

# Second FMG Hedge Fund Conference – Risk and Return Characteristics of Hedge Funds

*Following the success of the First FMG Hedge Fund Conference, the Financial Markets Group, in conjunction with International Asset Management, hosted a conference on Risk and Return Characteristics of Hedge Funds on Friday 14 May 2004.*

*Among the academic speakers were Bing Liang (University of Massachusetts), Narayan Naik (London Business School) and Andrew Patton (LSE). The conference included presentations by market leaders and a panel discussion on 'Understanding hedge fund risk, styles and benchmarks'.*

The first session of the morning started with the panel discussion, which consisted of both leading academics and practitioners. **Mark James** (ABN AMRO) discussed various measures of hedge funds' performance. He focused on funds of hedge funds, which are typically of longer horizons, arguing that one needs to analyse them from a perspective that accounts for both different investment horizons and strategies. James argued that the performance of funds is evaluated on a weekly basis, but for understanding the broader picture an analysis based on both quantitative and qualitative criteria is required.



## Second FMG Hedge Fund Conference



**Carol Alexander**

**Carol Alexander** (University of Reading) discussed the importance of looking at non-linear statistics of returns, such as skewness and excess kurtosis, in valuing hedge funds' performance. She gave a simple example of how linear statistics may fail to distinguish among different risk profiles of hedge funds' strategies,

arguing that a possible reason for the LTCM crisis might have been the lack of focus on higher moments of active returns.

The first presentation of the day was given by **Narayan Naik** (London Business School) entitled 'Systematic Risks of Convertible Arbitrage Strategies' (joint work with Vikas Agarwal (Georgia State University), William Fung (London Business School) and Yee Cheng Loon (Georgia State University)). In their paper, the authors use data on Japanese convertible bonds and underlying stocks to analyse the risk-return characteristics of convertible arbitrage strategies. They do so by formulating some mechanical trading rules for assets for which actual market prices were observed, that are then evaluated on the historical data, ie by so-called asset-bases style analysis.

They examined three strategies which they termed positive carry, credit arbitrage and volatility arbitrage. By 'positive carry', the authors mean trades that are long in the convertible bond, and delta hedged with equity, and have a positive carry. 'Credit arbitrage' refers to an attempt to capitalize on mispriced credit risk by going long in deep out of the money convertibles and hedging out equity and interest rate risks (leaving credit risk). Lastly, the authors use 'volatility arbitrage' to refer to buying convertibles with high gamma implicit options (at-the-money), and then hedging out credit, equity and interest rate risks.

They compare the returns of these strategies to four popular convertible arbitrage indices, and conclude that depending on the index and strategy, about 5 to 24 percent of these can be explained with their approach. They note, however, that credit arbitrage does seem to perform rather poorly, and suggest that credit risk is not really priced in convertible bonds, as they tend to be issued by blue chip companies, which, for cultural reasons, are rarely allowed to default in Japan.

The discussant, **Kamran Khokar** (Jeffries International Group), who had participated in this market himself in the late 1990s, noted that passive strategies as described in the presentation were rarely sufficient to generate positive returns, and that dynamic hedging can be an important component. He also pointed out that the effect of dilution was very important for performance, as was tracking error. However, he stated that the most important factor in the success of a strategy would have been the size and timing of the inflow of funds into any particular strategy.

In the following discussion, Carol Alexander (University of Reading) suggested that the utilised hedge ratios might be very sensitive to the models used. As Vikas Agarwal (a co-author of the paper) explained, the authors actually calculated empirical hedge ratios, though, and did not rely on a model for precisely this reason.

Bing Liang (University of Massachusetts) suggested that it would be interesting to compare the returns of the strategies to more narrow indices, constructed so as to more closely match those strategies.

The second session saw **Andrew Patton** (LSE) discuss market neutrality in a paper entitled "Are 'market neutral' hedge funds really market neutral?" He focused on the 'completeness' of the neutrality of a fund to market risks, namely the independence of a fund to such risks. Patton looked beyond the traditional measure of market neutrality, such as correlations with broader markets, and proposed five different neutrality concepts for hedge funds. These included 'mean neutrality', which nests the standard correlation-based definition of neutrality, 'variance neutrality', 'Value-at-Risk neutrality' and 'tail neutrality'. Patton suggested statistical tests for each neutrality concept, and applied those tests to a combined database of monthly 'market neutral' hedge fund returns from the HFR and TASS hedge fund databases. He measured 217 market neutral funds from April 1993 and April 2003 finding evidence of significant exposure of 'market neutral' funds to market risks, where between one-quarter and one-third of these funds failed at least one test of neutrality.

In the first afternoon session, **Bing Liang** (University of Massachusetts) presented the paper 'Do Hedge Funds have enough Capital – a Value-at-Risk approach', representing joint work with Anurag Gupta (Case Western Reserve University). While some experts argue that hedge funds are big enough to destabilise markets and therefore must be understood by regulators, others suggest hedge funds provide a critical source of liquidity for the markets, and advise against too much intrusion on the business. In the paper, the authors examine the risk characteristics and capital adequacy of hedge funds through the Value-at-Risk approach. Using a large data set, they find that only 3.7 per cent live and 10.9 per cent dead funds are

under-capitalised as of March 2003. Moreover, the under-capitalised funds are relatively small and constitute a tiny fraction of the total fund assets in their sample.

The paper investigates the variability in fund capitalisation and finds that it is related to size, investment style, age, and management fee. A usual way to blow smoke in customers' eyes is to dress up a performance number in statistical clothing. However, the popular Sharpe-ratio or other traditional risk measures fail to detect that fund risk and capitalisation are not time-invariant, whereas their Value-at-Risk approach with use of extreme value theory does capture this property.

**Arvind Raghunathan** (DB Equitech) started his presentation with a brief description of an equity market neutral strategy. This strategy can take many different forms, but all of them hedge their exposure to systematic market risk. The rest of his presentation focused on the particular hedge fund that he founded, DB Equitech (Deutsche Bank), which is characterised as being equity market neutral.

When explaining the characteristics and strategies of Equitech, he pointed out that its markets are those of the Americas, Europe, and Japan; while its instruments are mainly equities, but also options, futures, and CBs. It is very diversified, liquid, and trades frequently, with a typical leverage of 4:1, and its style is contrarian within a trend-following approach, so that it profits from the herd mentality of investors. Finally, its key factor is to group stocks and study the relevant valuation metric (technicals, ratios, fundamentals, etc) in each group at each time.

He also described several examples of their successful trades such as take over activity in banks, credit spreads, and trades conducted during the Argentine debt crisis. Finally, he talked about Equitech's risk management and performance.

The discussant, **Michela Verardo** (LSE), linked the success of the previous strategies to the empirical literature and stressed the corresponding challenges for asset pricing theory. She focused her talk on three concepts: beauty contests (the importance of predicting market sentiment), slow propagation of information within a sector, and cycles in stocks characteristics.

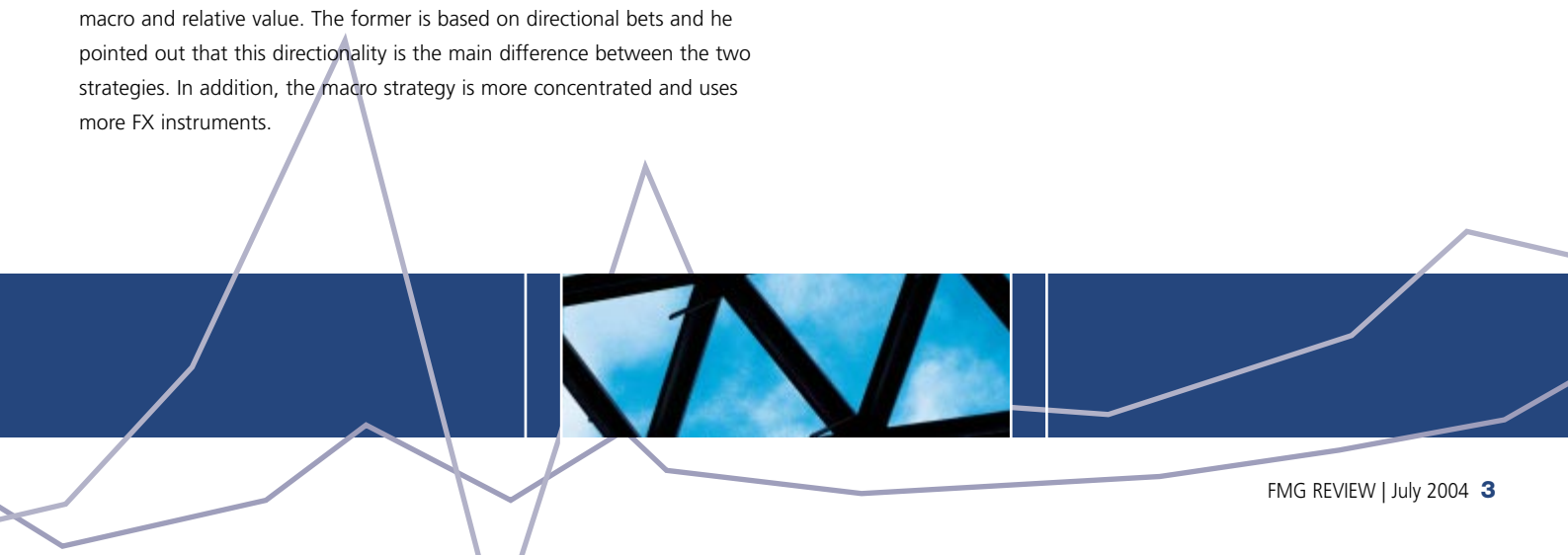
**Tim Haywood** (Julius Baer Investments Ltd) spoke on the differences and similarities between two strategies of fixed income hedge funds; those of macro and relative value. The former is based on directional bets and he pointed out that this directionality is the main difference between the two strategies. In addition, the macro strategy is more concentrated and uses more FX instruments.

He also explained that these strategies are more profitable than long-only fixed income. In addition, the risk of short positions is lower in fixed income than in stocks. He gave examples of successful trades with emerging market bonds such as Brazilian debt in euros and dollars, and the consistent outperformance of shorter-dated bonds during crises, applied to Argentina. Finally, he described the risk management of these hedge funds.

The discussant, **Mark Salmon** (University of Warwick), used a more theoretical approach to differentiate both strategies. He started with a brief introduction to models of the term structure of interest rates. After that, he commented on the different statistical properties of the two strategies. Relative value shows negative asymmetry and higher kurtosis, so that its returns clearly do not follow a normal distribution. He concluded that those differences imply that diversification and portfolio design of hedge fund styles will play an important role in the future.



**Barry Cohen, Panel Member**



# Discussion papers



DP 451

## The Role of Money in The Transmission Mechanism of Monetary Policy: Evidence from Thailand

Pojanart Sunirand

Meltzer (2001) argues that the current trend for downgrading the role of money in standard macro models is erroneous as it masks those monetary transmission channels which operate through changes in relative yields of assets. This paper shows that the scope of these changes can be empirically segregated into (i) the changes in relative prices along the term structure (term-structure effect) and (ii) the changes in relative risk premia component of different classes of assets (risk-premia effect). Using data from Thailand, the author finds that both effects are significant and therefore argues that standard macro models, which are based on the two-asset assumption, are distorting. The problem can be alleviated by introducing an explicit role for money in these models.

DP 452 (UBS Pensions series 11)

## The United Kingdom Pension System: Key Issues

David Blake

This paper examines the key issues relating to the UK pension system. It reviews the current system of pension provision, describes and analyses the reforms made since 1980 and examines the legal regulatory and accounting framework for

occupational pension schemes. The author assesses the different types of risks and returns from membership of defined benefit and defined contribution pension schemes, and investigates the management and investment performance of pension fund assets. The paper ends with a discussion of the review of institutional investment in the UK conducted by Paul Myners and published in March 2001.

DP 453

## Likelihood-based estimation of latent generalised ARCH structures

Neil Shephard, Gabriele Fiorentini and Enrique Sentana

GARCH models are commonly used as latent processes in econometrics, financial economics and macroeconomics. Yet no exact likelihood analysis of these models has been provided so far. In this paper the authors outline the issues and suggest a Markov chain Monte Carlo algorithm which allows the calculation of a classical estimator via the simulated EM algorithm or a Bayesian solution in O(T) computational operations, where T denotes the sample size. They assess the performance of the proposed algorithm in the context of both artificial examples and an empirical application to 26 UK sectoral stock returns, and compare it to existing approximate solutions.

DP 454 (UBS Pensions series 12)

## Pension Fund Governance and the Choice Between Defined Benefit and Defined Contribution Plans

Andrea Prat and Tim Besley

Recent events in several countries have underscored the importance of good governance in private occupational pension plans. The present paper uses contract theory to analyze the interplay of residual claims and control rights in private pensions. The residual claimant is the plan sponsor in a defined benefit (DB) plan and the pool of beneficiaries in a defined contribution (DC) plan. The main control rights that the authors examine relate to decisions on funding, asset allocation, and asset management. Under complete contracting, governance can be shown to be neutral: DC and DB plans differ only on risk allocation. If instead contracts are incomplete, a DB (DC) plan should: (1) Assign more vigilance responsibility to the sponsor (beneficiaries); (2) Rely less (more) on trustees; (3) Tend to employ trustees that are professional experts (caring insiders); (4) Assign asset allocation rights to the sponsor (beneficiaries); (5) have strict funding requirements.

DP 455

## Common factors in conditional distributions for Bivariate time series

Timo Terasvirta, Clive W J Granger and Andrew Patton

A definition for a common factor for bivariate time series is suggested by considering the decomposition of the conditional density into the product of the marginals and the copula, with the conditioning variable being a common factor if it does not directly enter the copula. The links of this definition with a common factor being a dominant feature in standard linear representations is shown. The authors also give an application using a business cycle indicator as the common factor in the relationship between US income and consumption, with the finding that both series held the factor in their marginals but not in the copula.

DP 456

## Anatomy of a Market Crash: A Market Microstructure Analysis of the Turkish Overnight Liquidity Crisis

Burak Saltoglu and Jon Danielsson

An order flow model, where the coded identity of the counterparties of every trade is known, hence providing institution level order flow, is applied to both stable and crisis periods in a large and liquid overnight repo market in an emerging market economy. Institution level order flow is much more informative than cross sectionally aggregated order flow. The informativeness of institutional level order flow increases with financial instability, with considerable heterogeneity in the yield impact across institutions.

DP 457 (UBS Pensions Series 13)

## What is a Promise from the Government Worth? Measuring and Assessing the Implications of Political Risk in State and Personal Pension Schemes in the United Kingdom

David Blake

There are three key types of political risk facing state and personal pension schemes: those induced by demographic, economic and pure political considerations. The state scheme in the UK has been susceptible to all three types of political risk with the result that the annual real internal rate of return (IRR) on the second-pillar state pension (SERPS) for the average male worker has fallen from 5 per cent to 1.5 per cent over the last quarter century. The New Labour government replaced SERPS with the Second State Pension (S2P) Scheme which was designed to benefit its natural supporters, low-paid workers, at the expense of middle- and higher-paid workers. S2P, combined with the Minimum Income Guarantee (MIG) and Pension Credit, has raised the prospective IRR to low-paid workers to 6.2 per cent. Given the generosity of the MIG, which is uprated in line with earnings, most pensioners, including the well off, will become eligible for this means-tested benefit. The authors therefore question whether the MIG can survive in its present form. The flat-rate, first-pillar Basic State Pension has also experienced a fall in its IRR of 3 percentage points as a result of the indexation basis changing from earnings to prices. Personal pensions are not immune from political risk either, although to date they have been less susceptible than the state scheme: the abolition of the tax credit on UK dividends in 1997 lowered the IRR on personal pensions by 0.6 of a percentage point, for example. Given that company final-salary schemes in the UK have all but closed to new members, leaving

state and personal (or company) defined contribution pension schemes as the only alternatives available for building up pension entitlements, it is hard to see where British workers can turn in future to guarantee their retirement income security.

DP 458

## Evaluation of Joint Density Forecasts of Stock and Bond Returns: Predictability and Parameter Uncertainty

Francisco Penaranda

One of the most important findings in empirical finance has been the fact that returns are not i.i.d. Predictability, or time variation in the conditional distribution of returns, is one of the basic ingredients of asset pricing and portfolio choice models today. Due to the current renewed interest in the implications for portfolio management, there is a growing literature on the computation of optimal portfolios for a given utility function and a given estimation of a particular model of returns. However, there is an obvious problem with that approach. If the estimated model is not an accurate description of the distribution of returns, then the conclusions may be misleading. The approach in this paper is to study the properties of a particular model by means of the evaluation of its joint density forecasts of stock and bond returns. The focus is not on model testing; the procedure is based instead on out-of-sample checks of real-time density forecasting rules against realizations of returns. In addition, two important and controversial questions are addressed for each model: time-variation in risk premia and parameter uncertainty.



DP 459

### The Near Impossibility of Credit Rationing

David Webb and David DeMeza

Equilibrium credit rationing in the sense of Stiglitz and Weiss (1981) implies the marginal cost of funds to the borrower is infinite. So, borrowers have an overwhelming incentive to cut their loan by a dollar and thereby avoiding being rationed. Ways of doing this include scaling down projects, cutting consumption or infinitesimally delaying the project to accumulate more saving. All of these routes are normally feasible in which case credit rationing is impossible.

DP 460

### The Cross-Section of European IPO Returns

Josef Schuster

The author applies a sector-based approach to examine companies going public in the six largest Continental European markets and Sweden during a period characterized by dramatic change. For a sample of 973 IPOs between 1988 and 1998, there is considerable underpricing, which is time-varying and related to company characteristics. Much of the large amounts of money left on the table is due to privatization issues. For the sample as a whole, IPOs did not underperform in the long-run. Over shorter measurement horizons, however, the author finds overperformance. IPO performance is sensitive to market condition at the time of going public and IPO issuing characteristics. The favourable performance for the sample as a whole is driven by New Economy IPOs accounting for 28 percent of the sample. The pervasiveness of the outperformance of New Economy IPOs sheds light on the drivers behind the dramatic shift in industry composition of

European IPOs in favor of New Economy IPOs during the Internet Bubble.

DP 461

### IPOs: Insights from Seven European Countries

Josef Schuster

The author performs a comparative country-by-country study of companies going public in the six largest Continental European markets and Sweden between 1988 and 1998, a time period characterized by IPO activity in a broad set of industries. By applying a common research methodology, the author finds broad similarity in the overall and cross-sectional initial pricing and long-run performance patterns. Positive long-run IPO performance is a function of a country's ability to attract 'New Economy' IPOs. This helps to shed some light on the rationale behind the frantic efforts made by individual European Stock Exchanges to establish 'New Economy' segments during the late 1990s.

DP 462

### Management Behaviour and Market Response

Josef Schuster and Jinhui Luo

The authors study the relationship between management behaviour and the subsequent market response in the German IPO market. When applying two forms for earnings management, issuers that overperform in the long run manage earnings less aggressively. Over shorter measurement horizons, however, the performance is sensitive to the starting date of the measurement period. The market takes a considerable time to respond to the fundamental message conveyed by management behaviour towards earnings management at the time of the IPO. Within the first four months, IPO returns

are essentially driven by factors other than fundamentals. This sheds light on the dynamics of IPO performance and the efficiency of the IPO aftermarket.

DP 463 (UBS Pensions series 14)

### Financial System Requirements for Successful Pension Reform

David Blake

This paper examines the financial system prerequisites needed for the successful delivery of funded private pensions. In particular, it examines the financial instruments and investment strategies required during both the accumulation and decumulation stages. It does so within the context of a specific developed economy with a mature pension system, namely the United Kingdom. The lessons learned can help to inform the debate in developing countries that are in the process of undertaking pension reforms.

DP 464

### Procyclicality and the new Basel Accord—banks' choice of loan rating system

Dimitrios Tsomocos, Eva Catarineu-Rabell and Patricia Jackson

In 2006, the Basel Committee on Banking Supervision is proposing to introduce new risk-based requirements for internationally active (and other significant) banks. These will replace the relatively risk-invariant requirements in the current Accord. This article examines the implications of this new risk-based regime for procyclicality of minimum capital requirements – in particular whether the choice of particular loan rating system by the banks would significantly increase the likelihood of sharp increases in capital requirements in recessions,

creating the potential for classic credit crunches. The paper finds that rating schemes that are designed to be more stable over the cycle, akin to those of the external rating agencies, would not increase procyclicality, but ratings that are conditioned on the current point in the cycle, akin in some respects to a Merton approach, could substantially increase procyclicality. This makes the question of which rating schemes banks will use very important. The paper uses a general equilibrium model of the financial system to explore whether banks would choose to use a countercyclical, procyclical or neutral rating scheme. The results indicate that banks would not choose a stable rating approach, which has important policy implications for the design of the Accord. This suggests that it is important for banks to be given incentives to adopt more stable rating schemes. This consideration has been reflected in the Committee's latest proposals, in October 2002.

DP 465 (UBS Pensions Series 15)

## Is Immigration the Answer to the UK's Pension Crisis?

David Blake

As a result of population ageing and declining fertility, the UK state pension system is unlikely to remain viable without a steady inflow of young immigrant workers from abroad. Using plausible assumptions the author shows that up to 500,000 immigrant workers per year will be needed to save the state pension system. The paper then examines the conditions in the economy (such as demographic changes, changes in the real growth rate of wages, etc) that will necessitate a positive annual net inflow of immigrant workers in order for the state pension to remain viable. This article is based on written evidence presented to the House of Lords Economic Affairs Committee of Enquiry into 'Aspects of the Economics of Ageing' on 2 February 2003, 11 March 2003 and 4 April 2003.

DP 466 (UBS Pensions Series 16)

## Modelling the Composition of Personal Sector Wealth in the United Kingdom

David Blake

The allocation of UK personal sector wealth across five broad asset categories (net financial wealth, housing (and durable assets) wealth, state pension wealth, private pension wealth, and human capital) is investigated using the FAIDS (financial AIDS) model. Apart from total wealth and returns, additional variables relating to capital market imperfections, and demographic, labour market and cross-sector spillover effects turn out to be significant. The adjustment of portfolio weights to shocks is very slow, taking up to 21 years for some asset categories.

DP 468 (UBS Pensions Series 17)

## Long-Term Value at Risk

Andrew Cairns, David Blake and Kevin Dowd

This paper investigates the estimation of long-term VaR. It also suggests a simple approach to the estimation of long-term VaR that avoids problems associated with the square-root rule for extrapolating VaR, as well as those associated with attempts to extrapolate day-to-day volatility forecasts over longer horizons.

DP 469 (UBS Pensions Series 18)

## Aggregate Implications of Defined Benefit and Defined Contribution Systems

Alex Michaelides and Francisco Gomes

The authors use a general equilibrium life-cycle model with incomplete markets and

heterogeneous agents to evaluate the macroeconomic and welfare implications of Defined Benefit (DB) versus Defined Contribution (DC) systems, and to investigate the effects of incremental reforms within a particular system. Extensive calibrations illustrate the trade-off between efficiency and redistribution that a tax-financed, DB social security system generates. The authors find that social welfare is maximized for small but positive levels of DB because of the redistributive value associated with these systems. On the other hand, steady-state within DC system comparisons reveal that a zero DC tax rate maximizes social welfare.

DP 470

## Credit Card Debt and Default over the Life-Cycle

Paula Lopes

This paper solves an empirically parameterised model of life-cycle consumption, which extends the precautionary savings models of Carroll (1997), and Deaton (1991), to allow for uncollateralized borrowing and default. In case households choose to default: (i) their access to credit markets is restricted; (ii) lenders of funds may seize their financial assets above an exemption level, and up to the amount of outstanding debt; and (iii) there is a stigma effect, or a decrease in current utility caused by the social embarrassment of declaring bankruptcy.

The model shows that the decisions to borrow and default are closely related to the shape of the life-cycle labor income profile, and henceforth vary across household education levels. Moreover, the model explains two puzzling empirical facts: (a) why bankruptcy rates have been growing in periods of economic expansion and low unemployment; and, (b) why households hold simultaneously high cost debt and low return assets.



# Forthcoming Discussion and Special Papers

## Discussion Papers

### DP471

**'A Comprehensive Test of Order Choice Theory: Recent Evidence from the NYSE'**

Andrew Ellul

### DP472

**'Credibility and Cheap Talk of Securities Analysts: Theory and Evidence'**

Jordi Blanes

### DP473 (UBS Pensions series 19)

**'Are Annuities Value for Money? Who Can Afford Them?'**

Paula Lopes

### DP474 (UBS Pensions series 20)

**'Optimal Life-Cycle Asset Allocation: Understanding the Empirical Evidence'**

Francisco Gomes and Alex Michaelides

### DP475

**'Macroeconomic news, order flows and exchange rates'**

Ryan Love and Richard Payne

### DP476

**'Simulated Nonparametric Estimation of Continuous Time Models of Asset Prices and Returns'**

Antonio Mele and Filippo Altissimo

### DP477 (IAM Series No 002)

**'An Intro to Hedge Funds'**

Gregory Connor and Mason Woo

### DP478

**'Principal Agent Problems Under Loss Aversion: An Application to Executive Stock Options'**

David C Webb and David De Meza

### DP479

**'Continuous Time Optimal Stochastic Growth: Local martingales, Transversality and Existence'**

Lucien Foldes

### DP480

**'Block-Booking and IPO Share Allocation: The Importance of Being Ignorant'**

Kevin James and Céline Gondat-Larralde

### DP481

**'IPO Underpricing During the Boom: A Block-Booking Explanation'**

Kevin James

## Special Papers Papers

### SP151

**'FCIs and Economic Activity: Some International Evidence'**

Charles Goodhart and Boris Hofmann

### SP152

**'The Challenge of European Integration for Prudential Policy'**

Laurence Scialom and Michel Aglietta

### SP153

**'Central Banks and Supreme Courts'**

Charles Goodhart and Ellen Meade





# Second RICAfe Conference

'Risk Capital and the Financing of European Innovative Firms'

**15-16 October 2004**

**Center for Financial Studies, Frankfurt**

The research network 'Risk Capital and the Financing of European Innovative Firms' (RICAfe), formed by the London School of Economics (FMG), the Center for Financial Studies (Frankfurt), HEC School of Management (Paris), and the Department of Economics and Finance of Turin University will hold its second conference on October 15-16 at the Center for Financial Studies in Frankfurt. The European Commission sponsors the network. Details of its activities can be found at [www.lse.ac.uk/ricafe](http://www.lse.ac.uk/ricafe)

The conference will include both empirical and theoretical papers on the ability of financial systems to channel risk capital to innovative entrepreneurial firms and on the influence of risk capital (particularly venture capital) on firms' ability to translate scientific and technological advances into successful products. Some of the topics to be discussed are:

- The choice between alternative sources of financing for innovative firms and their impact on innovation activities in entrepreneurial firms;
- Venture capital, its contribution to innovative activities and the determinants of its performance;
- The interaction between the protection of intellectual property rights, the legal and institutional framework, and entrepreneurial risk-taking;
- The role and design of financial contracts and of the choice of organizational form in fostering innovation;
- The links between entrepreneurship and the stock market and the regulation of stock markets for innovative companies;
- Public incentives for venture capital and the financing of innovation.

## Programme Committee:

**Erik Berglöf** (SITE, Stockholm School of Economics)

**Francesca Cornelli** (London Business School)

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**Dima Leshchinskii** (HEC School of Management)

**Manju Puri** (Fuqua School of Business, Duke University)

**Uwe Walz** (Center for Financial Studies)



# Visitors to the FMG

## April-July 2004

**Enrico Perotti**

(University of Amsterdam)

**Nicolae Garleanu**

(The Wharton School, University of Pennsylvania)

**Andrew Ang**

(Columbia)

**Andrei Simonov**

(Stockholm School of Economics)

**Bing Liang**

(University of Massachusetts)

**Alan Morisson**

(Merton College, Said Business School)

**Ernst Maug**

(Humboldt University, Berlin)

**Paul Klumpes**

(University of Nottingham Business School)

**Valery Polkovnichenko**

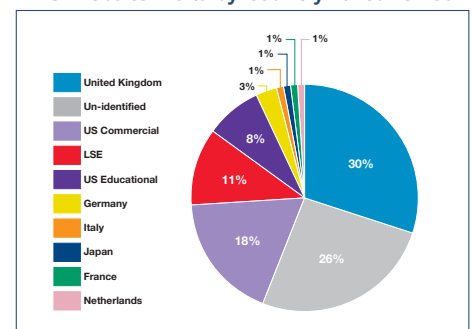
(University of Minnesota and visitor Federal Reserve Bank of Minneapolis)



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

During the months of April, May and June 2004 we recorded an average of 120,000 visits to the FMG website per month.

FMG Website Visits by Country for June 2004





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The Financial Markets Group also acknowledges  
financial support from STICERD



## FMG Review

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**Designed by:** LSE Design Unit  
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