

**1 Paul Woolley Centre Second Annual Conference 5 Lecture by Professor Robert Shiller 6 Managers, Incentives and Organisational Structure Conference 8 FMG Events 9 Publications 11 Visitors**

## Professor David Webb, FMG Director 1991-2009

Professor David Webb, who has served as Director of the FMG since 1991, stepped down in September. He took over from the FMG's founding Director, Professor Mervyn King, now Governor of the Bank of England.

David Webb has served with great distinction, as reflected in the number of outstanding PhD students that he has inspired and nurtured over the years, together with the substantial number of major research awards granted to the FMG under his directorship.

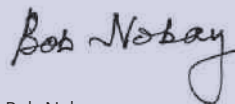
He remains the Head of the Department of Finance at LSE, and will continue to play an active role in the activities of the FMG. His colleagues and friends in the academic profession record their profound thanks to him for his unstinting

efforts to foster and to promote the Financial Markets Group.

Professor Christopher Polk takes over as Director of the FMG.



Charles Goodhart  
Co-founder of the FMG



Bob Nobay  
Editor, Quarterly Review



Professor David Webb, FMG Director 1991-2009

## The Paul Woolley Centre for the Study of Capital Market Dysfunctionalty Second Annual Conference

28-29 May 2009

### Financial Institutions and Asset Prices – Theory

**Jean-Pierre Zigrand** (FMG, LSE) presented the conference's first paper, entitled 'Risk Appetite and Endogenous Risk', jointly written with Jon Danielsson (FMG, LSE) and Hyun Song Shin (Princeton University). In this model, the authors argued that market risk is endogenous in the following sense: the risks impacting financial markets are attributable, at least in part, to the actions of market participants, while market participants' actions depend on perceived risk. Therefore, in equilibrium,

risk should be understood as the fixed point of the mapping from perceived risk to actual risk. The authors considered a setup with risk-neutral traders operating under Value-at-Risk (VaR) constraints. By assuming risk-neutral agents, they distinguished between the risk-aversion and risk appetite of these active traders. Their model proposed that bank capital is the driving force behind everything; hence, the model creates straightforward, empirically testable implications. As long as the capital of these traders is sufficiently high, the VaR constraints do

*continues on page 2*

## Paul Woolley Centre Second Annual Conference

continued from page 1



Dimitri Vayanos (FMG, LSE)

not bind. After a large liquidity shock, agents get closer to their 'painpoint' and have to reduce their positions, which leads to excess volatility of prices and tightens the agents' VaR constraints even more. Thus, even though the underlying and fundamental risks remain constant, the resulting dynamics generate time-varying and stochastic volatility through traders' reactions in equilibrium. The authors showed that risk appetites, option implied volatilities, volatilities of volatilities, as well as risk premia and Sharpe ratios, are all

countercyclical in this model, consistent with empirical evidence. By pointing to the endogenous nature of risk, the presenters also highlighted the role played by risk-management strategies. They posited that as long as its aim is the stability of the financial system, financial regulation should not be based on individually optimal risk-management policies alone. The discussant, **Anna Pavlova** (London Business School), raised some concerns about the interpretation of the 'risky asset', questioning in particular why an agent would demand an asset that never pays any dividends. She compared the nature of risky assets to bubbles, but pointed out that modeling active traders as institutions facing different restrictions can provide a fresh look at a whole set of puzzles, for example, how countercyclical risk premia, volatilities and Sharpe ratios can exist at the same time.

**Dimitri Vayanos** (FMG, LSE) then presented his paper 'An Institutional Theory of Momentum and Reversal', coauthored with Paul Woolley (FMG, LSE). Generally, momentum and reversal are considered anomalies because they are hard to explain within the standard asset-pricing paradigm of rational agents and frictionless markets. The prevailing explanations for these phenomena are behavioural, and therefore assume that agents react incorrectly to information signals (as they often over or underreact). In this paper, the authors propose a theory of momentum and reversal assuming rational agents. Their main departure from standard finance was the assumption that investors delegate the management of their portfolios to financial institutions, such as mutual funds and hedge funds. Thus, when a negative shock hits the fundamental value of some assets, investment funds holding these assets take in low returns, triggering outflows by investors who update negatively about the ability of the managers running these funds. As a consequence, funds sell assets they own, depressing further the prices of the assets hit by the original shock. If these outflows are gradual because

of institutional constraints (such as lock-up periods or decision lags), the selling pressure causes prices to decrease gradually, leading to momentum. At the same time, because outflows push prices below fundamental value, expected returns eventually rise, leading to reversal. The authors also offered several testable implications: for example, momentum and reversal are stronger for stocks with high idiosyncratic risk, which shows that flows generate cross-asset predictability (lead-lag effects), a suggestion consistent with recent empirical findings. The discussant, **Péter Kondor** (Central European University) pointed out that the friction introduced by the institutional framework not only affects equilibrium asset prices, but also creates its own trading, resulting in a 2-factor CAPM-type model that is easy to test empirically. He also noted that the current paper might be too ambitious, and suggested that the authors focus on a theoretical model on fund flow risk analysing trading volume and excess volatility. He also proposed that they conduct an empirical study of momentum and reversal based on the gradual adjustment only.

### Financial Institutions and Asset Prices – Empirics

The afternoon session covered empirical studies in financial institutions and asset prices. The session was started by **Russ Wermers** (University of Maryland), who presented his paper 'Analyst Recommendations, Mutual Fund Herding, and Overreaction in Stock Prices', coauthored with Nerissa Brown (University of Southern California) and Kelsey Wei (University of Texas, Dallas). In his paper, Professor Wermers and his coauthors explored the impact of institutional trading on US stock prices and found that institutional investors play a destabilising role in the stock market. They demonstrated that mutual fund managers exhibit herd behaviour, by strictly adhering to analyst recommendation revisions when they trade stocks, especially following unanimous stock upgrades and downgrades. Moreover, the authors established that mutual fund managers were overreacting to analyst recommendation revisions, as indicated by the fact that investment strategy that goes against such herd behavior would produce a benchmark-adjusted return more than six per cent a year. The authors argued that such overreaction is best explained by unskilled managers (managers with poor recent performance), having found that the sharpest return correction occurs when unskilled managers exhibit herd behavior following a consensus analyst downgrade.

**Andrew Ellul** (Indiana University) gave the second presentation of the session on his paper 'Regulatory Pressure and Fire Sales in the Corporate Bond Markets', coauthored with Chotibhak Jotikasthira (University of North Carolina) and Christian Lundblad (University of North Carolina).

Professor Ellul presented evidence that links the higher pressure put on insurance companies subject to regulatory constraints to significant undervaluation of corporate bonds. As a corporate bond issue is downgraded, the insurance companies' collective need, due to these regulatory demands, to divest the bond within a short period of time tends to push the price below fundamental value. Professor Ellul and his coauthors documented strong return reversals following such downgrades and confirmed that the liquidity providers could earn abnormal returns. Moreover, they found that the insurance companies that were more constrained by regulation were more likely to sell downgraded bonds, and bonds commonly held by those companies experienced significantly larger price reversals.

The last presentation of the session was given by **Nikunj Kapadia** (University of Massachusetts) on 'Limited Arbitrage Between Equity and Credit Markets', coauthored with Xiaoling Pu (Kent State University). The authors found extensive empirical support for the limits to arbitrage hypothesis: in which the cross-sectional variation in the correlation between a firm's equity and credit markets is related to the heterogeneity of its investors, funding liquidity, market liquidity and the idiosyncratic risk of the firm. Moreover, they found no support for two alternative hypotheses that state that (i) firms' volatility and debt are not constant, and (ii) that the credit market prices a variable that is not priced in the equity market. The authors argued that their results would imply that pricing discrepancies across equity and credit markets should be corrected for markets of firms that attract sufficient arbitrage capital.

### Keynote Speech: 'Unstable Banking'

In the keynote address, **Andrei Shleifer** (Harvard University) presented his paper 'Unstable Banking' coauthored with Robert Vishny (University of Chicago). Professor Shleifer and his coauthor proposed a theory which suggests that investor sentiment can transmit into the real economy through securitisation. They argue that securitisation raises the level of investment as well as that of balance sheets and profits. Moreover, given that banks would rather engage in proprietary trading and invest in undervalued securities, attempts to assist banks by means of equity injection would not lead to any real investment until asset prices become close enough to fundamental value. Therefore, policies must not only deal with commercial bank liabilities, but also with their assets. The authors also found that these effects will only be amplified through the use of leverage.

### Behavioural Financing

In this session, **Nicholas Barberis** (Yale University) presented his paper, entitled 'A Model of Casino Gambling', in which he demonstrates that prospect theory can provide a framework that captures many features of actual gambling. In the model, (cumulative) prospect theory agents can decide whether they want to enter the casino or not, and, after entering, face the same bet repeated until they are willing to participate. Professor Barberis showed that these agents are willing to gamble in a casino even if they are only offered bets with zero or negative expected value. This willingness can be attributed to the agents' perception that they will enter the casino and bet as long as they are winning, but leave when they start to accumulate losses. This results in a positive skew for the overall future casino winnings. The author also introduced an alternative model: time-inconsistent behaviour. In contrast to the strategy presented above, after entering, an agent will want to switch to another gambling strategy. For instance, this agent might continue betting if she is losing or stop gambling if she accumulates a significant gain. The author examined three types of agents: (1) naïve agents, those unaware of this time-inconsistency; (2) sophisticated agents, those who recognise time-inconsistency, but who cannot commit and hence decide to stay away from the casino; and (3) sophisticated agents, those aware of time-inconsistency and equipped with a commitment device. The discussant, **Kristóf Madarász** (LSE) noted that the primary impetus for 'entering' can be attributed to the transformed probability structure and the positive skew of future overall winnings, and that either traditional expected utility with distorted probabilities or an asymmetric one-shot bet could produce the same result. He also highlighted that time-inconsistent behaviour is due to the fixed reference point of agents, drawing attention to several recent papers in prospect theory that introduce time-varying and stochastic reference points.

### Financial Contracting

**Bruno Biais** (University of Toulouse) presented his paper, 'Large Risks, Limited Liability and Dynamic Moral Hazard', coauthored with Thomas Mariotti, Jean-Charles Rochet, and Stephan Villeneuve (all University of Toulouse). In their paper, the authors designated a continuous-time principal-agent model in which a risk-neutral agent must, with limited liability, exert unobservable effort to reduce the likelihood of large, but relatively infrequent, losses. They demonstrated that in the optimal contract, investment takes place only if a long enough period of time elapses with no losses occurring. Then, if good performance continues, the agent is paid. As soon as a loss occurs, payments to the agent are suspended, as is investment if further losses



## Paul Woolley Centre Second Annual Conference



**Bruno Biais** (University of Toulouse)

occur. Accumulated bad performance leads to downsizing. Professor Biais pointed out that firm downsizing as a form of a punishment is relatively new in the literature, as authors usually deal with full liquidation or termination as a form of punishment. Allowing for partial liquidation or downsizing provides additional results that enrich the analysis. The authors provided explicit formulae for the dynamics of firm size and its asymptotic growth rate. They derived the conditions under which firm size eventually goes to zero, or grows without bounds.

Questions raised during the discussion after the presentation were concerned mainly with the robustness of the results. In particular, conference participants were interested in the possibility of contract renegotiation.

Next to present was **Paolo Volpin** (London Business School), who presented a paper 'Securitisation, Transparency and Liquidity', written jointly with Marco Pagano (University of Naples Federico II). The authors developed a model in which issuers of structured bonds choose coarse and opaque ratings to enhance the liquidity of their primary market, at the cost of reducing secondary market liquidity or the risk of it freezing. They showed that the degree of transparency is inefficiently low if the social value of secondary market liquidity exceeds its private value. Additionally, they analysed various types of public intervention – requiring transparency for rating agencies, providing liquidity to distressed banks or supporting secondary market prices – and found that their welfare implications were quite diverse. Finally, they argued that transparency is greater if issuers restrain the issue size, or divide it into portions so as to sell the more information-sensitive tranche to sophisticated investors only. The discussant of the paper **Guillaume Plantin** (London Business School) began his analysis of the paper by pointing out the fact that the paper studies the case in which investors create positive externalities to other (not modeled) agents by trading in the secondary markets. The explanation for this phenomenon, according to Professor Plantin, rests in the 'inability to market-to-market when there is no market'. Illiquidity in secondary market creates problems within the interbank markets. The discussant advised the authors to provide careful analysis of the adverse selection problem that arises in their model.

### Financial Institutions and Portfolio Choice

**Ian Tonks** (LSE) presented his paper, 'Pension Fund Performance and Risk-Taking Under Decentralised Investment Management',

coauthored with David Blake (Cass Business School), Allan Timmermann (University of California) and Russ Wermers (University of Maryland). This paper used a proprietary dataset to study two key shifts in the structure of the UK pension fund industry from 1984 to 2004. Specifically, most pension fund sponsors shifted from balanced managers to specialist managers, and from a single manager to competing multiple managers within each asset class. This shift from single balanced managers to either multiple specialist or balanced managers (or both) carries significant costs: as modeled by van Binsbergen et al (2008), decentralisation involves suboptimal risk-taking at the portfolio level, owing to the problem of coordinating different managers through incentive contracts. The authors studied if this shift was rational, meaning whether fund sponsors have experienced improved performance to compensate for the suboptimal diversification. Overall, their results provided strong support for the rational choice of delegation structure. The discussant for this paper, **Clemens Sialm** (University of Texas, Austin), stated that the authors' focus on pension funds instead of mutual funds was fairly novel in the literature. He added that one of the important contributions of the paper was that it documented the tremendous change in the pension management industry's structure. In addition to that, the authors showed that specialist funds perform better than generalist funds (at least before fees). He advised that many elements in the article could be extended and could form papers on their own.

**Clemens Sialm** (University of Texas, Austin) gave the last talk of the session, on a paper entitled 'Risk Shifting and Mutual Fund Performance', which he co-wrote with Jennifer Huang (University of Texas, Austin) and Hanjiang Zhang (University of Texas, Austin). In this paper, the authors investigated the mechanisms, economic motivations and performance consequences of risk shifting behaviour in the Mutual Funds industry. The authors utilised a holdings-based measure of risk shifting and found that funds that increase risk performed worse than funds that maintained stable risk levels over time, suggesting that risk shifting is either an indication of inferior ability or is motivated by agency issues. The main issues raised by the discussant, **Christopher Polk** (FMG, LSE), and conference participants concentrated on the proper ways of measuring the risk-shifting.

Conference organised by: **Bruno Biais** (University of Toulouse), **Amil Dasgupta** (FMG, LSE), **Denis Gromb** (INSEAD), **Christopher Polk** (FMG, LSE), **Dimitri Vayanos** (FMG, LSE) and **Paul Woolley** (FMG, LSE).

FMG Public Lecture by Professor Robert Shiller

# Animal Spirits: How Human Psychology Drives the Economy, and Why it Matters for Global Capitalism

20 May 2009



Robert Shiller (Yale University)

The Financial Markets Group public lecture series welcomed back **Robert J Shiller**, Arthur M Okun Professor of Economics and Professor of Finance at Yale University. Professor Shiller discussed topics presented in his most recent book, *Animal Spirits: How Human Psychology Drives the Economy, and Why*

*It Matters for Global Capitalism*, coauthored with George Akerlof, a former LSE faculty member. The lecture was chaired by **David Webb** (FMG, LSE).

Supporting his framework with observations of the current global financial crisis, as well as his research on recessions and housing market, Professor Shiller suggested that powerful psychological forces are behind economic fluctuations. In the tradition of Arthur Pigou, he argued that psychology is as important in explaining business cycle and financial system fluctuations as the real and observable causes. As such, the authors were strongly in favour of the study and applications of behavioural economics, and argued for the field of psychology as a basis for reworking economic theory for our times.

Professor Shiller identified five important psychological mechanisms unaccounted for in standard economic theory. First, the cycles of confidence and fear in financial markets, and more broadly in the economy as a whole, which are contagious and eventually self-fulfilling. Second, the widespread concern for fairness that often overrides the concern for pure economic efficiency. Third, corruption and bad faith, observed numerous times in the recent crisis, and fourth, widespread monetary illusions. Finally, and most originally, the 'stories' to which the author would come back at the end of the talk.

Professor Shiller reasserted the necessity of active government regulation in economic policymaking in order to manage the 'animal spirits'. Markets will not, alone, regulate these psychological forces – they require the steady hand of government. In a more broad conclusion, a source of a lively debate with the audience, Professor Shiller argued that not only do psychological factors drive cyclical fluctuation, but the long-term path of economies is determined by what he calls 'stories' – self-fulfilling great narratives of economic history. As an example, he explained his model within the context of the economic rise of China. The economic growth in China is driven by a very high savings rate which, according to the authors, can be explained by psychological beliefs, specifically, the belief of Chinese citizens in their country's grand economic destiny.

# Managers, Incentives and Organisational Structure: Latest Research and Implications for the Financial Services Industry

26-27 June 2009



Andrea Prat (LSE)

## CEOs

**Andrea Prat** (FMG, LSE) presented the conference's first paper, 'How do CEOs spend their time?', which discussed the amount of time CEOs allocate for various activities, and its implications for corporate governance and firm performance. To the extent that CEOs' interests are aligned with their firms', the relative allocation of their time should reflect the relative worth of each activity. In a sample of Italian firms, CEOs spent 60 per cent of their time in meetings, while most of their time with outsiders was spent with consultants

and capital providers. Controlling for firm- and CEO-specific characteristics, preliminary results suggest that time spent with insiders is positively correlated with performance, while time spent with outsiders is not. During the discussion, it was pointed out that managerial time spent with financiers in times of financial distress may provide more evidence for the trade-off theory of capital structure.



Michael Faulkender (University of Maryland)

**Michael Faulkender** (University of Maryland) presented the paper 'Inside the black box: the role of composition of compensation peer groups', co-written with Jun Yang (Indiana University). The authors studied the explanatory power of peer group pay for CEO compensation, and analysed how firms select members of their peer groups. Unsurprisingly, firms were found to usually pick peers of similar size and industry. However, firms tended to not choose firms within their industry in one circumstance: when CEO pay at the firm was lower. Instead, firms tended to replace

firms with lower CEO payrolls with firms outside their industry in which pay is higher. To obtain these results, the authors

compared the probability that one firm is selected as a peer to factors that predict that the firm would be a good potential peer, including the level of CEO pay at this firm. The discussant, **Mariassunta Giannetti** (Stockholm School of Economics), suggested that the fact that CEOs could leave their company to join a larger company with higher pay could explain the bias in peer group choice.

## Compensation and Incentives

**Alex Edmans** (University of Pennsylvania) presented his paper 'Dynamic incentive accounts', coauthored by Xavier Gabaix (New York University), Tomasz Sadzik (Stanford University) and Yuliy Sannikov (University of California, Berkeley). In this paper, Professor Edmans and his coauthors solved for the optimal compensation contract in a dynamic principal-agent model. In a dynamic model, CEOs may transfer returns from one period to another, shocks to firm value may weaken the incentive effect of securities, CEOs can undo contracts via private saving and the principal may reward current effort in future periods. In this setting, the two foremost results are the deferred rewards principle (signals received in all previous periods are used to determine pay at a given time) and the increasing incentives principle (the sensitivity of pay to performance is increasing over time). An approximately optimal contract takes the form of dynamically rebalanced account invested in the firm's stock and in cash. In his discussion, **Gilles Chemla** (Imperial College London) raised the issue of the robustness of the results to changes in the model, notably regarding the riskiness of projects, the competition for CEOs and the fact that the principal may not be able to commit. He also mentioned a possible limitation in that the implementation of the optimal contract relied on the actions of a second CEO when the first one leaves the firm. Another restraint was that the setting allowed for neither the firing nor the voluntary departure of the CEO.



**Mariassunta Giannetti** (Stockholm School of Economics)

### Securitisation, Credit Rating and Default

**Paolo Volpin** (London Business School) presented his joint theoretical research with Marco Pagano (University of Naples Federico II), for which they tried to rationalise the lack of transparency in the securitisation process of structured bonds, a process considered to be an important factor for the severity of the current financial crisis. Professor Volpin argued that the lack of transparency, on the one hand, led to a mispricing of risk and, on the other hand, caused the illiquidity of

structured bond markets, which triggered widespread bank distress or bankruptcies.

In their research, Professors Volpin and Pagano asked two interrelated questions: first, why should issuers prefer an opaque rather than a transparent securitisation process, considering that in the latter case expected illiquidity of the secondary market should lead to lower bond issue prices? Second, is the final chosen degree of transparency below the socially optimal one? The authors' proposed answer to these questions consisted of one core tradeoff that the issuers face and a strong (behavioural) assumption. They assumed that some market participants are better at processing information than others, thus limiting the (complicated) detail information of securitisation may in fact reduce asymmetric information among investors and increase the size and liquidity of the primary market. Therefore, issuers trade off a higher liquidity in the primary market with lower liquidity in the secondary market if they limit information on the bonds that they issue. In addition, they may disclose socially and inefficiently low information if there are externalities of structured debt default:

for instance, when bank balance sheets are interlocked leading to widespread defaults, which has been experienced.

The session concluded with **Kathy Yuan** (LSE and FMG), who discussed and commented on the paper. Professor Yuan argued that the authors provided a nice setup to study policy intervention in order to overcome the above-mentioned negative externality problem. Additional to the authors' focus on transparency regulation and liquidity injection into stressed markets, she suggested studying

possible interventions in the primary market, for example, by introducing policies that reduce asymmetric information problems within the market.

The conference ended with **Enrico Perotti** (University of Amsterdam), who presented his joint work with Marcel Vorage (also Amsterdam) on 'The Political Allocation of Finance'. Professor Perotti emphasized that this research is not directly applicable to the current financial crisis, but is more intended to shed light on the (partial) deregulation of the banking sector in emerging economies, which has taken place over the last decade or so, and its relation to lending policies and financial stability.

After reviewing some supporting empirical evidence and previous literature on political economy and banking, Professor Perotti presented the (very cynical, in his words) model where banks' regulatory and ownership structure is a political choice made under the influence of interest groups seeking preferential access to finance. The authors showed that politicians capture more rents when they retain discretion in allocating loans (state control) or assigning bank control to an interest group (captured banking), than when they are lobbied over regulation (competitive banking). This is because the first two options enable politicians to favour any citizen, independent of wealth, thus creating maximum competition among interest groups, while lobbying over regulation favours the coalition of richer citizens only. In the authors' view, the choice of banking system in a given country then depends on the extent that public accountability and legality are prevalent (and practiced) concepts. They acquired the following results: under low accountability and weak legality, banks are state controlled, enabling politicians to obtain large bribes. As bribes involve some legal risks, politicians in countries with sufficiently strong legal systems shift to private bank ownership. For intermediate levels of accountability, lobbying induces a highly-captured control of banks and connected lending. Because owners fail to internalise the full effects of bank default, captured banking is accompanied by low collateral and high bank default. Higher accountability induces broader access to finance and lower firm profits, and therefore leads to greater connected lending and default risk (bank owners have less to lose). As banking crises have political costs, politicians opt for competitive banking without insider control when accountability is highest. This offers financial stability but generates lower political rents.

Conference organised by: **Vicente Cuñat** (FMG, LSE) and **Daniel Ferreira** (FMG, LSE).



**Kathy Yuan** (FMG, LSE)



## FMG Conferences and Public Lectures

The following FMG conferences and lectures will be reported in the forthcoming editions of the *Quarterly Review*.

### Financial Regulation Conference

**2-3 July 2009**

Two major academic reports on the financial crisis have emanated from the FMG, in the guise of 'The Fundamental Principles of Financial Regulation', Geneva Report 2009, and from the Stern School of Business at New York University, in the shape of their book, 'Restoring Financial Stability: How to Repair a Failed System'.

This conference included the key authors of both monographs, and several other leading experts, who led discussions on continuing key issues, such as liquidity, quantitative easing, and remuneration.

### FMG Conference: Too Big to Fail, Too Interconnected to Fail?

**15 September 2009**

The FMG hosted a successful one-day conference entitled, 'Too Big to Fail, Too Interconnected to Fail?' in September.

The purpose of this conference was to identify the specific characteristics of financial institutions that pose potential risks to the financial system as a whole, and to review the ways in which these elements of systemic risk have been addressed in the past. There was some reflection on the consequences of this analysis for the prudential regulatory principles and supervisory measures, as well as for the design and functioning of deposit insurance schemes, clearing and settlement systems, and other elements of the system that impact on financial stability.

### Launch of AXA-LSE Risk Management and Regulation of Financial Institutions Research Programme

### The Future of Banking and Financial Regulation

**19 October 2009**

The FMG held a public lecture, at which Chief Economist for the AXA group Eric Chaney, Emeritus Professor of Economics at the LSE, Charles Goodhart, and Professor of Finance, David Webb, discussed the future of banking and financial regulation following the global financial crisis.

The lecture marked the launch of the new AXA-LSE Risk Management and Regulation of Financial Institutions research programme. The current financial crisis has revealed the limitations of our understanding of the interconnected behaviour of banks, the structure of the banking systems and layers of regulation. This new research programme aims to gain a better understanding of the weakness of the current financial architecture and to assess the scope for greater financial stability through governance and regulation.

### Forthcoming Events:

### Conference in Memory of Professor Antoine Faure-Grimaud (1968-2009)

**20 November 2009**

A mini-conference will be held to celebrate the academic and personal contribution of a deeply-missed member of the FMG, Professor Antoine Faure-Grimaud, who passed away earlier this year.

# Discussion Papers



DP 627

## Banking Stability Measures

Charles Goodhart, Miguel Segoviano

The recent crisis underlined that proper estimation of distress-dependence amongst banks in a global system is essential for financial stability assessment. We present a set of banking stability measures embedding banks' linear (correlation) and nonlinear distress-dependence, and their changes through the economic cycle, thereby allowing analysis of stability from three complementary perspectives: common distress in the system, distress between specific banks, and cascade effects associated with a specific bank. Our approach defines the banking system as a portfolio of banks and infers its multivariate density from which the proposed measures are estimated. These can be provided for developed and developing countries.

cross sectional regressions and in portfolio sorts and it is robust to the exclusion of micro cap firms from the sample. We propose a production-based asset pricing model with adjustment costs in labor and capital that replicates the main empirical findings well. Labor adjustment costs makes hiring decisions forward looking in nature and thus informative about the firms' expectations about future cash-flows and risk-adjusted discount rates. The model implies that the investment rate and the hiring rate predicts stock returns because these variables proxy for the firm's time-varying conditional beta.

financially developed systems relative to the benchmark pattern observed in countries with highly developed financial systems. Innovation-enhancing policies implemented through competition reforms ought to be complemented by promoting financial development.

DP 628

## Labor Hiring, Investment and Stock Return Predictability in the Cross Section

Xiaoji Lin, Santiago Bazdreh, Frederico Belo

We document that the firm level hiring rate predicts stock returns in the cross-section of US publicly traded firms even after controlling for investment, size, book-to-market and momentum as well as other known predictors of stock returns. The predictability shows up in both Fama-MacBeth

DP 629

## The Effect of Credit Rationing on the Shape of the Competition-Innovation Relationship

Jan Bena

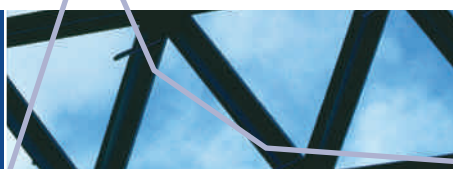
Using a dynamic model of a step-by-step innovation race between financially constrained firms, I study how financial constraints affect innovation activity. The novel theoretical results derive from an analysis of the interaction between the incentive effect of competition on innovation and the effect competition has on the degree of credit rationing. I find that the negative effect of financial constraints on firm- and aggregate-level R&D investment is most pronounced at both high and low levels of competition. These predictions are supported by empirical evidence: the competition-innovation relationship has an inverted-U shape in less

DP 630

## Does Beta Move with News? Systemic Risk and Firm-Specific Information Flows

Michela Verardo, Andrew Patton

This paper shows that the systematic risk (or 'beta') of individual stocks increases by an economically and statistically significant amount on days of firm-specific news announcements, and reverts to its average level two to five days later. We employ intra-daily data and recent advances in econometric theory to obtain daily firm-level estimates of beta for all constituents of the S&P 500 index over the period 1995-2006, and estimate the behavior of beta around the dates of over 22,000 quarterly earnings announcements. We find that the increase in beta is larger for more liquid and more visible stocks, and for announcements with greater information content and higher ex-ante uncertainty. We also find important differences in the behavior of beta across different industries. Our analysis reveals that changes in beta around news announcements are mostly driven by an increase in the covariance of announcing firms with other firms in the market. We provide



a simple model of investors' expectations formation that helps explain our empirical findings: changes in beta can be generated by investors learning about the profitability of a given firm by using information on other firms.

**DP 631**

### Large powerful shareholders and cash holding

Ron Anderson, Malika Hamadi

We study the relationship between liquid asset holding and the pattern of share ownership and control structures within the firm. We explore these issues using a data set of Belgian firms that is particularly well suited to studying the institutions of control oriented finance. The data include information on ownership concentration, voting alliances, managerial ownership, membership in family groups, institutional cross-share holdings, and coordination centers which under Belgian law permit consolidation of earnings and cash flow for a group of firms. We show that financial structures in Belgium.

# Special Papers

**SP 183**

### The case for central bank liquidity provision as a public-private partnership

Brandon Davies

During the past year financial institutions around the world have faced severe liquidity problems as a result of the crisis in the shadow banking sector brought on by the rapid development of structured products plus a potent mixture of high leverage and over the counter (OTC) financial derivatives. This paper explores a number of issues relating to this crisis, but in particular it examines lessons relating to the proper governance and supervision

of the UK banking industry. Importantly for every issue I raise I have tried to offer some proposed solution which I believe will at least improve the current situation.

**SP 183**

### Cycles, Contagion and Crises

Nikolaj Schmidt, Ashley Taylor, Charles Goodhart, Amil Dasgupta

On 28-29 June 2007, the Financial Markets Group organised a conference covering topics under all three themes of its title, 'Cycles, Contagion and Crises', from the perspective of both developed and emerging economies.

## Forthcoming Discussion and Special Papers

### Discussion Papers

**DP 633**

### Ambiguity, Information Acquisition and Price Swings in Asset Markets

Antonio Mele, Francesco Sangiorgi

**DP 634**

### Endogenous Technological Progress and the Cross Section of Stock Returns

Xiaoji Lin

**DP 635**

### Lessons from the global financial crisis for regulators and supervisors

Willem Buiter

**DP 636**

### Negative Nominal Interest Rates: Three ways to overcome the zero lower bound

Willem Buiter

DP 637

### Endogenous Liquidity and Contagion

Rohit Rahi and Jean-Pierre Zigrand

DP 638

### Organisational Diseconomies in the Mutual Fund Industry

Fabian Garavito

### Special Papers

SP 184

### A Pragmatic Approach to the Phased Consolidation of Financial Regulation in the United States

Howell Jackson

# Visitors to the FMG

## April-June 2009

**Ron Bird** (University of Technology, Sydney)

**Philip Bond** (University of Pennsylvania)

**Mikhail Chernov** (London Business School)

**Jens Hilscher** (Brandeis University)

**Cristian Huse** (Stockholm School of Economics)

**Rosa Lastra** (Queen Mary University)

**Xuewen Liu** (Imperial College)

**Ian Martin** (Stanford University)

**Anna Obizhaeva** (University of Maryland)

**François Ortalo-Magné** (University of Wisconsin, Madison)

**Darius Palia** (Rutgers Business School)

**Enrico Perotti** (University of Amsterdam)

**Mitchell Petersen** (Northwestern University)

**Jean-Charles Rochet** (University of Toulouse)

**David Scharfstein** (Harvard Business School)

**Andrei Shleifer** (Harvard University)

**Marianne Schulze-Ghattas** (IMF)

**Giorgio Szego** (University of Rome)

**Alan Taylor** (University of California, Davis)

**Vikrant Vig** (London Business School)

**Robert Whitelaw** (New York University)

**Moto Yogo** (University of Pennsylvania)





Financial Markets Group  
RESEARCH CENTRE

Financial Markets Group  
Research Centre, LSE  
10 Portugal Street, London WC2A 2HD  
Tel: 020 7955 6301 Fax: 020 7852 3580  
Email: [fmg@lse.ac.uk](mailto:fmg@lse.ac.uk) Web: <http://fmg.lse.ac.uk>



Financial Markets Group

The Financial Markets Group Research Centre at LSE is one of the leading centres in Europe for academic research into financial markets. [more about FMG](#)

## Events this week @ FMG

**Wednesday, 15th October 2008 - at 1.00-2.00pm**

**Lunchtime Workshop** | The Effect of Credit Rationing on the Shape of the Competition-Innovation Relationship | Jan Bena (FMG/LSE)  
**location:** R407, FMG, 4th Floor, Lionel Robbins Building, LSE

**Wednesday, 15th October 2008 - at 5.00pm**

**Capital Markets Workshop** | Smooth Ambiguity Aversion Toward Small Risks and Continuous-Time Recursive Utility | Costis Skiadas

**In the press: Jon Danielsson provides an analysis on "What happened to Iceland"** - Jon Danielsson (FMG/LSE) investigates the factors that caused the Icelandic financial crisis.

## In the news

Special London Financial Regulation Seminar announced - Howell Jackson (Harvard Law School) 13 Oct 2008

Professor Howell Jackson (Harvard Law School) will give a special lunch seminar as part of the London Financial Regulation Seminar.

Managing International Financial Instability Public Lecture - Conference slides available 9 Oct 2008

Date: Tuesday 7 October 2008 Time: 6-7.30pm Venue: Sheikh Zayed Theatre, New Academic Building Speaker

[home](#)

[about](#)

[events](#)

[news](#)

[publications](#)

[Corporate Partnership Programmes](#)

[research](#)

[people](#)

[be involved](#)

[mailing list](#)

[contact](#)



<http://fmg.lse.ac.uk>

## FMG Review

**Editor:** Professor Bob Nobay

**Associate Editor:** Maryclaire Abowd, Laura Gibbon

**Prepared by:** Michael Boehm, Pierre Chaigneau, Vincent Fardeau, Elizabeth Foote, Xiaoxia Hao, Zijun Liu, Aytek Malkhozov, Gyuri Venter, Piotr Zurawski

**Photographs by:** Maria Moore

**Designed by:** LSE Design Unit  
[www.lse.ac.uk/designunit](http://www.lse.ac.uk/designunit)