

## Corporate Governance at LSE

## The London Financial Regulation Seminar

FMG Public Lecture

# Financial Market Stability

Axel A Weber, President, Deutsche Bundesbank

6 June 2008

On 6 June, FMG hosted a public lecture by **Axel A Weber**, President of Deutsche Bundesbank, on 'Financial Market Stability'. In light of the current tensions in financial markets he looked at financial market stability from a central bank's perspective. **Charles Goodhart** (FMG/LSE) chaired the event.

Axel Weber defined financial stability as a financial system's ability to efficiently allocate financial resources, reliably assess and tackle risks, and securely settle payments and securities transactions. Stable financial systems reduce uncertainty and thus develop positive external effects on the real economy, contributing to greater economic prosperity. In this context contributing to financial stability is seen as part of any central bank's core area of responsibility in order to ensure price stability and avert negative repercussions of the financial system on the real economy. The primary and essential task is to underline and strengthen the responsibility of market participants not only for themselves but also for the system as a whole.

### Subprime crisis

A number of different reasons, or a 'cocktail of causes', are seen to have triggered the shock waves that are currently hitting the global financial system. As explained by Axel Weber, three of the main reasons are: lax lending standards, weaknesses in the credit risk transfer system and overly optimistic assessments of structured securities.



**Axel A Weber** (Deutsche Bundesbank)

Regarding lax lending standards, Axel Weber found the notion that borrowers could obtain a real estate loan with almost no capital and a poor or no credit rating at all, as quite 'strange'. This points towards the fact that lenders seem to have been oblivious to risk, indicating a certain weakness in credit risk transfer. It appeared for a while to be possible to convert unstable individual loans to almost fail-safe securities through securitisation and tranching; it almost looked like 'vin de pays' could be turned into a 'cru' with the help of a bit of financial alchemy.

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# Financial Market Stability

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However, Axel Weber pointed out that in principle, the possibility of transferring credit risks increases the flexibility of financial market players and is an element of modern risk management. The speaker explained that the tradability and fairly broad dispersion of credit risks can improve the resilience of the financial system, but only if a high quality standard is maintained at all levels of the transfer process and if no new concentrations of risk arise. In addition, it became clear over the last 12 months that market participants were overly optimistic in the assessments of structured securities. The assumption that structured securities backed by mortgages provided a premium over government bonds at a similar (low) level of risk, has since proven to be a gross misperception.

In the end, the new instruments of credit risk transfer exhibited several weaknesses that seriously hampered the efficient flow of information between originators and investors; 'From being a vehicle for the distribution of risks and comfort in the system, securitisation now distributed fear' (Borio 2008)<sup>1</sup>. A lot of effort by national and international institutions is currently being put into the identification of lessons learnt and necessary reforms, and most of the reform proposals focus on supervisory, accounting and risk management issues.

### Current market distortions and measures against it

Since August 2007 financial market turbulences have had a strong impact on the money market. Axel Weber saw two cumulative effects at work: on the one hand, banks' willingness to lend decreased sharply due to increased counterparty risks; on the other hand, banks' demand for short-term financing went up significantly due to involuntary re-intermediation of former off-balance-sheet activities (SPVs, conduits) and a higher liquidity preference due to the mounted uncertainty about future liquidity needs. The resulting increase in the spread between money market rates and central bank interest rates complicates monetary policy. The determination of the appropriate level of the central bank rates is aggravated and the signalling function of these rates becomes more limited. To counteract distortions in the money market, central banks all over the world took a wide range of different measures.

<sup>1</sup> BIS Working Papers No 251, 'The financial turmoil of 2007-?: a preliminary assessment and some policy considerations', Claudio Borio (March 2008)

### Implications of the operational measures

Axel Weber then progressed onto an extensive discussion of the Eurosystem's operational framework. He felt that, seen from today's perspective, it was the right decision of the Eurosystem to act promptly and to inject additional funds temporarily into the money market. Confidence was quickly re-established and at the end of the reserve maintenance period there was no on-average increase in central bank money. In general he thought that flexibility is important for a central bank's ability to deal with upcoming money market tensions. For Axel Weber, both from an implementation perspective, as well as from a monetary policy perspective it is generally desirable that all banks have access to central bank money. This broad access to central bank money is even more important in the current environment.

One of the main differences between the Eurosystem and the Bank of England frameworks concerns the range of accepted collateral. The Eurosystem does accept government bonds but also highly rated private issuances and even bank loans to the private sector with a good credit quality as eligible collateral.

### The current monetary policy stance in the Eurosystem

For setting the Eurosystem monetary policy stance, however, the outlook on price stability is the magnetic needle of the Governing Council. It is only the possible repercussions of stress in financial markets on real economic developments and on the outlook for inflation that is of interest for monetary policy in that regard. Developments on financial markets have the potential to modify core economic relationships and, thus, are of utmost interest for monetary policy.

### Conclusion

Developments on financial markets have repercussions on our operational and refinancing framework. In addition, they have the potential to alter the impact of interest rate measures on the rest of the economy. In that regard Axel Weber concluded that we should remember that in safeguarding price stability monetary policy supports financial stability. Thus, considering the influence of financial market developments on monetary policy does not lead to a change of the well-respected fundamental goals of a stability-oriented monetary policy.

This lecture was organised as part of the 'London Financial Regulation Seminar' and the 'Corporate Governance at LSE' programmes.

A podcast and transcript of this public lecture is available on the FMG website <http://fmg.lse.ac.uk>

# Lessons from the Crisis for Financial Regulation: What we need and what we do not need

By Charles Goodhart

Financial Markets Group, LSE

In its broad outlines the current financial crisis **was** foreseen, though not in its specific detail. Virtually all of the major central banks and international financial institutions had been warning about the underpricing of risk and excessive leveraging by 2006-07. The BIS had been warning about it for years. Admittedly few outside the banks themselves knew about the growth and extent of the grey, or shadow, banking system in the guise of conduits, SIVs, etc, and, since a main rationale for this shadowy sub-system was regulatory arbitrage, the banks were not loudly advertising such activities.

So I very much doubt whether insufficient information was a major problem in this crisis. And even if the central banks had had more information, what could they have done with it? There are those who believe that public warnings, based on better information, would help. But I remember Robin Leigh-Pemberton warning the British banks in 1988-89 against making more property loans. And did it make a blind bit of difference? Even if Mother Teresa, the Archbishop of Canterbury and the Pope were to warn against a certain line of bank activities, it would do no good; indeed probably the reverse because immoral actions are usually short-term fun and profitable.

The problem is **not** information, but the lack of instruments that can be used to counter the bubbles in asset prices and bank lending that precede and create the subsequent bust (and also the will to use such few prudential instruments as may be available to temper an asset price bubble). When I served Eddie George as an adviser on prudential matters, the Bank of England had a financial stability committee, meant in some ways to be the counterpart of the Monetary Policy Committee. But it was not, of course. The MPC sets the interest rate; it has a role and a function. The FSC set nothing; it had nothing it could set; it was just a talking shop, rehearsing potential fragilities and dangers in the financial system, to be later revealed to a public, awaiting with anxious trepidation, in the Bank's *Financial Stability Review*.

Now this is better than nothing, but not much. The Bank's FSC, the BIS and the IMF can warn till they are blue in the face, with the benefit of more and more information, but it will not do much good. What we need are counter-cyclical instruments.

Can we use the one counter-cyclical instrument that Central Banks now have, the interest rate, to counter asset price bubbles? Most economists say, 'no'; interest rates should be predicated to achieving price stability. Broadly I

agree, but I would make two points. First, should not a proper definition of price stability include housing prices; currently excluded from the European CPI; and second even if interest rates were to lean a little against asset price bubbles, (and those in bank lending), for example via Otmar Issing's second pillar, it probably would not be enough to flatten a strong bubble and bust in asset markets by much.



What else have Central Banks got to counter asset price, and bank lending fluctuations? Most regulation is currently pro-cyclical. The combination of Basel II and mark-to-market accounting further drives the pro-cyclical spiral. Most official, and unofficial, studies of the financial turmoil have been silent on the responsibility of the regulatory system for our present troubles.

At least when the bust does finally come, central banks can help pick up the pieces with liquidity support. But here there are problems too. First there is the stigma issue. Because of this many of the supposed first-round defences, for example lending at the discount-window, or upper band, became largely unusable. Second, when push came to shove, Central Banks were effectively forced to lend to all systemic parts of the financial system on the basis of whatever the latter had available. Is there not a moral hazard in that? Why should commercial banks hold low-yielding safe assets in good times, if central banks will lend on anything that banks can rustle up in bad times?

## Lessons from the Crisis for Financial Regulation

Central banks did nothing during the asset price and leveraged credit bubble prior to 2007, because there was almost nothing that they could do. And now there are suggestions that central banks should be made statutorily responsible, at least in the USA and UK, for systemic financial stability. You may have heard the phrase, normally attributed to newspaper magnates, that 'power without responsibility is the prerogative of the harlot'. Well, 'responsibility without power is the prerogative of a eunuch'. Not only are our Central Banks currently eunuchs in this case, but the life of a harlot probably involves more fun and better earnings than the life of a eunuch.

So, what needs to be done to give our central bank some balls? In broad terms capital and liquidity requirements have, somehow, to be made counter-cyclical, and I would add maximum, time-varying, loan-to-value ratios reintroduced. There are four generic counter-arguments against doing all that: –

First, it raises the cost of borrowing in good times, and hurts in particular the first-time buyer in the housing chain then;

Second, if introduced separately in an individual country, it will just drive the business off-shore;

Third, it may greatly increase the informational burden on banks; and

Fourth, by imposing greater costs on commercial banks during expansionary phases, it will even further enhance the incentive to off-load assets onto associated off-balance sheet entities.

These arguments **will** be deployed; and central banks need to respond robustly. Moreover the penalties for failure to disclose **all** associated off-balance sheet business entities need to be reinforced.

Perhaps the most problematical issue is liquidity, because a central bank, as we have now graphically seen, will lend against almost anything when a real crisis hits. My view is that a central bank cannot possibly commit to stand aside in such a case. But it may be able to commit to vary the **rate** at which it lends depending on the prior history of liquidity maintenance by each bank. If you add to that a Special Resolution Regime such that banks that find higher priced emergency lending driving them towards insolvency can be taken over quickly enough by the authorities, then maybe we can devise enough carrots and sticks to devise a time-varying liquidity scheme. I have already tried my hand at one such proposal in my paper on 'Liquidity and Money Market Operations: A Proposal', available on the Financial Markets Group website at LSE. No doubt that can be much improved. Please do so.



Charles Goodhart (FMG/LSE)

Similarly a time-varying LTV needs to be supported by legal restrictions on second mortgages and home equity loans. Germany, I believe, does this. Should anyone, ever, be able to borrow more than, say, 97 per cent of the current value of a property? If not 97 per cent, what would be your preferred figure? 125 per cent as Northern Rock did? And should appraisers of housing values somehow

be made legally responsible, or at the very least independent of mortgage lenders and other interested parties in the deal?

As you mostly know, Avinash Persaud and I have proposed time-vary CARs based on growth rates of asset prices and bank lending, and we have further work to do on that, to fill in many of the important details.

So let me conclude. What does a Financial Stability Committee need to give it potency? What I believe that it must have is the power to revise liquidity arrangements, capital requirements and LTVs on a time-varying counter-cyclical basis. One of the war-time slogans in the UK was 'Give us the tools and we will finish the job'. Currently there are no such proper tools; let us construct them.

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**Professor Charles Goodhart is Programme Director of the Regulation and Financial Stability research programme at FMG, the London School of Economics and Political Science.**

**For further information on Charles Goodhart's papers, please visit the FMG website: <http://fmg.lse.uk/publications>**



Workshop in Risk Management and Fixed Income Markets

# Integrating Historical Data and Expectations in Financial Econometrics

30 May 2008

This conference was the final dissemination event organised as part of the EPSRC funded project at FMG on 'Integrating Historical Data and Market Expectations in Risk Assessment for Financial Institutions' which had the objective of developing



**Antonio Mele** (FMG/LSE)

a consistent statistical methodology for integrating historical information and expectations imbedded in market prices.

The first paper, 'Macroeconomic Determinants of Stock Market Volatility and

Volatility Risk-Premia', was presented by **Antonio Mele** (FMG/LSE), co-authored with Valentina Corradi (University of Warwick) and Walter Distaso (Imperial College London). The paper introduced a no arbitrage model to assess how stock market volatility and volatility risk premia change in response to business cycle condition. Unlike many available models which use latent factors to explain dynamics of asset return volatility, their model explicitly links the stock market volatility to a number of macroeconomic variables and unobservable factors. The cross equation restrictions arises from no arbitrage requirement. One important contribution of their model is that the volatility risk premia is endogenous, thus the relation between macroeconomic variables and volatility risk premia is richer with no arbitrage information. They specify an analytically convenient affine structure and solve the model in closed-form. Using the data of observable macroeconomic variables, stock market return and the VIX index, they fully estimate the model in two steps. They find that volatility risk premia are strongly countercyclical and that in return, they could forecast future economic activity quite well.

The second paper, titled 'Expected Stock Returns and Variance Risk Premia', was presented by **George Tauchen** (Duke University). From a stylised general equilibrium model incorporating time varying uncertainty in consumption growth, the endogenously determined equity risk premium has a two factor structure. Different volatility measures defined in the model load differently on these fundamental risk factors. The difference between implied and realised return variation effectively picks up the factor associated with the volatility of consumption growth and could predict market returns over horizons for which volatility risk accounts for a significant part of equity premium. In the empirical study, it is found that the difference between the 'model free' implied and realised variances is able to explain a large fraction of the variation in quarterly stock market returns in the post 1990 period and this predictability is far more than those provided by traditional risk factors, such as P/E ratio, CAY and default spread. The difference measure also dominates the two return variation measures in isolation in the predictive regressions. And a large part of forecasting power comes from the 'model free' variance risk premium constructed from high frequency data.

In the third paper, entitled 'Some Determinants of the Price of Default Risk', **Ron Anderson** (FMG/LSE) presented a framework to identify the sources of common variation in the



**Ron Anderson** (FMG/LSE)

cross section of prices of default risk. CDS quotes are used to calibrate the risk neutral default risk premia and a model proposed by Ping Zhou (1997)<sup>2</sup> employed to calculate the default risk

premia associated with actual default probability. The log difference between the two has a common variation across the 41 firms sample over 2003 to 2008 period. The default risk premium is regressed on a set of observable firm specific and macroeconomic variables and it is found that credit market tightness could explain a significant part of it.

The conference continued with the forth presentation on 'Pension Liability Valuation and Asset Allocation in the Presence of Funding Risk' by **Joachim Inkmann** (Tilburg University) co-written with David Blake (Cass Business School). Their work is an analysis of a pension fund's liability evaluation when its discount rate is endogenously determined by its asset allocation in the presence of funding risk. They propose an approach in which asset allocation is based on an objective function in assets and funding risk-adjusted liabilities, which in turn implies the discount rates and portfolio weights become interdependent. They solve for the discount rates and portfolio weights in a single optimisation step. Their results show that an optimal asset allocation which accounts for this dependency varies in a nonlinear way with the initial funding ratio of the pension plan. They argue that their approach has advantage for the regulator as well as shareholders by avoiding the potential manipulation of the discount rates in pension funds. The discussant, **Alex Michaelides** (FMG/LSE) made two main comments:

- 1) external habit formation specification can be used instead of the CCAPM approach,
- 2) other risks such as inflation risk and principal-agent problems might be more important than choosing the right discount rate.

The remaining two presentations focused on modelling of expectations. **Andrew Patton** (University of Oxford) presented his joint work with Allan Timmermann (UCSD), 'Learning in Real Time: Theory and Empirical Evidence from the Term Structure of Survey Forecasts'. They develop an econometric framework for understanding how agents form expectations about inflation and GDP growth. They fit the consensus of the forecasts by a state-space model which allows measurement errors in both variables. They incorporate heterogeneity in individual forecasters' prior beliefs and their information signals



**Andrew Patton** (University of Oxford)

in the model of forecast dispersion. The model is found to closely match the term structure of forecast errors for consensus beliefs and is able to replicate the cross-sectional dispersion in

forecasts of GDP growth but not for inflation. The discussant, **Walter Distaso** (Imperial College London) made two principle comments on the presentation:

- 1) the authors can use the standard deviations of both variables as extra moments in estimation, 2) incorporating strategic behaviour of the forecasters in the model might be able to improve the fit of inflation forecasts' dispersion.

Finally, **Mikhail Chernov** (London Business School) presented 'The Term Structure of Inflation Expectations, co-written with Philippe Mueller (Columbia Business School). They study the term structure of inflation expectations implicit in the nominal yields and survey forecasts of inflation to address the question of whether or not monetary policy is effective. Their dynamic model incorporates jointly the behaviour of inflation under P measure, under forecasters' Pi measure, and nominal yields from the Q measure. They extract private sector expectations of inflation from their model and establish that they are driven by inflation, real activity and one latent factor. They also find that monetary policy became more effective overtime. **Yves Nosbusch** (FMG/LSE) discussed the paper making two observations:

- 1) the authors might need to structure the model to make a causality statement on the sources of private expectation,
- 2) the paper can incorporate time-varying dispersion in forecasts to make better use of the observations.

<sup>2</sup> FMG Discussion Paper 614, 'Forecasting Bankruptcy and Physical Default Intensity', Ping Zhou (2007)

This conference was organised by **Ron Anderson** and **Antonio Mele** (FMG/LSE)

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# Are Accounting Rules Pro-Cyclical?

6 June 2008

The FMG, in collaboration with Hugo Banziger of Deutsche Bank, organised a half day workshop to discuss the issues and potential problems surrounding fair value accounting principles for bank assets, some of which have been recently brought to the fore by the evolving credit crisis.

The opening session laid out the general set of issues to be discussed in the workshop, and begun with an economist's perspective on mark to market of bank assets and the problem of pro-cyclicality by **Hyun Shin** (Princeton University-advisor to BIS, IMF, Bank of England). There is a clear case for fair value accounting in that it provides a more accurate picture of the current risk profile and improves the allocation of resources. However, in the presence of certain market imperfections such as illiquidity or asset price bubbles, marking to market may interact with these frictions to amplify their effect significantly and deliver an undesirable outcome. A proposal was put forward to introduce an accounting regime that uses rolling averages of prices over a given period.

**Hugo Banziger** (Deutsche Bank) discussed the challenges of managing risk under pro-cyclical accounting rules. Marking to market is an essential tool of modern risk management, one without which proper hedging is not possible. However, for assets subject to the risk that their market is insufficiently liquid at times to allow positions to be hedged dynamically, marking to market becomes challenging. The originate-and-distribute model is an example of this, where inventories of unsold mortgage-backed securities may be marked to market under accounting rules, even when temporary illiquidity may mean they are valued well below what a cash-flow model would deliver.

The first session ended with a lively discussion during which several important issues were raised. There appeared to be agreement that the origin of crises is in the behaviour during booms, but the audience questioned how willing would banks be to sacrifice profits during booms for the sake of financial stability. In addition, the regulators' credibility in their commitment to relax regulatory requirements in crisis periods in the context of a countercyclical framework was questioned. Finally, the current focus on micro regulation based on individual 'best practice' was thought not to take sufficient account of the wedge between privately and socially optimal

policies, increasing the risk of systemic crises arising from externalities in banks' behaviour during booms.

The principle participants in the next session were **Anthony Clifford** (Ernest and Young), **David Coleman** (Royal Bank of Scotland) and **Alex Maddox** (Lehman Brothers). The objective of the second session was to provide different perspectives on the current accounting regime. The session opened with a discussion of some of the significant differences between US GAAP and IFRS. There then followed a discussion of the implications of the current accounting regime for managing a bank's credit book. This highlighted that although banks are allowed to move assets between the banking book and the trading book, under the current accounting regime they are prevented from changing how they account for the assets when these are moved between the two books. Due to this inflexibility banks may have to realise losses on assets in the banking book due to fluctuations in the market price of the asset which are not driven by changes in the expected losses on the assets. The session concluded with a discussion of how mark-to-market accounting affects the management of a trading book. It was argued that mark-to-market accounting could transfer shocks from one market to another. This occurs if an investor who is subject to a shock is forced to liquidate a portfolio of assets. Through mark-to-market accounting, the liquidation affects the balance sheet of other agents which own the same portfolio of securities. There was then a discussion of the difference between the implied default probability of the ABX index and the model forecasted default probability of the securities underlying the index. It was argued that pricing of the ABX index, which is used to mark most mortgage products to market, appear to reflect much more than just credit risk.

The principle speakers in the next session were **Gerald Edwards** (BIS) and **Gavin Francis** (IASB). The speakers outlined the proposals of the Financial Stability Forum to address the weakness of the current accounting regime. The objective of the Forum's recommendations was to improve transparency of the valuations and enhance market and institutional resilience by reinforcing sound practices, and by encouraging good governance of valuation processes. This was followed by a discussion which stressed, that although



the unfolding of events had put pressure on the IASB to speed up its work on the treatment of off balance sheet vehicles and the de-recognition of assets, the IASB were determined to avoid a knee jerk reaction. It was stressed that the IASB in continuing to pursue principles based accounting guidelines and that they aim to provide more guidance on the use of special purpose vehicles and fair value accounting of assets in illiquid markets.

The final discussion began with remarks from **Sylvie Matherat** (Banque de France), **Paul Sater** (Ernest and Young), **Paul Tucker** (Bank of England) and **Ian Wright** (FRC). It was noted that since banks' initial decision on how they account for an asset cannot be reversed, this decision must be made carefully. It was pointed out that there was a great degree of discrepancy across financial institutions in their interpretations of the IFRS accounting rules and it was questioned whether accounting practices could be part of the public policy without becoming subject to political agendas. The discussion also raised the point that although accounting is primarily the

measure through which financial institutions disclose the state of their balance sheets, it may also be a tool which can be used to enhance financial stability. It was noted that the objective of the accounting regime should be to increase transparency and thereby make it easier for stockholders to evaluate financial intermediaries. Finally, the panel raised the question of whether countercyclical capital requirements could constrain the credit expansion during the booms or whether this would merely lead to a greater use of off balance sheet vehicles.

The conference ended with comments by Hyun Shin and Hugo Banziger. Hyun Shin posed the open-ended question of whether it is at all possible to obtain a resilient financial system if accounting standards were set independent of financial regulation. Hugo Banziger re-emphasised the benefits of mark-to-market accounting but noted that illiquid markets raised clear obstacles to market-to-market accounting. Consequently, until an appropriate framework for discovering prices in illiquid markets is in place, banks may need some flexibility in their use of mark-to-market accounting.

## FMG Students Job Market Candidates

The FMG PhD students who joined the job market this year have accepted the following positions:



**Ander Perez**  
Assistant Professor,  
Pompeu Fabra University



**Sarquis Sarquis**  
Professor of  
International Economics,  
Rio Banco Institute



**Ashley Taylor**  
Young Professionals  
Program, World Bank

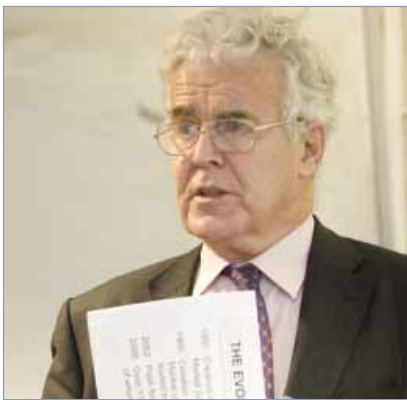


# Corporate Governance at LSE

## The Future of AIM as a Stock Market for Growing Companies

12 March 2008

Presentation of AIM report: **Sir Geoffrey Owen, Julia Black, Sridhar Arcot**



**Sir Geoffrey Owen** (LSE)

**Sir Geoffrey Owen** (Department of Management, LSE), **Julia Black** (Department of Law, LSE) and **Sridhar Arcot** (ESSEC Business School) presented their report on AIM which was commissioned by the London Stock Exchange and published in September 2007. They examine the recent development of AIM, compile key facts about this market, and discuss its future.

AIM has established itself as the world's leading stock market for young, growing companies from UK and abroad. Since 2002 AIM has become more international through increasing number of listings and capital raised by foreign companies as well as through attracting a wide range of investors, including some of the world's leading institutions. AIM has strengthened the City's links with emerging markets. Although a large proportion of AIM companies are early-stage businesses and/or operating in high-risk sectors, the failure rate on AIM is low, running at less than 3 per cent in the last four years. The biggest single source of delistings, accounting for nearly half the total, is the reverse takeover, through which the company changes its identity but remains on AIM. Other delistings occur as a result of transfers to the LSE Main Market, acquisitions, or redemptions – none of which can be described as failures. The competitive strength of AIM lies partly in a distinctive regulatory system which is tailored to the needs of smaller companies. AIM is an exchange-regulated market run by the London Stock Exchange, which is in turn regulated by the FSA. The central feature of AIM's regulatory system is the delegation of responsibility to Nominated Advisers (Nomads) for assessing the suitability of AIM entrants and monitoring their compliance with AIM rules. In practice, this activity is concentrated in the 30 or so Nomads who are appointed to around 80 per cent of AIM companies. The evolution of AIM has been a market-driven process, and the market will continue to develop in response to the changing demands of issuers and investors.



**Theresa Wallis** (Lidco Group plc), **Philip J. Secrett** (Grant Thornton UK LLP), **Tom Troubridge** (Pricewaterhouse Coopers), **David Pinniger** (Abingworth)

Before opening up the general discussion, there were comments from the panel. **Theresa Wallis** who represented one of the companies listed on AIM, stressed the importance of having a diverse set of investors, independent research coverage by analysts, and consistent favourable regulation provided by AIM. **Tom Troubridge** who represented one of the biggest AIM's Nomads, mentioned that companies select where to have their shares listed according to a wide range of criteria. He stressed the increasing competition for AIM from emerging markets – mainly China, Hong Kong, Singapore, and Dubai. **David Pinniger** (Abingworth) argued that AIM is appealing as it offers special expertise through presence of niche small banks and investors as well as investors with long-term perspective, who are ready to participate in the subsequent financing rounds.

A copy of the AIM report can be downloaded from the Corporate Governance at LSE website.

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 Research debates is by invitation only. Further information is available on the Corporate Governance at LSE website:  
[www.lse.ac.uk/collections/corporategovernance/Default.htm](http://www.lse.ac.uk/collections/corporategovernance/Default.htm)



# Regional Comparative Advantage and Knowledge-Based Entrepreneurship

RICAFE2 Third Conference

**9 and 10 October 2008**

**University of Amsterdam Business School, Finance Group**

The RICAFE2 Third Conference will be held on 9 and 10 October 2008 at the University of Amsterdam Business School and present empirical and theoretical papers on the financing of knowledge-based entrepreneurial firms, on the influence of venture capital on firms' ability to translate technological advances into successful products, and on the contribution of knowledge-based entrepreneurship to regional dynamics. The topics planning to be discussed include, but are not limited to:

- The choice between alternative sources of financing for innovative firms and their impact on strategic decisions in entrepreneurial firms;
- The determinants of knowledge-based entrepreneurship;
- Venture capital and its contribution to the knowledge-based economy and regional development;
- Economics of intellectual property rights and its implications for knowledge-based entrepreneurship;
- The role and design of financial contracts and of the choice of organisational form in fostering knowledge-based entrepreneurship;

- Effects of regulation on venture capital investment and entrepreneurial dynamics;
- The impact of corporate governance mechanisms on the performance of entrepreneurial firms.

**Programme Committee:** **Stefan Arping** (University of Amsterdam), **Amar Bhidé** (Columbia University), **Bruno Biais** (University of Toulouse), **Patrick Bolton** (Columbia University), **Mariassunta Gianetti** (Stockholm University), **Thomas Hellmann** (University of British Columbia), **Gustavo Manso** (MIT), **William Megginson** (University of Oklahoma), **Eric Nowak** (University of Lugano), **Armin Schwienbacher** (University of Amsterdam; Catholic University of Louvain; Committee Chair), **Alessandro Sembenelli** (University of Torino) and **Christoph Zott** (INSEAD).

For more information please visit the RICAFE2 website:  
**[www.lse.ac.uk/ricafe](http://www.lse.ac.uk/ricafe)**

The Regional Comparative Advantage and Knowledge-Based Entrepreneurship (RICAFE2) Research network includes the London School of Economics (FMG), the Department of Economics and Finance of Turin University, the Center for Financial Studies (Frankfurt), HEC School of Management (Paris), University of Amsterdam, University of Tilburg, Baltic International Centre for Economic Policy Studies, University of Lugano, Indian School of Business, Technion (Israel), and the Belgrade Laboratory for Quantitative Finance. RICAFE2 is funded by the European Commission, DG-Research, under the 'Citizens and governance in a knowledge-based society' (FP6) programme, grant CIT5-CT-2006-028942.

# Discussion Papers



DP 597

## Parametric Properties of Semi-Nonparametric Distributions, with Applications to Option Valuation

Angel Leon, Javier Mencía, Enrique Sentana

We derive the statistical properties of the SNP densities of Gallant and Nychka (1987). We show that these densities, which are always positive, are more flexible than truncated Gram-Charlier expansions with positivity restrictions. We use the SNP densities for financial derivatives valuation. We relate real and risk-neutral measures, obtain closed-form prices for European options, and analyse the Semiparametric properties of our pricing model. In an empirical application to S&P500 index options, we compare our model to the standard and Practitioner's Black – Scholes formulas, truncated expansions, and the Generalised Beta and Variance Gamma models.

on the compensation packages that firms offer to their executives. We use a panel of US executives in the nineties and exploit the deregulation episodes in the banking and financial sectors as quasi-natural experiments. We provide difference-in-differences estimates of their effect on (1) total pay, (2) estimated fixed pay and performance-pay sensitivities and (3) on the sensitivity of stock option grants. Our results indicate that the deregulations substantially changed the level and structure of compensation: the variable components of pay increased, performance-pay sensitivities grew and, at the same time, the fixed component of pay fell. The overall effect on total pay was small.

DP 599

## Efficient Estimation of a Semiparametric Characteristic-Based Factor Model of Security Returns

Gregory Connor, Matthias Hagmann, Oliver Linton

This paper develops a new estimation procedure for characteristic-based factor models of security returns. We treat the factor model as a weighted additive nonparametric regression model, with the factor returns serving as time-varying weights, and a set of univariate non-parametric functions relating security characteristic to the associated factor betas. We use a time-series and cross-sectional pooled weighted additive nonparametric regression methodology to simultaneously estimate the factor returns and characteristic-beta functions.

By avoiding the curse of dimensionality our methodology allows for a larger number of factors than existing semiparametric methods. We apply the technique to the three-factor Fama-French model, Carhart's four-factor extension of it adding a momentum factor, and a five-factor extension.

DP 600

## Efficient Dynamic Coordination with Individual Learning

Amil Dasgupta, Jakub Steiner, Colin Stewart

We study how the presence of multiple participation opportunities coupled with individual learning about payouts affects the ability of agents to coordinate efficiently in global coordination games. Two players face the option to invest irreversibly in a project in one of many rounds. The project succeeds if some underlying state variable  $\theta$  is positive and both players invest, possibly asynchronously. In each round they receive informative private signals about  $\theta$ , and asymptotically learn the true value of  $\theta$ . Players choose in each period whether to invest or to wait for more precise information about  $\theta$ . We show that with sufficiently many rounds, both players invest with arbitrarily high probability whenever investment is socially efficient, and delays in investment disappear when signals are precise. This result stands in sharp contrast to the usual static global game outcome in which players coordinate on the risk-dominant action. We provide a foundation for these results in terms of higher order beliefs.

DP 598

## Executive Compensation and Competition in the Banking and Financial Sectors

Vicente Cuñat, María Guadalupe

This paper studies the effect of deregulation and increased product market competition



DP 601

### Inflation Dynamics in the US – A Nonlinear Perspective

Bob Nobay, Ivan Paya, David A Peel

A stylized fact of US inflation dynamics is one of extreme persistence and possible unit root behavior. If so, the implications for macroeconomics and monetary policy are somewhat unpalatable. Our econometric analysis proposes a parsimonious representation of the inflation process, the nonlinear ESTAR, rather than the IMA process with time-varying parameters as in Stock and Watson (2007). The empirical results confirm a number of the key features such as regime changes and implicit Federal Reserve inflation targets. We address the issue of whether the source of the Great Moderation can be ascribed to good luck rather than good policy.

DP 602

### Inequality, Stock Market Participation, and the Equity Premium

Jack Favilukis

Over the last 25 years, labor income inequality has increased significantly; one may expect this would lead to significant increases in wealth and consumption inequality. However the increase in wealth inequality has been relatively moderate and consumption inequality has barely increased at all. At the same time, stock market participation has increased and the equity premium has declined. I solve a general equilibrium model to show that there is an intimate link between market participation and inequality. When wage inequality increases without a change to participation costs, the model predicts large increases in wealth and consumption inequality and a drop in market participation. However, if in addition,

participation costs fall to match the increase in participation observed in the data, the model predicts changes in wealth and consumption inequality quantitatively similar to those observed in the data, as well as a large decline in the equity premium.

## Special Papers

SP 174

### Does high money growth put the inflation target at further risk?

Tim Congdon

No abstract available

## Forthcoming Discussion and Special Papers

### Discussion Papers

DP 603

### An Estimation of Economic Models with Recursive Preferences

Xiaohong Chen, Jack Favilukis, Sydney C Ludvigson

DP 604

### Performance Measurement and Evaluation

Bruce Lehmann, Allan Timmermann

DP 605

### Consistent Estimation of the Risk-Return Tradeoff in the Presence of Measurement Error

Anisha Ghosh, Oliver Linton

DP 607 The Paul Woolley Centre Working Paper Series No 2

### Bond Supply and Excess Bond Returns

Robin Greenwood, Dimitri Vayanos

DP 608 Corporate Governance at LSE, 004

### From Fiction to Fact: The Impact of CEO Social Networks

Tom Kirchmaier, Konstantinos Stathopoulos

### Special Papers

SP 175

### Liquidity Risk Management

C A E Goodhart



# Visitors to the FMG

## April – June 2008

**Viral Acharya** (London Business School)

**Volker Baetz** (Credit Suisse)

**Susan Ball** (Clyde & Co LLP)

**Hugo Banziger** (Deutsche Bank)

**Nick Barberis** (Yale University)

**Efraim Benmelech** (Harvard University)

**Bruno Biais** (University of Toulouse)

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

**Claudio Borio** (Bank for International Settlements)

**David Bradbery** (UBS)

**Markus Brunnermeier** (Princeton University, NBER and CEPR)

**Lee C Buchheit** (Cleary Gottlieb Steen and Hamilton LLP)

**Ricardo Caballero** (MIT)

**Mikhail Chernov** (London Business School)

**Anthony Clifford** (Ernst & Young UK)

**Lauren Cohen** (Harvard Business School)

**David Coleman** (RBS)

**Andrew Cross** (Credit Suisse)

**Walter Distaso** (Tanaka Business School)

**Darrell Duffie** (University of Stanford GSB)

**Gerald Edwards** (Bank for International Settlements)

**Samuel Fankhauser** (IDEAcarbon)

**Marcelo Fernandes** (Queen Mary, University of London)

**Michael Foot** (Promontory Financial Group)

**Ross Fraser** (Herbert Smith LLP)

**Gavin Francis** (IASB)

**Malcolm Gammie** (One Essex Court)

**Nicolae Bogdan Gârleanu** (Haas School of Business, UC Berkeley)

**Simon Gervais** (Duke University)

**Eitan Goldman** (Indiana University)

**Itay Goldstein** (The Wharton School)

**Jeremy Grantham** (GMO LLC)

**Thorvald Grung Moe** (Central Bank of Norway)

**Alexander Guembel** (University of Oxford)

**Harald Hau** (INSEAD)

**Terrence Hendershott** (Haas School of Business, UC Berkeley)

**Harrison Hong** (Princeton University)

**Thomas Huertas** (Financial Services Authority)

**Joachim Inkmann** (Tilburg University)

**Urban Jermann** (The Wharton School)

**Hao Jiang** (RSM Erasmus University)

**Sujit Kapadia** (Bank of England)

**Aneel Keswani** (CAAS Business School)

**Malcolm D Knight** (Bank for International Settlements)

**Peter Kondor** (University of Chicago)

**Arvind Krishnamurthy** (Kellogg School of Management)



**Francesca Lagerberg** (Grant Thornton UK LLP)

**Hong Liu** (Washington University at St Louis)

**Lars A Lochstoer** (London Business School)

**Alex Maddox** (Lehman Brothers)

**Igor Makarov** (London Business School)

**Sylvie Matherat** (Banque de France)

**Vasant Naik** (Lehman Brothers)

**Jacques Oliver** (HEC)

**Andrew Patton** (University of Oxford)

**Joel Peress** (INSEAD)

**Antti Petajisto** (Yale University)

**Guillaume Plantin** (London Business School)

**Edward Prescott** (Arizona State University,  
Federal Reserve Bank of Minneapolis)

**Adriano Rampini** (Duke University)

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

**Paul Sater** (Ernst & Young)

**Marianne Schulze-Ghattas** (International  
Monetary Fund)

**Andrew Sheng** (former chairman of the Hong  
Kong Securities and Futures Commission)

**Eytan Sheshinski** (The Hebrew University)

**Hyun Shin** (Princeton University)

**Stefan Streatmans** (Maastricht University)

**Gabriel Sterne** (Bank of England)

**Matti Suominen** (Helsinki School of Economics)

**George Tauchen** (Duke University)

**Gillian Tett** (Financial Times)

**Henry Tricks** (The Economist)

**Paul Tucker** (Bank of England)

**Annette Vissing-Jorgensen** (Northwestern  
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**Shivesh Viswanathan** (Duke University)

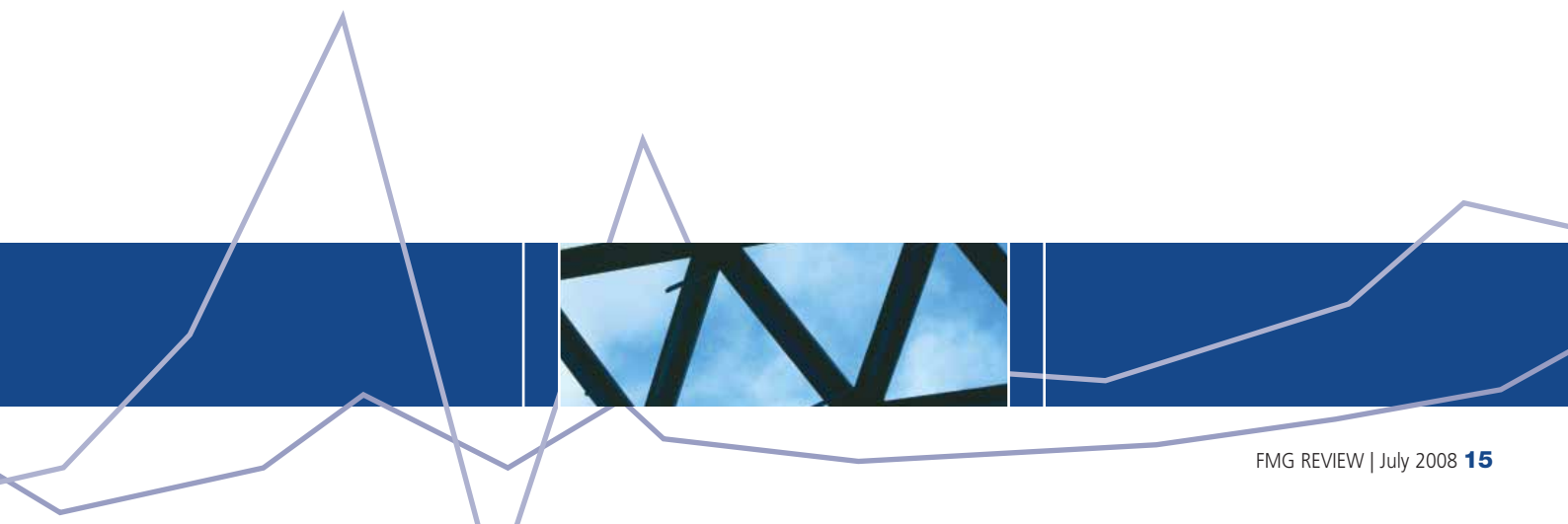
**Sushil Wadhwani** (Wadhwani Asset  
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**Axel A Weber** (Deutsche Bundesbank)

**Ian Wright** (Financial Reporting Council)

**Wei Xiong** (Princeton University)







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The screenshot shows the FMG website homepage. At the top left is the FMG logo and the text 'Financial Markets Group'. Below this is a blue banner with the text: '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'. To the right of the banner is a large image of a modern building interior with a glass dome. Below the banner, there are two main sections: 'Events this week @ FMG' and 'In the news'. The 'Events this week @ FMG' section lists two events for Wednesday, 18th June 2008: a 'Lunchtime Workshop' at 1pm and a 'Capital Markets Workshop' at 5pm. The 'In the news' section lists two news items: 'Financial Market Stability Public Lecture: podcast and transcript now available' dated 12 Jun 2008, and 'Samuel Fankhauser (IDEAcarbon) slides now available' dated 16 May 2008. At the bottom of the page is a navigation bar with buttons for 'home', 'about', 'events', 'news', 'publications', 'research', 'people', 'be involved', 'mailing list', 'contact', and 'Corporate Partnership Programmes'. There is also a search bar with the LSE and RLAB logos and a 'Search' button.

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

## FMG Review

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