

## Rapport d'activité 2007 du CREFI

### 1. Human resources (Dec. 2007)

Professors: Régis BLAZY, Pierre-Armand MICHEL, Tibor NEUGEBAUER (since Oct. 2007).

Assistant Professors: Michel BEINE (until Oct. 2007) (50%), Antonio COSMA, Jean-Daniel GUIGOU (50%), Jang SCHILTZ, Virginie TERRAZA.

Research Assistants (Post-docs): Tristan BOYER, Malika HAMADI, Gwenaël PIASER, Carole TOQUE.

Assistants: Agnès FIMAYER, Marie LAMBERT.

PhD students: Paulo MARQUEZ, Nirjhar NIGAM.

External experts: Paul BAULIEU, Georges HÜBNER, Hugues PIROTTE, Yves WAGNER.

Administration: Caroline HERFROY.

### 2. Activity and objectives

The Centre of Research in Finance (CREFI), created in 2006, is the research centre of the LSF. CREFI covers a wide range of research activities, from pure academic research to private-public partnerships in finance. Besides academic research, CREFI aims at developing research programs based on bilateral and well-balanced partnerships, especially with the financial marketplace of Luxembourg. The current research areas are:

- Quantitative Finance: Academics and practitioners are both interested in new methodologies that provide an improved description of the variability of financial data. CREFI is participating in this effort by developing new econometric tools and by testing their performance on real data: ARCH models, semi-parametric and non-parametric estimators, risk estimation, value-at-risk models, risk classification of securities, asset pricing models.

- Law and Finance: The recent history of Luxembourg gives a relevant example of the deep interactions between the origin and design of law, economic growth, and the development of financial markets. The current CREFI program aims at: studying the causality links between financial development and law; developing a theoretical background in order to support any empirical investigations in this field.

- Behavioural Finance: Most models suppose that financial markets are efficient, yet the existence of durable disequilibria and the increasing set of paradoxes rising from the recent past, necessitate the adoption of new tools describing the bounded rationality of human agents. CREFI develops theoretical and experimental work in this field, in collaboration with external institutions.

- Risk Management: This area follows the Pillars of the Basel 2 agreement: firstly, this covers the management of credit risk, from the perspective of capital requirements and the disclosure of information to the financial markets. Secondly, it focuses on the financial institutions organizational structure and the way in which such institutions are governed.

### 3. Scientific production (2007)

#### 3.1. Research projects

##### Projects monitored by the CREFI

###### **Project “Rating and Performance of Funds”**

Sponsor/partner: Lux Investment Advisors - Fundclass

Team: Virginie Terraza (head of project)

Length and output: in process

###### **Project “Volatilité, diversification et coûts de transaction”**

Sponsor/partner: University of Luxembourg

Team: Virginie Terraza (head of project)

Length and output: in process

###### **Project “Le Rating est-il révélateur de la performance future des fonds d’investissement ?”**

Sponsor/partner: Ministère de la Culture, de l’Enseignement Supérieur et de la Recherche

Team: Virginie Terraza (head of project), Carole Toque.

Length and output: in process (2 years)

**Project “Banques, marchés financiers et législations : interdépendances et mesure comparée des performances”**

Sponsor/partner: Fonds National de la Recherche  
Team: Régis Blazy and Pierre-Henri Conac (heads of project), André Prüm, Jean-Daniel Guigou, Virginie Terraza, Afef Boughanmi, Hugues Bouthinon-Dumas.  
Length and output: in process, 2007-2010.

Projects in partnership with other institutions

**Project “Recovery Rates and Credit Default in Europe”**

Coordinator: LARGE (Laboratoire de Recherche en Gestion et Economie, University Robert Schuman, Strasbourg)  
Sponsor/partner: OSEO-CDC Ixis  
Team: LARGE:Joël Petey (head of project), Laurent Weill; CREFI: Régis Blazy, Nirjhar Nigam, Agnès Fimayer.  
Length: 3 years (finished in September 2007)  
Output: OSEO special report, academic publications (submitted)

**Project “The Impact of Real and Financial Integration on Asset Price Co-Movement with Application to Luxembourg”**

Coordinators: LSF-CREFI and CREA (University of Luxembourg)  
Sponsor/partner: Fonds National de la Recherche  
Team: Michel Beine (head of project), Antonio Cosma, Luisito Bertinelli.  
Length and output: in process, 2007-2010

**Project “Performance of Financial Services in Luxembourg”**

Coordinators: LSF-CREFI (University of Luxembourg), Statec, and Banque Centrale du Luxembourg  
Sponsor/partner: Fonds National de la Recherche  
Team: Pierre-Armand Michel (LSF), Paolo Guarda (BCL), Marc Origer and Serge Allegrezza (Statec) (heads of project).  
Length and output: in process, 2007-2010

**3.2. Seminars and workshops**

Seminars:

During the year 2007, 17 seminars were jointly organized between the CREFI and the CREA. In addition to our own internal communications, the external speakers were:

Théophile Azomahou (BETA, Université Louis Pasteur, Strasbourg), Kristian Behrens (CORE, UCL), Olivier CARDI (Ermes, Université Panthéon-Assas Paris II), Herbert Dawid (IMW University of Bielefeld), Frédéric Deroïan (EconomiX and GREQAM), Jean Gabszewicz (CORE, UCL); Pierre Giot (University of Namur), Catarina Goulao (Universidad de Alicante), Malika Hamadi (IRES, UCL), Olivier Pierrard (Banque Centrale du Luxembourg), Andrew Rose (Haas School of Business, University of California, Berkeley), Eva Sierminska (Luxembourg Income Study), Joe Tharakan (Université de Liège), David Veredas (Université Libre de Bruxelles), Yossi Yakhin (ice University, Houston), Skerdilajda Zanaj (CORE, UCL), Anthony Ziegelmeyer (Max Planck Institute of Economics, Jena).

Workshops:

“Asset Pricing and Performance”: workshop (2<sup>nd</sup> of May 2007); speakers: Pascal François (HEC Montréal), George Hübner (Luxembourg School of Finance, HEC-Management School, Univ. of Liège, Maastricht Univ.), Hugues Pirotte (Luxembourg School of Finance, Solvay Business School ULB, FinMetrics SA).

“Global Imbalances: Is the World Economy Really at Risk?”: conference (18<sup>th</sup> of Sept. 2007); speakers: Anton Brender, Florence Pisani (DEXIA Bank).

### **3.3. Academic Publications**

- ATTAR A., MAJUMDAR D., PIASER G., PORTEIRO N., Common agency games with separable preferences, *Forthcoming* in Mathematical Social Sciences.
- ATTAR A., PIASER G., PORTEIRO N., A note on Common Agency models of moral hazard, *Economics Letters*, Vol. 95, no. 2, pp. 278-284.
- ATTAR A., PIASER G., PORTEIRO N., Negotiation and Take-It or Leave-It in Common Agency with Noncontractible Actions, *Journal of Economic Theory*, vol. 135, no. 1, pp. 590-593.
- BEINE M., DOCQUIER F., RAPOPORT H., Measuring International Skilled Migration: A New Database Controlling for Age of Entry, the *World Bank Economic Review*, 2007, 21: 249-254
- BEINE M., BENASSY A., Mc DONALD R., Do Central Bank Interventions increase exchange rate forecasts heterogeneity? New evidence from survey data, the *Journal of the Japanese and International Economies*, 2007, 21 (1), 38-65
- BEINE M., BOSCH., LAURENT S. The Impact of Central Bank FX Interventions on Currency Components, the *Journal of Financial Econometrics*, 2007, 5, 154-183.
- BEINE M., COULOMBE S. Economic Integration and the Diversification of Regional Exports: Evidence from the Canadian-U.S. Free Trade Agreement, *Journal of Economic Geography*, 2007, 7, 93-111.
- BEINE M., DOCQUIER F., RAPOPORT H. Brain Drain and LDC's Growth: winners and losers, *Forthcoming* in The Economic Journal.
- BEINE M., LAHAYE J., NEELY C.J., PALM F., LAURENT S. Central Bank Intervention and Exchange Rate Volatility, Its Continuous and Jump Components, *International Journal of Finance and Economics*, 2007, 12(2), 201-223.
- BEINE M., LAURENT S., PALM F. C. Central Bank Intervention in the Foreign Exchange Markets assessed using Realized Moments, *Forthcoming* in the *Journal of International Financial Markets, Institutions & Money*.
- BEINE M., SZAFARZ A., Size Matters : Central Bank Interventions on the Yen/Dollar Exchange Rate, *Forthcoming* in The Brussels Economic Review.
- BLAZY R., CHOPARD B., FIMAYER A., Bankruptcy Law: a Mechanism of Governance for Financially Distressed Firms, *Forthcoming* in the *European Journal of Law and Economics*.
- COSMA A., SCAILLET O., VON SACHS R., Multivariate Wavelet-Based Shape Preserving Estimation for Dependent Observations, *Bernoulli* 13 (2), 301-329.
- ECKHOUDT L., MARCHAND M., PESTIEAU P., PIASER G., Vaccination versus "wait and treat": How to subsidize them?, *European Journal of Health Economics*, January 13.
- GREGORIOU G., HÜBNER G., PAPAGEORGIOU N. and ROUAH F., Dominating Funds of Funds with Simple Hedge Fund Strategies, *Journal of Derivatives and Hedge Funds*, 2007, Vol. 13, n° 2, pp. 88-106.
- GUIGOU J-D., CHOPARD B., DEFFAINS B. Droit, architecture financière et stratégies des banques, *Revue de l'OFCE*, Avril.
- HARITON C., PIASER G., When redistribution leads to regressive taxation, *Journal of Public Economic Theory*, vol. 9, no. 4, pp. 589-606.
- HÜBNER G., How Do Performances Measures Perform?, *Journal of Portfolio Management*, Summer 2007, Vol. 33, n°4, pp. 64-74.
- MUSSARD S., TERRAZA V., New trading risk indexes: application of the Shapley value in finance, *Economics Bulletin*, n°25 vol 3 pp 1-7, June.

### **3.4. Books**

- BOYER T., *Cross representations of Law and Economics in Corporate Governance*, in *Representations of Justice*, eds. Masson & O'Connor, Peter Lang.
- PIASER G., *Labor mobility and income tax competition*, In *International Taxation Handbook*, Gregoriou, G.N. and C. Read (eds.), Elsevier, April.
- TERRAZA V., KARADELOGLOU P.: *Exchange Rates and Macroeconomics Dynamics*, forthcoming, 2007, ed. Palgrave.

### **3.5. Working Papers**

- ATTAR A., CAMPIONI E., PIASER G. and UDAY R., On multiple-principal multiple-agent models of moral hazard. CREFI-LSF Working Paper, 2007, No 07-01.
- BEAULIEU P. et PICINATI DI TORCELLO A., Financiarisation des Marchés de l'Art, CREFI-LSF working paper, 2007, No 07-18.
- BEINE M., BERNAL O., GNABO J.Y., LECOURT C. Intervention Policy of the BoJ: a unified approach, working paper, 2007, No 07-19.

- BLAZY R., CHOPARD B., FIMAYER A., GUIGOU J-D. Financial versus Social Efficiency of Corporate Bankruptcy Law, CREFI-LSF Working Paper, 2007, No 07-02.
- BLAZY R., UMBAUHER G., WEILL L. Legal sanctions, Financial Distress, and Debt Contracting: a Revised Version, LSF Working Paper, 2007, No 07-03.
- BOYER T. Cross representations of Law and Economics in Corporate Governance, CREFI-LSF working paper, 2007, No 07-04.
- BOYER T. Do shareholders really own the firm?, CREFI-LSF working paper, 2007, No 07-05.
- BOYER T. Les IFRS et les besoins en informations non-financières, CREFI-LSF working paper, 2007, No 07-06.
- COËN A. et HÜBNER G., Risk and Performance Estimation in Hedge Funds : Evidence from Errors in Variables, CREFI-LSF working paper, 2007, No 07-12.
- CRAMA Y., HÜBNER G. et SCHYNS M., Grafting Information in Scenario Trees : Application to Option Prices, CREFI-LSF working paper, 2007, No 07-11.
- GUIGOU J-D., LOVAT B., PIASER G. Relative performance evaluation, risk aversion and entry, CREFI-LSF working paper, 2007, No 07-07.
- HAMADI M., ANDERSON R. Ownership, Control and Liquidity, CREFI-LSF working paper, 2007, No 07-08.
- HÜBNER G., LAMBERT M., MICHEL P-A. et OLIVIER H., Relevance and Usefulness of IFRS Reporting for European Stock Markets Valuation and Performance, CREFI-LSF working paper, 2007, No 07-15.
- HÜBNER G., PETERS J-P. et PLUNUS Séverine, Measuring Operational Risk in Financial Institutions : Contribution of Credit Risk Modeling, CREFI-LSF working paper, 2007, No 07-13.
- NEUGEBAUER T., Bid and Price Effects of increased Competition in the First-Price Auction : Experimental Evidence, CREFI-LSF working paper, 2007, No. 07-17.
- LAMBERT M., Four-Moment Asset Pricing Model : Computation Standards and Specification Tests for Moment-related Risk Premia, CREFI-LSF working paper, 2007, No 07-14.
- LOULIT A. et PIROTTE H., A General First Hitting-Time Approach to Evaluate Risky Bonds, CREFI-LSF working paper, 2007, No 20.
- PIROTTE H. and VAESSEN C., Residual Value Risk in the Leasing Industry: a European Case, CREFI-LSF working paper 2007, No 21.
- PIASER G., Direct Mechanisms, Menus and Latent Contracts, CREFI-LSF Working Paper, 2007, No 07-09.
- PIASER G., The Biases-Martimort-Rochet equilibrium with direct mechanisms, CREFI-LSF working paper, 2007, No 07-10.
- ROBE M., MICHEL P-A. et STEIGER E-M., Penalties and Optimality in Financial Contracts : Taking Stock, CREFI-LSF working paper, 2007, No 07-16.

### **3.6. Communications at academic conferences and workshops<sup>1</sup>**

- BEINE M.: 2<sup>nd</sup> Research in International Economics and Finance (RIEF) conference, Roma, May 11-12; XXI Annual Conference of the European Society for Population Economics, Chicago, June 14-16; Internal Seminar – Industry Canada, Ottawa, June ; Workshop on Methods in International Finance Network, Maastricht, September 24-25; Internal Seminar World Bank, Washington, November.
- BLAZY R.: EIASM Workshop on Default Risk and Financial Distress (Rennes, September, 13-14th); The 24<sup>th</sup> International Monetary and Banking Encounters (GDR finance, Rennes, June 14-15); Workshop on Bankruptcy, Nanterre, GDR finance, EconomiX, May 23<sup>rd</sup>.
- BOYER T.: workshop on Corporate Governance & Reflexive Governance in the Public Interest, Cambridge University, 12-13 of Dec.; colloque « Institutions financières, marché et éthique : regards croisés dans le cadre européen », Institut Universitaire de Florence 25-26 May.
- COSMA A.: World Business Strategy Training Workshop, London, UK.
- FIMAYER A.: Workshop on Bankruptcy, Nanterre, GDR finance, EconomiX, 19 November.
- GUIGOU J-D.: CEA 41<sup>st</sup> Annual Meetings, Dalhousie University, Halifax, Nova Scotia, June 1-3; 47<sup>ième</sup> Congrès annuel de la Société canadienne de science économique, Mai, Québec.
- PIASER G., The 22<sup>nd</sup> Annual Congress of the European Economic Association, Universiteit van Amsterdam, August; CESifo Venice Summer Institute, Venice International University, July; The 18<sup>th</sup> Stony Brook Game Theory Festival of the Game Theory Society, July; Koc University, Istanbul, 9<sup>th</sup> of November.
- TERAZZA V., SICAV-Expo Bourse de Paris, 29-30 mars 2007.

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<sup>1</sup> Excluding the academic external experts' communications.

### **3.7. Direction of PhDs**

BEINE M.: Robert VERMEULEN: “The impact of integration on stock price co-movement?”.

BLAZY R.: Agnès FIMAYER: “The Risk of Credit-Default: Prevision and Recovery Rates” (since 2007); Nirjhar NIGAM: “The Bankruptcy Process: A Law and Finance Approach” (since 2007).

MICHEL P-A., and HÜBNER G.: Marie LAMBERT: “Essays in Funds Management and Performance”.

TERRAZA V.: Paulo MARQUEZ: “Analysis of Performance and Risks for Investment Funds”.

### **3.8. PhD Jurys**

BEINE M.: Wallid BEN OMRANE : “Empirical Evidence from the Euro/Dollar Currency Market?” (CORE, UCL); Marina EMIRIS: “Essays on Macroeconomics and Finance” (ECARES, ULB); Olivia GALGAU: “Essays in International Economics and Industrial Organization?” (DULBEA, ULB); Michele LENZA: “Essays in Monetary Economics”, (ECARES, ULB); Abdelslam MARFOUK: “Migrations internationales par niveau de qualification : mesure et analyse des déterminants” (Université de Lille 2); Adja SISSOKO : “Essays in International Economics” (Université de Namur).

BLAZY R.: Afef BOUGHANMI : “Droit, gouvernance d’entreprise et structure du système financier: analyse économétrique du cas français” (Université de Nancy 2, 25 juin 2007).

MICHEL P-A.: Michel DELORME : « Les compétences stratégiques des dirigeants : application au cas des entreprises canadiennes de biotechnologie » (Université Robert Schuman, Strasbourg, 16 février 2007) ; Daniel CAPOCCI : « An Analysis of Hedge Funds Strategies » (Université de Liège, 17 août 2007) ; Gifty AGBOTON : « Le rôle du conseil d’administration dans le dispositif de Corporate Governance. Le cas du Code Lippens » (Université de Liège, 21 décembre 2007).