



## PhD Grants

### Call for Applications

LabEx REFI

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Laboratoire d'Excellence "Régulation Financière"

Financial Regulation Lab

## RULES TO APPLY

ReFi is a newly-founded French “Laboratoire d'Excellence” sponsored by the French government in the field of Financial regulation (“Régulation Financière” in French, hence ReFi). This LabEx is backed by five leading French research institutions: [ESCP-Europe](#), [CNAM](#), [ENA](#), [ENAss](#) and [Paris1 Panthéon-Sorbonne University](#). ReFi offers 3-years PhD scholarships (the legal framework is provided by [Décret n° 2009-464 du 23 avril 2009](#), see also [the corresponding web page of the ministry's website](#)).

Candidates must submit one project among the proposals listed below before the **3<sup>rd</sup> of September** 5:00 p.m. (GMT). The candidate shall specify the project he applies to. A pre-selection will be done by early September; applicants will be interviewed thereafter by the end of September. A precise schedule will be provided to the preselected candidates.

The applications has to be sent to the following address:

[marteau@escpeurope.eu](mailto:marteau@escpeurope.eu)

The subject field of the message must be **“ReFi PhD grant application”**.

The submissions must feature:

- A *curriculum vitae*
- A **complete** transcript of the Master degree
- A copy of the master dissertation with comments and marks given by the jury (with the composition of the jury)
- A project corresponding to *one* (and only one) proposal. This project will not exceed 10 pages (including references).

All these documents must be sent in *one* pdf file. No other submission medium will be accepted. The application needs to contain all the documents previously listed to be considered valid.

This tender contains fourteen proposals listed below.

- Pr. Christian de Boissieu and Pr. Dominique Guégan : *What are the consequences of Basel III on banks and the real economy?*
- Pr. Gunther Capelle-Blancard : *Derivatives: Should we impose “insurable interest” requirements?*
- Pr Jean Bernard Chatelain : *Banking and Financial Regulation : a Global View*
- Dr. Jézabel Couppey Soubeyran : *An Inside Look at Financial Liberalization Process: Financial Sector Development and Economic Growth*
- Pr. Roland Gillet : *MiFID: taking into account investor risk aversion and Best Execution, theoretical challenges and operational risks.*
- Pr. Jean Paul Laurent : *A comparative anatomy of financial regulation.*
- Dr. Bertrand Maillet : *Essays on systemic and model risks*
- Pr. Constantin Mellios : *Delegated portfolio management, fee structures and loss aversion*
- Pr. Constantin Mellios and Dr. Christophe Boucher: *Risks for long term investors with model uncertainty.*
- Dr. Christophe Moussu and Pr. Philippe Raimbourg: *Do principles of corporate finance apply to banks?*
- Pr; Alain Pietrancosta : *The regulation of systemic risk.*
- Dr. Steve Ohana : *Design of early warning signals of contagion in financial markets  
Long-term prevention of systemic risk*
- Dr. Steve Ohana and Dr. Didier Marteau: *Regulation of commodity markets*
- Pr. Philippe Raimbourg : *Monitoring the credit rating agencies.*

**What are the consequences of Basel III  
on banks and the real economy?**

PhD proposal by

**Christian de Boissieu and Dominique Guégan**

**University Paris1 Panthéon - Sorbonne, and CES**

*[www.cae.gouv.fr/IMG/pdf/Boissieu.pdf](http://www.cae.gouv.fr/IMG/pdf/Boissieu.pdf)*

*[ces.univ-paris1.fr/membre/Guegan/guegan.htm](http://ces.univ-paris1.fr/membre/Guegan/guegan.htm)*

The purpose of this research project is to analyze the predictable consequences of Basel III and other prudential regulations in their implementation for banks in Europe and outside Europe. Indeed, the project will analyse the cooperative or non cooperative game in implementing the new regulation. The research will also focus on the impact of new regulation on the real economy (investment, growth, employment, ...). Some insights will concern the predictable effects and the channel of transmission.

To assess the effects on banks the research will develop methodologies used by banks for a better calibration of banks' internal models (assumptions and dynamics). It will also analyze the existence or not of procycality and its possible reduction, and will test the impact of the new measures on the new liquidity ratios. This part of the research consists in two pillars, both analyses and surveys from real data.

Regarding the impact on the real economy, it is important to focus on the SMEs, for instance to check the possible slowdown in real growth through variations in interest rates, consumption, employment, etc.. The level of capital increases required by the new prudential rules will also be studied in relation to the real economy, and appropriate indicators will be proposed. Finally this work will include an international comparison of the impact of new regulations by focusing on Europe and the United States. The cooperative or non cooperative dimension of the implementation of the new regulations will be a crucial part of the study.

The proposals being made, we expect from the scholar interested in the subject a detailed proposal including a sequence of steps with an appropriate methodology, and also concrete proposals concerning the theoretical and empirical investigation to perform each part of the research project.

# Derivatives: Should we impose “insurable interest” requirements?

Phd Proposal by

**Pr. Gunther Capelle-Blancard,**

**University Paris 1 Panthéon-Sorbonne, and CES**

Derivatives are undoubtedly the most important financial innovations in the last thirty years. They have amply contributed to the progress in risk management, they broaden the range of assets available and they facilitate risk allocation (Ross, 1976). Additionally, derivatives allow a decrease in transaction costs – especially short-sale constraints (Danielsen and Sorescu, 2001), which translates into higher liquidity (Grossman, 1977; Biais and Hillion, 1994).

However, whenever a financial crisis arises the debate on the dangers of derivatives is on the table. The recent financial crisis is of course no exception to the rule. The traditional concern about derivatives is their potential impact on the volatility of spot markets. Several authors have already tackled this issue. For example, Stein (1987) shows that increased speculation via futures markets has a destabilizing effect when certain agents have imperfect information. Other agents over-react to what they believe to be inside information and this of course has a destabilizing effect. In addition, Bowman and Faust (1997) use two examples to show that introducing options can lead to “artificial” equilibrium, or “sunspot equilibrium”. For Guesnerie and Rochet (1993) the learning curve due to the difficulty of anticipating the behavior of other players makes equilibrium hard, or even impossible, to attain. Besides, the learning period tends to get longer as financial products get more complex.

A recent issue, highlighted by the last financial crisis, is the question of “insurable interest” requirements. This problem concerns mainly the CDS and the commodities markets.

- Credit derivatives allow market participants to buy protection even if the buyer does not hold the underlying asset, the underlying debt in the case of CDS. In other words, it is possible to insure without an “insurable interest”, which is usually referred to as a naked strategy. Are such speculative bets socially useful? On the one hand, some proponents consider that naked CDS (as well as short selling) increase markets liquidity, and are thus beneficial for financial stability (Duffie, 2010). On the other hand, there is room for destabilizing speculation when it is possible to insure without an “insurable interest”. Indeed, naked CDS might lead to the emergence of self-fulfilling prophecies: because CDS prices impact the perceived creditworthiness of the issuer, a rise in CDS prices will raise the cost of capital and so the likelihood of default (Portes, 2010). In support of this idea, Coudert and Gex (2010) show that the CDS spreads lead bond spreads in the price discovery process. The usual interpretation is that the CDS market is the cheapest for informed traders who therefore preferably choose it to execute their orders. But, according to Portes (2010), there is another interpretation: *“leadership may be the result not of better information, but of the effect of CDS prices on the perceived creditworthiness of the issuer”*. This is a key issue, and further research is needed to disentangle those two interpretations. Moreover, as noted by Matthews and Yelvington (2008), CDS encourage creditors to require the liquidation of a distressed company earlier in order to activate the CDS settlement, whereas before creditors were tempted to give the company a chance to avoid bankruptcy.
- Since the 2000s, there has been a process of financialization of commodity and energy markets (Tang and Xiong, 2010). Actually, no-one really envisages restricting the market to commodity producers or consumers, but there is a lack of academic research on the issue, with the debate mainly being engaged among law scholars. For instance, Stout (2009) proposes regulating the OTC derivatives market by refusing to enforce any contract unless one of the parties to the contract is truly using it for hedging rather than for speculation.

The aim of this thesis will be to propose a theoretical analysis of the problem caused by the absence of “insurable interest”. This model should be based on the current literature on destabilizing speculation, but should also take into account advances in the field of informational cascades (Bikhchandani, Hirshleifer, and Welch, 1996). It will be also interesting to consider empirically the determinants of the success of derivatives markets and the venue of informed traders.

# **Banking and Financial Regulation : a Global View**

PhD Proposal by

**Pr. Jean-Bernard Chatelain**

**Université Paris 1 Panthéon Sorbonne, CES**

The regulation of the financial system is likely to face a number of problems limiting its efficiency, so that a global approach may be more relevant than a focus on particular specific regulatory reforms: A global approach for a PhD in economics and finance on this topic may use economic theory, applied econometrics, economic history or political economy (but not necessarily all of them).

- A) The first issue deals with international political economy issues: to which extent the bargaining power of international banking could be limited by governments, in a context where the competition among jurisdictions and government is likely to minimize the impact of regulatory changes of international finance in a single country or in a group of country. This issue involves an evaluation of the bargaining power of banks (share of value added, share of employment, degree of opacity of financial transactions, links with governments, support of public debt issuance, degree of concentration of the banking system, multinational banks, estimation of the size of banking fraud and tax evasion opportunities) and the bargaining power of governments (control of capital flows, size of publicly owned banking sector, size of the public debt, government probability of default, degree of coordination with other governments, government interest in the opacity of financial transaction and the hidden support of offshore financial centers, government taxes and subsidies for the financial sector before and after the crisis, lobbying and financial support of politicians...). An historical evaluation on how the bargaining power of international banks decreased from 1929 to 1950 could provide a valuable analytical tool.
- B) PhD papers could also be chosen among the following specific issues:
- (1) the costs and benefits of offshore financial centers,
  - (2) the costs and benefits of regulations separating financial activities, for example: “low short term risk” (e.g. credit risk) activities from “high short term risk” activities (e.g. market risk). This investigation may be based on theory, historical evaluation, and tests for universal versus retail banks.
  - (3) investigate the differential effects for the performance (risk adjusted returns, productivity frontiers, probability of default or other indicators) of different types of banks (large/small, international/national, retail/market/universal, publicly owned/privately owned, cooperative/profit driven) of the effects of a list of particular national regulations (such as described in World Bank databases of the 2000's), interacted with monetary policy conditions (restrictive/non restrictive/non conventional) and with public debt, governments probability of default (for lenders of last resort and deposit insurance), pensions systems, public taxes and subsidies for the financial sectors before and after the current crisis and the Russian/emerging market crisis of the end of the 1990's.
  - (4) the costs and benefits of International Financial Reporting Standards applied to non financial firms on banks pro-cyclical credit risk;
  - (5) Investigate the political feasibility and the costs and benefits of the Basel III proposals at the bank level and at the macroeconomic level.
  - (6) the costs and benefits of international finance: better allocation of capital around the world (or not: global imbalances, short run sudden stops) versus higher world systemic risk.

# **An Inside Look at Financial Liberalization Process: Financial Sector Development and Economic Growth**

PhD proposal by

**Dr. Jézabel Couppey Soubeyran**

**Université Paris1 Panthéon – Sorbonne, CES**

One of the main contribution of this research is to provide an inside look at the financial liberalization process under the umbrella of finance and growth nexus based on a case study of a candidate country of EU -Turkey- and a comparative approach on 27 member states of EU over the period from 1990-2009. The research project is conducted into three parts. In the first part, the growth rate dynamics and the financial system are analyzed separately before looking at the relation between them. For the analysis of the growth rate dynamics, the driving question is whether export or domestic led growth is prime-mover in the country groups. This question especially directed to Turkey to understand the basis of the crisis in year 2001 experienced in the local context. On the other hand, in the part of the financial sector analysis, financial vulnerability problem is examined carefully. In the second part, there is panel data analysis of the interrelationship between financial system and the economic growth rate using instrumental variable technique putting the spotlight on the importance of the quality of the institutional structure which renders controllable the effect of the cross-border liberalization on the domestic economy. Is it possible that financial sector development indicators impact the economic growth rate? is one of the driving questions of this section. In the third part, financial crisis of 2008 is evaluated with a focus on the change in the behavior of the credit and equity market during crisis period.

**MiFID: taking into account investor risk aversion and Best Execution,  
theoretical challenges and operational risks**

PhD Proposal by

**Professor Roland Gillet**

**University of Paris 1 Panthéon-Sorbonne, PRISM**

The main objective of this essay is to analyse the results of applying the MiFID directive in terms of protecting investors. Firstly, in terms of taking into account investors' risk aversion when structuring their wealth and secondly, in terms of guaranteeing best execution of their orders in various asset markets, and in particular in stock markets.

A vast literature exists on the objectives of the MiFID Directive. The literature is much less extensive on the consequences of some of its practical applications, notably in terms of comparison of real results with the original objectives.

Initially, the main issues of accounting for risk aversion and Best Execution in the context of MiFID will be analysed. How these two measures are translated into practice will then be considered. Finally, based on principal, current financial theories (in particular those related to the efficiency and microstructure of financial markets, agency theory, transaction cost theory, etc.), robust tests to highlight the main issues will be developed.

The results should initially relate to a theoretical repositioning of the objectives of these two measures in light of the risks of deviating from their implementation. Empirical tests should then be able to validate or invalidate the effectiveness of regulatory measures implemented to date, with a view to amending them if necessary.

# **A comparative anatomy of financial regulations**

PhD proposal by

**Jean-Paul LAURENT**

**University Paris 1 Panthéon-Sorbonne, PRISM**

The research aims at providing a better understanding of the regulation of financial institutions, mainly banks and insurance companies, but also entities with growing importance such as central counterparties, clearing houses, etc. The goal is to provide an accurate description of the new financial architecture and of the pros and cons of the upcoming regulations by using the rigorous tools provided by economic theory and corporate finance.

Moral hazard issues or the optimal financial leverage have been dealt for long in economics and financial theory. Meanwhile, the financial architecture has evolved with the development of secured finance, securitization and increased interconnectedness of financial institutions.

The proposed methodology is a comparative analysis of a number of new regulations (Basel 3, Solvency 2, Dodd-Frank act), regarding solvency ratios, liquidity, compensation, sustainability. This involves a clear and accurate description of these regulations and a two and fro movement with financial theory. A special focus will be put on optimal leverage and risk taking by financial institutions.

Since the subprime crisis came to light in 2007 and expanded subsequently to a global banking crisis, the financial system as whole became more unstable, despite a dramatic shift in the regulatory framework. We expect that the research will enlighten such issues as universal versus narrow banking, credible financial risk assessment and early resolution of liquidity or solvency crises.

# ESSAYS ON SYSTEMIC AND MODEL RISKS

PhD Proposal by

**Dr. Bertrand Maillet**

**University Paris-1 Panthéon Sorbonne, and CES**

The objective of the thesis is (1) to make a consistent assessment of the systemic risk measures already proposed in the literature, (2) to propose a useful extension and (3) to provide a set of quantitative methods to validate these measures and gauge the accuracy of such tool.

After the recent severe turmoils on financial markets, several measures of systemic risk have been proposed in the financial literature, such as, for instance, the CoVaR (Adrian and Brunnermeier, 2010), the *delta*-CoVaR (Adrian and Brunnermeier, 2010), the Marginal Expected Shortfall (Acharya *et al.*, 2010), Systemic Expected Shortfall (Acharya *et al.*, 2010), an aggregated non linear causality test-based measure (Billio *et al.*, 2010). These measures now deserve a complete study of potential validation tests, as it has been already developed for single market risk measure such as the VaR in a back-testing framework (Christoffersen, 2009-a and 2009-b), explicitly dealing with the so-called model risk of risk models (see appendix for a short reference list).

The assessment of the risk measures will be made in two steps. In the first step, we will, through clustering, study the robustness of financial institution systemic rankings. In the second step, we will analyze the sensitiveness of these measures to extreme values dependence.

The validation tools will be provided through (1) statistical tests as in the VaR backtesting procedures, (2) a Dynamic Conditional Correlation (DCC) with *copula* modeling and (3) model risk validation assessment.

The first expected output is to define a proper and consistent assessment of systemic risk through the existing measures. We will then be able to characterize and compare the performance of each measure in various cases, market conditions and nature of market shocks (exogenous/endogenous) and propose an adapted methodology of choice of these measures for investors and regulators. The second main expected output consists in the set of tools proposed for the systematic validation of systemic risk models, highlighting their sensitivities to model risk such specification, estimation and implicit nuisance parameters.

## **Delegated portfolio management, fee structures and loss aversion**

PhD proposal by

**Professor Constantin Mellios**

**University of Paris 1 Panthéon-Sorbonne, PRISM**

The objective of this proposal is to study how incentives and compensation schemes affect fund managers' investment strategies. In accordance with regulations in force in most European countries and in the U.S., managers may be compensated with incentive fees, which depend on their performance relative to some relevant benchmark portfolio. This type of fees is supposed to lead investors to bear more risk and is thus related to their attitude towards risk. It is now well-established that investors' behaviour may not be represented by the traditional utility function (risk-aversion). Indeed, in the framework of the prospect theory (Kahneman and Tversky, 1979; Tversky and Kahneman, 1992), investors may be risk-averse in the domain of gains and risk-seeking in the domain of losses. Based on the relevant literature (Carpenter, 2000; Hui Ou-Yang, 2003; Berkelaar et al., 2004; Kouwenberg and Ziemba, 2007; Cuoco and Kaniel, 2011), two main issues will be considered. (i) Examine the impact of symmetric as well as of asymmetric, option-like, fee structures on asset allocation by taking into account fund managers' risk behaviour. (ii) Determine, in a continuous-time principal-agent problem, the appropriate benchmark.

On a theoretical level, the asset allocation problem will be studied in a continuous-time framework either by using the dynamic programming method (Merton, 1971; 1973) or the martingale approach (Karatzas et al., 1987; Cox and Huang, 1989). Risk-aversion and loss-aversion coefficients will be, for example, estimated by using the generalized method of moments (GMM).

Expected results may have important implications for regulators, fund managers and investors. (i) The analysis may contribute to the reflection of regulators concerning the form of compensation contracts to be permitted for different types of funds. (ii) The models may provide a useful framework to managers in order to dynamically determine the optimal asset allocation as a function of their risk preferences and the fund's volatility. (iii) The models may also be an appropriate tool for investors who wish to assess the impact of compensation schemes on managers' investment strategies.

# RISKS FOR LONG-TERM INVESTORS WITH MODEL UNCERTAINTY

PhD proposal by

**Pr. Constantin Mellios\* and Dr. Christophe Boucher\*\***

**University Paris-1 Panthéon-Sorbonne, \*Prism, \*\*CES**

With an increasing life span, institutional investors and pension funds have more and more social responsibility when allocating their funds. The role and place of long-term investors in the global financial system also are crucial for market regulators. Merton (1969, 1971, 1973) following Samuelson (1969), theoretically establishes that under changing investment opportunities, optimal portfolio decisions of long-term investors differ from those of short-term investors. Long-term investors can not only benefit from risk diversification between assets, but also from time diversification within an asset class. We propose to (1) incorporate model uncertainty, mainly estimation and specifications risks, into optimal allocation for long-term investors, (2) to test of global implementation methodology for robust asset allocation under constraints and (3) to study the impact of systemic risk on long-term asset allocations.

Campbell and Viceira (2002, 2005) report estimates of conditional variances that generally decrease with the investment horizon. This evidence of lower long-horizon variance is cited in support of higher equity allocations for long-run investors. Barberis (2000) and Pastor and Stambaugh (2011) demonstrate that incorporating estimation risk into portfolio choices leads to compensate horizon effects for buy-and hold investors. However, these recent financial researches only focus on the “mean-variance” framework and do not yet propose a “practical method” to compute optimal portfolios incorporating this uncertainty (see the short reference list in the appendix).

A recent amendment to banking and insurance regulations requires additional market risk capital to cover all the model risks. Our main objective is to account for some dimensions of the riskiness of risk and allocation models and adjust consequently optimized allocations in a classic “mean-variance” framework as well as alternative paradigms such as “safety-first” (risk budgeting) *criteria*, higher-order moments and Asset Liability Management. We propose a general bootstrapping approach to generate economic *scenarii* and then robust asset allocations. As a non-parametric method it directly relies on past behaviors of the time series rather than debatable assumptions on models and parameters. Moreover, simultaneous dependencies between economic and financial variables are captured in this framework.

Under the traditional random-walk assumption that returns are distributed independently and identically through time, return variance *per* period is equal at all investment horizons. Explanations for lower variance at long horizons commonly focus on the “mean reversion” effect. Whereas the mean-reversion component contributes to reduce risk at long horizons, we will test the hypothesis that model uncertainties and their combined effect outweighs that of mean reversion. A long-horizon investor who ignores this model uncertainty may indeed over-allocate to stocks by a sizeable amount, and, if so, might lead the regulators to re-assess his guidelines for long-term risk evaluation.

# **Do principles of corporate finance apply to banks?**

Phd Proposal by

**Dr. Pr. Christophe Moussu\* and Philippe Raimbourg\*\***

**\*ESCP Europe - \*\*University Paris1 Panthéon - Sorbonne, and PRISM**

Bank equity has been at the heart of the discussions about financial regulation for the last two decades. Indeed, the level of equity banks should hold has become a very controversial topic between regulators, the banking lobby and academics in finance. Regulators require more equity to enhance the soundness of the financial sector. The banking lobby argues that holding more equity would have disastrous consequences on bank value and governance but also on their activities such as credit distribution and liquidity creation. Finally, academics explain that some of the bank arguments are not necessarily funded economically and contradict many principles of corporate finance.

What emerges from this debate is the need to better understand the specificities of bank equity and to investigate whether the environment of banks and the function they serve in the economy justify their high leverage. Indeed, the settlement of bank capital requirements seems to result from a negotiation between regulators and banks. The debate can be enhanced through the development of a theory of bank equity and empirical evidence of the impact of bank capital on their performance and governance. In other words, further research on bank equity would help define more accurate bank capital requirements and improve the quality of financial regulation.

The goal of the thesis is to investigate whether the determinants of the financial structure known in corporate finance apply to banks. Indeed, banks may differ substantially from other firms but it does not necessarily mean that classic corporate finance concepts are not relevant to investigate the optimal level of banks' equity. A first direction of research would be to work on the relationships between risk taking, capital structure and incentives in banks. In particular, whether those relationships differ for banks from other firms will be questioned. An empirical study based on European banks will provide evidence on those relationships as well. A second direction would be to address the question of the impact of bank equity on competition, notably on the credit market. It would try to uncover whether the links that are known between capital structure and product market competition for non-financial firms hold for banks. Finally, a last direction would investigate whether the creation of an equity constraint by regulators has led banks to overemphasize the cost of equity and led to the strong and fallacious goal of equity reduction for banks. A behavioural approach may be developed to deal with this issue.

# **Design of early warning signals of contagion in financial markets**

## **Long-term prevention of systemic risk**

PhD Proposal by

**Dr. Steve Ohana**

**ESCP Europe**

The contagions that have followed the collapse of Lehman Brothers and the refinancing problems of some other major financial institutions (Bear Sterns, AIG, Fannie Mae & Freddie Mac, Northern Rock, Anglo Irish...) have revealed the extreme connectedness of the financial network. Systemic risk is generally defined as the propensity of a local shock to degenerate into a large scale liquidity crisis through uncontrolled spillover effects across players and markets. Although the spillover mechanisms behind global liquidity crises are now better understood (see e.g. Tobias and Shin, 2011), the early identification of turmoil situations and the prevention of contagions remain major challenges for scholars and regulators.

The purpose of this PhD research will be to improve the understanding of contagion mechanisms and to progress towards an efficient supervision and regulation of systemic risk in financial markets.

The following issues might be the focus of particular investigations:

- Can we set up early warning indicators signaling the possibility of an imminent global financial meltdown?
- Can we design longer-term measures of overall fragility (bubble detection, degree of interconnectedness in the financial system...)?
- Can we understand and possibly predict the cross-market and cross-player contagions likely to occur in the event of a particular distress or local liquidity dry up? What are the implications for stress-testing and macro-prudential regulation?
- What are the reforms the regulators should undertake to reduce the level of interconnectedness in the financial network?

To try to answer these questions, the scholar would use for instance the costs of risk in different markets (credit spreads, VIX for equities, spread interbank rate vs government yield, governments' CDS...) as instantaneous stress indicators reflecting the liquidity conditions in each market. These stress indicators have interesting properties of persistence and asymmetry which make them useful to predict broad dislocations. Contagions occur when some local stress spills over to other segments of the market. Analyzing the links between (properly normalized) costs of risk over the recent history hence helps better anticipate future contagions.

The student interested in this project would have to propose the adequate logic to add new insights for the previous problematic.

# **Regulation of commodity markets**

PhD proposal by

**Dr. Steve Ohana and Dr. Didier Marteau**

**ESCP Europe**

The regulation of commodity markets has been put on top of the agenda by the G20 and the regulatory authorities. The growth of emerging countries, long-term strain on resources and the financialization of commodity markets have been put forward to explain the exceptional volatility of commodity prices observed since 2004.

Some recent works (see e.g. Ke Tang and Wei Xiong, 2011) have analyzed the recent integration among commodities markets, as well as the recent upward trend in the correlations of commodities markets to equities and currency markets. Other works have investigated the impact of investors' inflows on commodities prices (see e.g. Irwin and Sanders, 2011). However, the new behavior of commodities prices observed since 2004 and even more since 2008 and the role played by financial investors in this new behavior remain poorly understood.

The purpose of this research project is to shed a new light on the recent behavior of commodity prices, focusing in particular on the following issues:

- Can we discriminate between « fundamentals-driven » and « investment-driven » moves?
- How may the breaking of traditional price-inventory relationships be explained? Can we detect this type of behavior in real time?
- What are the origins of the strengthening of the relations of commodities prices to currencies, equities and market liquidity? What is the role played by hedge funds and index investors in this evolution?
- Can we analyze the “causality” between commodities prices and hedge funds/« index investors » flows into commodities futures markets (possibly departing from the traditional “Granger causality” approach used in the literature)? Can we characterize the investors' behavior in commodity markets?
- How can we detect “abnormal” behavior in commodities prices (bubbles, market manipulation, corner...)?
- What are the implications of the different findings for the regulation of commodities markets?

# **DROIT ET RISQUE SYSTÉMIQUE / THE REGULATION OF SYSTEMIC RISK**

PhD proposal by

**PR. ALAIN PIETRANCOSTA**

**ÉCOLE DE DROIT DE LA SORBONNE / SORBONNE SCHOOL OF LAW**

L'émergence du « risque systémique » constitue sans doute l'élément le plus marquant de la réforme de la gouvernance de la régulation financière nationale et internationale consécutive à la crise financière de 2007-2008.

Alors que la notion n'existait jusque-là qu'au plan académique, timidement incorporée en droit communautaire, la crise actuelle, systémique par excellence, l'a propulsée au cœur de l'actualité et tend à l'imposer comme la clé de voute de la « nouvelle régulation financière ».

Il semble en être fait un double usage : d'une part, le risque systémique sert à fonder la régulation des autres risques ; d'autre part, et de manière complémentaire, le risque systémique est appréhendé directement, pour lui-même. On se préoccupe ainsi de sa gestion, qui passe par l'identification, la supervision, la prévention et la résolution.

Cette consécration du risque systémique comme nouvel horizon de la régulation financière, possède indubitablement sa légitimité et ses avantages. Elle n'en suscite pas moins quelques inquiétudes, compte tenu de la difficulté à saisir juridiquement ce risque macro-financier.

L'objet de la thèse consistera, par conséquent, à mettre en évidence cette évolution et engager une réflexion sur les manières dont le droit financier identifie et appréhende le risque systémique, débouchant sur une évaluation comparée de leur efficacité.

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The emergence of “systemic risk” is probably the single most striking element of the reform of national and international financial regulation following the financial crisis of 2007-2008.

While the notion existed before academically, timidly incorporated into Community law, the current crisis, unquestionably systemic, has propelled it to the heart of the regulatory debate and tends to impose it as the keystone of the “new financial regulation.”

Systemic risk seems to be used in two different ways. First, it serves as a possible justification or foundation for the regulation of other financial risks. Second, and in a complementary manner, systemic risk is apprehended directly for itself, in terms of management, which involves identification, monitoring, prevention and resolution.

The establishment of systemic risk as a new horizon of financial regulation, has no doubt its legitimacy and benefits. Nonetheless, it does not go without raising some concerns, considering the difficulty to apprehend this macro-financial risk legally.

The purpose of the thesis will be to emphasize and analyze this evolution and give some thought on the ways in which financial regulation identifies and deals with systemic risk, leading to a comparative assessment of their effectiveness.

# **Monitoring the credit rating agencies**

PhD Proposal by

**Pr. Philippe Raimbourg**

**University Paris1 Panthéon - Sorbonne, and PRISM**

The rating agencies have been at the heart of the recent financial crisis. The monitoring of these agencies appears to be an important issue of the crisis and could be an interesting thesis' subject.

The subject of monitoring the credit rating agencies includes several topics. All of them are not to be chosen by the candidate who may decide to work deeply on a specific topic.

The first subject is the pertinence of agencies' methodologies, concerning corporate companies, banks or sovereign risk. An analysis of the way the agencies assess the default risk of an issuer, a comparison with alternative procedures, and a way to improve the agencies' methodologies are expected outputs of the candidate's work.

Another subject is the way agencies are paid by their clients. Does it give birth to a conflict of interest with investors? Is there a way to improve the situation? The oligopolistic context of rating agencies should be taken into account in that study.