

# Research Projects in Financial Economics

**S**FI supports and promotes promising research projects in selected subject areas through funding received from the State Secretariat for Education, Research and Innovation (SERI). The research funds are awarded on a strictly competitive basis to researchers based in Switzerland under the supervision of the SFI Project Evaluation Committee. This has led to funding 21 projects across eight Swiss Universities (EPFL, ETHZ, UNIBE, UNIGE, UNIL, UNISG, USI, and UZH). The research projects focus on the banking, asset pricing and asset allocation, behavioral and experimental finance, corporate finance, financial markets, and international finance expertise areas.

## “WHY” RESEARCH:

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

## FIRST TAKE-AWAYS

- Develop a benchmark model to improve the understanding of co-movements of bonds and stock markets across the business cycle. *(Project Berrada).*
- Outline how savings, work decisions, and health expenditure influence being insured or not at a given point in life, and consequently quantify the welfare associated with alternative insurance schemes. *(Project Hugonnier).*
- Obtain a correct understanding of the relevant risk-returns in financial sectors such as the hedge fund industry during economic and financial crises, and quantify the impact of opaque financial markets and heterogeneous market views when pricing assets. *(Project Trojani).*
- Improve the understanding of security pricing and risk evolution in security markets by revising the expectations and decisions of investors, regulations, and risk managers. *(Project Barone-Adesi).*
- Determine when M&As can be beneficial for both shareholders and the economy in general. *(Project Dimopoulos).*
- Analyze how the tone managers use during corporate conference calls can affect stock prices. Experienced analysts respond appropriately in revising their forecasts; inexperienced analysts overreact to unexpected tone. *(Project Wagner).*
- Better inform market participants and policy makers on the trade-offs between existing market structures and optimal financial market design, and increase know-how for designing and implementing financial market regulation. *(Project Schürhoff).*
- 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 to evaluate liquidity-risk exposure of emerging market equity. *(Project Chaieb).*

## PROJECT SUMMARIES

### ASSET PRICING AND ASSET ALLOCATION

#### Asset Pricing with Regime Dependent Preferences and Learning

*Project leader: Prof. Tony Berrada (University of Geneva and SFI)*

- 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.

#### CDS Market Liquidity

*Project leader: Prof. Anders Trolle*

*(Ecole Polytechnique Fédérale de Lausanne and SFI)*

- 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 expected returns of CDS contracts. The advantage of the illiquidity measure 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.

#### Financial and Health-Related Allocations over the Life Cycle

*Project leader: Prof. Julien Hugonnier*

*(Ecole Polytechnique Fédérale de Lausanne and SFI)*

- This project develops a tractable dynamic framework capable of modeling the joint determination of a household's financial and health-related decisions over its life cycle. The project focuses on the implications for health and financial allocations as retirement plans are shifting from a defined benefit scheme to a defined contribution one.

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

*Project leader: Prof. Amit Goyal (University of Lausanne and SFI)*

- By developing a new methodology for cross-sectional asset-pricing tests, this study disentangles the relative importance of betas and firm characteristics in explaining the cross-sectional variation in expected returns. 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, firm characteristics consistently explain a much larger proportion of variation in estimated expected returns than all combined factors.

#### Term Structures and Cross Sections of Asset Risk Premia

*Project leader: Prof. Fabio Trojani (University of Lugano and SFI)*

- 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 the assets' uncertainty. Project

contributions include a class of general trading strategies for replicating and hedging the distinct characteristics of market uncertainty, as well as multi-factor parametric models able to describe the joint dynamics of the term structure of volatility risks, volatility risk premia, and option returns.

### BEHAVIORAL AND EXPERIMENTAL FINANCE

#### Contagious Defaults in Credit Markets - an Experimental Analysis

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

- This project helps better understand, through experimental evidence, whether mortgage defaults are predominantly driven by inability to repay or by strategic behavior. It also incorporates the role of social norms in containing strategic default.

#### Sentiment and Risk in Financial Markets

*Project leader: Prof. Giovanni Barone Adesi*

*(University of Lugano and SFI)*

- 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.

### CORPORATE FINANCE

#### The Corporate Aging Phenomenon

*Project leader: Prof. Claudio Loderer (University of Bern and SFI)*

- 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.

#### Corporate Liquidity, Governance, and Agency Costs

*Project leader: Prof. Erwan Morellec*

*(Ecole Polytechnique Fédérale de Lausanne and SFI)*

- 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 within country variation.

#### The End of Germany Incorporated

*Project leader: Prof. Rüdiger Fahlenbrach*

*(Ecole Polytechnique Fédérale de Lausanne and SFI)*

- This research 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 led to a dramatic reduction of cross-holdings among companies and was beneficial for shareholders and firms.

#### Merger Activity in Industry Equilibrium

*Project leader: Prof. Theodosios Dimopoulos*

*(University of Lausanne and SFI)*

- 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, but interestingly encourages the entry of new firms.

#### Words and Deeds: Communication in Capital Markets

*Project leader: Prof. Alexander Wagner*

*(University of Zurich and SFI)*

- This project advances knowledge on the reasons behind the variation in style 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.

### FINANCIAL MARKETS

#### Analyzing Microfinance Markets

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

- 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.

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

*Project leader: Prof. Francesco Franzoni*

*(University of Lugano and SFI)*

- This project investigates whether hedge funds' liquidity provision varies along market cycles. Further, it explores how different hedge fund characteristics affect hedge fund 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. Finally, it shows the importance of hedge fund market participation in affecting market liquidity, for example the bid-ask spread.

#### Liquidity and Leverage

*Project leader: Prof. Semyon Malamud*

*(Ecole Polytechnique Fédérale de Lausanne and SFI)*

- 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 for understanding amplification mechanisms through which financial shocks propagate in financial and real sectors. These results have important implications for institutional investors.

#### Nonlinear Effects in Financial Markets

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

- 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.

#### Opacity in Financial Markets

*Project leader: Prof. Yuki Sato (University of Lausanne and SFI)*

- This study investigates how 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 observe neither opaque funds' nor assets' payoffs. The model shows that opaque funds take on excessive leverage, causing overpricing of opaque assets.

#### Over-the-Counter Financial Markets

*Project leader: Prof. Norman Schürhoff*

*(University of Lausanne and SFI)*

- 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 U.S. (Dodd-Frank). This project improves know-how for designing and implementing financial market regulation.

### INTERNATIONAL FINANCE

#### Market Integration

*Project leader: Prof. Ines Chaieb (University of Geneva and SFI)*

- 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. Moreover, the project 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 periods.