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FMG Financial Markets Group RESEARCH CENTRE

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GAM Gilbert de Botton Award Lecture

Governments, Markets and Climate Change

Lord Nicholas Stern
IG Patel Professor of Economics and Government, LSE

6 November 2007

The 5th annual GAM Gilbert de Botton Award ceremony took place on 6 November at Somerset House. The event was chaired by **Professor David Webb** (FMG/LSE) who opened the ceremony by highlighting the importance of the annual GAM Award in stimulating research in finance at LSE and promoting the work of young researchers.

The keynote lecture was delivered by **Lord Nicholas Stern** (IG Patel Professor of Economics and Government at LSE) entitled 'Governments, Markets and Climate Change'. Lord Stern discussed the implications of climate change and the importance of providing a global response to the problem. The lecture focused on four main themes: the scale of the problem; the required scale of the response; the choice of instruments to deal with the problem; and the need for a global deal to reduce the emission of greenhouse gases.

In the context of outlining the scale of the problem, Lord Stern explained that the climate changes experienced today (such as increased frequency of floods and storms) derive from a 0.8 degree centigrade increase in the Earths' average temperature. With the current rate of emission of greenhouse gases, the Earth's average temperature is likely to increase by five degrees by the turn on the century. In comparison, a reduction of the average temperature by five degrees would make the Earth's average temperature the same as during the last ice age, 10-12,000 years ago. To reduce the build up of greenhouse gases as stocks in the atmosphere the rate of emissions must be cut by 50 per cent by 2050. Lord Stern argued that the reduction must be distributed amongst the developed countries carrying the brunt of the reduction (75 per cent). Regarding the choice of instruments to deal with the problem, it was argued that the climate problem presents a classic externality similar to the problem in the 'prisoners dilemma' game. Two potential mechanisms were outlined: direct controls and market mechanisms, two mechanisms whereby emission quotas are traded among companies at a market prices. Lord Stern argued in favour of the latter underlining the efficiency of market allocations.

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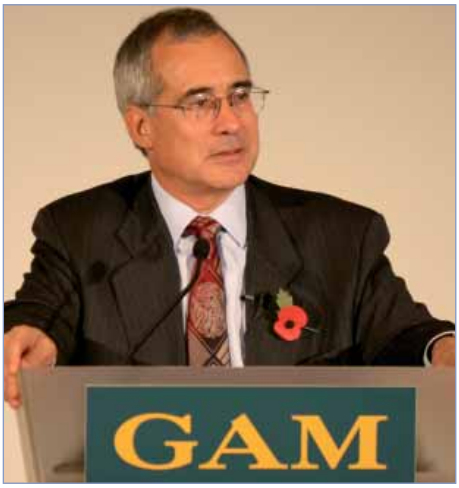

Lord Nicolas Stern, IG Patel Professor of Economics and Government at LSE

David Webb, Director, Financial Markets Group

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Furthermore, it was stressed that this mechanism could generate capital flows to developing countries as these were free to trade unused quotas. In order to obtain efficiency of the instrument, Lord Stern stressed the importance of a clear and credible political commitment to tackling the problem. Only such a political commitment creates incentives for the industry to undertake the long term investments required to reduce the rate of emissions. He argued that contrary to theoretical predictions in games with externalities, several countries have already understood the scale of the problem and undertaken voluntary steps to reduce emissions. However, he emphasised that the global emission reductions can only be accomplished if a global deal is put together which includes the economies which have still not committed to emission reductions. Turning to the business aspect of the problem, it was noted that evidence is mounting that companies are beginning to realise that they can benefit by pursuing responsible policies with respect to climate change, such as using zero carbon in their activities.

The lecture was followed by the presentation of the winners of the GAM Gilbert de Botton Award in Finance Research 2007 by **Jeremy Smouha** and **Janet de Botton**.

The winners of the 5th GAM Gilbert de Botton Award in Finance Research of 2007 are:

Winner: **Sarquis Sarquis** – Interest Rate and Business Cycles in a Credit Constrained Small Open Economy.

First Runner-up: **Christian Reusch** – Self-Exciting CAViaR Models with Endogenous Thresholds.

Second Runner-up: **Jan Bena** – Which Firms Benefit More from Financial Development?

The Award Jury also short-listed three additional papers of very high quality:

Ashley Taylor – Productivity Implications of Financial Sector Reforms: a Heterogeneous Firm Approach.

Christian Fons-Rosen – Start-up Costs, External Finance, and Improvements in Financial Development.

Nikolaj Schmidt – Foreign Bank Entry and Credit Market Segmentation.

Jeremy Smouha, Director, GAM

Janet de Botton presenting prize to the winner, **Sarquis Sarquis**

From left to right: **Ashley Taylor, Nicolaj Schmidt, Miel de Botton Aynsley, Sarquis Sarquis, Christian Fons-Rosen, Jeremy Smouha, David Webb, Janet de Botton, Christian Reusch, Jan Bena**

GAM Gilbert de Botton Award in Finance Research

The GAM Gilbert de Botton Award in Finance Research was established in 2002 with the generous support of GAM and is awarded annually by GAM and the London School of Economics and Political Science. The Award is given to outstanding students pursuing a PhD at the LSE's internationally renowned Financial Markets Group on the basis of a research paper competition. A team of experts from the academic and the business community evaluate the research papers.

The 2007 Award's Jury included Professor David Webb (Director, Financial Markets Group, LSE) as Chairman of the panel, Professor Charles Goodhart (Research Programme Director, Financial Markets Group, LSE), Professor Antoine Faure-Grimaud (Programme Director, Corporate Finance, LSE), Dr Sushil Wadhwani (Wadhwani Asset Management LLP), Dr Michael Kuczynski (Pembroke College, Cambridge), Mr Jeremy Smouha (Director, GAM) Mr David M Solo, (Group Chief Executive Officer, GAM) and Mr Graham Wainer (Group Head of Clients & Portfolio Management, GAM).

The Financial Markets Group at LSE would like to thank GAM for their generous support that enable us to continue our efforts to promote top quality research by talented young people in financial market behaviour and practice. Previous winners included Hassan Naqvi in 2003 who is now an Assistant Professor of Finance at National University of Singapore, Miguel Segoviano in 2004 who has also successfully completed his PhD and moved to the IMF, Peter Kondor in 2005 who is now at The University of Chicago Graduate School of Business and joint winners in 2006, Sridhar Arcot, now an Assistant Professor at ESSEC Business School, and Valentina Bruno, who successfully moved to the World Bank and is now at the Kogod School of Business.

The London Financial Regulation Seminar

The Financial Crisis Conference

1 October 2007

Financial Markets Group
RESEARCH CENTRE

On 1 October the FMG hosted 'The Financial Crisis', a special one day conference on questions of financial stability and regulation related to the recent credit market crisis, as part of the London Financial Regulation Seminar.

Charles Goodhart, Research Programme Director, Regulation and Financial Stability

Charles Goodhart (FMG/LSE) opened the conference by highlighting the features of the current financial environment that contributed the most to the financial crisis of August and September 2007. There has been a widespread under-pricing of risk, in part due to low interest rates and a sustained period of low macroeconomic volatility. In addition, a new business model for financial intermediaries has emerged based on distributing the assets they originate. One of the features of this model is that the ultimate holders of risky loans tended to be institutions (asset backed commercial paper conduits and structured investment vehicles) that suffered from a large maturity mismatch between long-term assets and short-term liabilities. The money market fund managers that finance these institutions have little capital and no Lender of Last Resort, and in the recent crises fled to safer, more liquid assets. Another key element of the crisis as pointed out by Charles Goodhart was the role of credit rating agencies, whose assessment of credit default risk did not adequately account for liquidity risk.

Willem Buiter (LSE) addressed the question of the adequacy of the current regulatory framework for dealing with financial crises. He identified some key faults in the UK's regulatory framework: first, it was argued that the tripartite arrangement between the Treasury, the Bank of England and the Financial Services Authority (FSA) has shown to be unfit to deal with financial crises; second, the FSA was viewed to have failed as a supervisor; third, there were flaws perceived in the Bank of England's liquidity-oriented open market policies; namely a too restrictive definition of eligible collateral and an unwillingness to try to influence market rates at maturities longer than overnight. Finally, he considered there to be flaws in the Bank of England's discount window operations as well.

Willem Buiter (LSE) and **Jon Danielsson** (FMG/LSE)

Discussing too the question of the regulatory framework, **Jon Danielsson** (FMG/LSE) examined the implications of recent events for financial regulation. He argued on the one hand that regulations have not kept up with changes in the banking industry. On the other hand, an optimal regulatory framework was identified as one in which objectives are clear, and regulations are evidence-based, explicit, simple, do not dictate day-to-day activities and use incentives.

Brandon Davies (GARP) described the new financial intermediary business model that has emerged based partly on securitisation and distribution of loans. He argued adopting that feature as the main element of the business model was bound to fail, given that the UK has none of the financial infrastructure necessary to support mass securitisation. The US however does, as it has Fannie Mae (Federal National Mortgage Association) and Freddie Mac (The Federal Home Loan Mortgage Corporation), which are lenders of first resort against conforming mortgage assets. He described the crisis as a 'flight to quality' episode in which banks were unwilling to give liquidity support to each other. One policy recommendation that could be drawn out of recent events was that financial markets should be supported with long-term liquidity, not only with very short-term liquidity (less than one month) as is the case now. Another recommendation is for Central Banks to provide more assistance in valuing some of the assets banks are holding.

The presentation by **Gillian Tett** (Financial Times) moved onto the hitherto less discussed, but highly relevant, topic of 'The role of the media; and the effects on the future of the banking industry'. The prevailing focus in the UK media's coverage of finance is equities and cash investments which, given the rapid growth of credit products and derivatives over recent decades, increasingly represent the tip of the financial system iceberg. This coverage has contributed to an information gap between the activities of the financial system and the understanding of wider society. In part this helps to explain

the reactions of both retail investors and politicians to the crisis. Another contributing factor to the dynamics of the crisis was the increasingly rapid flow of news across boundaries and media. Gillian Tett argued that these features suggest three policy implications: first, regulators need to recognise the new media environment in which they operate; second, financial institutions need to reassess how they deal with the media; and, finally, the media should re-examine its coverage of the financial system to ensure responsible reporting and to cover the financial system more broadly.

Ros Altmann (LSE)

Ros Altmann (LSE) turned to the role of the regulatory regime in influencing depositors' response to the problems at Northern Rock and the longer term implications of the crisis for savers. It was argued that depositors' decisions to withdraw funds from Northern Rock were influenced by previous regulatory decisions not to compensate fully those affected by the failure of final salary pension schemes. Furthermore, the extension of retail deposit guarantees in response to the Northern Rock crisis introduced a significant asymmetry compared to the coverage of the pension protection fund. The disincentives to longer-term savings introduced by this asymmetry could, if policy is not changed, have significant implications given the need for increased savings to cover rising pension provisions related to demographic trends.

In the final presentation, **Matt King** (Citi) provided a comprehensive market view of the crisis and its implications in his presentation entitled 'Snap, crackle, pop! Digesting the credit crunch'. He argued that the crisis could be thought of as a broad-based withdrawal of leverage from the system and it could be expected that greater evidence of tighter credit conditions for corporates and consumers would be to come. For example, the liquidity problems have led to a greater amount of commercial paper rolling at shorter maturities. This increases the vulnerability of institutions to smaller shocks and hence the current situation could be viewed as having a false sense of calm. According to Matt King, the biggest impact of the crisis is likely to be on banks that are experiencing a growth in balance sheets as conduits etc are brought onto balance sheets. Whilst banks' capital ratios can in general absorb the ABCP losses, there could be difficulty in coming up with the money to do so. Market indicators suggest that a snapback to previous conditions is less likely than a further 'crackle and pop'.

Matt King (Citi)

The conference closed with a roundtable discussion chaired by Charles Goodhart. The roundtable included all conference speakers and were joined by **Paul Woolley** (FMG/LSE). A broad range of topics were covered including the appropriate funding of investor protection regimes; the role of monetary policy in the development of the crisis and the lessons from the crisis on the appropriate conduct of monetary policy; the implications of the crisis for the structure of financial regulation in the UK (including that of non-banks such as hedge funds or structured investment vehicles); the roles of models in the financial sector and in regulation.

The complete conference is available to **watch online** on the FMG website at **http://fmg.lse.ac.uk**

This Conference was organised as part of the London Financial Regulation Seminar.

The organisers of this seminar series are (in alphabetical order):
Professor E Philip Davis, Professor of Economics and Finance, Brunel University;
Professor Charles Goodhart, Professor of Banking and Finance, Financial Markets Group, LSE;
Dr Thomas Huertas, Financial Services Authority, Professor Rosa Maria Lastra, Professor of International Financial and Monetary Law Centre for Commercial Law Studies, Queen Mary, University of London;
Dr Alistair Milne, Senior Lecturer in Banking, Cass Business School; and **Professor Geoffrey Wood**, Professor of Economics, Faculty of Finance, City University Business School.

For more information, please call 020 7955 6301 or check the FMG's website at
http://fmg.lse.ac.uk

LSE RICAFE 2

Regional Comparative Advantage and Knowledge-Based Entrepreneurship (RICAFE2)

5 and 6 October 2007

Baltic International Centre for Economic Policy Studies
Stockholm School of Economics, Riga

Marco Da Rin (Tilburg University), co-leader and local project leader of the Tilburg node, RICAFE2

The second annual RICAFE2 conference was held on 5 and 6 October at the Baltic Centre for Economic Policy Studies (BICEPS), Stockholm School of Economics in Riga, Latvia. The conference covered both theoretical and empirical studies on entrepreneurship in its various dimensions and on the role of policies, namely taxes, competition, knowledge protection and the level of financial development. The conference was organised into four sections, including a policy panel dedicated to the role of venture capital (VC) in the new European Union states.

The opening and welcome remarks were given by **Alf Vanags** (BICEPS), who briefly commented on the RICAFE2 programme and presented the organising institution – The Baltic International Centre for Economic Policy Studies (BICEPS). This first session of the conference included three papers. The first paper, presented by **Wolfgang Bessler** (Justus-Liebig-University Giessen) was entitled 'Innovation and the Performance of Technology Firms: Evidence from Initial Public Offerings in Germany' (co-authored with Claudia Bittelmeyer, Justus-Liebig-University Giessen). This paper demonstrated how patents, as a measure of innovation, affect the performance of firms by looking at Initial Public Offerings (IPO) in Germany. The data included German IPOs at the 'Neuer Markt' from 1997 until 2002, and also patents information from the 'Dewent Innovation Index' (Thomson Financial). Using a model of buy-and-hold-abnormal returns (BHAR), a three-factor Fama-French asset pricing model and cross-sectional regressions, the authors tested the impact of patents in firm abnormal performance, both in the short term and long term. While implementing these tests they also consider the impact of 'hot' versus 'cold' issues. The paper was discussed by **Jorg Rocholl** (European School of Management and Technology), who suggested a cross-sectional regression for underpricing and a detailed analysis of the IPOs' characteristics. He also suggested alternative measures of firm performance, as the likelihood of survival or operational performance.

Katrin Tinn (SITE/Stockholm School of Economics) presented her paper on 'The speed of technology adoption with imperfect information in equity markets'. Katrin Tinn offered possible reasons for the differences in the speed of technology adoption across different countries, namely the development of the stock market, labour characteristics, commitment problems, credit constraints and institutions. She focused particularly on the importance of the equity markets imperfections to facilitate the transfer of ownership between entrepreneurs, who invest in the first stage of technology adoption and subsequent shareholders. Her model predicts that a low expected and uncertain selling price has a negative impact on incentives to adopt a technology, due to the fear of unstable markets and information asymmetry. She concluded that, in fact, the level of development of equity markets impacts on how fast technology is adopted and that foreign investors might not participate in projects that would be optimal in more developed equity markets. Finally, she analysed the role of policies that facilitate access to information. The discussant of the paper was **Arina Nikandrova** (University of Cambridge). Her main comments on the model were the lack of dynamics, namely with respect to the speed of technology adoption and the possibility of investors and entrepreneurs choosing their roles. She also suggested that the model should offer more heterogeneity in risk aversion and in the firms in the intermediate market.

The last paper of the first session presented by **Marina Di Giacomo** (Università di Torino) was entitled 'Firm entry dynamics and the taxation of corporate profits: Evidence from European firm-level data', co-authored with Marco Da Rin (Tilburg University, ECGI and IGIER), and Alessandro Sembenelli (Università di Torino). This paper focused on the impact of different levels of income taxation at the firm level on the entry rates of companies across different European countries. The primary database used is Amadeus, (by Bureau Van Dijk Electronic Publishing), containing financial information for firms in 38 Western and Eastern European countries. Data on tax rates was obtained from Ernst & Young's yearly publications 'Worldwide Corporate Tax Guide' and 'The Global Executive'. The authors also used a second set of variables from the Index of Economic Freedom published by the Heritage Foundation and the Wall Street Journal in order to characterise the business environment in the different countries. The paper analysed a panel of 17 countries from 1997 to 2003 and despite its preliminary stage presented some interesting findings pointing to a significant effect of corporate taxation on entry rates that are robust to alternative tax measures, other macro-economic controls and endogeneity issues. This paper was discussed by **José Mata** (New University of Lisbon) who commented on the lack of comparability across countries, namely with respect to the definition of the firms and measurement issues regarding the entry of new firms and taxation variables.

The second conference session which brought together a Policy Panel on 'The role of venture capital in the new member states' was chaired by Alf Vanags. The panel consisted of the following speakers: **Dairis Cālītis** (Latvian Venture Capital Association), **Krisjanis Zarins** (Latvian Guarantee Agency), **Marcus Svedberg** (East Capital) and **Tarvo Tamm** (Connect Estonia).

Marcus Svedberg (East Capital) opened the panel discussion by introducing East Capital, an independent asset management firm specialising in Eastern European financial markets, with circa EUR 5.1bn in assets under management, both in public and private equity. The speaker emphasised the importance of information for the venture capital firms and focused on the Baltic region countries. He regretted the lack of business information available in these countries and emphasised the role of venture capital (VC) companies as providers of, not only, financing, but also know-how and information about markets and companies to other entities. Marcus Svedberg also shared his view about the relation between academia and industry. His major concern focused on the use of out-of-date information by academics and the consequent difficulties to apply it to real business situations. A suggestion was made that academics should try to go a step further in the implications of research although he recognised the trade-off between the required rigor of academic conclusions and the impact (or precision) of implications for practitioners.

An outline of the activities of the Latvian Guarantee Agency was presented by **Krisjanis Zarins** (Latvian Guarantee Agency). This agency is part of a state aid program to promote the development of small and medium companies by facilitating the access of investment management companies and private investors to Latvian companies, and helping to create new VC funds. The program started in 2004 and by 2006 three investment management companies were selected to create three VC funds with a value of approximately 10 million lati. The expected time frame for these investors to exit is around 2013.

Dairis Cālītis (Latvian Venture Capital Association) started by introducing the Latvian Venture Capital and Private Equity Association, an organisation that includes six of the largest VC companies in Latvia. Dairis Cālītis relating his experience in the venture capital sector in Latvia, said that venture capital and risk capital are still something new for these new members, bringing difficulties for companies and investors operating or wanting to operate in the industry. Policy makers on one hand and banking people on the other hand are not completely familiar with these concepts and therefore, the role of the association has been also to create awareness among business people and to work as an intermediate in negotiations between its members and the public sector. He concluded by outlining some policy concerns and implications for the VC sector in Latvia.

The last speaker of the panel was **Tarvo Tamm** (Connect Estonia) representing Connect Estonia, a network organisation, including start up and growing companies but also investors and service providers. Tarvo Tamm began his presentation with an analogy for VC in Estonia: 'the chicken or the egg' dilemma, suggesting that without good projects and companies there is no room for venture capital, and that without financing there is a very small possibility for these companies to subsist. He then summarised a set of characteristics of the new members that he believes may enhance entrepreneurship and strengthen venture capital investments. Particularly with respect to Estonia he pointed out the main positive and negative aspects of the recent VC trends, emphasising existing stories of success and the availability of public funding and support. After presenting the state of the art of venture capital in Estonia, characterised by four to five venture capitalists or business angels in stage and between 12 to 15 deals, he gave his vision for the future of this sector, estimating a total of seven to ten players and 50 to 60 deals by 2011. Finally, he left some open questions for discussion regarding the role of the public sector, the difficulties to achieve economies of scale and critical mass in these small countries, globalisation and the barriers to entry in the global markets.

David Webb (FMG/LSE), Project co-leader, RICAFE2

The presentations by the policy panel were then followed by a lively discussion between the panelists and the academics, and a session of questions and comments from all the participants in the conference. The main issues debated were, the importance of information for the development of the venture capital and risk capital sectors and the existence or not of

an entrepreneurial culture in these countries. There was an exchange of views about whether it is money or ideas which are scarce in transition countries, with policy-makers expressing a view that it is money for the very early stages which is missing, while venture capitalists claimed that they often find it difficult to scout good projects. It became clear that an important issue is the dissemination of information. It is much more difficult for a venture investor to find reliable information about new companies and new projects in transition countries than elsewhere, and in Latvia, policy certainly has a role to play. This conclusion was fully shared by the academics. However, it was also noted that previous RICAFE work has shown that public subsidies do not appear to help attract private money into investing, and therefore policy-makers should look more at structural policies like the creation of stock markets attractive for entrepreneurial companies. In this context, the importance of seed capital, the role of the public sector, namely the Guaranty Agency and the rate of success/failure of these projects were also debated. It was pointed out that guarantees are a valuable policy tool, but their design is very important. Only if guarantees manage to attract additional money into play are they useful. Otherwise they risk turning into a subsidy to private investors, with the negative effect of lowering these investors' effort in selecting promising companies.

The final session of the first day of the conference comprised two papers. The first paper presented by **Stefan Wagner** (INNOtec, LMU Munich) co-authored with Iain Cockburn (BU, NBER) was entitled 'Patents and the Survival of Internet-related IPOs'. In this paper the authors attempt to quantify to what extent internet start-up companies benefit from patenting their core-business ideas, and if this benefit is observed in terms of survivorship of these companies after the IPO. The data includes 365 internet-firms with IPOs on the NASDAQ from 1998 to 2001, including internet services, internet software and computer software. The authors use this data in order to test the existing Cox Proportional Hazards Model of survivorship and their results confirm previous findings for non-internet based firms. When they extend this model to incorporate the effect of patent holdings they find that firms who do not protect their competitive positions have a higher risk of failure. They find poor results for traditionally used measures of patent value or quality and some evidence for market inefficiency (negative impact of assets and stock market level when going public). The discussant **Fabio Bertoni** (Politecnico di Milano – DIG Dipartimento di Ingegneria Gestionale) focused on endogeneity problems of the model, namely on the impossibility to distinguish if the relation between patents and firm performance was due to a real economic effect or simply a signalling effect (the market perceived quality of the firm). Additional suggestions were made with respect to the use of a more dynamic measure of patent activity and to the actual meaning of exiting the market (exit may not mean bankruptcy).

The last paper of the day was entitled 'Entrepreneurial Innovations, Competition and Competition Policy' presented by **Lars Persson** (Research Institute of Industrial Economics – IFN). The paper, co-authored with Pehr-Johan Norbäck (Research Institute of Industrial Economics – IFN), studied the impact of increased product market competition on the incentives for patenting and innovation (considering different choices: sell the innovation or enter the market). The model was presented in four stages: a first stage where the level of competition is chosen by the nature, a second stage where the entrepreneur chooses the effort to innovate (increasing the probability of a successful innovation), a third stage where the acquisition/entry game occurs (if the innovation is successful its value will depend on the exit strategy of the entrepreneur) and finally at stage four the product market interaction (the intensity of competition will affect the sale price, when the choice is selling the innovation, or the profit when the choice is entering the market). The main predictions from the model are that the incentive for innovation for sale relative to innovation for entry tends to increase when competition increases, and also that changes in competition levels and policy have a different impact on incentives and innovation for entry and innovating for sale. The model was discussed by **Catherine Casamatta** (Toulouse University), who suggested the incorporation of an interaction between the level of effort chosen to innovate and the subsequent choice of exit. Another suggestion was made to endogenise the level of competition and to incorporate some frictions at the innovation stage, for instance some financial constraints or competition between innovators.

On the second day of the conference, the opening presentation was given by **Javier Suarez** (CEMFI) on 'Financially constrained innovation, patent protection, and industry dynamics', a paper co-authored with Gerard Llobet (CEMFI). This work aimed to assess the role of intellectual property protection in promoting innovation and increasing welfare, in a model of industry dynamics where innovations are produced by financially constrained entrepreneurs. The model incorporated some specific features in its analysis, namely industry dynamics with endogenous innovation, financial constraints at the innovation stage and the distinction between intellectual property protection against imitators and against innovators. The setup of their model can be summarised as follows: there's a continuum of business niches operating under competition/monopoly, these niches are challenged by both imitating and new products (a successful imitations leads to a Bertrand competition, a successful innovation leads to monopoly), new products result from development of patented invention and finally, intellectual property grants monopolists random protection against new entrants. The main ingredients of the model are the entrepreneur entry decision, by equating entry costs against profits from innovation, the determinants of this profit (probability of success, the market value of the innovation and the severity of the moral hazard and the entrepreneur rent) and the industry conditions that will determine both the probability of success and the market value of the innovation. The main findings are that protection against innovative entries is counterproductive for innovation and welfare, while some level of protection against imitation is positive in both dimensions. The discussant **Catherine Casamatta** (Toulouse University) questioned the need of financial constraints in the model as determinants of the main results and suggested that they should be included in the innovation stage as well, following the standard literature. Finally she suggested the application of the model to alternative ways of public intervention as subsidies and taxes, and she also referred the shortage of links with the existing mixed empirical evidence on intellectual property protection and innovation.

Giovanna Nicodano (Università di Torino and Collegio Carlo Alberto) presented 'Firm scope, debt and value: a structural model of business groups', a joint paper with Elisa Luciano (Università di Torino and Collegio Carlo Alberto). This paper presented a comparison in terms of total value, equity and debt between stand alone, conglomerates and business groups in a world free of agency costs, suggesting that financial synergies explain the emergence of business groups despite the value destruction for shareholders. The authors extend the Leland (2007) model to incorporate the distinction between business groups and conglomerates. The model presented is a structural model including exogenous operating cash flows, bankruptcy costs and non-neutral taxation that is solved for an optimal joint capital structure (in the case of the business group) in order to maximise the tax shield and minimise bankruptcy costs. The paper concluded that business groups can be more valuable than stand alone firms and conglomerates, in terms of total firm value, even when destroying shareholder value. The discussant **Julia Hirsch** (CFS), suggested alternative features for the model, namely a further limitation on internal capital markets and restrictions on cash transfers within the business group.

The next paper 'Success Breeds Success Locally: A Tale of Incubator Firms' was presented by **Eren Inci** (Sabanci University). This work analysed the role of networks during the pre-establishment period of start-up firms in industrial districts. More precisely, it explains how these networks are formed and the relations between established firms, network entrepreneurs, and local financiers on the market prices of loans, predicting different outcomes for network members and stand alone entrepreneurs. The main finding of this research is that networks provide a better match of capital to ideas within its members. In addition, Eren Inci finds that in general, markets overvalue bad start-ups and undervalue the good ones, but that networks attenuate these errors. The role of networks consists basically in generating information that will mitigate adverse selection problems. Discussing the paper **Sudipto Bhattacharya** (LSE) focused on the lack of externalities in the model and suggested the author incorporate a higher level of heterogeneity across firms. He also suggested a greater clarification of the relation between the hub-firm and the rest of the network members.

The final session of the day commenced with the paper 'Valuing University-based Firms' by **Silvio Vismara** (University of Bergamo), co-authored with Damiano Bonardo (University of Bergamo) and Stefano Paleari (University of Bergamo). In this paper the authors aimed to study the impact of university connections on firm value. They used European IPO data during the period 1995-2002 from the EURIPO database including 143 university based firms. They found that university-linked firms show a higher market-to-book values and a lower under pricing at the IPO. They also found no significant evidence that patents are determinants of firm value for this type of firms or that they outperform the control group of non university based firms in the long run. The discussant **Eric Nowak** (University of Lugano and Swiss Finance Institute), pointed out that the definition of university-linked firm was not very clear and suggested a set of alternative methodologies to evaluate long run performance.

Jan Bena (FMG/LSE)

The final conference paper was presented by **Jan Bena** (FMG/LSE), 'Which Firms Benefit More from Financial Development?' co-authored with Stepan Jurada (CERGE-EI). This paper established a link between information asymmetries across firms and the level of financial development across countries. More precisely, the authors tested if small and young firms, being size and age proxies for the level of information asymmetry faced by firms, benefit disproportionately from the financial system being more efficient. In terms of methodology the authors applied the Rajan-Zingales strategy at the firm level on European data. They found no differences in the effect of financial development across firms with different sizes, but they did find an inverted u-shape effect of financial development with respect to firm age. In addition they provided evidence that firms entering the market in lower financially developed countries do it with an extra equity endowment. The results were shown to be robust to alternative econometric methods, alternative variable definitions and additional controls at the firm, industry and macro level. Jan Bena concluded by pointing out some policy implications of these results, namely in relation to the support of young firms. The discussant, **Yishay Yafeh** (Hebrew University), questioned the two main assumptions of the paper: that European integration has generated equal growth opportunities for firms in all the 15 EU countries, and that whereas the integration of product markets was complete, the integration of financial systems did not mean that firms still depended on the financial system and institutions of their own individual countries.

The **Regional Comparative Advantage and Knowledge-Based Entrepreneurship (RICAFE2)** research programme was launched on 1 March 2006. The new programme builds on the successful RICAFE project completed in April 2005. Under the RICAFE2, the original network of RICAFE is expanded to include new European partners Amsterdam, Tilburg, Latvia and Lugano as well as research institutions from India and Israel.

RICAFE2 is sponsored by the European Commission, DG-Research. The programme aims to provide research breakthroughs in the economics of risk capital financing of innovative companies, and at offering informed, insightful research advice to the Commission. More details are available on the programme's website **www.lse.ac.uk/RICAFE/**

Corporate Governance at LSE

Private Enforcement of Corporate and Securities Law: An Empirical Comparison of the US and UK

John Armour (University of Oxford)

25 October 2007

John Armour, University of Oxford

The Corporate Governance at LSE research initiative continued its successful series of events into the new academic year with a research debate entitled 'Private Enforcement of Corporate and Securities Law: an empirical comparison of the US and the UK' by **John Armour** (Lovells Professor of Law and Finance, University of Oxford). The presentation was chaired by **Sir Geoffrey Owen** (Department of Management, LSE) and the discussant for the evening was **Paul Davies** (Department of Law, LSE).

John Armour began his presentation by demonstrating evidence that private enforcement of corporate and security law occurs more frequently in the United States than in the United Kingdom, even though the probability of a director being targeted by a lawsuit in the US is lower than one might expect. He continued by providing possible explanations for this difference, namely differences in substantive law and legal procedures. More precisely he pointed out two instruments present in the UK that can be seen as substitutes for the private enforcement in the US. Firstly, a set of regulatory institutions like the Financial Services Authority (FSA), the Department for Business, Enterprise and Regulatory Reform (DBERR) and the takeover panel, which take an active role as resolution mechanisms and in preventing litigation. Secondly, the existence in the UK of an informal system of private enforcement, consisting of corporate governance instruments at the firm level that act essentially by preventing directors' misbehaviour. John Armour summarised his comparison of private enforcement of corporate and security law in the US and UK by arguing that directors in the US are afraid of being sued, while directors in the UK fear the possibility of being replaced, and that these mechanisms simply act as substitutes of each other.

Paul Davies, Department of Law, LSE

Paul Davies focused his discussion on the private enforcement of security laws. He emphasised the importance of these litigations against companies and the possible impact on directors. The discussion of the paper was followed by a lively debate amongst the audience composed both of academics and practitioners mainly from the financial industry. The audience raised concerns regarding the inclusion of particular cases, such as pre-dated stock options and take-overs in the data set. Also, the impact of business cycles and the time length of the data were identified as possible drivers for the main results. Finally, the audience suggested that the author could go a step further in the policy implications of this topic, stating that the paper was simply presenting formal and informal enforcement as plausible substitutes, but not assessing which one is better.

Corporate Governance at LSE

The Governance of Executive Pay

Martin Conyon (ESSEC)

29 November 2007

Martin Conyon, ESSEC

In his presentation **Martin Canyon** addressed two main questions: first, how has the level and the structure of US CEO pay changed within the last 15 years? Second, what is the role and influence of compensation consultants?

Empirical evidence suggest that average CEO compensation, as well as its variance, have increased since the early 1990s. The structure of payment has also drastically changed. More recently, managers are awarded more stock options and equity pay, while fixed pay have decreased.

Martin Canyon argued that the continued rise in executive pay may have been driven by increases in managerial power, which effectively gave managers the power to determine their own pay, and accounting regulations, for example the tax-deductibility of options and their 'zero impact' on balance sheets. This has lead to the overall observation that too many options were granted to too many people.

Furthermore, the speaker outlined the role of compensation consultants in addressing this issue. Consultants can provide a range of high quality benchmarks for management pay. Moreover, they have a strong incentive to maintain their reputations which avoids consultants seeking to merely please managers. Specifically, compensation consultants have multiple clients ensuring that a failure to set pay effectively one firm will lead to a high risk of losing clients elsewhere.

Vicky Wright, Watson Wyatt

The discussant, **Vicky Wright** (Watson Wyatt), compared payment schemes in the UK and US and emphasised that UK compensation schemes are more complex on average, and they tend to be over-engineered. While in the US managers are rewarded too much for failures, British managers are not able to participate in their firms' success. Their performance is often measured relative to peer groups rather than in absolute terms (eg, buy-and-hold return of shareholders). Finally Vicky Wright suggested to use data on actual realised grants in future research. The seminar was followed by an audience discussion.

The Corporate Governance at LSE initiative is led by:

Professor Paul Davies, Department of Law, LSE

Professor Antoine Faure-Grimaud, Financial Markets Group, LSE

Dr Thomas Kirchmaier, MBS and Financial Markets Group, LSE

Sir Geoffrey Owen, Department of Management, LSE

Attendance at the Corporate Governance at LSE Research Debates is by invitation only. Further information is available on the Corporate Governance at LSE website: **www.lse.ac.uk/CorporateGovernance**

The Paul Woolley Centre for the Study of Capital Market Dysfunctionality Scholarships 2007-08

The Financial Markets Group is pleased to announce that Yuki Sato and Bernhard Silli have been awarded The Paul Woolley Centre Scholarship for 2007-08.

Yuki Sato

Yuki Sato is a 3rd-year PhD student at the Department of Economics, LSE. He received a BA and MA in Economics from Keio University, Japan. He came to the UK in 2005, completing his MSc in Economics at UCL in 2006 and finishing his MRes in Economics at LSE in summer 2007. His research interests are in capital market theories eg, bubbles, delegated portfolio management, and their implication for macro economy.

Bernhard Silli

Bernhard Silli is a visiting PhD student in Finance from Universitat Pompeu Fabra in Barcelona. His research focus lies in empirical asset pricing and the microstructure of financial markets. In particular he is interested in the trading behaviour of professional money managers and its impact on asset prices.

The Scholarships are offered by The Paul Woolley Centre for the Study of Capital Market Dysfunctionality and aim to support students pursuing postgraduate research in the areas covered by The Paul Woolley Centre research agenda. The Paul Woolley Centre for the Study of Capital Market Dysfunctionality is established at the Financial Markets Group and its main objective is to understand the workings of capital markets and the social efficiency of allocations these markets achieve.

Information regarding the 2008-09 Scholarship Programme will be posted in the New Year on the FMG website: **http://fmg.lse.ac.uk**

For more information about the Centre please visit The Paul Woolley Centre website at **www.lse.ac.uk/PaulWoolleyCentre/**

Contact: Programme Administrator
The Paul Woolley Centre for the Study of Capital Market Dysfunctionality.

Telephone: 020 7955 7002
Email: **CMDcentre.fmg@lse.ac.uk**

Financial Markets Group
RESEARCH CENTRE

The Paul Woolley Centre for the Study of
Capital Market Dysfunctionality

LSE

First Annual Conference

Call for Papers

12 and 13 June 2008

Financial Markets Group, LSE

The Paul Woolley Centre was established at the London School of Economics and Political Science in September 2007. Research at the centre aims at understanding the workings of capital markets and the social efficiency of allocations these markets achieve. The research departs from the Arrow-Debreu view of frictionless markets, and emphasises the role of financial institutions (eg, investment banks, mutual, hedge, and pension funds) in influencing prices and allocations. The main themes are:

• **Contracts and organisational structure:** What contracts should govern the agency relationship between investors and fund managers? How do contracts influence managers' investment policies? What determines the organisational structure of the fund-management industry?

• **Market frictions and asset prices:** How do frictions such as asymmetric information, market-entry costs, or agency, impact the informational efficiency of prices? What are the implications for market liquidity and for phenomena such as excess volatility or contagion?

• **Allocative efficiency and the macro-economy:** Frictions can generate allocative inefficiencies, such as imperfect risksharing and misallocation of capital in the macroeconomy. How important are these inefficiencies and how can they be measured?

• **Policy implications:** Can regulatory policies mitigate market inefficiencies? For example, can changes in contracts between investors and managers, or the introduction of new assets, generate Pareto-improvements?

The Paul Woolley Centre will be holding a conference each year based on these broad themes as well as related research questions. The goal is to bring together researchers working on such questions, disseminate their research, and stimulate the development of new ideas. Both empirical and theoretical papers are welcome. Papers will have discussants.

The first conference will take place on 12 and 13 June. It will start in the afternoon of Thursday 12 June, and end in the afternoon of Friday 13 June. Friday's session will be joint with the Adam Smith Asset Pricing (ASAP) Workshop, which is also meeting on Saturday. There will be a joint dinner with the ASAP Workshop on Friday, and an additional dinner on Thursday.

Expenses: Travel (economy class round-trip) and accommodation expenses will be covered for presenters and discussants.

Submission: Please email a copy of your paper to **cmdcentre.fmg@lse.ac.uk** and cc **fmg.vayanos@lse.ac.uk**

Programme Committee: **Bruno Biais** (University of Toulouse), **Denis Gromb** (LSE), **Christopher Polk** (LSE), **Dimitri Vayanos** (LSE), **Paul Woolley** (LSE).

Deadline for submission of papers: 14 March 2008. The authors of selected papers will be informed by the end of March.

Deutsche Bank
PhD Fellowship Programme

FMG is pleased to announce the winners of the Deutsche Bank PhD Fellowship 2007-08:

Nicolaj Schmidt

Nikolaj Schmidt obtained his BSc in Economics at the University of Copenhagen and completed his Masters in Finance and Economics at LSE in 2001. Following completion of his Masters he worked for four years as a derivatives structurer and trader. He joined the FMG in December 2005. His research is focused on financial liberalisation, collateral and information imperfections in financial markets.

Aytek Malkhozov joined the Financial Markets Group as a Deutsche Bank Fellow in 2005. He obtained his BSc in Economics at Strasbourg Louis Pasteur and Paris Dauphine Universities in France and his MSc in Finance and Economics at LSE. His research interest include general equilibrium asset pricing, derivatives markets and limits to arbitrage. His most recent paper deals with the explanation of the variance risk premium in general equilibrium asset pricing framework.

Vincent Fardeau

Vincent Fardeau started his PhD in 2006 in the Department of Finance and joined the FMG as a Deutsche Bank PhD fellow. He is supervised by Dimitri Vayanos and Rohit Rahi and his current research interests include the asset pricing implications of delegated portfolio management and financial innovation. Before joining the LSE, Vincent graduated from HEC (Paris), EHESS (Delta) and Sorbonne University. He spent one year working in investment banks in 2003-2004.

Ander Perez

Ander Perez is a PhD Candidate in the Economics Department at LSE and a research assistant in the Financial Markets Group, working in the areas of macroeconomics, banking and corporate finance. In particular he studies the macroeconomic implications of time-varying risk-sharing opportunities for entrepreneurial firms, the composition of firms' real investment across the business cycle and the determinants of financial intermediaries' ability to satisfy firms' liquidity needs. Prior to beginning his PhD in 2003, he worked as an Analyst in the investment banking division of Goldman Sachs. His other professional activities include internships in the Bank of England and the International Monetary Fund. He has a degree in Finance and Economics from Deusto University, in Spain.

Deutsche Bank PhD Fellowship programme was established with the generous support of the Deutsche Bank with the objective to support outstanding PhD students in pursuing research in the general areas of risk management or capital management at the London School of Economics and Political Science. The Deutsche Bank and the Financial Markets Group at the LSE offer the Fellowships jointly. The Fellowships are awarded annually by a Fellowship Committee consisting of the LSE Deutsche Bank Chair in Finance at LSE, the FMG Director, and two representatives of Deutsche Bank. The awards are made on the basis of a student' proposals for admission to the LSE PhD programme, and background and achievements. More information for the Fellowships 2008-09 will be advertised in the FMG website at the summer term of 2008 (**http://fmg.lse.ac.uk**).

The London Financial Regulation Seminar

An inter-disciplinary and inter-collegiate group of experts specialising in financial regulation will be holding a regular series of seminars, and more occasional conferences, on topics relating to this field.

Meetings take place on Mondays in R405, fourth Floor, unless otherwise stated, Lionel Robbins building at LSE between 5.45-7.15pm. Enter the Library building through the side door on Portugal Street, and take elevator to the fourth floor. Drinks will be served afterwards.

Lent Term 2008

Monday, 21 January — **Riccardo Rebonato**, (Royal Bank of Scotland), on 'The Plight of the Fortune Tellers: Why we need to manage financial risk differently'.

Wednesday, 30 January — Conference on 'The Regulatory Response to the Financial Crisis'. 2-6pm at the Derek Willoughby Lecture Theatre, Charterhouse Square, EC1.

Speakers include: **Harald Benink**, **Willem Buiter, Charles Goodhart**, **Eva Hupkes**, **George Kaufman**, **Rosa Lastra**, **Julian Wiseman**, **Geoffrey Wood**.

Monday, 25 February — **Thomas Huertas**, (Financial Services Authority), on 'The Purposes of Financial Supervision'.

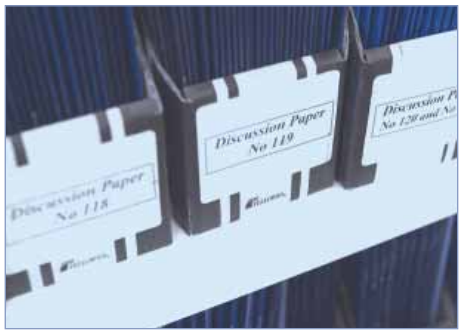
More dates will be announced soon on the FMG website at **http://fmg.lse.ac.uk/**

The organisers of this seminar series are (by alphabetical order):

Professor E Philip Davis, Professor of Economics and Finance, Brunel University; **Professor Charles Goodhart**, Professor of Banking and Finance, Financial Markets Group, LSE; **Dr Thomas Huertas**, Financial Services Authority, **Professor Rosa Maria Lastra**, Professor of International Financial and Monetary Law Centre for Commercial Law Studies, Queen Mary, University of London; **Dr Alistair Milne**, Senior Lecturer in Banking, Cass Business School; and **Professor Geoffrey Wood**, Professor of Economics, Faculty of Finance, City University Business School.

For more information please call 020 7955 6301
For details of any changes to the scheduled programme please see the FMG's website at **http://fmg.lse.ac.uk/**

Discussion papers



DP 585

Evolution of Decision and Control Rights in Venture Capital Contracts: An Empirical Analysis

Carsten Bienz, Uwe Walz

We analyze the structure and evolution of the allocation of decision and control rights in venture capital contracts by using a sample of 464 contracts between venture capitalists (VC) and portfolio firms from Germany. We focus on the evolution of control and decisions rights along three time dimensions: the point in time when the contract was signed, the expected duration of the contract and the actual duration of the relationship. We show that contracts are not static but that control rights are adjusted along all three time dimensions. First, we observe a change in the structure but not in the level of the VC's control rights during the relationship between the VC and the portfolio firm. While venture capitalists return superfluous operational rights to entrepreneurs, they gain (valuable) exit rights during the course of the relationship. Second, we show that the shorter the expected length of the VC's engagement the more control rights are allocated to the hands of the VC. Finally, we observe that learning took place in the German VC market.

DP 586

On the Impact of Fundamentals, Liquidity and Coordination on Market Stability

Jon Danielsson, Francisco Peñaranda

Complex interactions between fundamentals and liquidity during unstable periods in financial markets are succinctly modeled with coordination games. We propose a flexible framework to estimate such a model and use the efficient method of moments as estimation procedure. We illustrate the model by using exchange rates from the yen-dollar carry trade induced uncertainty in 1998, interest rate spreads and global market volatility. The model fits the data well, with evidence of low information disparities, the market is generally very deep, where global volatility is more important than fundamental uncertainty in the determination of liquidity. There is clear evidence of asymmetry between the buy and sell sides of the market.

DP 587

Portfolio Choice Beyond the Traditional Approach

Francisco Peñaranda

This paper surveys asset allocation methods that extend the traditional approach. An important feature of the traditional approach is that measures the risk and return tradeoff in terms of mean and variance of final wealth. However, there are also other important features that are not always made explicit in terms of investor's wealth, information, and horizon: The investor makes a single portfolio choice based only on the mean and variance of her final financial wealth and she knows the relevant parameters in that computation. First, the paper describes traditional portfolio choice based on four basic assumptions, while the rest of the sections extend those assumptions. Each section will describe the corresponding equilibrium implications in terms of portfolio advice and asset pricing.

DP 588

Loan maturity and renegotiation: Evidence from the lending practices of large and small banks

Ugo Albertazzi

Corporate finance theories suggest that problems of asymmetric information and moral hazard in credit markets can be addressed by choosing short-term maturities. Theories of debt renegotiation suggest that the credibility of the implicit commitment to not make concessions to insolvent borrowers, which would undermine the effectiveness of short-term maturities, is related to the characteristics of the lender and in particular to its size. the joint implication of these theories is that, for given borrower's characteristics, small banks should be less willing to issue long term, loans. Using information on Italian banks, this

study presents a cross-sectional analysis of the maturity of loans to firms and shows a first evidence consistent with this prediction. With more opaque borrowers, like small and innovative firms, other supply-side features (special regulatory regimes favouring lending relationships and economies of scale in the screening technology) are also shown to be relevant in the determination of loan maturity.

DP 589

Intergenerational Risksharing and Equilibrium Asset Prices

John Y Campbell, Yves Nosbusch

In the presence of overlapping generations, markets are incomplete because it is impossible to engage in risksharing trades with the unborn. In such an environment the government can use a social security system, with contingent taxes and benefits, to improve risksharing across generations. An interesting question is how the form of the social security system affects asset prices in equilibrium. In this paper we set up a simple model with two risky factors of production: human capital, owned by the young, and physical capital, owned by all older generations. We show that a social security system that optimally shares risks across generations exposes future generations to a share of the risk in physical capital returns. Such a system reduces precautionary saving and increases the risk-bearing capacity of the economy. Under plausible conditions it increases the riskless interest rate, lowers the price of physical capital, and reduces the risk premium on physical capital.

DP 590

The Ownership of Ratings

Antoine Faure-Grimaud, Eloïc Peyrache, Lucia Quesada

A prevalent feature in rating markets is the possibility for the client to hide the outcome of the rating process, after learning that outcome. This paper identities the optimal contracting arrangement and the circumstances under which simple ownership contracts over ratings implement this optimal solution. We place ourselves in a setting where the decision to obtain a rating is endogenous and where the cost of such a piece of information is a strategic variable (a price) chosen by a rating agency. We then show that clients hiding their ratings can only be an equilibrium outcome if they are sufficiently uncertain of their quality at the time of hiring a certification intermediary and if the decision to get a rating is not observable. For some distribution functions of clients' qualities, a competitive rating market is a necessary condition for this result to obtain. Competition between rating intermediaries will unambiguously lead to less information being revealed in equilibrium.

Special Papers

SP 172

Whatever became of the Monetary Aggregates?

C A E Goodhart

Peston Lecture in honour of Maurice, Lord Peston, delivered at Queen Mary College, London, on 28 February 2007.

Forthcoming Discussion and Special Papers

Discussion Papers

DP 591

'Evaluating hedge fund performance: a stochastic dominance approach'

Sheng Li, Oliver Linton

DP 592

'Competition and Opportunistic Advice of Financial Analysts: Theory and Evidence'

Enrico Sette

DP 593 (UBS Paper 044)

'How Deep is the Annuity Market Participation Puzzle?'

Alex Michaelides, Paula Lopes, Joachim Inkmann

DP 594

'Financing Constraints and a Firm's Decision and Ability to Innovate: Establishing Direct and Reverse Effects'

Vassilis Hajivassiliou, Frédérique Savignac

DP 595

'Strategic Financial Innovation in Segmented Markets'

Rohit Rahi, Jean-Pierre Zigrand

DP 596

'Value of Information in Competitive Economies with Incomplete Markets'

Piero Gottardi, Rohit Rahi

Special Papers

SP 173

'Analysis of Financial Stability'

Charles Goodhart, Dimitrios Tsomocos

Visitors to the FMG
November 2007 – January 2008

Alessandro Beber (HEC – University of Lausanne)

Gabriella Chiesa (University of Bologna)

Marin Conyon (ESSEC)

Hulya Eraslan (University of Pennsylvania)

Emmanuel Farhi (Harvard University)

Malcolm Gammie (One Essex Court & IFS)

Robin Greenwood (Harvard Business School)

Stefan Imhof (HM Treasury)

Charles Kahn (University of Illinois)

Michael Krimminger (Federal Deposit Insurance Corporation)

Michael Knoll (University of Pennsylvania)

Ray LaBrosse (International Association of Deposit Insurers, IADI)

Glen Loutzenhiser (University of Oxford)

Rajnish Mehra (University of California, Santa Barbara)

Asmus Mihm (Allen & Overy, Frankfurt)

Adair Morse (University Chicago)

Joel Peress (INSEAD)

Anne Redston (Kings College)

Michael Roberts (University of Pennsylvania)

Mark Roe (Harvard Law School)

Ronnie Sadka (University of Washington)

René Smits (University of Amsterdam and Visiting Professor Fellow, QMC)

Elu von Thadden (University of Mannheim)

Anjan Thakor (University of Washington at St Louis)

Edward Troup (HM Treasury)

Amir Yaron (University of Pennsylvania)

John Williamson (Peterson Institute for International Economics)

Vicky Wright (Watson Wyatt)

Lu Zhang (University of Michigan)

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