EDHEC-Risk Institute
PhD in Finance
N E W S L E T T E R

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In this issue:

Financial licences for consumers

Chris Firth, EDHEC PhD in Finance candidate and Chief Executive Officer and cofounder of the Singapore based financial advisory firm, dollarDEX Investments

The financial community readily accepts that investment professionals, financial advisors and traders should be licenced, but what about ordinary householders? After all, most would agree that retail investors make the worst financial mistakes and are least able to withstand any adverse consequences.

Even if one takes a free market position and argues against the molly-coddling of consumers, doing nothing may not be an answer either. Some researchers[1] see that the presence of error-prone households could inhibit financial services innovation while others[2] even suggest that aggregate household behavioural biases could harm the local macro-economy.

For these reasons, regulators and finance researchers seek ways to help households enhance their financial acumen, or at the very least, reduce their probability of making ruinous mistakes. One obvious approach is the promotion of financial literacy schemes. However, their outcomes have not always been satisfactory.[3]

An alternative idea is to legislate a "financial driving licence", awarded via a standard competency assessment akin to an automobile licence. The notion is that only consumers with sufficient skills should be allowed to invest in certain products. Those failing must access the simplest of financial products or take financial advice. If implemented correctly, licences could lead to more efficient financial markets.

Although precursors to licence systems, amounting to regulator-imposed investor categorisation, have been in operation in many countries for several years, little empirical research has studied these approaches. Yet evidence from the ground is valuable to inform designers of potential interventions.

To help fill this gap, a chapter of my PhD dissertation, done at EDHEC-Risk Institute, has investigated the potential of financial driving licences. The analysis

1 - See, for example, Campbell, J.Y. (2006), Household Finance, *The Journal of Finance*, 61(4), 1553-1604.
2 - Korniotis, G.M. and Kumar, A. (2011). Do Behavioral Biases Adversely Affect the Macro-economy? *Review of Financial Studies*, 24(5), 1513-1559.
3 - Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial Literacy, Financial Education, and Downstream Financial Behaviors. Forthcoming in *Management Science*.

employed data from actual, mandatory knowledge assessments contained in a sample of anonymised household investment portfolios, and compared those with the householders' near contemporaneous investment outcomes, measured using a wide range of normative financial models.

The research concluded that households passing the licence test diversified better, were less prone to inactivity, held a greater number of investment products, and took less risk. Those passing also held larger portfolios and were slightly younger. On this basis the licence system was able to filter out less sophisticated investors.

On the other hand, those who qualified for the licence still exhibited the disposition effect (held losers, sold winners) and appeared no better at market timing than those that failed the assessment. It is possible that investing, like car driving, has basic and advanced skill levels: those with rudimentary ability can understand and apply simple investment concepts such as diversification and risk. Those with advanced skills are additionally able to avoid more subtle biases. The licence system studied, to an extent, manages to discriminate between those with basic skills and those without.

The study also highlights a particular challenge for the licence approach: how to define and ex-ante identify investors most prone to egregious, welfare-destroying mistakes – households that one could classify as the "vulnerable". Any method that sorts vulnerable households from a wider pool of households should be judged by its misclassification rates (particularly, vulnerable households misclassified as competent and competent households misclassified as vulnerable). And as it turns out, the assessment system that was scrutinised had fairly high rates of misclassification.

The research also revealed finer level distinctions. Investors that held a finance-related degree tended to be less well-diversified and take more risk than the average household. Those that held CFA status appeared even less well-diversified, but despite this performed significantly better. Another sub-group, whose members work in the finance industry, appeared the most keen to embrace idiosyncratic risk but, for all their apparent conviction, on average showed significantly worse performance. A possible explanation is that sophisticated households try more actively to use informational advantages to deviate from a market-neutral stance; these purportedly informed bets do not always pay off.

The study presented mixed evidence in support of using work experience as a shortcut to, or substitute for, licence qualification. Indeed, the analysis tends to support the stance that both professional and lay investors are subject to similar biases; this may be due to human nature and be hard to legislate away.

What are the implications for regulators? Overall, there is some evidence that a financial driving licence system might be worthwhile, as long as not too much is expected from it. This approach probably will not create a legion of burgeoning Warren Buffetts, but it could help householders avoid the most serious mistakes.

Certainly, regulators will need to assess carefully the trade-off between the benefits of consumer licences and the disadvantages of intervening. The benefits are clear in principle but there are drawbacks too, such as the possibility of misclassifying households. A licence granted to householders could create an illusion of expertise that some investors do not really possess. And in the long run, consumers who are assessed as vulnerable could be better off investing sub-optimally rather than entirely avoiding risky investments. A licence system might curtail natural gains of "learning by doing", and decrease the commitment of householders to taking personal responsibility for their own financial decisions.

Chris Firth, EDHEC PhD candidate, who signs this editorial, successfully defended his thesis "**Household investment mistakes: evidence and avoidance**" on 17 February 2015 in Nice. Thesis committee: Professors Ekkehart Boehmer (Singapore Management University), Laurent Calvet (HEC Paris) and René Garcia (EDHEC Business School). `

Faculty and student interviews

FACULTY INTERVIEW: Abraham Lioui

Abraham Lioui, Professor of Finance at EDHEC Business School and Vice-Academic Director, EDHEC PhD in Finance

Teaches Financial Economics core course.

Abraham, as Vice-Academic Director of the PhD programme, you have been in charge of advising PhD students on preparing their Dissertation Proposal for now two years. We would like to share with you the main insights and perceived roadblocks in this first and essential step towards the dissertation.

What is the purpose of the Dissertation Proposal?

The Dissertation Proposal aims to identify a research topic that will be the foundation of the student thesis. After a first year focused on learning fundamentals through lectures, doing assignments and taking exams, the student has to change mindset and think about an original research topic where he would like to contribute to the advancement of knowledge. My role is to help the student define such a topic in a precise enough fashion and make sure that there is potential for such original contributions. What is important is that the student makes the first effort to propose a topic. He or she cannot expect that I will suggest a topic. We expect our PhD candidates to be autonomous thinkers. So I am in an assistance mode. The first meeting with the student establishes this and then we can start the process.

What are the key difficulties encountered by the candidates?

There are three main ones. The first one relates to the identification of the research question. Often students arrive with a loosely defined question or with a research agenda that encompasses too many topics. A research paper has to focus on a precise and well delimited question often perceived as narrow by the student. My role is therefore to help the student in trimming down or in focusing his initial ideas.

The second main difficulty is to make sure that the intended topic is original. What we expect from a PhD student is creativity and innovation. They have to convince me that they go beyond what is said on this particular question in the literature. It means that they have to conduct a thorough literature review. This step is essential. A precision is in order: we do not expect the student to read hundreds of papers before he can submit the Dissertation Proposal. However, we do expect the student to have a clear overview of the existing contributions. Identifying the latest few good papers on the subject is a good way to start since they cite in general the seminal articles and the main contributions along the way. Originality can take many different forms. Students often feel that they have to come up with a methodological innovation. But a new dataset, unavailable to previous researchers, may allow the student to answer a question that was left unanswered because of a lack of appropriate data. On the other hand reproducing a study done with one country or a particular asset class with another country or a new asset class does not pass the bar for a PhD research paper, unless a regulatory difference for example may bring a new light on an ongoing issue. Relevance of the research question is another key criterion. The student has to think about the importance of the results in terms of changing the current academic or professional view on a particular issue. Will it modify a generally accepted paradigm? Will it change industry practices?

The last difficulty regards the format of the proposal. An academic paper must contain an introduction where the issue is motivated, a section where the methodology to address the issue is explained, a data section when the paper is empirical, a section with a discussion of the findings, a conclusion and a list of references. In a proposal we expect a similar structure except for the findings where expected results could be advanced instead. Often students tend to circumvent these standards and submit some loose drafts where it is very hard to follow their reasoning. For example, it is not exceptional that some do not even provide a detailed list of references or do not even think about the existence of data to address the issue at hand.

How concretely do you assist students in this involved process of elaborating their Dissertation Proposal?

The difficulty related to the format is easily addressed, and, in general, after one round of exchanges the problem is solved. The literature review is also an important step and the student receives some guidance during the elaboration of the proposal. The list of references will certainly be complemented when the student starts interacting with the thesis advisor. Several databases are available at EDHEC and are accessible to the students online. Concerning the topic and the issue, the process can take more or less time. First, it is very important to keep in mind that research is not a deterministic process: a topic is not universally original and, even if it is, the results of theoretical or empirical investigations may not be sufficiently significant. Research is inherently risky and originality is subjective. At the Dissertation Proposal stage, the goal is to have a readable draft which respects academic standards and can thus help identify the student preferred topics as well as potential advisors. Even if the student cannot converge towards a truly innovative issue, it is important that at the very least a sub-field of Finance is precisely identified. Finance Professors specialise in one field or another but certainly not all fields. A good fit between the student topic and the advisor is central to the success of the student. To sum up, the advising process at the stage of the Dissertation Proposal makes sure that the student becomes familiar with some conventions for conducting an academic research and writing a research paper.

How can a candidate identify an interesting potential topic for the PhD dissertation?

A lot of time and energy has to be invested in this process since the student will spend several years working on the topic. So the first recommendation is to choose a topic very close to your interests that can turn into a passion. Sometimes, while entering the PhD, the candidate is convinced that he or she has found a thesis topic. However, after a year of core courses that widens one's horizons through the vast literature covered in lectures and assigned readings, they can radically change their initial intended choice. Somehow, this is a sign of open mindedness and is a good indicator of a successful PhD. Others will stick to their guns and achieve what they had in mind all along. They usually finish in good time. A candidate may also be especially inspired by the research agenda of a professor and decide to go further in one particular area identified in a lecture as particularly promising for a thesis. Another starter is to identify a unique database that researchers did not have access to. Often theories cannot be validated or falsified due a lack of relevant data. This is a great way to start a thesis since one does not need to resort to sophisticated methods to produce interesting findings. The data does the talking with relatively simple statistical methods. Of course this list of ways to get started is not exhaustive.

Is the choice of a topic irreversible?

Of course, the answer is no since data are often not as supportive as anticipated and initial findings may prove disappointing. But a candidate can hardly switch from a sub-field of finance to another one. While the same advisor can handle theses in both investment management and asset pricing, it is uncommon to find an advisor who can guide student in asset pricing as well as corporate finance. So the candidate has to work with the advisor to reorient his or her thesis in another topic that remains in the main area of investigation originally chosen. In this process the candidate will find all the support needed from the advisor. An important remark is that the student has also to put a real effort before deciding to change topic.

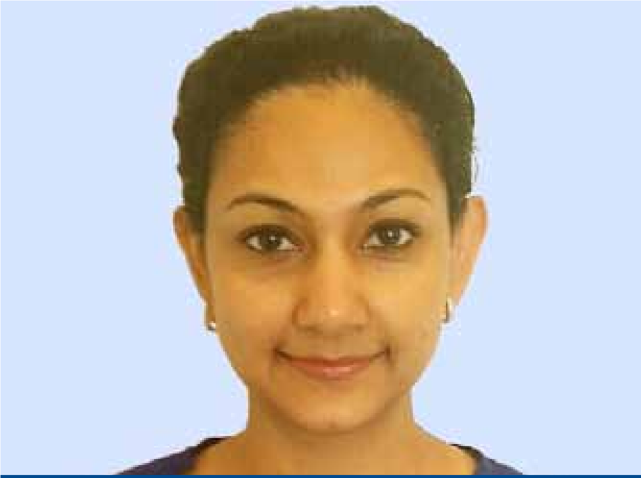
What are the main mistakes to avoid when submitting the Dissertation Proposal?

Overconfidence. As I said before, the originality of a topic remains a subjective matter. Therefore the student must spend a lot of time on motivating the main research question. Another typical one relates to the recycling of some research work done during their former professional life. Although it can address a relevant question, the work itself may not have a publishable value and a totally different approach may have to be used. The students are encouraged to dig ideas from their own experience, but interacting with a professor is the best hedge to make it viable for reaching a publishable quality.

Once you finally accept the Dissertation Proposal, what is the next step?

Well, the students are almost there. I submit their proposal to the Academic Director of the program for his approval. The next step is to assign an advisor to the student. A matching process assigns the most appropriate advisor given the topic and the choice expressed by the student but even if a student does not get the desired advisor, this is not an issue. He will receive the appropriate support. Moreover, remember that autonomy is the key quality we expect from a PhD student.

STUDENT INTERVIEW: Suprita Vohra



Suprita Vohra, Director, FX & Commodities Structuring Asia, Barclays, Singapore, Singaporean

Could you tell us about your background and what you are doing today?
By qualifications, I am an Engineer & finance MBA, from India. Most of my career so far has been in the financial industry, working at HSBC, Citi and now Barclays. Working across India and Singapore, I have had fruitful experiences in private banking, foreign exchange sales and now foreign exchange and commodity structuring.

Why did you decide that you needed to do a PhD at this stage of your career?
Continuous learning is always exciting, and several industry role models encourage that. After completing CFA a few years back, I was looking for that next challenge, something where I could focus on my areas of expertise. I was not looking for a PhD in particular, but then I read about the EDHEC doctoral programme in The Economist and two points stood out. One, it was rigorous but also allowed for doing the program without leaving my full-time job. Second, I could choose a preferred topic to deep dive into and contribute to from an applied perspective.

What has been your experience so far in the programme and has the programme met your expectations to date?
First, there was this hurdle about understanding the time commitment and whether I really had the basic foundation knowledge that is needed for the program.

Then there was the need to understand the financial commitment, and how to go about getting a financial grant. I must say that the program directors and their team members were extremely supportive throughout the process. They went well beyond the call of duty in order to help me put all the pieces in place. It took a lot of patience and shows a true commitment on their part, and I would not have been able to even start the program without all the help in these pre-course steps.

The objective of the course is to make you sit down and deep dive into what you do not know, so that you acquire the right tools to work on your thesis later on. The first year was tough in terms of time commitment that is required to pass the four core courses, but it needed to be that way. Personally, that pressure got results – it took me back to basics, and that was crucial since I did not have an academic financial engineering background, even though I work in an applied quantitative role. The first year also helped to learn some of the new concepts that were not main-stream when we were students. Now, we are in a different phase of our learning; a lot of what we learnt in the first year is very useful when we think of tools to build some desired models or analyse certain market factors.

There are obvious benefits to taking some time out and acquiring new knowledge – my general understanding has broadened, and it was exciting to identify new areas to grow as a professional. I found my conversations with clients and colleagues got deeper and more knowledgeable. A key benefit was acquiring the habit to read research papers. Before the program, research papers felt too arcane and academic. But during the course, we went through several different research papers (and even critiqued a few!), it started to feel less daunting and a lot more enriching. This was my "a-ha" moment! Now if I want to research a particular topic, instead of searching on Google, I would look for the related research papers that have been published. You get a lot more out of them than publicly available mass consumption literature.

Are there other ways in which the program has impacted your daily work?
Part of what I am doing is structuring efficient derivatives solutions for clients who have exposures across multiple currencies. What often underlies this is the assumption that the investor is rational and that markets are efficient. In reality, it is often less so. To bridge this gap, I got attracted to behavioural finance, which explains decisions that may appear as irrational from a theoretical perspective, but satisfies an important objective for the investor.

To me as a practitioner in the derivatives space, this gives me a lot of insights. I understood how different market participants can and should look at derivatives and what kind of roles these instruments play in their investment thinking, above and beyond just aiming at a target return and a target risk.

Overall the program provided me with a better understanding of the models that we are currently using. When I initially studied finance many of these models were not in place. Coming back to study gives me a perspective on why these models are being used but also on the research that is being done to improve these models and on the new directions taken in the options market. As we were discussing before the interview, an option price is not just a black-box price anymore: it is also about the kind of documentation and collateral agreement you have with your client, the kind of credit risk that you are taking, and so on. So there is a lot more that goes into a derivative pricing today than say seven years back. As a result there is a lot more research happening in this field and very fresh recent topics are emerging.

What is your experience of the class? What benefits do you see in the class dynamics if there are any?

My class is relatively small but no two individuals are alike. I come from a FX options background; some students have an asset management background, others are entrepreneurs or senior professionals in corporate and investment banking. It was great to put them all together in a room and see very different kinds of questions and very different perspectives come out in open discussions. The classroom is clearly international and culturally very diverse. It was great fun attending classes and growing the circle of friends.

What I also benefited from, and which I probably value the most, is the teaching methodology that the instructors used. This is what I share with others who ask for feedback on this program. The typical course is divided into two and a half days. Maybe one day is spent on brushing up on the theory and the models that you need to know in order to understand what will be seen in the remaining one day and a half. Then we discuss from an applied perspective the models that are being used, the problems that may exist with these models, the related research contributions, and open issues. These discussions draw out the students a lot more because they start talking about their own experience and asking questions based on this experience. From these discussions one can start forming ideas about potential research topics. So this pedagogical style offers the right mix of theory and applied work.

Can you tell us what you are working on?

My focus is on aspects of behavioural finance – the first paper looks at the role that options play in a portfolio from 3 points of view: regret risk, portfolio skewness, and lower tail dependence. Increasingly options are being recognised as a valuable addition to a portfolio- but to assess their utility it is important to go beyond the traditional returns/risk measures. The second paper is on a related but parallel realm of socially responsible investing. Again, this is beyond maximising returns, and more towards maximising investor satisfaction. These are currently the two areas of focus, and it has so far been an exciting world of discovery, learning and analytical adventures!

Programme and faculty news

2015 Electives curriculum detailed

After completing their core courses, PhD in Finance candidates will advance to the second stage of the curriculum and select the electives that will help them with their dissertation work. Candidates must take a total of at least five elective seminars in their second and third years.

Electives offered in the 2015 academic year to students of the entering classes of 2013 and 2014 form a balanced portfolio of seminars presenting conceptual advances and state-of-the-art quantitative methods. PhD in Finance candidates will have the privilege of learning from the world's leading specialists in these areas.

The schedule for the 2015 electives may be found below:

16-18 March 2015, Singapore	High-Frequency Asset Pricing	**Torben Andersen** Nathan S. and Mary P. Sharp Professor of Finance, Director of the International Business & Markets Program and Research Center, Northwestern Kellogg School of Business
19-21 March 2015, Singapore	The Econometrics of Continuous-Time Models	**Federico Bandi** Professor of Economics and Finance, The Johns Hopkins Carey Business School
13-15 April 2015, Nice	Risk Management and Extreme Risks	**Peter Christoffersen** Professor of Finance Rotman School of Management, University of Toronto
31Aug. - 2 Sept. 2015, Singapore	Behavioural Finance and Asset Management	**Harrison Hong** John Scully 1966 Professor of Economics and Finance, Princeton University
19-21 October 2015, London	Portfolio Allocation	**Michael Brandt** Kalman J. Cohen Professor of Business Administration, Fuqua School of Business, Duke University
22-24 October 2015, London	Predictive Modelling and forecast evaluation in Financial Markets	**Allan Timmermann** Atkinson/Epstein Endowed Chair Professor of Finance, Rady School of Management, University of California San Diego.

Programme adds a new alumnus

On 4 November 2014, Yaacov Kopeliovich, successfully defended his doctoral thesis titled "Can we outperform simple rule strategies: Evidence from volatility market and optimised bond portfolios." His research work shows that technical strategies outperform the benchmark even after applying a power utility with a high relative risk aversion and concludes that contrary to the equity markets, the profitability of technical look back strategies, when applied on VIX series, is pronounced even after taking the friction costs into account.

Dr Kopeliovich was advised by Caltech Professor Jaksa Cvitanic and his thesis committee also included EDHEC PhD in Finance Director Professor René Garcia and National University of Singapore Professor Steven Kou, who served as external reviewer. He is the ninth person to graduate in 2014 and joined the programme in October 2011 as executive track participant. He works in New York as Director of Research at risk modelling and stress testing solutions provider RiXtrema.

Frank Fabozzi honoured by the CFA Institute Research Foundation

EDHEC PhD in Finance Core Faculty member Frank Fabozzi

CFA Institute Research Foundation honours PhD in finance faculty member Frank Fabozzi with the 2015 Vertin Award for lifetime excellence in research.

The James R. Vertin Award is presented periodically to recognise individuals who have produced a body of research notable for its relevance and enduring value to investment professionals. This award was established in 1996 to honour James R. Vertin, CFA, for his outstanding leadership in promoting excellence and relevancy in research and education. 2014 winner was Kenneth French (Dartmouth College), recognised for his research work on the behaviour of security prices and investment strategies.

Frank Fabozzi's research focuses on structured products and the measurement, modelling, and management of risk. His work has appeared in leading journals, including the *Journal of Finance*, the *Journal of Financial and Quantitative Analysis*, and *Operations Research*. He has been the Editor of the Journal of Portfolio Management since 1986. In 2002, he was inducted into the Fixed Income Analysts Society's Hall of Fame for his lifetime contributions to the advancement of fixed income analysis and portfolio management. He has edited and/or authored over one hundred books and is the eponymous manager of an authoritative series of finance books for practitioners and academics. In 2007, he was already distinguished by the CFA Institute for his outstanding contribution to the education of professional investors. He advises financial institutions and government agencies and is on the board of the BlackRock family of closed-end funds.

Quarterly Journal of Finance Best Paper Award

René Garcia, EDHEC PhD in Finance Director and EDHEC Dean of Graduate Studies

The Quarterly Journal of Finance and the Midwest Finance Association have chosen the paper **Alleviating Coordination Problems and Regulatory Constraints Through Financial Risk Management**, written by **René Garcia** with his co-authors Marcel Boyer and Martin Boyer, as winner of the award for the best paper in the 2013 volume of the *Quarterly Journal of Finance*. They will receive their award during the Annual Meeting of the Midwest Finance Association early March 2015. **More...**

Seeing the firm as a nexus of activities and projects, the authors propose a characterisation of the firm where variations in the market price of risk should induce adjustments in the firm's portfolio of projects. In a setting where managers disagree with respect to what investment maximises value, changing the portfolio of projects generates coordination costs. They then propose a new role for financial risk management based on the idea that the use of financial derivatives reduces coordination costs by moving the organisation's expected cash flows and risks towards a point where coordination in favour of real changes is easier to achieve. They find empirical support for this new rationale for the use of financial derivatives, after controlling for the traditional variables explaining the need for financial risk management.

16th Annual Bernstein Fabozzi/Jacobs Levy Awards

The Journal of Portfolio Management has just announced the winners of the 16th Annual Bernstein Fabozzi/Jacobs Levy Awards for articles contributing to the theory and practice of portfolio management.

The award for Best Article goes to Campbell R. Harvey of Duke University and Yan Liu of Texas A&M University. In their article, "Evaluating Trading Strategies," the authors tell researchers they are finding seemingly successful trading strategies by chance, and tell investors they need to be a lot more sceptical of investment proposals.

For this year's Awards, the journal's subscribers voted for impactful articles which bridge the gap between financial theory and practical applicability. Campbell Harvey's article draws upon the relationship between what is happening in scientific research with financial back-testing.

Edited by Frank Fabozzi, EDHEC PhD in Finance core faculty member, and founded in 1974 by Peter L. Bernstein, *The Journal of Portfolio Management* is the leading editorial source of cutting-edge strategies and analyses for institutional investment management. Published by Institutional Investor, it is available quarterly in print and online.

A selection of recent and forthcoming presentations

• **The Princeton Family Office Council conference**
Professor Lionel Martellini was guest speaker at the Princeton Family Office Council conference that took place in New York on 19 November 2014. His presentation was based in part upon academic research conducted by EDHEC-Risk Institute within the context of the "Risk Allocation Framework for Goal-Driven Investing Strategies" research chair, supported by Merrill Lynch Wealth Management. The aim of the research project is to deliver a mathematically rigorous approach to investing for goals such as capital preservation, retirement income, maintenance of minimum wealth levels and preferences regarding risk and liquidity,

• **Spangler IQAM Research Center Conference**
At the Spangler IQAM Research Center Conference on "Institutional asset management in a low-interest rate environment" that took place on 10 November 2014 in Vienna, Professor **Raman Uppal** talked on "Risk-Minimising Equity Strategies".

• **«European Sovereign Debt Crisis» conference**
The working paper "Bond portfolio optimisation before and after the European sovereign debt crisis" (Deguest, Romain; **Fabozzi, Frank**; **Martellini, Lionel** and Milhau, Vincent) has been selected to the final programme of the "European Sovereign Debt Crisis" conference organised by the Luxembourg School of Finance in cooperation with the *Journal of Empirical Finance* (ELSEVIER). The conference will take place on March 11-13, 2015, in Monaco.

• **Faculty, candidates and graduates will actively contribute to the programme of EDHEC-Risk Days Europe 2015**
Professors **Raman Uppal** and **René Garcia** will co-chair the PhD Forum at which programme candidates Marco Ghitti and Harsh Parikh will present their dissertation work. **Harsh Parikh** will introduce his research titled "Active fixed Income in Rising Rates Environment" and **Marco Ghitti** will analyse the effects of bankruptcy law reforms on the Italian bank credit market for small and medium-sized enterprises.

Professor **Lionel Martellini** will chair a session titled "Equity Long Term Rewarded Factors: What Investors Can Learn from Academic Research"; He will also speak on **Risk Allocation Across Asset Classes**.

Alumnus, **Gideon Ozik**, PhD (2011) will lead a session on "Big Data Applications for Alpha Generation". The presentation will draw on some of his dissertation work and his subsequent research effort performed for Alphaness, the company he co-founded to harvest investment signals from millions of sources.

The EDHEC-Risk Days conference 2015 will take place on March 24-25, 2015 at the Brewery in London.

Recent and forthcoming articles by faculty

Below is a selection of articles by programme faculty members which were published in 2014 or are forthcoming. Appearing are representative articles in scientific journals co-authored by faculty members publishing under their EDHEC Business School or EDHEC-Risk Institute affiliations.

• Time-varying Leverage Effects. **Bandi, Federico** and Renò, Roberto. Forthcoming in *Journal of Econometrics*.

• The Long and the Short of the Risk-Return Trade-Off. Bonomo, Marco; **Garcia, René**; Meddahi, Nour and Tédongap, Romeo. Forthcoming in *Journal of Econometrics*.

• A Model-Free Measure of Aggregate Idiosyncratic Volatility and the Prediction of Market Returns. **Garcia, René**; Mantilla-Garcia, Daniel*; **Martellini, Lionel**. Forthcoming in the *Journal of Financial and Quantitative Analysis*.

• Portfolio Selection in the Presence of Systemic Risk. Biglova, Almira; **Fabozzi, Frank** and Ortobelli, Sergio. *Journal of Asset Management* Vol. 15, No. 5 (October 2014), pp. 285-300.

• A Three-Factor Model For Mortality Modeling. **Fabozzi, Frank**; Giacometti, Rosella; Rachev, Svetlozar and Russo Vincenzo. Forthcoming in the *North American Actuarial Journal*.

• Measuring and Explaining Pension System Risk. **Fabozzi, Frank**. Forthcoming in *Journal of Pension Economics & Finance*.

• Giants at the Gate: Investment Returns and Diseconomies of Scale in Private Equity. **López-de-Silanes, Florencio**; **Phalippou, Ludovic**; Gottschalg, Oliver. Forthcoming in *Journal of Financial and Quantitative Analysis*.

• Interest Rate Risk and the Cross-Section of Stock Returns. **Lioui, Abraham** and Maio, Paulo. *Journal of Financial and Quantitative Analysis*. April 2014 - Volume 49, Issue 02, pages 483-511.

• Hedging Inflation-Linked Liabilities without Inflation-Linked Instruments through Long/Short Investments in Nominal Bonds. **Martellini, Lionel**; Milhau Vincent and Tarelli Andrea*. *The Journal of Fixed Income* Winter 2015.

• Towards Conditional Risk Parity – Improving Risk Budgeting Techniques in Changing Economic Environments. **Martellini, Lionel**; Milhau Vincent and Tarelli Andrea*. Forthcoming in *Journal of Alternative Investments.*

• Asset Prices with Heterogeneity in Preferences and Beliefs. Bhamra, Harjoat and **Uppal, Raman**. *The Review of Financial Studies* 2014, 27.2, 519-580.

• Stock Return Serial Dependence and Out-of-Sample Portfolio Performance. DeMiguel, Victor; Nogales, Francisco J.; **Uppal, Raman**. *Review of Financial Studies*. April 2014, Vol. 27 Issue 4, p1031-1073.

* Daniel Mantilla-Garcia and Andrea Tarelli are graduates of the EDHEC PhD in finance programme

Alumni news in brief

• **Carlos-Heitor Campani**, PhD (2013) currently Professor of Finance at COPPEAD Graduate School of Business of the Federal University of Rio de Janeiro, published an article "On the Rate of Return and Valuation of Non-Conventional Projects" in B*usiness and Management Review*.

• **Gideon Ozik**, PhD (2011), was recently invited to take part in a panel discussion on quantamental strategies at the QuantInvest 2014 Conference in London. He published an article on "Big data and information edge" in *Hedge Fund Review* with his co-author Ronnie Sadka. Also forthcoming in the *Journal of Finance and Quantitative Analysis*, a revision of his dissertation paper "Skin in the Game versus Skimming the Game: Governance, Share Restrictions, and Insider Flows", with the same co-author.

• **Shankar Ramachandran**, PhD (2014) has been appointed as a full Professor of Finance at Great Lakes, a Business School founded by Dr. Bala - an Emeritus Professor at Kellogg School of Management, Northwestern University. Great Lakes has two campuses in India and it offers MBA program. The school features among the top ten private business schools in India.

• **Rehan Syed**, PhD (2014) was contributor in the latest issue of *Research Insights*, the EDHEC-Risk Institute supplement to *AsianInvestor* with an article that provides new perspective on the active vs. passive management debate. His research is the first to highlight the benefits of periodic lucky winners in a fund-of-funds context.

• **Andrea Tarelli**, PhD (2013), in Post-Doctoral Fellowship at Bocconi University, published an article in Bankers, Markets & Investors titled "Estimation Risk versus Optimality Risk: An Ex-Ante Efficiency Analysis of Alternative Equity Portfolio Diversification Strategies" co-authored with Lionel Martellini, one of his dissertation advisor and Vincent Milhau.

Also co-authored with Lionel Martellini and Vincent Milhau: "Hedging Inflation-Linked Liabilities without Inflation-Linked Instruments through Long/Short Investments in Nominal Bonds" in *The Journal of Fixed Income* Winter 2015 and "Towards Conditional Risk Parity – Improving Risk Budgeting Techniques in Changing Economic Environments". Forthcoming in *Journal of Alternative Investments*.

• **Yifan Yang**, PhD (2014), his paper "Bilateral Counterparty Risk Valuation Adjustment with Wrong Way Risk on Collateralized Commodity Counterparty", co-authored with Frank Fabozzi and Michele Leonardo Bianchi is forthcoming in *The Journal of Financial Engineering*.

EDHEC Business School news

The Financial Times ranks EDHEC among the Top 20 business schools in Europe:

In December 2014, the *Financial Times* has published its eagerly-awaited rankings of the top 80 business schools in Europe, and EDHEC Business School is proud to be among the top 20 of this elite group of institutions.

EDHEC Business School now ranks 17th in Europe and is the only French business school to move up in the ranking since 2009 (EDHEC ranked 28th in 2009), while other high-ranking French schools have stagnated or dropped ranks.

In 2014, the *Financial Times* also ranked EDHEC Business School Master in Management as the world's third best Master in Management programme for Finance.

This remarkable success underscores the reliability of the EDHEC for Business model, which draws on the school's recognised expertise and business-focused research to ensure that EDHEC's educational programmes effectively prepare business leaders and high-level professionals for current and future managerial challenges.

EDHEC-Risk Institute news

Upcoming event:

The EDHEC-Risk Days Europe will take place on March 24-25, 2015 at the Brewery in London. This annual conference will present the research done by EDHEC-Risk Institute and will discuss it with the institutional investment and fund manager communities.

On the first day, the Indexation and Passive Investment Conference will focus on fixed income investing, smart beta strategies and indexation and reporting. The conference will also be the occasion to discover the results of the latest European ETF survey and research on factor based investment strategies and global portfolio management.

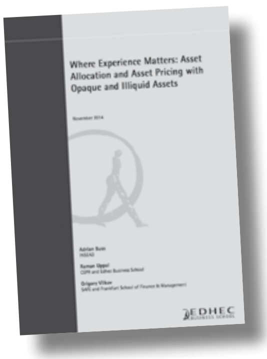
On the second day, the Global Institutional Investment Conference will present research of great interest to institutional investors on risk allocation, commodities investing, hedge fund investing, measuring alpha and infrastructure investing.

In 2015, on March 23, the EDHEC-Risk Days conference will be preceded by a Masterclass for Individual Investor Solutions presented by Lionel Martellini, EDHEC PhD in Finance faculty member. This half-day seminar will look at goal-based investment solutions in private wealth management and life-cycle Investment solutions in retail money management.

Full programme is available **here**.

A selection of recent EDHEC-Risk Institute Publications and Working Papers

- **Where Experience Matters: Asset Allocation and Asset Pricing with Opaque and Illiquid Assets,**

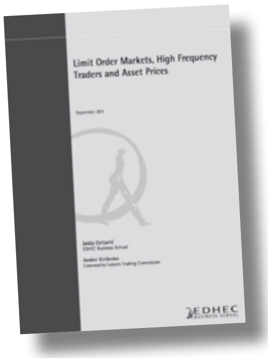


Adrian Buss, **Raman Uppal**, Grigory Vilkov

Alternative assets, such as private equity, hedge funds, and real assets are illiquid and opaque, thus posing a challenge to traditional models of asset allocation. In

this paper, we study asset allocation and asset pricing in a general-equilibrium model with liquid assets and an alternative risky asset, which is opaque and incurs transaction costs, and investors who differ in their experience in assessing the alternative asset. We find that the optimal asset allocation strategy of the relatively inexperienced investors is to initially tilt their portfolio away from the alternative asset and to hold more of it with experience. Counterintuitively, a decrease in the transaction cost for the alternative asset, increases the portfolio tilt, and hence, the liquidity discount. Transaction costs also induce portfolio inertia; thus, the inexperienced investor could be holding a majority of the alternative asset even if they are currently pessimistic about its expected payoff. During periods when the alternative asset is illiquid, investors trade the liquid equity index instead, leading to strong spillover effects.
More...

- **Limit Order Markets, High Frequency Traders and Asset Prices**



Jakša Cvitanic, Andrei Kirilenko

Do high-frequency traders affect transaction prices? In this paper we derive the distribution of transaction prices in limit order markets populated by low frequency traders before and after the entrance of a high-frequency trader (HFT). We find that in a market with an HFT, the distribution of transaction prices has more mass around the centre and thinner far tails. The intra-trade duration decreases in proportion to the ratio of the low frequency orders arrival rates with and without the presence of the HFT; trading volume goes up in proportion to the same ratio. We show that the HFT makes positive expected profits by "sniping out" low frequency orders somewhat away from the front of the book. In a special case, the faster low frequency orders are submitted and higher their variance, the more profits the HFT makes, while possibly offering a wider bid-ask spread. Another prediction is that in the times of high liquidity and/or low uncertainty the HFT trades around the current mean price, while in the times of low liquidity and/or high uncertainty, its trades move towards the estimated future price.
More...

- **On the Rate of Return and Valuation of Non-Conventional Projects,**

Carlos Campani

This paper provides a solution for evaluating non-conventional projects, firstly showing that the well-known modified internal rate of return does not correctly answer what investors want to measure. Even if one correctly uses the net present value criterion for capital budgeting, we show that it fails for non-conventional projects. Our contribution is thus twofold: To yield the correct rate of return for non-conventional projects and to allow practitioners to correctly calculate comparable net present values to take correct investment decisions.
More...

- **Equity Portfolios with Improved Liability-Hedging Benefits,**

Guillaume Coqueret, Romain Deguest, **Lionel Martellini** and Vincent Milhau

This paper extends the LDI paradigm by assessing whether LDI solutions can be enhanced by the design of performance-seeking equity benchmarks with improved liability-hedging properties. It confirms this intuition and shows that improving hedging characteristics of the performance portfolio generates welfare gains unless this improvement comes at an exceedingly large opportunity cost in terms of performance – a result that we call the fund interaction theorem. While two competing effects exist in principle (a better alignment of the equity portfolio with the liabilities leads to a higher allocation to equities for the same ALM risk budget due to enhanced liability-friendliness, but it may also lead to a lower reward per dollar invested compared to a pure focus on performance), our empirical analysis actually suggests that the selection of stocks with above-average liability-hedging properties leads to both a higher degree of liability-friendliness (as expected) and also to better performance due to increased exposure to rewarded factor tilts.

More...

Important information for prospective applicants

Application Information

Executive and Residential track

The next deadline for application for September 2015 admission into the programme is 31 March 2015. EDHEC-Risk Institute is seeking to matriculate ten to fifteen new participants in 2015.

Programme presentations

Presentations are scheduled all year round in Asia, Australasia, Europe, North America and online.

Sessions are upcoming in London (24 March) and in New York (21 April).

For more information about the programme, to register for a presentation or to request an application form, please contact **Brigitte Bogaerts.**

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