical asset pricing.

Recent Research

In a recent work, Prof. Hugonnier and his co-author seek to determine how liquidity and capital requirements affect the liquidity management and insolvency risk of banks. Their contribution to the existing literature is to develop a dynamic model that

accounts for multiple aspects of a bank's decisions, such as the choice of liquid asset holding, equity share, payout policy, and default. They use this model to determine the optimal response of banks to the imposition of liquidity and capital requirements, and to determine the effect of such requirements on insolvency risk. Their model shows that liquidity requirements lead to lower bank losses in default at the cost of an increased likelihood of default. Combining liquidity requirements with leverage requirements reduces both the likelihood of default and the magnitude of bank losses in default. This means that in order to control both aspects of a bank's insolvency risk one should consider regulations that combine liquidity and capital requirements as proposed in the Basel III accords.

Publications 2015

Asset Pricing with Arbitrage Activity, J. Hugonnier and R. Prieto, *Journal of Financial Economics*, vol. 115, pp. 411–428, 2015.

Capital Supply Uncertainty, Cash Holdings and Investment, J. Hugonnier, S. Malamud, and E. Morellec, Review of Financial Studies, vol. 28, pp. 391–445, 2015.

Credit Market Frictions and Capital Structure Dynamics, J. Hugonnier, S. Malamud, and E. Morellec, *Journal of Economic Theory*, vol. 157, pp. 1130–1158, 2015.



Prof.

Eric Jondeau

SFI Faculty Member (since 2006)
University of Lausanne

Eric.Jondeau@sfi-research.ch +41 21 692 33 49

Eric Jondeau is Full Professor of Finance at the University of Lausanne and has been an SFI faculty member since 2006. Prof. Jondeau's papers have been published in leading academic journals.

Research Interests

His research interests include financial econometrics, asset and risk management, and pension funds.

Recent Research

In one of his latest papers, Prof. Jondeau and his co-author investigate the relationship between collateral, leverage, and stressed expected losses in a general equilibrium banking setting. In their model, households place money in short-term deposits with deposit banks, who in turn lend funds to merchant banks against collateral; in turn, these merchant banks provide long-term funding to non-financial firms. When a financial downturn occurs, as the value of collateral decreases merchant banks must sell assets at short notice and default if their cash buffer

is insufficient, further reinforcing the crisis. When running their model on the US economy, results show that in the absence of regulation a 40 percent decline of the securities market would induce an 18 percent reduction in the value of the assets held by deposit banks or an 81 percent reduction in the value of their equity. Should regulators require deposit banks to hold 60 percent of their assets in cash, the reduction of their assets would, in the same circumstances, be limited to 3 percent.

Publications 2015 and Forthcoming

Systemic Risk in Europe, R. Engle, E. Jondeau, and M. Rockinger, *Review of Finance*, vol. 19, pp. 145–190, 2015.

The Dynamics of Squared Returns Under Contemporaneous Aggregation of GARCH Models, E. Jondeau, *Journal of Empirical Finance*, vol. 32, pp. 80–93, 2015.

Asymmetry in Tail Dependence in Equity Portfolios, E. Jondeau, *Computational Statistics & Data Analysis*, forthcoming.

Estimating the Price Impact of Trades in a High-Frequency Microstructure Model with Jumps, E. Jondeau, J. Lahaye, and M. Rockinger, *Journal of Banking and Finance*, forthcoming.



Prof. **Philipp Krüger**SFI Junior Chair (since 2015)

University of Geneva

Philipp.Krueger@sfi-research.ch +41 22 379 85 69

Philipp Krüger is Assistant Professor of Finance at the University of Geneva and has held an SFI Junior Chair since 2015. He holds a PhD in Economics from the Toulouse School of Economics. Prof. Krüger is a regular speaker at leading finance conferences worldwide and his research has been published in top academic journals. He was awarded the Moskowitz Prize for Socially Responsible Investing in 2015 for

his paper, Climate Change and Firm Valuation: Evidence from a Quasi-Natural Experiment.

Research Interests

His primary research interests are sustainable and responsible finance, corporate finance, corporate governance, and behavioral finance.

Recent Research

In recent research, Prof. Krüger studies whether investors value transparency with respect to how corporations address climate-change-related issues. Analyzing a regulatory shock in the United Kingdom, where firms listed on the Main Market of the London Stock Exchange must disclose information on their greenhouse gas emissions in their annual reports, his research shows that the firms that are the most

heavily affected by the new regulation experience significantly positive valuation effects. His analysis further shows that these positive valuation effects are strongest for the largest firms and for firms operating in climate sensitive sectors such as the oil and gas, and basic materials industries. Overall, the paper provides evidence that investors value companies that address the risks and challenges posed by climate change.

Publications 2015

Corporate Goodness and Shareholder Wealth, P. Krüger, *Journal of Financial Economics*, vol. 115, pp. 304–329, 2015.

The WACC Fallacy: The Real Effects of Using a Unique Discount Rate, P. Krüger, A. Landier, and D. Thesmar, *The Journal of Finance*, vol. 70, pp. 1253–1285, 2015.



Prof.

Felix Kübler

SFI Senior Chair (since 2008)

University of Zurich

Felix.Kuebler@sfi-research.ch +41 44 634 41 06

Felix Kübler is Full Professor of Finance at the University of Zurich and has held an SFI Senior Chair since 2008. He obtained his PhD in Economics from Yale University. Before joining the faculty in Zurich, Prof. Kübler held professorships at Stanford University, the University of Pennsylvania, and the University of Mannheim. He also serves on the editorial boards of several economics and finance journals.

Research Interests

His research interests lie in theoretical financial economics and computational methods.

Recent Research

In a recent study, Prof. Kübler and his co-authors examine the quantitative effects of margin regulation on volatility in asset markets. To do so they consider a general equilibrium economy with heterogeneous

agents and collateral agents. In their model, two assets can be used as short-term collateral, one where the margin requirement is determined exogenously and one where the margin requirement is determined endogenously. The presence of collateral constraints leads to strong excess volatility and the regulation of margin requirements may have stabilizing effects. Further calculations also show that a counter-cyclical margin regulation of all asset classes in the economy has a very strong dampening effect on asset return volatility.

Publications 2015

Collateral Requirements and Asset Prices, J. Brumm, M. Grill, F. Kübler, and K. Schmedders, *International Economic Review*, vol. 56, pp. 1–25, 2015.

Dynamic Competitive Economies with Complete Markets and Collateral Constraints, P. Gottardi and F. Kübler, *Review of Economic Studies*, vol. 82, pp. 1119–1153, 2015.

Margin Regulation and Volatility, J. Brumm, M. Grill, F. Kübler, and K. Schmedders, *Journal of Monetary Economics*, vol. 73, pp. 54–68, 2015.



Prof.

Markus Leippold

SFI Faculty Member (since 2006)
University of Zurich

Markus.Leippold@sfi-research.ch +41 44 634 50 69

Markus Leippold holds the Vontobel Chair of Financial Engineering at the University of Zurich and has been an SFI faculty member since 2006. During his professorship term at Imperial College London, he was the director of the Institute of Quantitative Finance. Throughout his career, Prof. Leippold has been involved in numerous projects with the Swiss banking industry. He is a founding partner of Lambda Capital, providing consultancy services in risk management, portfolio management, and asset pricing.

Research Interests

His main research interests lie in asset management, risk management, derivative pricing, and volatility modeling.

Recent Research

One of Prof. Leippold's recent co-authored research papers develops a tractable class of multi-factor price processes with stochastic volatility and jumps, which adapts to changing market conditions and permits fast option pricing. Interestingly, in the authors' framework, only a small set of structural parameters is needed to fully specify the joint dynamics of the underlying asset and options implied volatility surface. The model developed outperforms standard benchmarks in- and out-of-sample, and remains robust during periods of financial turmoil.

Publications 2015

Collateral Smile, M. Leippold and L. Su, *Journal of Banking and Finance*, vol. 58, pp. 15–28, 2015.

What's Beneath the Surface? Option Pricing with Multifrequency Latent States, L. Calvet, M. Fearnly, A. Fisher, and M. Leippold, *Journal of Econometrics*, vol. 187, pp. 498–511, 2015.



Prof. **Henri Loubergé**SFI Faculty Member (since 2006)

University of Geneva

Henri.Louberge@sfi-research.ch +41 22 379 82 63

Henri Loubergé is Emeritus Professor at the University of Geneva and has also been the chairman of its Economics department. He has been an SFI faculty member since October 2006. For many years, Prof. Loubergé was also the head of the University of Geneva's PhD program in Economics, and of the university's Master's program.

Research Interests

His main research area is the economics of risk and uncertainty with applications in finance and insurance.

Recent Research

In recent research, Prof. Loubergé and his co-authors look at how self-protection investment decisions are made in the case of multiple risks. When focusing on how one risk affects the financial amount devoted to lowering the loss probability of a second risk, the researchers find that introducing a second correlated risk increases prevention for the first risk, independently of the sign of correlation. Further analysis shows that an increase in risk, related to either an increase in terms of loss probability, loss severity, or an increase of interdependence between two risks is associated with larger loss prevention investments for the other risk.



Semyon Malamud
SFI Senior Chair (since 2015)
SFI Faculty Member (since 2007)
Ecole Polytechnique Fédérale de Lausanne

Semyon.Malamud@sfi-research.ch +41 21 693 01 37

Semyon Malamud is Associate Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne; he joined SFI in 2007 and has held an SFI Senior Chair since 2015. He is also a research fellow at the Centre for Economic Policy Research. He obtained his PhD in Mathematics from ETH Zurich. Prof. Malamud is a regular speaker at leading academic conferences worldwide and his papers have been published in the top journals in finance and economics. In 2015 he was elected a Lamfalussy Fellow of the European Central Bank.

Research Interests

His main research interest lies in asset pricing.

Recent Research

In recent research, Prof. Malamud develops a dynamic general equilibrium model of exchange traded funds (ETFs). The model shows that the creation/ redemption mechanism for ETFs serves as a shock propagation channel through which temporary demand shocks may have long-lasting impacts on future prices. In particular, such shocks may lead to a momentum in asset returns and a persistent ETF pricing gap. Introducing new ETFs may reduce both the volatility and co-movement in the returns, and may also improve the liquidity of the underlying securities.

Publications 2015

Capital Supply Uncertainty, Cash Holdings and Investment, J. Hugonnier, S. Malamud, and E. Morellec, *Review of Financial Studies*, vol. 28, pp. 391–445, 2015.

Credit Market Frictions and Capital Structure Dynamics, J. Hugonnier, S. Malamud, and E. Morellec, *Journal of Economic Theory*, vol. 157, pp. 1130–1158, 2015.



Prof. **Loriano Mancini**SFI Junior Chair (since 2012)

SFI Faculty Member (since 2008)

Ecole Polytechnique Fédérale de Lausanne

Loriano.Mancini@sfi-research.ch +41 21 693 01 07

Loriano Mancini is SFI Assistant Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne and has held an SFI Junior Chair since 2012. He joined SFI in 2008 following his postdoctoral studies at Princeton University. Prof. Mancini has published papers in the top academic journals in finance and is a regular speaker at leading conferences and workshops worldwide.

Research Interests

His primary research interests are volatility modeling and asset pricing.

Recent Research

In recent research, Prof. Mancini and his co-authors investigate option abnormal trades. Such trades generally generate large gains, do not serve hedging purposes, and are made a few days before specific events. Empirical data shows that abnormal trades take place prior to acquisitions or announcements of financial disruption and involve liquid options. In terms of policy perspectives, the findings suggest that it could be worthwhile for regulators to make more efforts to monitor abnormal trades within the option market.

Publications 2015 and Forthcoming

Detecting Abnormal Trading Activities in Option Markets, M. Chesney, R. Crameri, and L. Mancini, *Journal of Empirical Finance*, vol. 33, pp. 263–275, 2015.

Quadratic Variance Swap Models, D. Filipovic, E. Gourier, and L. Mancini, *Journal of Financial Economics*, forthcoming.

Scientific Research Measures, M. Frittelli, L. Mancini, and I. Peri, *Journal of the Association for Information Science and Technology*, forthcoming.

The Euro Interbank Repo Market, L. Mancini, A. Ranaldo, and J. Wrampelmeyer, *Review of Financial Studies*, forthcoming.



Prof. **Antonio Mele**SFI Senior Chair (since 2011)

Università della Svizzera italiana

Antonio.Mele@sfi-research.ch +41 58 666 44 98

Antonio Mele is Full Professor of Finance at the Università della Svizzera italiana and has held an SFI Senior Chair since 2011, following a decade spent as a professor of Finance at the London School of Economics. He is the co-inventor of the first fixed income volatility indexes maintained by exchanges, including the CBOE Interest Rate Swap Volatility Index (SRVIX), the CBOE/CBOT TYVIX on US government debt, and the S&P/JPX JGB-VIX on Japanese government debt. Prof. Mele currently serves as a member of the Securities and Markets Stakeholder Group of ESMA, the supranational supervisor of European financial markets.

Research Interests

His research interests relate to capital market volatility, interest rates and credit markets, macro-finance, and information in securities markets.

Recent Research

Prof. Mele's recent co-authored research provides foundations for pricing and indexing fixed income

volatility, thereby paralleling similar efforts made by other researchers in the equity space that led to the VIX index. In their work, they provide a unified evaluation framework that deals with disparate markets such as interest-rate swaps, government bonds, time deposits, and credit, while covering the subtleties that accompany different market and quoting conventions, and coping with the pitfalls arising from naive superimpositions of the standard equity volatility methodology when pricing various fixed income volatilities.

Publications 2015 and Forthcoming

Rate Fears Gauges and the Dynamics of Fixed Income and Equity Volatilities, A. Mele, Y. Obayashi, and C. Shalen, *Journal of Banking and Finance*, vol. 52, pp. 256–265, 2015.

Uncertainty, Information Acquisition and Price Swings in Asset Markets, A. Mele and F. Sangiorgi, *Review of Economic Studies*, vol. 82, pp. 1533–1567, 2015.

The Price of Fixed Income Market Volatility, A. Mele and Y. Obayashi, Springer Finance Series, Springer International Publishing, 2015.

Interest Rate Derivatives and Volatility, in Handbook of Fixed Income, A. Mele, ed. P. Veronesi, Wiley, forthcoming.



Prof. **Erwan Morellec**

Head of the SFI PhD program SFI Center Head – Léman SFI Senior Chair (since 2006) Ecole Polytechnique Fédérale de Lausanne

Erwan.Morellec@sfi-research.ch +41 21 693 01 16

Erwan Morellec is Full Professor of Finance at the Ecole Polytechnique Fédérale de Lausanne (EPFL) and has held an SFI Senior Chair since 2006. Before joining EPFL in 2008, he taught at the universities of Lausanne and Rochester. Prof. Morellec is a regular speaker at leading finance conferences worldwide, and his research papers have been published in the top academic journals in finance.

Research Interests

His main research interests lie in banking, corporate finance, and corporate governance.

Recent Research

In ongoing research on the effects of short-term debt financing on default risk, Prof. Morellec and his co-authors show that when firms have short-term debt outstanding, negative cash flow shocks lead to a drop in liquid reserves and may cause the firms to suffer losses when rolling over their debt, due to weaker fundamentals. This mechanism becomes more pronounced as debt maturity decreases, increases default risk, and can give rise to a rollover trap, a scenario in which firms burn their cash flows and cash reserves due to severe rollover losses. High exposure to rollover risk can also make claim holders risk-loving and lead distressed firms to implement gambling strategies.

Publications 2015 and Forthcoming

Capital Supply Uncertainty, Cash Holdings and Investment, J. Hugonnier, S. Malamud, and E. Morellec, Review of Financial Studies, vol. 28, pp. 391–445, 2015.

Credit Market Frictions and Capital Structure Dynamics, J. Hugonnier, S. Malamud, and E. Morellec, *Journal of Economic Theory*, vol. 157, pp. 1130–1158, 2015. Financing Investment: The Choice Between Public and Private Debt, E. Morellec, P. Valta, and A. Zhdanov, *Management Science*, vol. 61, pp. 2580–2602, 2015.

Debt Enforcement, Investment, and Risk Taking Across Countries, G. Favara, E. Morellec, E. Schroth, and P. Valta, *Journal of Financial Economics*, forthcoming.



Prof.

Johannes Muhle-Karbe

SFI Faculty Member (since 2012)

ETH Zurich

Johannes.Muhle-Karbe@sfi-research.ch +41 44 632 30 87

Johannes Muhle-Karbe is Assistant Professor of Mathematical Finance at ETH Zurich and has been an SFI faculty member since 2012. He graduated from TU München with a PhD in Mathematics. Following his PhD studies, Prof. Muhle-Karbe was a postdoctoral fellow at the University of Vienna and also held visiting positions at Columbia University and the University of Technology, Sydney.

Research Interests

His primary research interest lies in the application of mathematical models to asset pricing and portfolio optimization.

Recent Research

In a recent study, Prof. Muhle-Karbe and his coauthors contribute to the growing optimal execution literature by focusing on price impacts when one trades a large number of securities. To do so, the researchers use a linear price impact model, which allows for arbitrary preferences, random market prices, and impact parameters. Theoretical results shed light on the structure of the problem at hand and reveal close connections to optimal execution problems and to market frictions such as proportional and fixed transaction costs.

Publications 2015 and Forthcoming

Asymptotics for Fixed Transaction Costs, A. Altarovici, J. Muhle-Karbe, and H. M. Soner, *Finance and Stochastics*, vol. 19, pp. 363–414, 2015.

Long Horizons, High Risk Aversion, and Endogenous Spreads, P. Guasoni and J. Muhle-Karbe, *Mathematical Finance*, vol. 25, pp. 724–753, 2015.

Optimal Liquidity Provision, C. Kühn and J. Muhle-Karbe, *Stochastic Processes and their Applications*, vol. 125, pp. 2493–2515, 2015.

Option Pricing and Hedging with Small Transaction Costs, J. Kallsen and J. Muhle-Karbe, *Mathematical Finance*, vol. 25, pp. 702–723, 2015.

Liquidation with Self-Exciting Price Impact, T. Cayé and J. Muhle-Karbe, *Mathematics and Financial Economics*, forthcoming.

Robust Portfolios and Weak Incentives in Long-Run Investments, P. Guasoni, J. Muhle-Karbe, and H. Xing, *Mathematical Finance*, forthcoming.

The General Structure of Optimal Investment and Consumption with Small Transaction Costs, J. Kallsen and J. Muhle-Karbe, *Mathematical Finance*, forthcoming.

Trading with Small Price Impact, L. Moreau, J. Muhle-Karbe, and H. M. Soner, *Mathematical Finance*, forthcoming.



Prof. **Artem Neklyudov**SFI Assistant Professor (since 2013)

University of Lausanne

Artem.Neklyudov@sfi-research.ch +41 21 692 36 74

Artem Neklyudov has been SFI Assistant Professor of Finance at HEC Lausanne since 2013. He obtained his PhD in Financial Economics from Tepper Business School at Carnegie Mellon University.

Research Interests

His main research interests lie in securitization trading and market microstructure.

Recent Research

In recent research, Prof. Neklyudov and his co-author take a closer look at the network structure of OTC markets. Their model on network formation takes both the relative size of core and peripheral dealers and the intermediation chain among dealers into account. Their results show that, based on differences in customer liquidity needs, customers sort themselves in a non-random manner. Further analysis also finds that customers' welfare and asset liquidity increase with dealer interconnectedness, and that a partially fragmented dealer market yields the largest profits to dealers.



Prof. **Boris Nikolov**SFI Assistant Professor (since 2014)
University of Lausanne

Boris.Nikolov@sfi-research.ch +41 21 692 61 26

Boris Nikolov has been SFI Assistant Professor of Finance at the University of Lausanne since 2014. Prof. Nikolov graduated from the University of Lausanne with a PhD in Finance. He is a regular speaker at major conferences and his research has been published in leading finance journals.

Research Interests

His main research areas are dynamic corporate finance, empirical corporate finance, and corporate governance.

Recent Research

In ongoing research, Prof. Nikolov and his co-authors examine the determinants of dynamic corporate liquidity and their effects on firms' value. In particular, they focus on optimal liquidity management in a dynamic setting where investment opportunities and cash shortfalls generate unexpected liquidity needs. Their contribution is to focus on how firms have made the trade-off between unconditional liquidity using cash and conditional liquidity using credit lines subject to collateral constraints. The model they develop provides a quantitatively and empirically successful framework that explains corporate investment, financing, and liquidity policies, as well as the joint existence of cash, debt, and credit lines in the presence of capital market imperfections.



Prof.

Eric Nowak

SFI Faculty Member (since 2006)
Università della Svizzera italiana

Eric.Nowak@sfi-research.ch +41 58 666 46 37

Eric Nowak is Full Professor of Finance at the Università della Svizzera italiana and has been an SFI faculty member since 2006. Throughout his career, Prof. Nowak has held visiting appointments at leading universities worldwide, including Stanford University and the University of Chicago.

Research Interests

His research areas include corporate governance, family firms, and private equity.

Recent Research

In a recent paper, Prof. Nowak and his co-authors seek to test the effects of advice and trust on financial risk-taking. To do so the researchers conduct an online experiment in which participants

must make investment decisions in an environment where the suggestions and the trustworthiness of the financial advisor change. Data reveals that participants are more receptive to risky suggestions than conservative suggestions. Further computations show that trusted advice is always favored. Overall, results suggest that financial advisors induce investors to take on more risk and achieve higher returns, no matter the advisor's ability.

Publications 2015 and Forthcoming

Decision-Making during the Crisis: Did the Treasury Let Commercial Banks Fail?, E. Croci, G. Hertig, and E. Nowak, *Journal of Empirical Finance*, forthcoming.

The (Ir)relevance of Disclosure of Compliance with Corporate Governance Codes, T. Mahr, E. Nowak, and R. Rott, *Journal of Institutional and Theoretical Economics*, forthcoming.

Crowdfunding as a Success Factor to Shake Up a Sleeping Market, in *Strategic Innovation: The Definitive Guide to Outlier Strategies*, E. Nowak, ed. Ed. L. Välikangas and M. Gibbert, Pearson Education, Inc., forthcoming.



Prof. **Kjell Nyborg**SFI Senior Chair (since 2009)

University of Zurich

Kjell.Nyborg@sfi-research.ch +41 44 634 29 80

Kjell Nyborg is Full Professor of Finance at the University of Zurich and has held an SFI Senior Chair since 2009. He graduated from Stanford University with a PhD in Finance. Prof. Nyborg has published extensively in his areas of expertise and has spent research periods at the European Central Bank, the Deutsche Bundesbank, the Bank of Norway, and Stanford University.

Research Interests

His research interests include valuation, liquidity, collateral, money markets, banking and central banking, and corporate finance.

Recent Research

In recent research, Prof. Nyborg investigates the opaque structure at the heart of central banking, the money creation process, and monetary policy – namely, central banks' collateral frameworks. He focuses specifically on the euro case and sheds new light on its collateral policy, the architecture and politics of its money, and the euro crisis. His analysis shows how central banks conduct and implement monetary policy beyond merely setting interest rates, and how central banks' collateral policies may affect financial markets, financial stability, and the real economy. A broad spectrum of policy recommendations are put forward with valuable implications for both monetary and financial economists.

Publications 2015 and Forthcoming

Collateral Frameworks: The Open Secret of Central Banks, K. Nyborg, Cambridge University Press, forthcoming.



Prof. **Steven Ongena**SFI Senior Chair (since 2013)

University of Zurich

Steven.Ongena@sfi-research.ch +41 44 634 39 54

Steven Ongena is Full Professor of Banking at the University of Zurich and has held an SFI Senior Chair since 2013. He graduated from the University of Oregon with a PhD in Economics. Prof. Ongena's papers have been published in leading academic journals in finance and economics. He currently sits on the editorial boards of a number of finance journals.

Research Interests

His research interests lie in the areas of empirical financial intermediation and applied financial econometrics.

Recent Research

A recent paper by Prof. Ongena and his co-authors investigates whether the ownership status of individual banks – i.e., foreign or domestic, influences their own market power and whether changes in foreign bank presence at the country level impacts the market power of individual banks. To do so, the researchers use a unique data set that covers 131 countries during the 1997 to 2010 period. Empirical analysis reveals that ownership status does not explain market power at the individual bank level. Further estimates find that foreign bank ownership at the country level does not translate into more competitive pricing and that foreign banks price their new products in a monopolistic manner. These results carry important policy and regulation implications as foreign ownership currently seems to translate into a less competitive financial market.

Publications 2015 and Forthcoming

Monetary Policy, Risk-taking and Pricing: Evidence from a Quasi-Natural Experiment, I. Vasso, S. Ongena, and J. L. Peydró, *Review of Finance*, vol. 19, pp. 95–144, 2015.

A Review of Empirical Research on the Design and Impact of Regulation in the Banking Sector, S. Jakovljević, H. Degryse, and S. Ongena, Annual Review of Financial Economics, vol. 7, pp. 423–443, 2015.

The Perennial Challenge to Counter Too-Big-To-Fail in Banking: Empirical Evidence From the New International Regulation Dealing with Global Systemically Important Banks, S. C. Moenninghoff, S. Ongena, and A. Wieandt, *Journal of Banking and Finance*, vol. 61, pp. 221–236, 2015.

Bank Loan Announcements and Borrower Stock Returns Before and During the Recent Financial Crisis, L. Chunshuo and S. Ongena, *Journal of Financial Stability*, vol. 21, pp. 1–12, 2015.

The Impact of Foreign Bank Presence on Foreign Direct Investment in China, S. Ongena, S. Qi, and F. Qin, *China and World Economy*, vol. 23, pp. 40–59, 2015.

Monetary Conditions and Banks' Behaviour in the Czech Republic, A. Geršl, P. Jakubík, D. Kowalczyk, S. Ongena, and J. L. Peydró, *Open Economies Review*, vol. 26, pp. 407–446, 2015.

Shocks Abroad, Pain at Home? Bank-Firm-Level Evidence on the International Transmission of Financial Shocks, S. Ongena, J. L. Peydró, and N. van Horen, *IMF Economic Review*, vol. 63, pp. 698–750, 2015.

The Economic Impact of Merger Control Legislation, E. Carletti, P. Hartmann, and S. Ongena, *International Review of Law and Economics*, vol. 42, pp. 88–104, 2015.

Bank-Firm Relationships: A Review of the Implications for Firms and Banks in Normal and Crisis Times, in *The Economics of Inter-firm Networks in Advances in Japanese Business and Economics Series.*, H. Degryse, V. Ioannidou, and S. Ongena, ed. T. Watanabe, I. Uesugi, and A. Ono, pp. 177–189, Springer, Japan, 2015.

Monetary Transmission and Regulatory Impacts: Empirical Evidence From the Post-Crisis Banking Literature, *in The Handbook of Post Crisis Financial Modelling*, S. Jakovljević, H. Degryse, and S. Ongena, ed. H. Emmanuel, P. Molyneux, J. Wilson, S. Fedotov, and M. Duygun, pp. 18–40, Palgrave Macmillan, UK, 2015.

A Survival Analysis of Islamic and Conventional Banks, A.-M. Fuertes, M. Izzeldin, S. Ongena, and V. Pappas, *Journal of Financial Services Review*, forthcoming.

Collateralization, Bank Loan Rates and Monitoring, G. Cerqueiro, S. Ongena, and K. Roszbach, *Journal of Finance*, forthcoming.

Firm Industry Affiliation and Multiple Bank Relationships, S. Ongena and Y. Yu, *Journal of Financial Services Research*, forthcoming.

Foreign Ownership and Market Power in Banking: Evidence from a World Sample, S. Kokas, D, Manthos, and S. Ongena, *Journal of Money, Credit and Banking*, forthcoming.

The International Diversification of Banks and the Value of Their Cross-Border M&A Advice, A. De Jong, S. Ongena, A. Rajamani, and M. Van der Poel, *Management Science*, forthcoming.



Prof.

Per Östberg

SFI Faculty Member (since 2010)
University of Zurich

Per.Oestberg@sfi-research.ch +41 44 634 29 56

Per Östberg is Assistant Professor of Finance at the University of Zurich and has been an SFI Faculty Member since 2010. He obtained his PhD in Finance from the Stockholm School of Economics. Prof. Östberg is a regular speaker at finance conferences and seminars worldwide and has also served on the program committee of several conferences.

Research Interests

His research interests include financial markets, household finance, and corporate finance.

Recent Research

One of Prof Östberg's recent co-authored papers analyzes how the stock market investment decisions of individuals are influenced by their co-workers. Using a unique data set covering the entire Norwegian population between 1994 and 2005, the researchers find that such an influence is substantial. However, further analysis reveals that the advice given by co-workers does not improve the quality of investment decisions. Purchases made under stronger peer pressure do not perform better than investments that are made under weaker peer pressure. Additionally, the paper finds that peer pressure results in more purchases of stocks from the industry in which the individual is employed. This suggests that social interaction may have adverse effects in terms of portfolio diversification.

Publications 2015

Social Interaction at Work, H. Hvide and P. Östberg, *Journal of Financial Economics*, vol. 117, pp. 628–652, 2015.



Prof.

Marc Paolella

SFI Faculty Member (since 2006)

University of Zurich

Marc.Paolella@sfi-research.ch +41 44 634 45 84

Marc Paolella is Full Professor of Empirical Finance at the University of Zurich and has been an SFI faculty member since 2006. Prof. Paolella is the author of two graduate-level books on probability theory. His research papers have been published in the top academic journals in his areas of expertise.

Research Interests

His primary research interest lies in the development of statistical methods for finance.

Recent Research

Prof. Paolella is currently working on fast, accurate tests for stable Paretian distributions, and various methods for large-scale portfolio optimization that account for volatility clustering, time-varying correlations, asymmetry, heterogeneous tail behaviors

of assets, and non-ellipticity. The methods are based on risk-free strategies that combine portfolio optimization with active risk monitoring, in order to avoid losses during crisis periods. Empirical analysis reveals decisively better portfolio performance than numerous common methods, in terms of both risk and return, even in the presence of conservative transaction costs and frequent rebalancing.

Publications 2015

ALRIGHT: Asymmetric LaRge-Scale (I)GARCH with Hetero-Tails, M. S. Paolella and P. Polak, *International Review of Economics and Finance*, vol. 40, pp. 282–297, 2015.

COMFORT: A Common Market Factor Non-Gaussian Returns Model, M. S. Paolella and P. Polak, *Journal of Econometrics*, vol. 187, pp. 593–605, 2015.

Multivariate Asset Return Prediction with Mixture Models, M. S. Paolella, *European Journal of Finance*, vol. 21, pp. 214–1252, 2015.

New Graphical Methods and Test Statistics for Testing Composite Normality, M. S. Paolella, Econometrics, vol. 3, pp. 532–560, 2015.



Prof. **Alberto Plazzi**SFI Assistant Professor of Finance (since 2010)

Università della Svizzera italiana

Alberto.Plazzi@sfi-research.ch +41 58 666 46 77

Alberto Plazzi is SFI Assistant Professor of Finance at the Università della Svizzera italiana and held an SFI Junior Chair from 2010 to 2014. He obtained his PhD in Finance from the University of California, Los Angeles. Prof. Plazzi is a regular speaker at finance conferences worldwide and his papers have been published in top academic journals.

Research Interests

His research interests include empirical asset pricing, institutional investor behavior, and real estate finance.

Recent Research

In a recent paper, Prof. Plazzi and his co-authors investigate the profitability of investing in international stock markets by exploiting predictable asymmetries in return distributions. To this end, they propose a novel estimator for conditional skewness of long-horizon returns. In a large panel of international data, the optimal portfolio is tilted toward emerging countries, as they are more favorably skewed. The resultant weight on emerging markets is some 20–30 percent larger than that suggested by models based on mean-variance predictors. Much of the portfolio gains originate from the component of skewness that is unrelated to world skewness, and is unspanned by a country's macroeconomic and financial variables. Investing in emerging markets seems to be about expectations of a higher upside than downside.

Publications 2015 and Forthcoming

Why Invest in Emerging Markets? The Role of Conditional Return Asymmetry, E. Ghysels, A. Plazzi, and R. Valkanov, *The Journal of Finance*, forthcoming.



Prof.

Jean-Charles Rochet

SFI Head of Research

SFI Senior Chair (since 2010)

University of Zurich

Jean-Charles.Rochet@sfi-research.ch +41 44 634 40 55

Jean-Charles Rochet is Full Professor of Banking at the University of Zurich and has held an SFI Senior Chair at the University of Zurich since 2010. He became SFI Head of Research in 2015. Before joining the faculty in Zurich, Prof. Rochet held a chair at the Toulouse School of Economics.

Research Interests

His research interests lie in banking crises and regulation.

Recent Research

Prof. Rochet and his co-authors have recently focused on the question of sovereign debt sustainability in advanced economies. In the aftermath of the 2008 financial crisis, many economies experienced a large increase in their debt-to-GDP ratio. The challenge is to determine how much investors are willing to lend to a country's government. To answer this question, the researchers develop a model in which a country's maximum sustainable debt depends on that country's maximum primary surplus, on the mean and volatility of the country's GDP growth, the

country's attitude toward repayment, and lenders' expectations regarding the amount of new debt that can be raised to service existing debt. In a nutshell, data reveals that Greece and Iceland did indeed need financial support, but Ireland and Spain probably did not.

Publications 2015 and Forthcoming

A Theory of the Stakeholder Corporation, M. Magill, M. Quinzii, and J.-C. Rochet, *Econometrica*, vol. 83, pp. 1685–1725, 2015.

Dynamics of Innovation and Risks, B. Biais, J.-C. Rochet, and Paul Woolley, *Review of Financial Studies*, vol. 28, pp. 1353–1380, 2015.

Sovereign Debt Sustainability in Advanced Economies, F. Collard, M. Habib, and J.-C. Rochet, *Journal of the European Economic Association*, vol. 13, pp. 381–420, 2015.

Risky Utilities, *Economic Theory*, J.-C. Rochet and G. Roger, forthcoming.

The Dynamics of Insurance Prices, D. Henriet, N. Klimenko, and J.-C. Rochet, *The Geneva Risk and Insurance Review*, forthcoming.

Taking Banks to Solow, H. Gersbach, J.-C. Rochet, and M. Scheffel, Centre for Economic Policy Research, London, 2015.



Prof.

Michael Rockinger

SFI Faculty Member (since 2006)

University of Lausanne

Michael.Rockinger@sfi-research.ch +41 21 692 33 48

Michael Rockinger is Full Professor of Finance at the University of Lausanne and has been an SFI faculty member since 2006. He was an SFI Research Fellow from 2006 to 2011. Prof. Rockinger has published extensively on computational finance and financial econometrics, and is an active member of the Center for Risk Management Lausanne, which focuses on

diffusing independent and transparent decision-making tools for banks, insurance companies, and industrial firms. Finally, Prof. Rockinger also acts as a research fellow of the Society of Financial Econometrics and is a regular speaker at leading conferences in his areas of expertise.

Research Interests

His main research interest lies in financial econometrics and computational methods for finance.

Recent Research

Prof. Rockinger and his co-authors have recently focused on the price impact of trades in a high-frequency setting. They contribute to this field

by developing a microstructure model that allows parameters to change over time and that accounts for large but infrequent jumps. Differences between transaction price and fundamental value are explained by trade direction and trade size, whereas changes in fundamental value are explained by surprises in trade direction and trade size. When running their model on the trades of Euronext Paris stocks, the researchers find that highly liquid stocks are generally characterized by several small jumps each day, whilst less liquid stocks generally experience a small number of large jumps. Additionally, less liquid stocks exhibit more permanent jumps than highly liquid stocks.

Publications 2015 and Forthcoming

Systemic Risk in Europe, R. Engle, E. Jondeau, and M. Rockinger, *Review of Finance*, vol. 19, pp. 145–190, 2015.

Estimating the Price Impact of Trades in a High-Frequency Microstructure Model with Jumps, E. Jondeau, J. Lahaye, and M. Rockinger, *Journal of Banking and Finance*, forthcoming.



Prof. **Yuki Sato**SFI Assistant Professor (since 2011)

University of Lausanne

Yuki.Sato@sfi-research.ch +41 21 692 36 97

Yuki Sato has been SFI Assistant Professor of Finance at the University of Lausanne since 2011. He obtained his PhD in Economics from the London School of Economics. During his academic studies, Prof. Sato has received a number of awards and scholarships.

Research Interests

His work focuses on the pricing of financial assets in the presence of market frictions.

Recent Research

A recent study by Prof. Sato investigates the impact of peer performance among institutional investors on

investment strategies and asset bubbles. Individual investors behave differently from institutional investors; the former seek to maximize the risk-adjusted return of their portfolio, while the latter typically compete against their peers and ultimately seek to outperform them. In the case of tournaments where the ranking is too close to call, institutional investors fuel bubbles by riding them for a long time; in the case of moderate tournaments, they attack the bubbles quickly. Overall, these results provide explanations regarding the empirical variation that persists in funds' investment strategies during bubble periods.

Publications 2015 and Forthcoming

Opaque Financial Intermediation, in *Agenda for Japan's Economy*, Y. Sato, eds. Kameda K., Nakata M., Nakahigashi M., and N. Yoshino, pp. 205–216, Keio University Press, Japan, 2015.

Fund Tournaments and Asset Bubbles, Y. Sato, *Review of Finance*, forthcoming.



Prof.

Olivier Scaillet

SFI Senior Chair (since 2010)

SFI Faculty Member (since 2006)

University of Geneva

Olivier.Scaillet@sfi-research.ch +41 22 379 88 16

Olivier Scaillet is Full Professor of Probability and Statistics at the University of Geneva. He joined SFI in 2006 and has held an SFI Senior Chair at the University of Geneva since 2010. He obtained his PhD in Applied Mathematics from the University of Paris Dauphine. Prof. Scaillet is a regular speaker at leading conferences in finance. His papers have been published in the top academic journals in finance and econometrics.

Research Interests

His research interests lie in the application of statistical methods to finance topics, including in relation to the use of high-frequency trading data.

Recent Research

In a recent paper, Prof. Scaillet and his co-authors revisit the existing statistical models on return jumps in high-frequency data. They contribute to the growing literature on this topic by developing a methodology that reduces the misclassification of bursts of volatility as jumps. The data reveal that there is no time-clustering of jumps and that jump risk is diversifiable. Further empirical results show that news releases are not likely to cause jumps.

Publications 2015 and Forthcoming

Testing for Symmetry and Conditional Symmetry Using Asymmetric Kernels, M. Fernandes, E. Mendes, and O. Scaillet, *Annals of the Institute of Statistical Mathematics*, vol. 67, pp. 649–671, 2015.

Jumps in High-Frequency Data: Spurious Detections, Dynamics and News, P. Bajgrowicz, O. Scaillet, and A. Treccani, *Management Science*, forthcoming.

Time-Varying Risk Premium in Large Cross-Sectional Equity Datasets, P. Gagliardini, E. Ossola, and O. Scaillet, *Econometrica*, forthcoming.



Prof. **Karl Schmedders**

Head of the SFI Knowledge Center SFI Faculty Member (since 2008) University of Zurich

Karl.Schmedders@sfi-research.ch +41 44 634 37 70

Karl Schmedders is Full Professor of Quantitative Business Administration at the University of Zurich and has been an SFI faculty member since 2008. Before joining the faculty in Zurich, Prof. Schmedders spent ten years at Northwestern University. He holds a PhD in Operations Research from Stanford University. Prof. Schmedders' work has been published in leading economic and finance journals.

Research Interests

His primary research interest lies in the development and application of numerical solution methods in economics and finance.

Recent Research

In a recent paper, Prof. Schmedders and his co-authors investigate how collateral impacts asset value and return in an infinite-horizon general equilibrium model. The model the researchers develop suggests that borrowing against collateral substantially increases the return volatility of long-lived assets. Further computations reveal that otherwise identical assets with different degrees of collateralize-ability exhibit different return dynamics because their prices contain a sizable collateral premium that varies over time.

Publications 2015

A Polynomial Optimization Approach to Principal-Agent Problems, P. Renner and K. Schmedders, *Econometrica*, vol. 83, pp. 729–769, 2015.

Collateral Requirements and Asset Prices, J. Brumm, M. Grill, F. Kübler, and K. Schmedders, *International Economic Review*, vol. 56, pp. 1–25, 2015.

Margin Regulation and Volatility, J. Brumm, M. Grill, F. Kübler, and K. Schmedders, *Journal of Monetary Economics*, vol. 73, pp. 54–68, 2015.



Prof. **Paul Schneider**SFI Junior Chair (since 2015)

Università della Svizzera italiana

Paul.Schneider@sfi-research.ch +41 58 666 45 16

Paul Schneider has been Associate Professor of Finance at the Università della Svizzera italiana since September 2014. He became an SFI faculty member in 2014 and has held an SFI Junior Chair since 2015. He obtained his PhD in Finance from the Vienna University of Economics and Business. Prof. Schneider is a regular speaker at leading academic conferences in finance and his papers have been published in top finance journals.

Research Interests

His main research areas are asset pricing and empirical finance.

Recent Research

In ongoing research, Prof. Schneider contributes to the discussion on how we can learn about the probability of certain economic scenarios from asset prices. He introduces new methods for learning about the equity premium with respect to its different components arising from loss aversion and aversion to tail risk.

Publications 2015

Generalized Risk Premia, P. Schneider, *Journal of Financial Economics*, vol. 116, pp. 487–504, 2015.



Prof.

Norman Schürhoff

SFI Senior Chair (since 2010)

SFI Faculty Member (since 2006)

University of Lausanne

Norman.Schuerhoff@sfi-research.ch +41 21 692 34 47

Norman Schürhoff is Full Professor of Finance at the University of Lausanne. He joined SFI in 2006 and has held an SFI Senior Chair since 2010. He obtained his PhD in Financial Economics from Carnegie Mellon University. Prof. Schürhoff's work has been published in the top academic journals in finance.

Research Interests

His main research interests lie in corporate governance, capital structure dynamics, and bond market microstructure.

Recent Research

In a recent study, Prof. Schürhoff and his co-authors study the OTC market and focus on the frictions that

have the largest effect on execution costs and liquidity in the corporate bond market. Which is more costly? Calling around for the best execution? Or establishing and maintaining a long-lasting trading relationship? Using trade-by-trade data between 2001 and 2014 on corporate bonds issued by insurance companies, the researchers establish several stylized facts regarding bilateral trading and price formation in OTC markets: execution costs depend on the insurer type, the dealer they trade with, and relationship networks. Further analysis shows that execution costs are higher for smaller insurers, smaller dealers, and smaller networks.

Publications 2015

Are Institutions Informed about News?, T. Hendershott, D. Livdan, and N. Schürhoff, *Journal of Financial Economics*, vol. 117, pp. 249–287, 2015.



Prof.

Martin Schweizer

SFI Faculty Member (since 2007)

ETH Zurich

Martin.Schweizer@sfi-research.ch +41 44 632 33 51

Martin Schweizer is Full Professor of Mathematics at ETH Zurich. He joined SFI in 2007 and held an SFI Distinguished Service Chair from 2009 to 2014. Prof. Schweizer has published extensively in the top academic journals in his areas of expertise. He is a regular speaker at leading conferences worldwide.

Research Interests

His primary research interest lies in mathematical finance; more specifically in the areas of hedging, valuation, risk management, and optimal portfolio choice for incomplete financial markets.

Recent Research

In recent work, Prof. Schweizer and his co-author use superreplication to define financial bubbles and analyze them in a numéraire-independent paradigm. The key feature of their approach is that all their definitions are economically motivated and only use primal quantities. By doing so, they are able to show that strict local martingale measures arise naturally in the context of modelling financial bubbles. Further analysis also shows that this concept of bubbles is robust with respect to risk-neutral measures.



Prof.

Mete Soner

SFI Center Head – Zurich

SFI Senior Chair (since 2010)

ETH Zurich

Mete.Soner@sfi-research.ch +41 44 632 27 55

Mete Soner is Full Professor of Mathematics at ETH Zurich. He has held an SFI Senior Chair at ETH Zurich since 2010. Prof. Soner has published extensively in his areas of expertise and is a regular speaker at leading academic conferences worldwide.

Research Interests

His primary research interest lies in mathematical finance and stochastic optimal control. In particular, models for illiquid markets, analysis of markets with transaction costs, robust techniques, and applications of optimal control in corporate finance.

Recent Research

In recent research, Prof. Soner and his co-authors consider the problem of option hedging in markets with proportional transaction costs. Because of the prohibitive cost of perfect hedging, the researchers turn their attention toward a situation with an

expected loss constraint. A tractable model is obtained when small transaction costs are used; using a dynamic programming approach yields a general expansion theory.

Publications 2015 and Forthcoming

Asymptotics for Fixed Transaction Costs, A. Altarovici, J. Muhle-Karbe, and H. M. Soner, *Finance and Stochastics*, vol. 19, pp. 363–414, 2015.

Homogenization and Asymptotics for Small Transaction Costs: The Multi-Dimensional Case, D. Possamaï, H. M. Soner, and N. Touzi, *Communications in Partial Differential Equations*, vol. 40, pp. 2005–2046, 2015.

Martingale Optimal Transport in the Skorokhod Space, Y. Dolinsky and H. M. Soner, *Stochastic Processes and their Applications*, vol. 125, pp. 3893–3931, 2015.

Facelifting in Utility Maximization, K. Larsen, H. M. Soner, and G. Zitkovic, *Finance and Stochastics*, forthcoming.

Trading with Small Price Impact, L. Moreau, J. Muhle-Karbe, and H. M. Soner, *Mathematical Finance*, forthcoming.



Prof. **Didier Sornette**SFI Faculty Member (since 2007)

ETH Zurich

Didier.Sornette@sfi-research.ch +41 44 632 89 17

Didier Sornette holds the Chair of Entrepreneurial Risks at ETH Zurich and has been an SFI faculty member since 2007. Prof. Sornette is the founding director of the Financial Crisis Observatory, a scientific platform aimed at studying financial market inefficiencies. His writings have been published in numerous academic journals as well as by international media.

Research Interests

His research interests include the development of diagnostic tools for financial market anomalies, such as price bubbles, and the prediction of financial crises

Recent Research

In a recent paper, Prof. Sornette and his co-authors revisit the Hubbert oil production model. Their contribution with regard to the model is to develop a two-step methodology to forecast oil production, which accounts for fat tails in the production of existing individual fields and for the discovery of new fields. Their model suggests remaining extractable reserves until 2030 are approximately 50 percent higher for Norway and the UK than predicted by existing models.

Publications 2015 and Forthcoming

A Civil Super-Apollo Project in Nuclear R&D for a Safer and Prosperous World, D. Sornette, *Energy Research & Social Science*, vol. 8, pp. 60–65, 2015.

A Generic Model of Dyadic Social Relationships, M. Favre and D. Sornette, *Public Library of Science ONE*, vol. 10, 2015. Analysis of Log-Periodic Power Law Singularity Patterns in Time Series Related to Credit Risk, D. Sornette and J. H. Wosnitza, *The European Physical Journal B*, vol. 88, pp. 1–11, 2015.

Apparent Criticality and Calibration Issues in the Hawkes Self-Excited Point Process Model: Application to High-Frequency Financial Data, V. Filimonov and D. Sornette, *Quantitative Finance*, vol. 15, pp. 1469–7696, 2015.

Dynamical Signatures of Collective Quality Grading in a Social Activity: Attendance to Motion Pictures, J.V. Escobar and D. Sornette, *Public Library of Science ONE*, vol. 10, 2015.

Dynamical System Theory of Periodically Collapsing Bubbles, D. Sornette, V. I. Yukalov, and E. P. Yukalova, *The European Physical Journal B*, vol. 88, pp. 1–14, 2015.

Effective Measure of Endogeneity for the Autoregressive Conditional Duration Point Processes via Mapping to the Self-Excited Hawkes Process, V. Filimonov, D. Sornette, and S. Wheatley, Communications in Nonlinear Science and Numerical Simulation, vol. 22, pp. 23–37, 2015.

Financial Bubbles: Mechanisms and Diagnostics, P. Cauwels and D. Sornette, *Review of Behavioral Economics*, vol. 2, pp. 279-305, 2015.

Financial Knudsen Number: Breakdown of Continuous Price Dynamics and Asymmetric Buy and Sell Structures Confirmed by High Precision Order Book Information, D. Sornette, H. Takayasu, M. Takayasu, and Y. Yura, *Physical Review E*, vol. 92, pp. 1–12, 2015.

Forecasting Future Oil Production in Norway and the UK: A General Improved Methodology, P. Cauwels, L. Fiévet, Z. Forro, and D. Sornette, *Energy*, vol. 79, pp. 288–297, 2015.

Managing Risk in a Creepy World, D. Sornette and P. Cauwels, *Journal of Risk Management in Financial Institutions*, vol. 8, pp. 83–108, 2015.

Power Law Scaling and "Dragon-Kings" in Distributions of Intraday Financial Drawdowns, V. Filimonov and D. Sornette, *Chaos, Solitons & Fractals*, vol. 74, pp. 27–45, 2015.

Preference Reversal in Quantum Decision Theory, V.I. Yukalov and D. Sornette, *Frontiers in Psychology*, vol. 6, pp. 1–7, 2015.

Quantum Theory of Measurements As Quantum Decision Theory, D. Sornette and V. I. Yukalov, *Journal of Physics: Conference Series*, vol. 594, 2015.

Real-Time Prediction and Post-Mortem Analysis of the Shanghai 2015 Stock Market Bubble and Crash, P. Cauwels, G. Demos, V. Filimonov, D. Sornette, Qun Zhang, and Qunzhi Zhang, *Journal of Investment Strategies*, vol. 4, pp. 77–95, 2015.

Role of Information in Decision Making of Social Agents, D. Sornette and V. I. Yukalov, International *Journal of Information Technology & Decision Making*, vol. 15, pp. 1129–1166, 2015.

Super-Exponential Endogenous Bubbles in an Equilibrium Model of Rational and Noise Traders, T. Kaizoji, M. Leiss, A. Saichev, and D. Sornette, *Journal of Economic Behavior and Organization*, vol. 112, pp. 289–310, 2015.

Super-Exponential Growth Expectations and the Global Financial Crisis, M. Leiss, H. H. Nax, and D. Sornette, *Journal of Economic Dynamics and Control*, vol. 55, pp. 1–13, 2015.

Using Trading Strategies to Detect Phase Transitions in Financial Markets, Z. Forro, D. Sornette, and R. Woodard, *Physical Review E*, vol. 91, 2015.

Positive Operator-Valued Measures in Quantum Decision Theory, in *Lecture Notes in Computer Science*, D. Sornette and V. I. Yukalov, eds. H. Atmanspacher et al., pp. 146–161, Springer, 2015.

Quantum Probability and Quantum Decision Making, D. Sornette and V. I. Yukalov, *Philosophical Transactions of the Royal Society A*, forthcoming.



Prof.

Pascal St-Amour

SFI Faculty Member (since 2006)
University of Lausanne

Pascal.St-Amour@sfi-research.ch +41 21 692 34 77

Pascal St-Amour is Full Professor of Finance at the University of Lausanne and has been an SFI faculty member since 2006. He holds a PhD in Economics from Queen's University. Prof. St-Amour's papers have been published in the leading academic journals in economics.

Research Interests

His primary research areas are financial economics, health economics, and economic history.

Recent Research

In one of his latest papers, Prof. St-Amour focuses on human capital and employment risk hedging. The originality in his research lies in his focusing not only on the impact of human capital on expected wages, but also on the role of human capital in protecting individuals from adverse labor market shocks. His model innovates by treating investment in human capital as a forward-looking costly decision made by both employed and unemployed workers. His results highlight the importance of employment risk hedging as a strong motive in the total demand for human capital, and the moral hazard effects of unemployment insurance programs. In particular, more generous unemployment insurance programs seem to reduce the incentives to invest in one's own capital and lead to slower wage growth, more unemployment through higher work displacement, and lower re-employment rates.



Prof.

Josef Teichmann

SFI Faculty Member (since 2009)

ETH Zurich

Josef.Teichmann@sfi-research.ch +41 44 632 31 74

Josef Teichmann is Full Professor of Mathematical Finance at ETH Zurich and has been an SFI faculty member since 2009. Prof. Teichmann is a regular speaker at international conferences on finance and mathematics. He has published extensively in his areas of research expertise. He was awarded the Louis Bachelier prize in 2014 for his contributions in the field of quantitative finance.

Research Interests

His main research interests lie in mathematical finance, stochastic partial differential equations, and quantitative risk management.

Recent Research

In a recent research project, Prof. Teichman and his co-authors develop the notion of no asymptotic free lunch with vanishing risk in markets with a very large number of assets, such as the bond market. The notion of no asymptotic free lunch with vanishing risk is not only economically meaningful, it is also equivalent to the existence of a separating measure, which solves a long-standing question in the foundations of mathematical finance.

Publications 2015 and Forthcoming

A Convergence Result for the Emery Topology and a Variant of the Proof of the Fundamental Theorem of Asset Pricing, C. Cuchiero and J. Teichmann, *Finance and Stochastics*, vol. 19, pp. 743–761, 2015.

Fourier Transform methods for Pathwise Covariance Estimation in the Presence of Jumps, C. Cuchiero and J. Teichmann, *Stochastic Processes and their Applications*, vol. 125, pp. 116–160, 2015.

Exotic One-Parameter Semigroups of Endomorphisms of a Symmetric Cone, B. Kuzma, M. Omladic, K. Sivic, and J. Teichmann, *Linear Algebra and Its Applications*, vol. 477, pp. 42–75, 2015.

Consistent Yield Curve Prediction, J. Teichmann and M. Wüthrich, ASTIN Bulletin, forthcoming.

Large Deviations and Asymptotic Methods in Finance, Springer Proceedings in Mathematics and Statistics Series, vol. 110, eds. P. Friz, J. Gatheral, A. Gulisashvili, A. Jacquier, and J. Teichmann, Springer, 2015.

The Gärtner-Ellis Theorem, Homogenization, and Affine Processes, in Large Deviations and Asymptotic Methods in Finance, Springer Proceedings in Mathematics and Statistics Series, vol. 110, A. Gulisashvili and J. Teichmann, eds. P. Friz, J. Gatheral, A. Gulisashvili, A. Jacquier, and J. Teichmann, pp. 287–320, Springer, 2015.

A Remark on Gatheral's 'Most-Likely Path Approximation' of Implied Volatility, in *Large Deviations and Asymptotic Methods in Finance, Springer Proceedings in Mathematics and Statistics Series*, vol. 110, M. Keller-Ressel and J. Teichmann, eds. P. Friz, J. Gatheral, A. Gulisashvili, A. Jacquier, and J. Teichmann, pp. 239–245, Springer, 2015.



Frof.
Fabio Trojani
SFI Senior Chair (since 2014)
SFI Faculty Member (since 2009)
Università della Svizzera italiana

Fabio.Trojani@sfi-research.ch +41 22 379 80 08

Fabio Trojani is Full Professor of Finance at the Università della Svizzera italiana and has held an SFI Senior Chair since 2014. He graduated with a PhD in Economics and Finance from the University of Zurich. Prof. Trojani is a regular speaker at leading academic conferences in finance and econometrics.

Research Interests

His research interests are asset pricing and the application of econometric methods to finance, including the measurement and evaluation of hedge fund performance.

Recent Research

In ongoing research, Prof. Trojani and his co-authors shed light on the role of uncertainty in developing robust portfolio decisions in the presence of unknown time-varying features in the underlying data generating process. The researchers' key contribution is to separate uncertainty into an inside component that can be modelled and an outside component generated by model estimation. The authors show that this second component is quantitatively and economically important. To estimate the component requires optional robust estimation methods to bound the undesirable effects of ambiguous data features on optimal portfolio rules. The empirical application to optimal portfolio allocation, with time-varying opportunity sets, supports the superiority of optimal portfolio rules based on the robust estimators proposed in the paper.



Prof.

Anders Trolle

SFI Junior Chair (since 2009)

Ecole Polytechnique Fédérale de Lausanne

Anders.Trolle@sfi-research.ch +41 21 693 01 31

Anders Trolle is SFI Assistant Professor of Finance and has held an SFI Junior Chair at the Ecole Polytechnique Fédérale de Lausanne since 2009. He moved to Switzerland after completing postdoctoral studies in Finance at Copenhagen Business School. Prof. Trolle is a regular speaker at major conferences worldwide and his work has been published in the top academic journals in finance.

Research Interests

His primary research interests are derivatives pricing, the term structure of interest rates, commodities, interbank risk, and liquidity risk.

Recent Research

Prof. Trolle and his co-authors recently introduced the class of linear-rational term structure models, where the state price density is modeled such that bond prices become linear-rational functions of the current state. This class of models comes with several distinct advantages, such as ensuring lower-bounded interest rates, accommodating unspanned factors affecting volatility and risk premiums, and admitting analytical solutions to swaptions. The linear-rational models can be further modified to be applied to equity, credit, and commodity markets.

Publications 2015 and Forthcoming

Linear-Rational Term Structure Models, D. Filipovic, M. Larsson, and A. Trolle, *Journal of Finance*, forthcoming.

Fed Funds Futures Variance Futures, D. Filipovic and A. Trolle, *Quantitative Finance*, forthcoming.



Prof.

Philip Valta

SFI Junior Chair (since 2014)
University of Geneva

Philip.Valta@sfi-research.ch

Philip Valta is SFI Assistant Professor of Finance at the University of Geneva and has held an SFI Junior Chair since 2014. He holds a PhD in Finance from the Ecole Polytechnique Fédérale de Lausanne. Prof. Valta is a regular speaker at leading finance conferences worldwide and his research has been published in top academic journals.

Research Interests

His main research interests are in empirical corporate finance, with a focus on how product markets and institutions shape corporate decisions.

Recent Research

In ongoing research, Prof. Valta and his co-author examine the financing patterns of political campaigns, and how the presence of debt financing relates to the future fundraising and voting behavior

of elected politicians. They find that a significant fraction of political campaigns are financed with debt. Moreover, politicians with debt-financed campaigns raise less debt financing in the next election cycle, but receive larger contributions from individuals or from political action committees. Indebted politicians are also more likely to vote pro-labor if they receive labor contributions. The researchers' results suggest that indebted politicians are more likely to cater to contributors' demands, which is necessary if they are to secure future contributions with which to pay off the debt.

Publications 2015 and Forthcoming

Financing Investment: The Choice Between Public and Private Debt, E. Morellec, P. Valta, and A. Zhdanov, *Management Science*, vol. 61, pp. 2580–2602, 2015.

Debt Enforcement, Investment, and Risk Taking Across Countries, G. Favara, E. Morellec, E. Schroth, and P. Valta, *Journal of Financial Economics*, forthcoming.

How Does Corporate Investment Respond to Entry Threat?, L. Frésard and P. Valta, *Review of Corporate Finance Studies*, forthcoming.



Prof.

Paolo Vanini

SFI Head of Knowledge Transfer

SFI Faculty Member since 2006

University of Basel

Paolo.Vanini@sfi-research.ch +41 44 292 45 10

Paolo Vanini is Adjunct Professor of Banking at the University of Basel and has been SFI Head of Knowledge Transfer since 2006. He is also Academic Director of SFI e-Finance. Prof. Vanini heads the department of structured products and cross assets at the Cantonal Bank of Zurich.

Research Interests

His research primarily focuses on banking, risk management, and structured finance.

Recent Research

One of Prof. Vanini's recent co-authored papers focuses on pricing derivatives in a semi-analytical framework using multiple asset classes and a fully stochastic dependence structure. Such a model supports the joint inclusion of different underlyings such as stochastic equity, interest rates and commodity prices. Using a non-linear transformation of the original model, makes the researchers' methodology accessible to methods used in the affine class models. Empirical estimates show that the model works remarkably well in two dimensional examples such as commodity call pricing.



Prof. **Alexander Wagner**SFI Junior Chair (since 2012)

SFI Faculty Member (since 2006)

University of Zurich

Alexander.Wagner@sfi-research.ch +41 44 634 39 63

Alexander Wagner is Associate Professor of Finance at the University of Zurich. He joined SFI in 2006 and has held an SFI Junior Chair since 2012. He obtained his PhD in Political Economy from Harvard University. His research has been published in leading academic journals worldwide. Prof. Wagner is a board member of Swipra, the independent Swiss proxy advisor, and an independent counsel for PwC. He is a regular speaker at conferences and on panel debates both in Switzerland and abroad.

Research Interests

His main research interests are executive compensation, corporate governance, and behavioral economics.

Recent Research

In one of his most recent co-authored studies, Prof. Wagner studies the conditions under which financial engineering generates neglected risk. Issuers of structured products compensate both general issuer and issuer-product specific counterparty exposure when investor attention toward issuer default is high. Data that cover Swiss retail products between 2005 and 2010 suggest that, even with simple products, neglected risk does not dissipate when the size of the risk increases, but only when attention increases. The researchers further show that banks have a propensity to issue products with larger counterparty exposure, which is a crucial concern for the accumulation of neglected risk in the economy.

Publications 2015 and Forthcoming

"Protected Values and Economic Decision Making", in Handbook of Value: Perspectives from Economics, Neuroscience, Philosophy, Psychology and Sociology, R. Gibson Brandon, C. Tanner, and A. Wagner, eds. T. Brosch and D. Sander, pp. 223–241, Oxford University Press, New York, forthcoming.



Prof.

Mario Wüthrich

SFI Faculty Member (since 2013)

FTH Zurich

Mario.Wuethrich@sfi-research.ch +41 44 632 33 90

Mario Wüthrich is Full Professor of Mathematics at ETH Zurich and has been an SFI faculty member since 2013. He obtained his PhD in Mathematics at ETH Zurich with a thesis on probability theory. He sits on the editorial board of leading academic journals in the actuarial sciences and is the author of several books in his field of expertise.

Research Interests

His main research areas are insurance mathematics, the actuarial sciences, and statistical modelling.

Recent Research

In recent work, Prof. Wüthrich and his co-authors contribute to the life insurance literature by introducing a full Bayesian framework for the modelling and forecasting of mortality tables. This Bayesian approach overcomes inconsistencies present in other approaches. The model they develop uses a multi-dimensional risk factor process to model variations contained in survival probabilities. When the researchers apply their model to the Swiss population, they capture the main systematic mortality events. Further analysis predicts that mortality improves with time, but at a slower pace for an older population.

Publications 2015 and Forthcoming

From Ruin Theory to Solvency in Non-Life Insurance, M. V. Wüthrich, *Scandinavian Actuarial Journal*, vol. 6, pp. 516–526, 2015.

Double Chain Ladder, Claims Development Inflation and Zero Claims, M. D. Martinez-Miranda, J. Nielsen, R. Verrall, and M. V. Wüthrich, *Scandinavian Actuarial Journal*, vol. 5, pp. 383–405, 2015.

Best-Estimate Claims Reserves in Incomplete Markets, S. Happ, M. Merz, and M. V. Wüthrich, *European Actuarial Journal*, vol. 5, pp. 55–77, 2015.

Parameter Reduction in Log-Normal Chain-Ladder Models, R. Verrall and M. V. Wüthrich, *European Actuarial Journal*, vol. 5, pp. 355–380, 2015.

Inhomogeneous Long-Range Percolation for Real-Life Network Modeling, P. Deprez, R. S. Hazra, and M. V. Wüthrich, *Risks*, vol. 3, pp. 1–23, 2015.

Best-Estimates in Bond Markets with Reinvestment Risks, A. MacKay and M. V. Wüthrich, *Risks*, vol. 3, pp. 250–276, 2015.

Modified Munich Chain-Ladder Method, M. Merz and M. V. Wüthrich, *Risks*, vol. 3, pp. 624–646, 2015.

Consistent Yield Curve Prediction, J. Teichmann and M. Wüthrich, ASTIN Bulletin, forthcoming.



Prof. **Alexandre Ziegler**SFI Faculty Member (since 2006)

University of Zurich

Alexandre.Ziegler@sfi-research.ch +41 44 634 27 32

Alexandre Ziegler is Assistant Professor of Finance at the University of Zurich and has been an SFI faculty member since 2006. He obtained his PhD in Finance from the University of St. Gallen. Prof. Ziegler is a regular speaker at leading academic conferences in finance and his papers have been published in top finance journals.

Research Interests

His main research areas are asset pricing and market microstructure.

Recent Research

In one of his recent co-authored research projects, Prof. Ziegler focuses on the impact of high-frequency trading (HFT) on market quality and general welfare. Simulated modelling reveals that HFT tends to improve market quality, reduce spreads, increase market depth, and enhance price discovery when information is symmetric. When high-frequency traders have an informational advantage over slow traders, improvements in market quality will only occur when competition among high-frequency traders is strong. Further analysis also finds that HFT does not negatively impact investor welfare, but does lead to a reduction in the welfare of slow speculators as they are gradually crowded out by high-frequency traders. With a regulatory perspective in mind, the effects of minimum resting time rules, cancellation fees, transaction taxes, rebate fee structures, and speed bumps seem to offer limited welfare benefits to long-term investors.

Publications 2015

Returns from Investing in S&P500 Futures Options, 1985–2010, in *The World Scientific Handbook of Futures Markets*, A. Ziegler and W. T. Ziemba, eds. A. G. Malliaris and W. T. Ziemba, pp. 643–688, World Scientific Publishing, 2015.



SFI Adjunct Professors



Prof. **Teodoro D. Cocca**SFI Adjunct Professor (since 2010)



Prof. **Christopher Culp**SFI Adjunct Professor (since 2015)

Teodoro D. Cocca is full Professor for Wealth and Asset Management at the Johannes Kepler University of Linz in Austria and has been an SFI Adjunct Professor since 2010. Previously he worked for Citibank in investment and private banking, was a research fellow at the Stern School of Business in New York and senior researcher at the Swiss Banking Institute in Zurich.

Prof. Cocca is a frequent speaker to academics and investment professionals and a consultant to a number of financial institutions on issues relating to strategic bank management. He has published numerous articles in academic journals and is a member of the board of directors at VP Bank AG (Liechtenstein) and Geneve Group International (Switzerland).

Christopher Culp is a Research Fellow at the Johns Hopkins Institute for Applied Economics, a Swiss Finance Institute Adjunct Professor since 2015, and an Adjunct Professor in the Institut für Finanzmanagement at Universität Bern. He was an Adjunct Professor of Finance at The University of Chicago's Booth School of Business from 1998–2013, from which he also received his PhD in Finance. His research specializations include (re-)insurance, risk management, derivatives, and structured finance, and he has written four books, co-edited two books (one with Merton Miller and the other with William Niskanen), and authored numerous articles on these topics. As a Senior Advisor with Compass Lexecon (Chicago) and Managing Director of RMCS, Inc. (Chicago), he also regularly provides advisory consulting services and testimonial expertise in these same subject areas.



Prof. **Rudolf Gruenig**SFI Adjunct Professor (since 2010)



Prof. **Erwin W. Heri**SFI Adjunct Professor (since 2010)

Rudolf Grünig is Professor for Business Administration at the University of Fribourg, and is lecturer of Strategic Management in various executive programs. He has been an SFI Adjunct Professor since 2010.

In addition to his academic career, Prof. Grünig is a board member and strategy consultant in several Swiss companies. He has written numerous books and articles on strategic management, planning and decision-making (Rudolf Grünig, Richard Kühn – The Strategy Planning Process, Berlin Heidelberg 2015; Rudolf Grünig, Richard Kühn – Sucessful Decision-making, 3rd edition, Berlin Heidelberg 2013; Rudolf Grünig, Dirk Morschett – Developing International Strategies, 2nd edition, Berlin Heidelberg 2016).

Erwin W. Heri is Professor of Financial Theory at the University of Basel and SFI Adjunct Professor since 2010. He has held various posts as an executive board member of international renowned financial service providers e.g. Chief Financial Officer at Winterthur Insurance Group and CFO and Chief Investment Officer at Credit Suisse Financial Services. For about 10 years he was Chairman of the Board of a Swiss Private Banking Group listed on the Swiss Stock Exchange (Valartis Group). For many years he was also the Chairman of the Investment Committee of Publica, the pension fund of the State Government employees in Switzerland. Prof. Heri also holds mandates on several advisory boards and boards of Directors and is the author of numerous books and articles on Financial and Investment Matters.

He recently started an internet-based financial literacy platform (www.fintool.ch) with the goal to improve the financial education of the broad public in Switzerland through a free video-based internet-offering.



Prof. **Roger M. Kunz**SFI Adjunct Professor (since 2010)



Prof. **François-Serge Lhabitant**SFI Adjunct Professor (since 2010)

Roger M. Kunz is Head of Investment Research at the Pension Fund SBB (Swiss Federal Railways), Professor at the University of Basel and Adjunct Professor of the Swiss Finance Institute since 2010. He holds a PhD from the University of Basel. He was a visiting researcher at Georgetown University in Washington (DC). He worked several years for Credit Suisse, among others as Head of Financial Market Research and as Head of Investment Strategy and member of the Investment Committee of the former private bank Clariden Leu. He has published numerous articles and held speeches in the fields of corporate finance, financial markets, investments and taxes.

François-Serge Lhabitant is the Chief Executive Officer and the Chief Investment Officer of Kedge Capital, where he managers more than \$5 billion of capital invested in hedge funds. Professor Lhabitant was previously a senior management member at Union Bancaire Privée (Geneva) and a Director at UBS Global Asset Management, in charge of quantitative modeling and risk management. On the academic side, he is a Professor of Finance at the EDHEC Business School (France) and a Visiting Professor of Finance at the Hong Kong University of Science and Technology (Hong Kong). He is a Swiss Finance Institute Adjunct Professor since 2010, and was formerly a professor of Finance at the HEC University of Lausanne (Switzerland). Professor Lhabitant received a PhD in finance, an MSc in banking and finance and a BSc in economics from the University of Lausanne, as well as a computer engineering degree from the Swiss Federal Institute of Technology. He also holds an LLM in Tax Law from the University of Geneva.



Prof. **Alfred Mettler**SFI Adjunct Professor (since 2010)



Prof.

Conrad Meyer

SFI Adjunct Professor (since 2010)

Alfred Mettler is Professor of Finance at Georgia State University (Atlanta, USA) and Swiss Finance Institute Adjunct Professor since 2010. He received his MBA and PhD in Finance from the University of Zurich (Switzerland) and has previously been on the faculty of the University of Zurich (Swiss Banking Institute), New York University (Stern School of Business), and Thunderbird (The Garvin School of International Management). His principal academic interests are in International Banking and Finance, Risk Management of Financial Institutions, and Financial Education. Prof. Mettler's research focuses on equity/debt financing of corporations, enterprise risk management applications, and the management of credit risk exposures. He has leading roles in several Executive Education Programs in Europe and the U.S. and has consulted for various companies and organizations.

Conrad Meyer is Professor in Business Administration at the University of Zurich and has been an SFI Adjunct Professor since 2010. His specialized areas in research and teaching are management accounting as well as selected problems of banking business management, such as management accounting, controlling and asset- and liability management.

Prof. Meyer serves for several boards of directors of private companies. He is a member of national and international scientific societies, and the author of numerous publications and contributions to specialist journals. He plays an important role in teaching and as a consultant to both banking and industrial enterprises.

Overview of Courses Offered in 2015 at Swiss Finance Institute

C-level Offering

Combined Edition 2015/2016: April 7–8, 2016 **International Wealth Management Retreat**

Degree Offerings

January 2015 – September 2016

Diploma of Advanced Studies in Banking

November 2015

Certificate of Advanced Studies in Asset Management

September 2015 - March 2016

Certificate of Advanced Studies in Real Estate Finance

Executive Offerings

February 2015 - November 2015

Advanced Executive Program

September 2015

International Bank Management Program

November 2015

Managing International Asset Management

March 2015

Master of Science in Wealth Management, Swiss study block for the program of the Singapore Management University and Wealth Management Institute

Specialist Offerings and In-House Training Swiss Cross-Border Wealth Management

In cooperation with the Centro di Studi Bancari, in 2015 we offered several cross-border courses on a country-by-country basis. The courses covered the markets of Austria, Belgium, Brazil, France, Germany, Italy, Spain, the UK, and Russia. Selected markets were also offered as in-house training courses for several Swiss banks.

In addition, offered 2 weeks of a client seminar for a major Chinese bank.

Knowledge Transfer Events Provided by Swiss Finance Institute during 2015

Swiss Risk Association Event in Partnerschaft mit Swiss Finance Institute: Risiken auf dem Finanzplatz Schweiz

University of Zurich, Half-Day Conference, January 21, 2015

Oswald J. Grübel
Daniel Zuberbühler

Do Investment Consultants Add Value or Encourage Pension Plans and Other Investors to Search for "Fool's Gold"

Zurich, Breakfast Seminar, January 29, 2015 and Geneva, Evening Seminar, January 29, 2015 <u>Prof. Tim Jenkinson</u>, University of Oxford, Professor of Finance and Head of the Finance Faculty at Saïd Business School

Swiss Banking Transformation Testimonials

Lugano, Lunch Seminar, February 4, 2015 <u>Mauro De Stefani</u>, Banca Popolare di Sondrio, Presidente della Direzione Generale

SFI Outstanding Paper Award Lecture

Geneva, Lecture, March 26, 2015

<u>Prof. Ralph Koijen</u>, London Business School,

<u>Professor of Finance</u>

Anlagenotstand? Nicht mit uns

Zurich, Panel-Diskussion, March 31, 2015

<u>Michael Strobaek</u>, Credit Suisse, Chief Investment
Officer

<u>Christoph Schenk</u>, Zürcher Kantonalbank, Chief Investment Officer

How Much to Invest into Risk?

Zurich, Evening Seminar, April 15, 2015

<u>Prof. Dr. h.c. Martin Weber</u>, University of Mannheim,
Chair of Business Administration and Finance, esp.
Banking

Träume und Schäume: Zukunftsszenarien für den Finanzplatz Schweiz

Zurich, Breakfast Seminar, May 7, 2015

<u>Prof. Tobias Straumann</u>, Wirtschaftshistoriker und
Titularprofessor an der Universität Zürich

The ASEAN Economic Community: Glass Half-Full or Half-Empty?

Zurich, Evening Seminar, May 19, 2015

<u>Duncan Innes-Ker</u>, The Economist Intelligence Unit,
Senior Editor/Economist, Asia Expert

Swiss Monetary Policy Facts... and Fictions

Geneva, Evening Seminar, May 19, 2015

<u>Prof. Jean-Pierre Danthine</u>, Swiss National Bank, Vice Chairman of the Governing Board

The ASEAN Economic Community: Glass Half-Full or Half-Empty?

Geneva, Lunch Seminar, May 20, 2015

<u>Duncan Innes-Ker</u>, The Economist Intelligence Unit,
Senior Editor/Economist, Asia Expert

The US Then, Europe Now

Zurich, Public Lecture, June 1, 2015

<u>Nobel Prize Winner Prof. Thomas J. Sargent</u>, New York
University

William Berkley, Singapore Management University,

William Berkley, Singapore Management University, Professor of Economics and Distinguished Term Professor

Risk Appetite

Zurich, SRA Event, June 10, 2015 David Cole, Swiss Re, CFO

Il mercato immobilliare svizzero e la specificità ticinese

Lugano, Lunch Seminar, June 11, 2015 Claudio Saputelli, UBS, Direttore Wealth Management Real Estate Research

Evolutionary Foundations of Economic Behavior, Bounded Rationality, and Intelligence

Zurich, ETH Lunch Seminar, June 25, 2015

Prof. Andrew W. Lo, MIT Sloan School of Management,
Professor of Finance, and Director of the Laboratory
for Financial Engineering, Charles E. and Susan
T. Harris Professor and MIT Director

Can Financial Engineering Cure Cancer? New Approaches to Funding Biomedical Innovation

Zurich, Evening Seminar, June 25, 2015

<u>Prof. Andrew W. Lo</u>, MIT Sloan School of Management,
Professor of Finance, and Director of the Laboratory
for Financial Engineering, <u>Charles E.</u> and <u>Susan</u>
T. Harris Professor and MIT Director

Structured Products: Performance, Costs and Investments

Zurich Evening Seminar, July 02, 2015

<u>Prof. Paolo Vanini</u>, Adjunct Professor of Banking at the University of Basel and SFI Director of Knowledge Transfer, Head Structured Products and Cross Assets of Zürcher Kantonalbank

AIA, Zahlstellensteuer, FATCA: Big Picture. Dynamik der verschiedenen Initiativen und Auswirkungen auf die Geschäftsmodelle von Banken

Zurich, Breakfast Seminar, August 27, 2015 <u>Dr. Hans-Joachim Jaeger</u>, Ernst & Young AG, Partner

FinfraG - die Würfel sind gefallen

Zurich, Breakfast Seminar, September 9, 2015 <u>Dr. iur. Martin Liebi LL. M</u>, Pricewaterhouse Coopers, attorney-at-law, CAIA, Head L&C Capital Markets

The New Swiss Financial Market Infrastructure Act: What Does It Mean for Me?

Geneva, Evening Seminar, September 17, 2015

<u>Dr. iur. Martin Liebi LL. M</u>, Pricewaterhouse Coopers, attorney-at-law, CAIA, Head L&C Capital Markets

Risk and Uncertainty in Asset Management

Zurich, Evening Seminar, September 24, 2015 Elizabeth Corley, Allianz Global Investors, CEO

The New Oil Price Environment

Zurich, Evening Seminar, October 01, 2015

Mr. David Fransen, Vitol, Managing Director, and
Swiss Trading and Shipping Association (STSA),
President

FinfraG - Roundtable für Experten

Zurich, Roundtable für Experten, November 4, 2015

<u>Dr. iur. Martin Liebi LL. M</u>, Pricewaterhouse Coopers, attorney-at-law, CAIA, Head L&C Capital Markets

<u>Dr. Günther Dobrauz</u>, MBA, Leiter Legal FS

Regulatory & Compliance Services

10th Annual Meeting of SFI

Opportunities in Asset Management Zurich, Evening Seminar, November 12, 2015

Fundamental Research Stream "Frontiers in Quantitative Methods in AM"

<u>Prof. Markus Leippold</u>, University of Zurich & SFI: Asset Allocation

<u>Prof. Eric Jondeau</u>, University of Lausanne & SFI: Optimal Long-Term Allocation with Pension Fund Liabilities

<u>Prof. Olivier Scaillet</u>, University of Geneva & SFI: The Distribution of Mutual Fund and Hedge Fund Performance

<u>Prof. Andrew Patton</u>, Duke University: The Impact of Hedge Funds on Asset Markets

<u>Prof. Thorsten Hens</u>, University of Zurich & SFI: Five Years University of Zurich Asset Management Learning Lab

<u>Prof. Sébastien Pouget</u>, Toulouse School of Economics: Experimental Finance

Applied Stream: "Master Class on New Asset Classes in AM"

<u>Prof. Roger Kunz</u>, SBB Pension Fund & University of Basel: Pension Funds and Asset Management <u>Prof. Stephen Schaefer</u>, London Business School: Factor Investing

Plenary Session: Global MacroeconomicsGiles Keating, Credit Suisse

Panel Discussion: "Is AM the Right Strategic Initiative for Swiss Banking?"

<u>Prof. Damir Filipovic</u>, EPFL & SFI, and Swiss Life, Board of Directors

<u>Dr. Paul Woolley</u>, London School of Economics and Political Science

<u>Dr. Zeno Staub</u>, Bank Vontobel AG, CEO <u>Christian Staub</u>, BlackRock; Country Head for Germany, Switzerland, Austria, and Eastern Europe

Stresses and Strains on China's Financial System

Zurich, Evening Seminar, December 3, 2015

<u>Prof. Darrell Duffie</u>, University of Stanford, Professor of Finance



Mr. Alexander Zeller, SFI Foundation Board & Chairman of the Board of Directors of SIX, did the welcome at the 10th Annual Meeting

Swiss Finance Institute gratefully acknowledges the precious support of its founding members:









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Impressum

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Swiss Finance Institute

Walchestr. 9, CH-8006 Zürich T +41 44 254 30 80, www.sfi.ch

Swiss Finance Institute

c/o University of Geneva 42, Bd du Pont d'Arve, CH-1211 Geneva 4 T +41 22 379 84 71, www.sfi.ch

