

**ISSUE 15: RESHAPING FINANCE:** KEEP IT COMPLEX, STUPID. **MATHEMATICAL FINANCE:** MATH HYSTERIA. **INTERVIEW:** HECTOR SANTS, FSA. **Q&A:** PAUL COLLIER, AUTHOR OF THE BOTTOM BILLION. **MONETARY POLICY:** ABSOLUTE ZERO. **TAX:** HAVENS IN A STORM. **VIEWPOINT:** THE LOOMING PENSIONS CRISIS.

BUSINESS AT  
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THE MAGAZINE OF THE SAID BUSINESS SCHOOL

RESHAPING  
FINANCE



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# RESHAPING FINANCE



THE DEAN'S PREFACE: COLIN MAYER

**W**e are living in extraordinary financial times. The events of the last two years have generated a fundamental debate about the role of markets, and in particular financial markets. The failures of financial institutions suggest that there are basic deficiencies in the operation, structure and regulation of markets which have widespread ramifications for the rest of the economy.

The importance of high quality research in contributing to debates about the future operation of financial markets cannot be overstated, and Oxford is exceptionally well placed to contribute to these debates. One response to recent failures has been to promote strengthened and extended regulation of financial markets (see page 14). However, past experience demonstrates that overreaction to financial crises is commonplace and that the regulatory complexities that result can take many decades to unwind.

As commentators analyse the financial crisis, business schools are coming in for their share of criticism and being accused of "complicity" – a passive acceptance of what is wrong.

Typically, three responses are emerging from business schools. The first is a greater recognition that there are different approaches to business around the world which warrant

careful attention. We believe the Saïd Business School is ahead of the game here. Our MBA class is drawn from 50 countries, and our students and faculty – over half of whom come from outside the UK – come together to learn from each other's diverse perspectives. In our teaching and research, we are already reaching out to regions such as China, India and the Middle East, motivated by the desire to better understand their approaches to business.

A second response from business schools has been to take a more multidisciplinary approach to business education and to place greater emphasis on ethics and the social context for business. Again, the Saïd Business School is well placed, not just through the activities of the Skoll Centre for Social Entrepreneurship and the Institute of Science, Innovation and Society based at the School, but also because it is able to draw on the knowledge that other departments within the University of Oxford can provide.

This issue of Business at Oxford includes contributions from a mathematician (page 08), a development economist (page 18) and a member of Oxford's law faculty (page 26), as well as from finance faculty based at the Saïd Business School. It features contributions on the future of social investment (page 29) and the political ramifications of the financial crisis (page 16) alongside articles on hedge funds (page 36)

and liquidity (page 28). This is just one illustration of how being an integral part of a world-class university enables our students to see business and finance in their socio-cultural, political and economic contexts.

The third response focuses on the method rather than content of business education. There is a widely held view that business has too readily accepted what are now perceived to be deficient and damaging practices and that there was inadequate challenging of conventional wisdoms. Some believe that business schools have contributed to this by suggesting that there are straightforward answers to complex business problems and by failing to equip their students with the tools to challenge and question. In contrast, the Socratic style of learning at Oxford based on the tutorial system seeks to be reflective and thought provoking, demonstrating to students how they should analyse and evaluate ideas and evidence rather than just accepting them.

In sum, the Saïd Business School is ready to address the challenges of business education in the twenty-first century, and is dedicated to preparing its students to meet the needs of both businesses and the societies in which they operate. □

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BY: ALAN D. MORRISON

# KEEP IT COMPLEX, STUPID

HUMAN BEHAVIOUR CANNOT EASILY  
BE TRANSLATED INTO SIMPLE POLICY  
PRESCRIPTIONS.

**E**ven for experts, financial markets are hard to understand. In this article, I want to ask what bearing this observation has on the financial crisis that swept through the world economies from late 2007 through to 2009. Should we attempt to control or to reduce complexity, or should we accept it as an inevitable feature of a complex, globalised world?

## CREATING THE CONDITIONS FOR COMPLEXITY

The financial crisis had its origins in world economic imbalances that saw the oil-exporting and some Asian economies exporting capital to the West. This pushed interest rates down. Investors responded by searching for higher-yielding investments. An unprecedented period of economic stability and growth appears to have made investors more willing to assume risk in the pursuit of return; at the same time, lower interest rates, and arguably some policy decisions in the housing market, encouraged high levels of borrowing.

This state of affairs resulted in much of the complexity that we see today. Investors seeking high returns and risky borrowers seeking mortgages came together in the market for “securitisations”.

A securitisation is a deal under which assets, such as mortgages, are transferred to a special company, which issues bonds backed by the assets; the individual bonds are known as “tranches”. Some of the tranches are repaid early, with high priority claims on the cash generated by the underlying asset pool, and hence are relatively safe; those with low priority claims and long maturities are much riskier.

While the idea of a securitisation is relatively simple, it is hard to put a value on one. Doing so requires an understanding of the underlying assets, and an appreciation of their relationship: the less likely assets are to fail at the same time, the more likely it is that the highest priority tranche (the “senior” one) will be repaid in full, and so the higher its value. Quantifying this effect is tough when the underlying assets are mortgages, but many are more complex.

## ADDING ANOTHER LAYER

Securitisations are important because they allow for “credit risk transfer”: a broker in America can extend mortgages, and then use a securitisation to transfer the default risk on the mortgages to investors elsewhere. Banks used securitisations, and the closely related market for credit derivatives, to transfer the risk on the loan portfolios to other banks and to non-bank investors. Securitisations were even launched whose underlying assets were themselves securitisations.

Credit risk transfer introduces another layer of complexity on top of the basic valuation problem. Neither securitisation deals nor credit derivatives are subject to any reporting requirements. As a result, no one knows which institutions hold what risks. For example, Lehman Brothers was an important player in the credit derivatives market, and we still do not have a final figure for the size of its exposure. ▶

Investors were attracted to securitisations because they appeared to offer unusually high returns for relatively low risk. But, of course, most investors could not evaluate securitisation deals for themselves; in many cases, it was impossible to do so because the details of the asset pool were never revealed to the market. Instead, they relied upon risk assessments provided by professional credit ratings agencies, of which the most important are Moody's, Standard & Poor's and Fitch. The agencies relied upon mathematical models of asset default and correlation to make sense of the securitisations, and investors relied upon ratings agencies.

#### COLLAPSE IN CONFIDENCE

Many problems contributed to the crisis. One of the important ones was a loss of faith in securitisation ratings. The subprime mortgages that backed securitisations started to report higher default levels in early 2007. Ratings agencies started to downgrade their assessments of securitisations later in the year, and investors became increasingly unwilling to put a price on new securitisations of any sort.

The storm broke on 9 August 2007, when the French bank BNP Paribas halted redemptions on three funds, citing a lack of faith in subprime mortgage valuations as the reason. A month later, the British bank Northern Rock failed because it could not securitise its new mortgage lending. Continued ratings downgrades, including over 8,000 on one day in January 2008, had a catastrophic effect on confidence in the securitisation market.

Once the crisis had begun, the second cost of market complexity became apparent. Because there was no reporting of credit risk transfer deals, no one knew which banks were heavily exposed to securitisations. All banks were therefore treated as suspect. Banks stopped lending to one another, and the resultant credit crunch had a severe effect upon the real economy. It was a short step from there to public financial support for banks.

#### CAN WE MAKE THING SIMPLER?

Complexity created the conditions in which a general loss of confidence in financial intermediaries could occur. So should we try to make financial markets easier to understand? This is a more subtle question than it seems. Do we hope that, in reducing complexity, we can make the entire financial system comprehensible to a regulator, or to a government, which will then make sure that banks never again over-extend themselves as they did in the middle of this decade?

If so, we are fated to be disappointed. Economies are immensely complex machines for generating information and allocating resources, and financial markets sit at the heart of both activities. Anyone who hopes to understand, and then to control, either an economy or a financial market cannot achieve his or her goal: if markets function effectively then they aggregate more complex decisions than any person could hope to comprehend; if a market can be understood by a single person then it is failing to generate enough information for there to be any hope that it will operate efficiently.

#### REGULATION AND COMPLEXITY

So we should not respond to the crisis by writing regulations that attempt to double guess financial institutions. In fact, perhaps paradoxically, many of the problems we currently face had their genesis in capital regulations that made securitisation a relatively cheap source of funding, and that encouraged banks to develop and to rely upon models of financial risk that over-emphasised the methods of the physical sciences at the expense of insights into human behaviour from economics and other social sciences. If regulations are too prescriptive then they create the type of group-think that left us so exposed to the current crisis.

There are no easy answers. We cannot regulate our way to growth and prosperity. Indeed, a failure of regulation created the conditions that made the crisis possible. If we want to avoid re-living recent financial history, we need to understand the institutional backdrop to the crisis. Laws and regulations affect how people behave in markets in subtle and far-reaching ways, and it will not be easy to translate our understanding of these interactions into sensible policy prescriptions. This is one of the most important challenges facing both the social scientists at the Saïd Business School, and the wider business community. □

*Alan Morrison is Professor of Finance at the Saïd Business School and a Fellow of Merton College. He is currently serving as specialist advisor to the House of Lords Select Committee on Economic Affairs' inquiry into banking regulation and supervision.*

**“ANYONE WHO HOPES TO UNDERSTAND, AND THEN TO CONTROL, EITHER AN ECONOMY OR A FINANCIAL MARKET CANNOT ACHIEVE HIS OR HER GOAL ...”**



## HOT QUESTION



### IS THE BONUS CULTURE BAD FOR THE BANKING INDUSTRY?



**ROGER STEARE**  
PROFESSOR OF ORGANISATIONAL ETHICS, CASS BUSINESS SCHOOL  
WWW.ETHICABILITY.ORG

**T**he current bonus culture is bad, not just for banking, but for all enterprise. Rewards should be underpinned by two moral virtues: fairness, which is about equity; and moderation.

Fairness is important because social justice is a crucial challenge for our world today. I would go back to something like a multiple of ten, where no one in an organisation should earn more than ten times the amount of the lowest paid person, assuming the lowest paid person is paid a fair and reasonable living wage.

Moderation is an old-fashioned virtue, linked to patience and temperance. Human beings that exercise moderation are much happier than when they are addicted to wants and desires. □

address that challenge, and align employee behaviour with the best interests of the organisation and society as a whole. □



**GUIDO RAVOET**  
SECRETARY GENERAL  
EUROPEAN BANKING FEDERATION

**T**he European Banking Federation (EBF) believes that although it is hard to prove a direct link, there is a political consensus that remuneration practices may have been a contributory factor to the market crisis, as they were not adjusted for risk and had a short-term focus.

That is why, in light of events, we have set up a working group to address the issue of compensation incentives and to respond to different initiatives at European (CEBS and European Commission) and international level (Financial Stability Forum).

Obviously we are not able to prejudge the findings of the working group as its work is ongoing. EBF is in favor of high-level principles addressing weaknesses in remuneration practices but considers that the latter should be implemented on a risk basis. The recent principles put together by the Committee of European Banking Supervisors are in this respect a good example.

Moreover, notwithstanding recent criticism, the bonus system has helped to retain some of the brightest finance talent within the European banking industry, and has contributed to profitable growth at many European banks. □



**ANGELA KNIGHT CBE**  
CHIEF EXECUTIVE  
BRITISH BANKERS' ASSOCIATION

**B**anking employs around half a million people in the UK, and only a tiny minority receive sizeable bonuses of the kind reviled by the press. Banks don't want to lose talent to competitors so they need to offer attractive remuneration packages to get the best people.

Scrapping bonuses could drive the best elsewhere and if this happened everyone could suffer including shareholders, many of which are pension funds, bank staff in the branches, and the Treasury, as the banks are very large tax payers and London is the largest international financial centre.

The key is not to abandon bonuses but to install a remuneration structure that rewards the right sort of behaviour and not irresponsible risk taking. This is what we are doing; it will be policed by the FSA and what is more the UK will be the first country to take this action. □



**HECTOR SANTS**  
CHIEF EXECUTIVE OFFICER  
FINANCIAL SERVICES AUTHORITY,  
CHAIR OF THE SAÏD BUSINESS SCHOOL  
BUSINESS ADVISORY BOARD

**W**e are not the business ethics police. But what we certainly should be doing, and will be doing in the future is to make sure that compensation structures do not encourage unreasonable risk taking.

There is always a risk of asymmetry of returns between the employee and the shareholder, and it is very important that company boards that have a responsibility to their shareholders and customers, ensure that the compensation systems they have within their organisations do their best to



## XUNYU ZHOU SAYS MATHEMATICIANS ARE NOT GUILTY OF CAUSING THE CURRENT FINANCIAL CRISIS AND EXPLAINS HOW MATHS CAN HELP TO BUILD A SOUND POST- CRISIS FINANCIAL INFRASTRUCTURE.

**W**hile we are still in the midst of the financial crisis, the blame game is already well underway. People being blamed include Alan Greenspan, George W. Bush, ratings agencies, the Americans for excessive spending, the Chinese for excessive saving, economists, quantitative analysts and, most prominently, financial mathematicians for exploring the intrinsic connections between risk and return, and financial engineers for devising complicated financial products

such as Mortgage Backed Securities (MBSs) and Credit Default Swaps (CDSs).

The prevailing anti-mathematical sentiment is exemplified by Michel Rocard, a former French premier, who wrote “mathematicians are guilty (unwittingly) of crimes against humanity” in an article published on 2 November 2008 in *Le Monde*. Such charges are as absurd as blaming Einstein’s brilliant  $E=mc^2$  for the Hiroshima tragedy.

Take a “put option” for example. A put on a stock is a right but not an obligation to sell the stock at a prescribed price by a prescribed date. The original motivation for holding a put is, by paying a small premium, to protect against the risk of the underlying stock sliding in price. It is therefore important to know what premium the holder ought to pay.

Employing sophisticated mathematics including stochastic analysis and partial differential equation theory, mathematicians and economists derive exact and beautiful formulae for calculating option premiums. If used wisely, these formulae will provide sound guidance in designing risk-controlling financial products. Unfortunately, some – indeed many – people have abused the utility of financial derivatives and turned them into gambling tools by exploiting the

leverage inherent in these products. When they have made the wrong bet, they blame the formulae and those who created them.

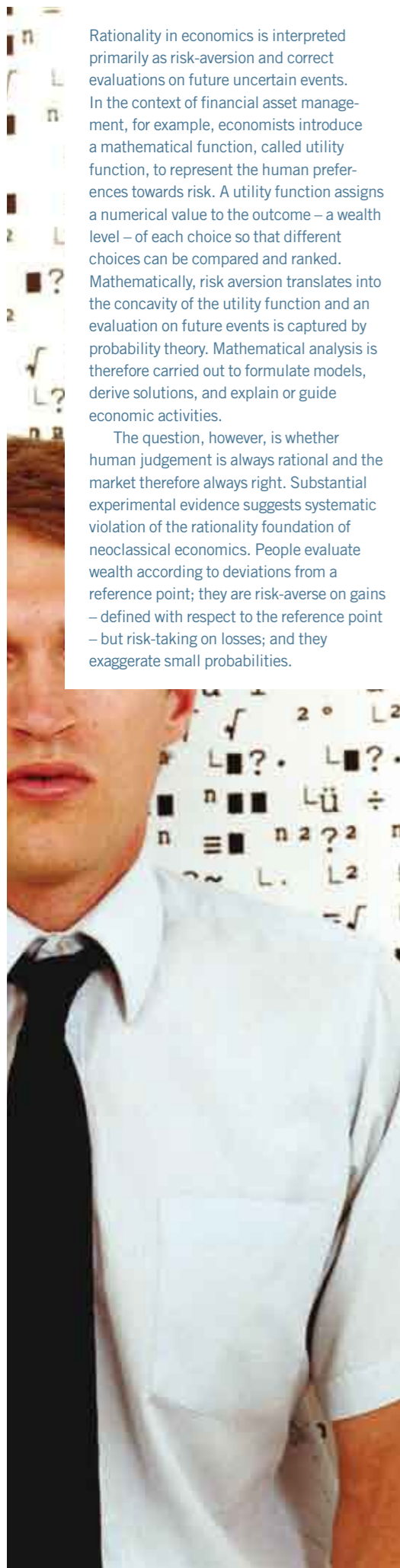
A more serious reflection on this crisis reveals that the ultimate culprits are us: more precisely, flaws and limitations in human behaviours such as greed and fear, coupled with free enterprise and modern capitalism.

For a long time economic theory was dominated by so-called neoclassical economics, which posits that economics, despite the fact it is primarily about human activities, can be made as logical, precise and predictable as natural sciences. The theory is premised upon the rationality assumption, that is that people have rational preferences among outcomes; individuals maximise utility; firms maximise profits; and people act independently on the basis of full and relevant information. As a logical consequence, financial markets are informationally efficient, or “prices are right”.

These thoughts form the core of the Chicago School of Economics, with Milton Friedman (1912-2006) as its poster child. The School stipulates that regulation and other government interventions are always inefficient compared to a free market. The efficient market theory has had a profound influence on government economic policies in western countries over the past 30 years. Ronald Reagan, famous, or indeed notorious now, for his “Reaganomics”, said, “Only by reducing the growth of government, can we increase the growth of the economy”. >

“THE PREVAILING ANTI-MATHEMATICAL SENTIMENT IS EXEMPLIFIED BY MICHEL ROCARD, A FORMER FRENCH PREMIER, WHO WROTE “MATHEMATICIANS ARE GUILTY (UNWITTINGLY) OF CRIMES AGAINST HUMANITY” IN *LE MONDE*. SUCH CHARGES ARE AS ABSURD AS BLAMING EINSTEIN’S BRILLIANT  $E=MC^2$  FOR THE HIROSHIMA TRAGEDY.”

# MATH HYSTERIA



Rationality in economics is interpreted primarily as risk-aversion and correct evaluations on future uncertain events. In the context of financial asset management, for example, economists introduce a mathematical function, called utility function, to represent the human preferences towards risk. A utility function assigns a numerical value to the outcome – a wealth level – of each choice so that different choices can be compared and ranked. Mathematically, risk aversion translates into the concavity of the utility function and an evaluation on future events is captured by probability theory. Mathematical analysis is therefore carried out to formulate models, derive solutions, and explain or guide economic activities.

The question, however, is whether human judgement is always rational and the market therefore always right. Substantial experimental evidence suggests systematic violation of the rationality foundation of neoclassical economics. People evaluate wealth according to deviations from a reference point; they are risk-averse on gains – defined with respect to the reference point – but risk-taking on losses; and they exaggerate small probabilities.

These observations form the foundation of the “prospect theory”, a theory that integrates human psychology and emotions into economic decision-making, proposed by two psychologists, Daniel Kahneman (1934-) and Amos Tversky (1937-1996) in 1979. Kahneman received the Nobel Memorial Prize in Economics in 2002 for his work on prospect theory. The theory is an instantiation of behavioural economics and behavioural finance more broadly, and posits that emotions and cognitive errors influence our decisions when faced with uncertainties, causing us to behave in unpredictable, inconsistent, incompetent, and most of all, irrational ways.

In general, behavioural theory seeks to explore the consistency and predictability in human flaws so that such flaws can be understood, avoided or even exploited for profit, and it has satisfactorily explained many market anomalies such as bubbles and crashes that cannot be explained by the neoclassical theory.

Economics and finance had long been considered to be “descriptive” as opposed to “normative”, until Markowitz quantified the notion of risk and formulated his mean-variance portfolio selection model in the 1950s. A mathematical and quantitative approach can play a similarly prominent role in behavioural finance.

For example, one can use an S-shaped utility function to model the partly risk-averse and partly risk-seeking behaviours, and apply the Choquet integration theory to cope with the probability distortions. In recent years, my collaborators and I have been developing a mathematical behavioural finance theory. We have found that a behavioural agent will take gambling

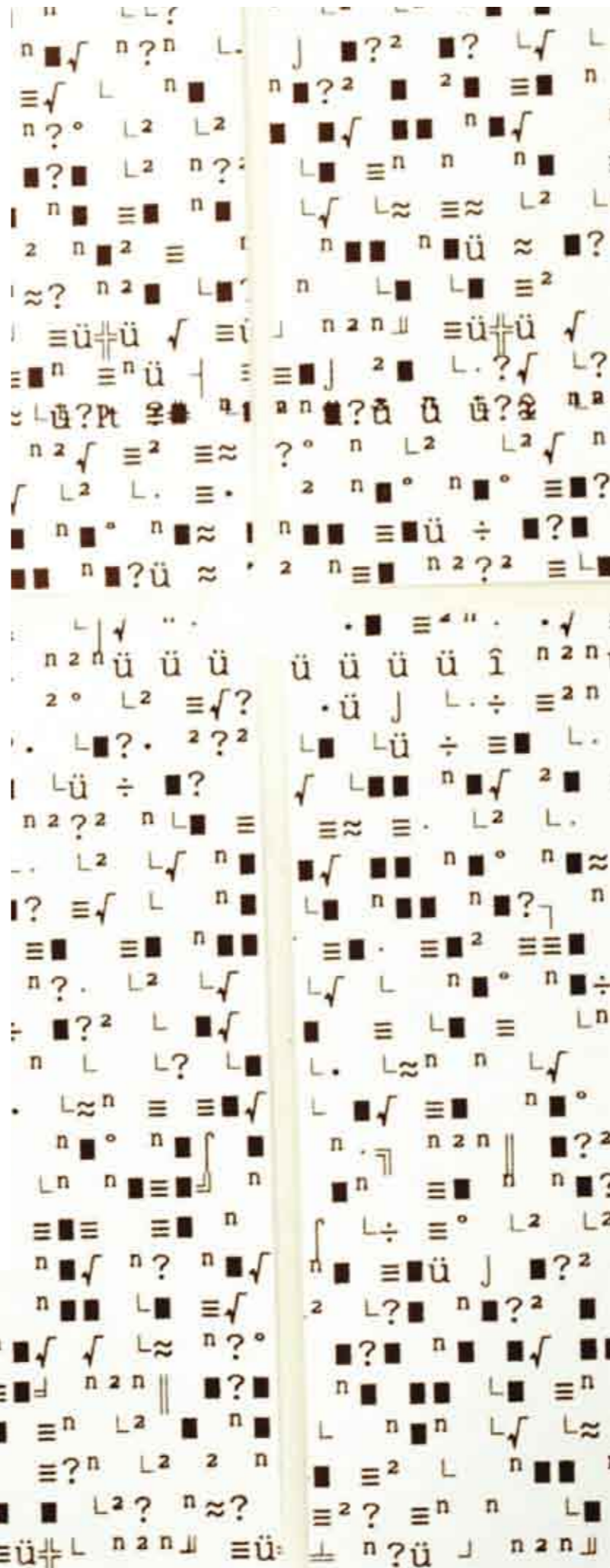
strategies, betting on the “good state of the world” while accepting a loss on the bad, if she sets the reference point too high (due to high aspiration à la Jérôme Kerviel or Nick Leeson). Moreover, such strategies must involve substantial leverage.

These sorts of investment behaviours were all too familiar before the financial crisis. The “good state” in question was “the US housing market will never fall”. Paul Krugman, a 2008 Nobel Laureate, points out that “banks bet heavily on the idea that housing prices at the levels of the middle of 2006 actually made sense”. Any notion that the “bad state” – “the US housing market will fall” – might occur was ridiculed by literally everyone prior to 2006 including subprime home buyers, lenders, insurers, equity investors and even governments. As a result, hot money swamped, leverage level soared, and losses ... no one thought about potential losses until they hit in a spectacular way.

We could do lots of detailed technical analyses on this crisis; but it is more imperative to understand and manage the underlying cause, rather than some one-off symptoms, lying deep in the human psyche and which might cause crises which take different forms in the future. The 2008 crisis is testament to human flaws and limitations – greed, fear, euphoria, panic, skulduggery ... and yes, always-blame-others. Events prove that the market can be very wrong, and harm everyone as a consequence.

There is nothing wrong with financial conventions and innovations such as mark-to-market, MBSs and CDSs, and there is nothing wrong with human flaws, because these are part of what we are. What is wrong is human flaws allowed to flourish uncontrolled. Regulations and interventions are necessary – although a subtle balance is important. Behavioural finance promises to be a major area in helping with re-building a sound post-crisis financial infrastructure. And mathematics, as ever, has a big role to play and a power to amaze in the endeavour. □

Xunyu Zhou is Nomura Professor of Mathematics at the University of Oxford, Director of the Nomura Centre for Mathematical Finance, and a Professorial Fellow of St Hugh's College, Oxford.



## WORKING KNOWLEDGE



### PRIVATE EQUITY FACES EVOLUTION NOT REVOLUTION

The fifth annual Oxford Private Equity Forum on 5 May drew a large audience and an impressive group of professional and academic speakers to debate how private equity would change as a result of the current financial crisis.

Jack Edmondson, Investment Director at Oxford University Endowment Management, led a panel debate on how private equity can adjust to the current financial climate; while Ian Gomes, a Partner at KPMG, Tim Jenkinson, Professor of Finance at Saïd Business School, and Jonathan Young, Group CEO, Gryphon Holdings, led a session on emerging markets. Other panels debated the future of buyouts, private equity infrastructure and real estate investing, and the role of angel investors in paving the way for venture capital.

As might be expected, given the current state of financial markets, and the recent performance of many private equity funds, much of the debate revolved around the question of whether the private equity model would fundamentally change in the future. Views differed, but evolution rather than revolution seemed to be the majority view. Leverage, the size of deals, return expectations, the number of funds, and fees would all have to fall. But the ways that the best private equity funds created value would stand the test of time. □

### EUROPEAN ECONOMY TO CONTRACT BY 2.0 PER CENT IN 2009

Professor Tim Jenkinson and Professor Michael Devereux of the Saïd Business School were among eight experts who contributed to The European Economic Advisory Group Report on the European Economy, presented at a press conference in Brussels on 25 February 2009.

The report concludes that the economy in the Eurozone will contract by 2.0 per cent this year. Although GDP in the Eurozone will expand again in 2010 at a slow pace of 0.2 per cent, unemployment will continue to rise, the authors suggest. In contrast to past downturns,

the contraction in one country will not be offset by growth in another, since the whole Western world has been hit by the recession.

The report, which is written by economists from seven European countries, provides an economic forecast covering all 27 countries of the European Union and specifically the Eurozone, as well as examining specific economic topics. The focus of this year's report is on the financial crisis, private equity firms, and the French economy.

Tim Jenkinson is Professor of Finance at the Saïd Business School and is Director of the Oxford Finance Research Centre. Michael Devereux is Professor of Business Taxation at the Saïd Business School and Director of the Oxford University Centre for Business Taxation. □



### INSTITUTIONAL TRADING CAUGHT ON TAPE

Previous academic studies of institutional trading have been limited by their use of quarterly, or even annual, information to draw conclusions, when in reality movements in institutional ownership happen continuously.

To address this problem, Tarun Ramadorai, Reader in Finance at the Saïd Business School, together with John Campbell of Harvard University and Allie Schwartz of Cornerstone Research, developed a new method for inferring high-frequency institutional trading behaviour, which combines two sources of information that in the past have been used separately in analyses of investor behaviour.

One of the sources is trade-by-trade data pertaining to all listed stocks on the NYSE and AMEX, beginning in 1993. This is the “tape”, recording transactions prices and quantities of every trade conducted on these exchanges. This is then matched with records of the SEC (Securities and Exchange Commission) mandated 13-F filings of large institutional investors, which provide quarterly snapshots of institutional holdings.

Using this method, Ramadorai and colleagues were able to offer fresh insights into institutional investor trading. Their results are published in the Journal of Financial Economics. □



# ABSOLUTE ZERO

**MICHAEL GAPEN AND CELINE ROCHON**  
EXAMINE WHAT CENTRAL BANKS CAN DO  
NOW INTEREST RATES HAVE PLUMMETED  
TO AN ALL TIME LOW.

**S**ince the onset of the financial crisis in 2007, central banks around the globe have reduced short-term interest rates to temper the direct effects of financial market turbulence on the real economy. The policy interest rates for most major central banks now stand close to zero, the so-called “zero lower bound”.

This monetary easing has helped to offset the effects of the turmoil. However, pressures on the balance sheets of many financial institutions, concerns about the creditworthiness of businesses and households, and heightened risk aversion – especially following the funding crisis at Northern Rock, the difficulties at Bear Stearns, and the failure of Lehman Brothers – have resulted in substantially more restrictive lending standards, a significant widening of credit spreads as investors have sold risky assets for the safety of government securities, and an overall impairment of market functioning. These developments have worked against monetary easing, leading to tighter financial conditions, and contributing to a significant further deterioration in the macroeconomic outlook.

#### BEYOND THE ZERO BOUND

So what can a central bank do to influence monetary conditions and economic activity when its primary instrument, interest rates, has reached its limit?

It turns out, quite a lot. In addition to traditional interest rate targeting, the Bank of England, Federal Reserve, and European Central Bank have each implemented multiple liquidity facilities, tied to the central bank’s traditional role as lender of last resort, that increase the amount and term of liquidity available, and in some cases extend credit to a broader set of financial institutions. Central banks have also taken the unique step of providing liquidity in a currency other than their own. Because dollar-based interbank markets are global in scope, the Federal Reserve approved bilateral currency swap agreements with a number of foreign central banks whereby the Fed swaps dollars for an amount of foreign currency that is equivalent in value. Taken together, the liquidity facilities are intended to support the functioning of credit markets and reduce funding stresses. They also aim to reduce systemic risk by reassuring the market that financial institutions will be able to meet liquidity needs without resorting to large-scale asset sales.

However, liquidity provision to financial institutions may not directly address instability in important non-bank markets that play a major role in credit extension in developed countries. The destabilisation of money market mutual funds and the commercial paper market led the Federal Reserve to develop additional liquidity facilities that purchase commercial paper and other short-term debt instruments and provide backup liquidity sources for issuers of and investors in these instruments. The goal of these facilities is to improve liquidity in short-term funding markets which, if achieved, should increase the willingness of private investors to lend longer term. A liquidity facility designed to help market participants meet the credit needs of households and small businesses by supporting the issuance of asset-backed securities was developed at a later date.

#### QUANTITATIVE EASING

The third tool implemented by the major central banks in support of credit market functioning involves the outright purchase of securities. The Federal Reserve announced plans to purchase US Treasuries; the debt of the housing government-sponsored enterprises (GSEs) Fannie Mae, Freddie Mac, and Ginnie Mae; and up to US\$ 1.25 trillion in mortgage-backed securities guaranteed by the GSEs. Both the Bank of England and Bank of Japan have authorised purchases of commercial paper, corporate bonds, and government debt. Finally, the Swiss National Bank recently announced plans to purchase private sector Swiss-franc denominated bonds as well as foreign currency.

The purchase of assets by a monetary authority to create a desired quantity of new money or reserves has traditionally been referred to as “quantitative easing”, but the current approaches engineered by the major central banks have a further objective. In a pure quantitative easing regime, such as the approach adopted by the Bank of Japan from 2001 to 2006, the stance of monetary policy is dependent upon the quantity of bank reserves or the monetary base, which are liabilities of the central bank. The composition of accumulated loans and securities on the asset side of the central bank’s balance sheet from lending or purchasing activities is of secondary concern.

In contrast, the approach taken by many central banks today focuses more on the mix of loans and securities held and how the lending or purchasing of these assets affects

credit conditions. Central banks have adopted this approach since credit spreads are much wider and markets more dysfunctional than during the Japanese experiment with quantitative easing. Targeted asset purchases provide liquidity directly to key credit markets with the goal of reducing those spreads and improving the functioning of private credit markets more generally. For these reasons, the stance of monetary policy should not be inferred solely by the level of bank reserves or the monetary base. Rather, the general state of credit conditions for households and businesses appear to play an important role in governing the conduct of monetary policy.

#### FOSTERING FINANCIAL STABILITY

The multifaceted approach of policy makers to the financial turmoil suggests additional research is needed to get a better understanding of the credit channel and credit risk transmission within the economy, as well as an understanding of how and when policy makers include indicators of financial market stability in their policy decisions.

The purpose of our forthcoming research is to present a suitable aggregate financial stability indicator based on either the probability that banks and systemically important financial institutions default or the likelihood that these institutions breach minimum capital adequacy levels. We then integrate this financial stability indicator within the framework of a stochastic dynamic macroeconomic model and analyse interest rate policy using Canadian, UK, and US data.

Our preliminary results suggest that explicitly targeting aggregate financial stability can, under certain circumstances, improve the conduct of monetary policy by reducing inflation volatility. We also intend to investigate, within the same framework, the optimality of monetary policies implemented by various central banks at a series of key points in the recent past. □

Michael Gapen is an economist at the Board of Governors of the Federal Reserve System in Washington DC. Celine Rochon is University Lecturer in Finance at the Said Business School and a Fellow of Oriel College.

The views expressed in this article are solely those of the authors and should not be reported as representing the views of the Board of Governors of the Federal Reserve System or of any other person associated with the Federal Reserve System.

## INTERVIEW: HECTOR SANTS

BY: STEVE COOMBER

**HECTOR SANTS, CHIEF EXECUTIVE OF THE FINANCIAL SERVICES AUTHORITY, EXPLAINS WHY HE SUPPORTS A MORE INTRUSIVE APPROACH TO SUPERVISING FINANCIAL FIRMS.**

# NOT A SPECTATOR SPORT



**T**he Financial Services Authority (FSA), the independent body that regulates the financial services industry in the UK, has been in the news a lot lately, and not always for the right reasons. In the lead-up to the financial crisis, many would argue that the FSA failed to fulfil its role to “promote efficient, orderly and fair markets” and to “help retail consumers achieve a fair deal,” and that it has not been robust enough in challenging banks, building societies, and financial services firms about their operations and business models.

These are criticisms that Hector Sants, chief executive of the FSA, takes very seriously. Sants joined the FSA in May 2004 after a distinguished career in banking and was appointed chief executive in July 2007. For the future, Sants is determined that the FSA should not be seen as an easy touch, and, as he points out, the proposals contained in the report recently published by Lord Turner, chairman of the Financial Services Authority, herald substantial changes to the regulatory architecture and the FSA's approach to its regulatory role.

“The principle thrust behind Lord Turner's report is to articulate how the regulatory architecture should be improved, and to ensure that we have learnt the lessons of the last few years,” says Sants.

“Those improvements, broadly speaking, fall into three categories: the regulatory architecture – the institutional structure that supports regulation; the policy and rules which should be applied; and the supervisory approach which delivers those rules.”

Proposals that the FSA support, says Sants, include: setting up “macro-prudential” oversight to ensure that the authorities have a view of the financial and banking system as a whole, and that the risks posed by the interdependencies and overall behaviour of the system are well understood; higher capital requirements; a counter cyclical mechanism, part formulaic, part discretionary, which is transparent in the accounts; and a reformation of the liquidity regime around more effective stress testing and higher liquidity buffers, with a backstop liquidity ratio.

All this sounds eminently sensible, but these proposals alone are insufficient. No amount of regulatory architecture, rules and policies will make a jot of difference without adequate supervision of the companies concerned on the ground.

“In my role as chief executive, I have always been supportive of a more intensive and intrusive supervisory approach than the Financial Services Authority has historically had in the area of supervision of the major UK banks,” says Sants. “We have been putting changes in place to our supervisory process for the last 12 months or so, moving from what commentators have called a ‘light touch approach’, to what I call an ‘intensive supervisory model!’”. These changes involve both a philosophical shift in attitudes, as well as an evaluation of the measures needed to deliver a more effective, more intrusive approach.

“Broadly speaking, the way the FSA worked in the past was to seek to ensure that firms had the right systems and controls in

place and then to rely on the senior management to effectively manage those companies,” says Sants. “Our job was to make sure that they equipped themselves with the right tools, systems and controls, but not to make judgments about whether those managers are making the right decisions, running the right business model, or whether there are going to be problems in the future. It was an assessment based on historic information, interventions were only made when things had gone wrong, offences were committed, regulatory limits breached.”

This approach was the product of the widely accepted economic dogma which holds that unfettered markets are self-correcting. To be fair, Sants notes, this philosophy underpinned a highly successful period for the City of London, when it became an international financial capital, and delivered significant growth not just for financial services but for the UK economy as a whole. It would have taken a brave or foolish regulator to stand against the tide of free market capitalism at its most rampant.

“With hindsight we can see that that philosophy was not correct, and while I have always favoured a somewhat different approach, as my actions when running the wholesale side of the FSA show, events have demonstrated that we need more than a somewhat different approach – we need a new approach.”

So what exactly does the new approach entail? Sants prefaces his explanation by emphasising the FSA's continued role in ensuring that individual firms have adequate systems and controls, and that the primary responsibility for running firms effectively rests and should always rest with the management of the firm.

That said, Sants supports a significant change in the FSA's approach. “I think we should give greater consideration to what is

likely to happen in the future. Is the business model credible? Has management made the right judgments?” says Sants. “I try to characterise this in terms of outcomes-focused regulation. In other words we will be seeking to make judgments about the decisions of senior managers, we will be seeking to ask, ‘Do we think that the consequences of the actions of the managers, of the firm, will generate acceptable results for society and for us the regulator?’”

Many would argue that this change in approach is not before time, and Sants acknowledges that the move seems to reflect the demands of society. “What we have seen by the way of the revealed preference of society, the way the people have reacted to events of the last eighteen months, is that people were expecting us to do that,” he says.

The new proposals are not a panacea, however. If the FSA is making judgements about the decisions of management then, inevitably, sometimes it will make the wrong call. Equally, there will always be risk in the system. “Banks do not make returns unless they take risks,” says Sants. “You cannot have a riskless system – a ‘no fail’ system. Nevertheless, where we can see, particularly in the aggregate, that significant risks are building up in the system, I think society expects us to intervene, and therefore we should do that.”

Looking at the wider context, he adds. “If we wish to learn the lessons of the last ten to fifteen years, not just the last two years, we need to change not just the regulatory rules and supervisory approach, but also the culture and attitudes of both society as a whole, and the management of major financial firms.” □

**Hector Sants is Chair of the School's Business Advisory Board and a member of the School's Business Advisory Council.**



# EXIT STAGE LEFT

THE FINANCIAL CRISIS COULD LEAVE EUROPE WITHOUT A ROLE ON THE WORLD STAGE, SAYS ROMANO PRODI, PAST PRESIDENT OF THE EUROPEAN COMMISSION.

There is no need to go into a detailed analysis of the origins of the current financial crisis, so I will simply remind you of the main points of it – the rise of American foreign debt, the excessive consumption of the US, the illusion of self-regulating markets, the absence of any traditional monetary system and control, and the lack of adaptation to the entrance of new countries into the world economy and world politics.

Politics and economics are strongly linked. If you think about the Iraqi war, this was the moment at which American power, at its peak, was put to the test. After that, we arrived at a more pluralistic political situation. The economic crisis has had similar consequences. Clearly, the United States is still the most powerful country in the world, but they can no longer control the economy and the politics alone. They need to play with other countries.

The G8 is over. I have been the most senior member of the G8, I have been in the G8 for ten years, and I have seen how it is impossible to have the G8 without China, without India, without Brazil. The crisis has made this reality more visible. And in this big new play in which the major actors are the US and China, the problem is to find a role for Europe.

The role of China is simple. I had a long conversation a few weeks ago with the Chinese prime minister. He told me, "I am responsible. I am still buying American bonds. I don't want to exploit our strength, to put the world economy in stress." But then he told me, "I have US\$1,000 billion on my table. And US\$1,000 billion is not a small amount of money." This is the reality. And in this picture, we have two protagonists; China and the US.

Then we have Europe which, in theory, is even stronger than both of them. Not only is Europe's macroeconomic structure big with 500 million people, but Europe is number one in terms of GNP in the world, number one by far in terms of exports; it has inflation

under control, and no public deficit of the dimension of the United States; its citizens are offered better social protection, and from the ideological point of view, more balanced ideas. But in Europe there is no shared governance, no common decision-making.

Initially, there was an illusion that the financial crisis was limited to the US, then to some European countries such as Ireland and Spain, where the financial bubble was overblown, and to some parts of the UK. Then there was an illusion that the new EU countries would be immune and would balance the European economy. In this climate, it was difficult to develop a common policy because everybody thought that his neighbour was in a worse situation. Now, the crisis has spread right across Europe. Now we have to take common decisions. Only by being united can we face the financial crisis and find the instruments to solve it. But there is no unity.

Europe is now a great spectator; not a great actor. Even if Europe has the strength and the potential to take a leading role, it is a spectator because of a lack of political union. Clearly a unified European voice would be much more authoritative in these times and could make proposals for the new economic order. The lack of a co-ordination instrument at this moment is the dominating problem.

So, this is the first reform needed in the long run. But now I think that we could do a reform in the short term. That is to increase the European budget – just for reserve, for intervention in case of speculation, of attack on some specific country's currency. Because my fear is now that today it will be Lithuania or Latvia outside the Euro, and then it can be Ireland, and then Portugal, then Spain, then Italy. And then Europe will be in misery. So you need a common instrument.

The second common instrument is, in my opinion, the admission of Euro bonds. The Euro bond, in my opinion, is the easiest instrument for collective intervention,



because, in case of an attack on some or non Euro member, you have a strong answer.

Then there is another long range instrument that, for me, is very simple but will decide the fate and the destiny of Europe, and that is the end of the need for unanimity. Think of the Irish Referendum; a few hundred thousand votes are blocking 500 million people. This is something that will devastate Europe.

If we do not make these changes, then Europe will be a spectator, an important, strong spectator in the world arena, but always a spectator. □

Romano Prodi is a past president of the European Commission and a former prime minister of Italy. This article is an edited extract from a Distinguished Speaker Seminar he gave at the Saïd Business School on 4 March 2009, organised in collaboration with Italian Studies at Oxford. To hear an audio stream of the event, go to the University of Oxford iTunes channel.

## NOT TO BE MISSED

### 13 JUNE '09

EVENT: OBA LONDON BALL

LOCATION: MIDDLE TEMPLE HALL LONDON  
TIME: 18.00 – 00.00

For the second year running, you are invited to the OBA London Ball at the exquisite Middle Temple Hall in central London on Saturday 13 June. Bring a partner or friend to this year's most glamorous OBA event. Enjoy a three-course meal, live music, casino tables, and everyone's favourite – the chocolate fountain. The OBA London Ball is sponsored by Sciemus.  
Dress code: Black tie  
Ticket price: £55 per person. □  
For further information, please contact [alumni@sbs.ox.ac.uk](mailto:alumni@sbs.ox.ac.uk)

### 19-20 JUNE '09

EVENT: EDINBURGH DRINKS RECEPTION AND SCOTTISH PARLIAMENT STUDY DAY

LOCATION: EDINBURGH DYNAMIC EARTH (19 JUNE)  
TIME: 18.30 – 20.30

LOCATION: EDINBURGH SCOTTISH PARLIAMENT (20 JUNE)  
TIME: 10.00 – 16.00

Join Oxford alumni and guests on 19 June for a drinks reception at the spectacular Our Dynamic Earth in Edinburgh. Walk up the red carpet to enter the dome and enjoy drinks and canapés in this stunning setting, with a terrace looking out across Edinburgh and the Salisbury Crags.  
Dress code: Smart  
Ticket price: £20 per person

On 20 June, alumni and guests are invited to a study day at the Scottish Parliament, including talks from Oxford academics and a Scottish MSP, a tour of the venue, and lunch. Booking is required.  
Visit [www.alumni.ox.ac.uk](http://www.alumni.ox.ac.uk) to register and purchase your ticket.  
Dress code: Smart casual  
Ticket price: £45 per person □

### 04 JULY '09

EVENT: VARSITY CRICKET AT LORD'S

LOCATION: LORD'S CRICKET GROUND  
TIME: 11.00

The alumni event package at Lord's for the Varsity Cricket includes the exclusive use of a private box, with wine, beer, and soft drinks provided throughout the day. Bring a picnic to enjoy in the beautiful gardens at lunchtime, and we will provide you with an accompanying glass of champagne.  
Dress code: Smart  
Ticket price: £42 per person. □  
For further information, please contact [events@alumni.ox.ac.uk](mailto:events@alumni.ox.ac.uk)

### 25 SEPTEMBER '09

EVENT: OBA REUNION DINNER

LOCATION: SAID BUSINESS SCHOOL  
TIME: 19.30 DRINKS. 20.00 DINNER

The 2009 Oxford Business Alumni Reunion Dinner will be held at the Saïd Business School in conjunction with the Oxford University Alumni Weekend on Friday 25 September. This event is for all Saïd Business School alumni, and specifically for Executive MBAs and MBAs who matriculated in 1998, 1999, 2004 and 2005. Tickets will be available for purchase on the OBA website at [www.oxfordbusinessalumni.com](http://www.oxfordbusinessalumni.com). □  
For more information, please contact [alumni@sbs.ox.ac.uk](mailto:alumni@sbs.ox.ac.uk).

### 25-27 SEPTEMBER '09

EVENT: OXFORD ALUMNI WEEKEND

LOCATION: OXFORD

This year's Oxford Alumni Weekend will mark the fiftieth anniversary of the former women's colleges being granted full status as colleges of the University. The weekend will also pay tribute to the International Year of Astronomy. Events will include a crime writing session with Val McDermid (St Hilda's), a panel discussion focusing on women and work, led by Nicola Horlick (Balliol), a celebration of Oxford's Galaxy Zoo project, and a sing-in of part two of Handel's Messiah. □  
For further information go to [www.alumniweekend.ox.ac.uk](http://www.alumniweekend.ox.ac.uk)

**PAUL COLLIER, CBE**

PROFESSOR OF ECONOMICS AND DIRECTOR OF THE CENTRE FOR THE STUDY OF AFRICAN ECONOMIES AT THE UNIVERSITY OF OXFORD

STEVE COOMBER DISCUSSES THE IMPACT OF THE CREDIT CRUNCH ON THE WORLD'S POOREST COUNTRIES WITH PROFESSOR PAUL COLLIER, EMINENT ECONOMIST AND PRIZE-WINNING AUTHOR OF THE BOTTOM BILLION AND THE RECENTLY PUBLISHED WARS, GUNS AND VOTES.



**Q** How does the global financial crisis impact on those countries caught in some of the traps you outline in *The Bottom Billion*?

**A** Well, there is the resource rich trap. Usually resource riches become a curse when politics transforms it into a contest for control of the resource rents. Countries caught in this trap are badly affected by the crisis, but for most of them it is not primarily a financial crisis transmitted through the banking system – the transmission mechanism is falling commodity prices.

Government revenues have slumped. How bad that is for them depends on how well they handled the previous boom. Some governments, like Nigeria, were sensible, learned from previous mistakes, and saved – foreign exchange reserves of 70 billion dollars in Nigeria's case. But other countries have not built up such cushions, and some are facing severe difficulties.

**Q** What about the "landlocked and resource scarce countries" or those caught in what you call the "conflict trap"?

**A** These countries have a very different set of problems. While the crisis has, to an extent, missed these countries, where it hits them is predominantly through remittances – the transfer of money by foreign workers to their home countries.

There is a lot of emigration from these countries, and remittances are a big source of income. Typically, emigrants from these countries are at the bottom of the pile in the jobs markets in Europe and America, and are first to be hit by an economic downturn.

**Q** Does the financial crisis make possible solutions to the plight of the bottom billion more or less likely to happen?

**A** Paradoxically, it might make the trade solution a little bit easier. The Doha Development Round of trade-negotiations looks to be dead. What countries in the bottom billion need is privileged market access. That comes more from bilateral approaches. Europe does that through economic partnership agreements, for example. America has just done it through the African Growth and Opportunity Act.

**Q** What is the most effective way of reaching these countries with finance?

**A** It varies by type of country. At one end of the spectrum, where governance is reasonably good, budget support is the sensible way to do it. Give the money to the government, and let it spend it without a lot of restrictions.

Where governance or the capacity of the civil service to implement things is weak, which is true in a lot of these societies, you need a different approach. In *The Bottom Billion* I suggest something called independent service authorities, which is an institutional structure for getting money to reach people through the competitive supply of services, rather than monopoly supply through government ministries.

I think that the donors have been very slow to face up to the reality of how to spend public money in these difficult environments.

**Q** What is the theme of your new book *Wars, Guns and Votes*?

**A** The *Bottom Billion* was about poverty; the new book is about power. It is about the struggles for power within the societies of the bottom billion, and in particular a plea for the international community to stop denying reality and imagining that elections are all we need, and get behind the forces for change in these societies by strengthening their position.

**Q** Does that mean that coercion might be necessary, as opposed to democracy?

**A** No. If coercion was all that was needed then Africa has plenty of coercion. But democracy is much more than just elections. Presidents learnt how to win elections without being accountable to citizens.

The societies that are part of the bottom billion tend to be structurally unable to supply the two vital public goods of security and accountability to citizens. Without these it is very hard to get development going. We need a phase of international supply of security and accountability in order for them to break out of this problem.

**Q** How optimistic or otherwise are you about the ability of the countries to get out of extreme poverty?

**A** The theme of both *The Bottom Billion*, and my new book, is that it is very hard for societies to do it by themselves. Although it takes action from these societies, it also takes intelligent complementary action from the international community.

Not just gestures on foreign aid, but trying to combine trade, security, and governance policy with aid, and reinforce the opportunities that particular countries have. The opportunities differ according to the four traps mentioned, and so the four instruments of aid, trade, governance and security, must be blended together in different ways according to those opportunities.

**Q** So there is hope?

**A** The problem is very definitely fixable; it is nothing like as big as some of the things that we have overcome in the last 50 years. But it does require moving beyond gesture politics and just giving more aid, to actually diagnosing what the opportunities for particular countries are, and tailoring a package of policy responses around those opportunities.



Derek Walker  
Director of Careers  
Saïd Business School

**HOW TO BEAT THE DOWNTURN**

What is the class of 2009 going to do when they hit the floundering job market this summer? Since September 2008, the UK employment market has undergone the most far-reaching change in decades, with the financial sector taking the biggest beating.

Typically, around one third of all MBA graduates have gone into finance. This won't be the case in 2009. Many financial services institutions have reduced their on-campus activity. As a result, some students set on a career in finance are focusing on internships in the hope they will be hired later, while others are looking at alternative industries as a bridge.

Employers outside finance now have a wider pool of top international prospects to choose from and new MBA employers are emerging, looking to up-skill their talent pools. They are being highly selective in their hiring and making offers later than usual, taking time to find candidates who match their needs perfectly.

For some students the answer might be to sit the market out until the economy recovers. Many will start their own businesses or found a social enterprise, but most will urgently need to find employment. To succeed they will need to:

- Play to their strengths in terms of languages, local work experience and knowledge.
- Consider their specific transferable technical skills and use them to differentiate themselves.
- Be open-minded about potential careers, investigating the value of options they may have previously not entertained.
- Focus on an industry or group of companies. Chasing any job that crops up is unlikely to work.
- Be patient and persistent. Recruitment processes will take longer and students will need to make more applications.
- Network intensively. Use contacts, colleagues, friends, alumni to find out about potential employers and job opportunities.
- Prepare, prepare, prepare. Success at interview depends on intensive training and preparation. □

# FINANCIAL FIDDLING

OXFORD ALUMNUS AND  
SERIAL ENTREPRENEUR  
**FRANÇOIS MANN QUIRICI**  
EXPLAINS WHY FINE  
VIOLINS ARE A SOUND  
FINANCIAL INVESTMENT.

**T**he older the violin, the sweeter the music," goes the saying, but the older the violin, the higher the price too, particularly if it's a vintage Guarnerius or Stradivarius. Aspiring virtuosos have traditionally relied on wealthy patrons to provide them with a quality instrument. Alternatively, some enterprising musicians have formed small syndicates to invest in a single violin; while others, as in the case of BBC Young Musician of the Year Jennifer Pike, have been lent a prized instrument by organisations like the Royal Academy of Music.

For rising stars, the right violin can make a huge difference to their playing. For the patron, facilitating this brings a sense of pride, profile, and now, thanks to an investment fund co-founded by former Oxford student, François Mann Quirici, a boost to their bank balance. The Fine Violins Fund is the first global investment vehicle dedicated to high-end musical string instruments, which, according to academic research, have outperformed equities over the past 20 years.

"There is a finite supply and ever-increasing demand from musicians and collectors," says Quirici. "It is an investment opportunity with a patronage element as the Fund's instruments are loaned out to the world's most promising musicians. This helps the musician to establish himself or herself professionally but also maximises the value of the instrument, which is linked to the career of the musical star." The Fund aims to reward investors with a return of 15 to 20 per cent a year.

The Fine Violins Fund came into being when Quirici, 29, met co-founder Florian Leonhard at a party. Leonhard, 46, is a leading expert in high-end string instruments with 25 years' experience working as a dealer, restorer and advisor to the likes of virtuoso Maxim Vengerov.

The Fund, launched last December, is backed by the Royal Bank of Scotland and has so far raised US\$35 million. It seeks another US\$45 million this year with which it will buy some 50 instruments; 30 of these prized violins will then be loaned to needy musicians, selected by the Fund's board, comprising such influential types as Julian Lloyd Webber, Lord St Davids, former Deputy Speaker of the House of Lords, and Michael Hoffman, founder and chairman of private equity fund Palamon Capital. The remaining 20 instruments will be restored, if necessary, and sold on.

The Fund aims to buy slightly under the market value, relying on Leonhard's significant expertise to source unique instruments and restore them. Prices of rare eighteenth century violins have increased steadily over the last 300 years, while the risk associated with the investment is about

half the level of the public equity market.

"Oxford equipped me with the analytical tools to develop ventures and taught me to pay attention to the detail," says Quirici, a Swiss-French national, who graduated with an MSc in Economics and Economic History from the University of Oxford six years ago.

"The Oxford brand lends tremendous credibility to entrepreneurs who need to build their own brands. In many ways academics are entrepreneurs – free spirits who develop ideas that can literally change the world. In a sense, my first entrepreneurial experience was at Oxford when I identified an opportunity (a gap in the literature on monetary unions), developed the concept in a "business plan" (dissertation) and made a sales pitch (the paper was published in the *Journal of Economic Studies*)." Quirici is currently launching a retail venture plus a £50 million real estate fund dedicated to London's residential property market where he sees a significant opportunity. "I believe right now is the best time for entrepreneurs to be launching or taking-over businesses," he says. "The number of opportunities is a direct function of the level of uncertainty. UK residential property for instance is a highly attractive opportunity with 10 per cent downside / 90 per cent upside."

As a serial entrepreneur, Quirici always likes to have several strings to his bow. "I work on three ventures at any one time," he explains. "One start-up, another in development stage and the last in completion phase. As soon as one venture completes or is sold off, I aim to set up a new one." □



## BUSINESS AS USUAL

### TELL US YOUR NEWS!

There are many benefits to being a member of the Oxford Business Alumni: access to the OBA membership directory, invitations to regional events, and insider news announcements, to name just a few.

However, to get the most out of your membership, you need to make sure we have up-to-date information about you. So whether you've moved house, landed a new job, or have an important announcement, please let us know.

We have recently improved the OBA website in order to make updating your details even easier.

Simply go to [www.oba.co.uk/update](http://www.oba.co.uk/update) and fill in the form.

If you are an Oxford graduate and would like to join the network, you can register at [www.oba.co.uk](http://www.oba.co.uk).

We look forward to hearing from you! □

Kelly Colvin-Smith on behalf of the alumni team

### OXFORD FIRST

The University of Oxford was ranked first for undergraduate business and management education for the sixth year running in the Guardian's university league tables published on 12 May 2009.

The Guardian's university guide, which is designed to help students decide where to study, rates courses against a range of criteria including: teaching quality, the satisfaction of final-year students, expenditure per student, student/staff ratios, job prospects, and entry qualifications.

Oxford's business and management education, which is delivered by the Saïd Business School, scored a maximum 100 points. Its nearest rival, Leicester, scored 96.2. Oxford performed particularly well because of its favourable staff-student ratios, strong graduate job prospects, and the high entry qualifications of its students.

The University of Oxford as a whole also held on to its place at the top of the performance tables. □

# THE PHOENIX ECONOMY

JOHN ELKINGTON AND CHARMIAN LOVE OF VOLANS EXPLAIN HOW NEW MODELS OF FINANCE CAN HELP US THROUGH THE ECONOMIC DOWNTURN.



**T**here can be no guarantee that a new, saner financial order will rise out of the ruins of the old, but there is a growing sense that the world is more open to such concepts as financial responsibility, accountability, fairness, stakeholder return and sustainability. There also is an uneasy sense that the financial credit crunch prefigures a much more profound ecological credit crunch, driven by demographic pressures, natural resource overload and climate change.

All of these challenges were on the agenda at this year's Skoll World Forum on Social Entrepreneurship, which took place at the Saïd Business School from 25-27 March 2009. During the event, Volans launched its new report *The Phoenix Economy: 50 Pioneers in the Business of Social Innovation*. Funded by the Skoll Foundation, our first market intelligence report explores how entrepreneurs, investors and businesses are adapting their business models as the downturn evolves.

But where does the phoenix fit in? This mythical bird symbolises longevity, with a life expectancy of at least 500 years. At the end of its life cycle, so the myth goes, it is consumed by flames, with a new bird rising from the ashes. By extension, the emergent phoenix economy symbolises our hope that, while it is unlikely we will see an easy return to prior economic conditions in the next decade, we will likely see huge, ultimately positive transformational change. It symbolises the convergence of social, economic and environmental innovation and enterprise.

We foresee continuing tensions between bull and bear psychology in markets, focusing on a single financial bottom line – but increasingly overlain by new tensions between “dragon” and “phoenix” mindsets. Dragon economies (think China) often adopt a double bottom line strategy, mainly focusing on economic growth, but also keeping an eye on social cohesion. Dragon economies will be energetic, aggressive and inclined to economic nationalism. The phoenix mindset, by contrast, blurs across national boundaries, prioritising economic, social and environmental justice.

Alongside the financial world, governments must play a key role in creating the pre-conditions for the rise of phoenix industries and initiatives. In this spirit, Volans recently hosted a delegation of senior policy-makers and grant-makers from Canada, visiting the UK to better understand the landscape of social innovation. A key

element of this tour involved mapping out the various investors and financial intermediaries who recognise that new models of finance are required – and are driving a growing number of interesting experiments in the public, private and citizen sectors.

The delegation met with some incredible examples of the emerging social finance sector. They included: Bridges Ventures, a social venture capital company investing in enterprises which focus on environmental or social impacts; Catalyst Fund Management, investing in social business areas of renewable energy and the environment, health, education, and “ethical consumerism”; Social Finance Ltd., which is developing financial products that marry the needs of investors and the third sector; Venturesome, an initiative of the Charity Aid Foundation which advises and provides capital investment to charities and other social purpose organisations; and Triodos Bank, which provides banking services to social enterprises, investing capital through its Opportunity Fund. Each of these organisations has a unique value proposition, but they all share a desire to see the tools and skills of finance applied in growing social enterprises.

## FUTURE FUNDING SOURCES

Interestingly, when we polled social and environmental entrepreneurs for *The Phoenix Economy*, asking them where they saw sources of funding in the future, nearly one third recognised the role that various forms of venture capital, supplied by funds such as those listed above, might play in helping them grow their enterprise. But their minds turned more readily to softer forms of funding. Over time, as funding from foundations and from governments is squeezed, we expect to see entrepreneurs exploring new forms of investment, which hopefully will result in a higher quantity of quality deals in this investment class.

In *The Phoenix Economy*, we present an action agenda for social innovation, based on a Manifesto for political leaders, a Prospectus for business leaders and a Syllabus for business educators. We also identify a “Phoenix 50” of powerful changemakers, with the help of over 100 social and environmental entrepreneurs worldwide. Here are some of the leaders – and three related trends:

## TIME TO CHANGE THE RULES

The most-nominated changemaker was the Obama presidency, the spotlight being on the hugely ambitious targets in its New

Energy for America plan, with the State of California also making the final 50 – despite its current financial problems – because of its role as an incubator of clean or green technology. Another Phoenix 50 leader, Van Jones of Green for All, has been recruited into the White House to boost the “green collar jobs” side of the bail-out packages.

## NEW PLAYERS

New investors and financial models are going mainstream, having emerged in the corporate responsibility and sustainability realms, among them Climate Change Capital, Al Gore and David Blood's Generation Investment Management and Sustainable Asset Management, which co-evolved the Dow Jones Sustainability Indexes. Such organisations play key roles in investing in business models generating double and triple bottom line forms of value—but they need critical mass to achieve systemic change.

## TRANSFORMING FINANCE IS A TEAM SPORT

Ultimately, innovation will be needed at every level of the financial system. Among the Phoenix 50 are: Aflatoun, providing child financial education in a growing number of countries; Ceres, which recently convened 35 investors with over US\$3 trillion in assets to lobby congressional leaders to pass strong legislation to spur a clean energy, low-carbon economy; venture capitalists Kleiner Perkins Caufield & Byers, who have piled into what they call green technology; and the Global Impact Investing Network, under development by a range of leading financial institutions. Initiatives like these give us real hope that capitalism can be reinvented to meet the needs of the twenty-first century. □

John Elkington is co-founder of Volans and SustainAbility and Charmian Love is Chief Operating Officer of Volans. Their publication, *The Phoenix Economy: 50 Pioneers in the Business of Social Innovation*, is available from their website at [www.volans.com](http://www.volans.com)



**VINCENT LO AND PRASHANTH ANGANI**  
CO-FOUNDERS, TICKPOOL.COM

**V**incent Lo first conceived the idea for his new company, Informatics Data Group, in May 2008 while studying for his Executive MBA at Oxford University's Saïd Business School.

"I met this guy called Prashanth Angani from the full-time Oxford MBA programme," Lo says. "I have a financial services and media background, and Prashanth has an engineering and technology background. We started brainstorming and came up with a number of potential ventures to improve information efficiency of specific financial markets."

Applying the knowledge and skills they learnt during their studies, Lo and Angani decided

to launch Tickpool.com, an information sharing platform for investors. Tickpool allows investors to generate revenue by broadcasting their views and opinions or "ticks" on the economy, stocks, news and the markets. "We have always been interested in investments and we thought why not open up the discussion to a wider audience," Lo says.

Users of Tickpool can graduate from "tickster" – basic, free entry level membership – to "tickmaster" and finally "tickguru". "To become a 'tickguru' you need to have lots of followers of your ticks; and to have very high tick ratings," Lo explains. "I anticipate one day being a 'tickguru' will mean something in the community."

The website is currently at alpha launch stage and a mass marketing campaign in the financial press is planned for later this year. □



**JASON STEVENS**  
FOUNDER, TARCHIA INC

**D**id you know that as you type, more than half the electricity your computer consumes is simply keeping it cool? Saïd Business School alumni Jason Stevens has come up with a cool piece of technology to tackle this hot problem.

Steven's new US-based company, Tarchia Inc, is building the CoreStalk Server System, made from a patent pending thermal and electrical design that includes new thermal materials

and heat transfer techniques. CoreStalk technology is an efficient alternative to the high cooling cost, high density blade server systems in use today.

"Almost all computers need air conditioning – this alone eats up two per cent of energy usage in US," says Stevens. CoreStalk will be one of the few technologies using both high and low power processor designs, managing to achieve this performance without the risks of leakage and condensation inherent to liquid cooled solutions, and without the use of air conditioning.

Ironic that Stevens came up with his idea while working in Russia in sub-zero temperatures. "I was in an office in Moscow, it was minus 20 outside and yet the computers were using air-con to keep them going," says Stevens. He eventually moved to America to develop the technology, preferring Silicon Valley's IT expertise and business infrastructure. But one of Steven's former Russian employers became his investor, making Tarchia one of the first Silicon Valley companies to receive Russian angel investor money.

Stevens long-term focus, however, is Russia and Eastern Europe where he sees a distinct view of business and a unique strand of emerging capitalism. "The balance of world power is going to shift and I believe countries like Russia are going to play much more of a world role," he says. "If you want to be part of that you have to be there." □



**SANTOSH JAYARAM**  
VICE PRESIDENT, GLOBAL BUSINESS OPERATIONS, TWITTER

**T**witter was formed in 2007 and one year later recorded a massive 752 per cent growth. One of the people now set to steer this extraordinary social medium is Oxford MBA alumnus, Santosh Jayaram, who has recently been appointed Twitter's Vice President of Global Business Operations.

"We're at a historic moment at Twitter," says Jayaram. "We're addressing a real need that's not been clear before. People had previously asked: 'what is Twitter?' and it's been hard to say but now people are creating and sharing content at incredible rates. The medium is only 140 characters so it's appealing for everyone who wants to have a voice. I can be in touch with someone in London, following them on Twitter for years without meeting, but when we do it doesn't seem like we've been so far apart."

An Indian diaspora, Jayaram is passionate about the medium. "I came to the USA from India ten years ago with US\$730 and two suitcases in my hand," he says. "It can be hard to start a new life where you have no background. Now I keep up daily with the people who are important to me." This is a sea change from

Jayaram's childhood. "When I was growing up, India was always 20 years behind technology companies in the west but now, when it comes to cell phones we're ahead of the States; everyone has one. It's leap-frogged every other form of communication."

The central vision of the Twitter founders – to power their communication medium across the weakest mobile phone signal across the world – is what has long impressed Jayaram. He had known Twitter's founders for almost five years. "We had talked about issues at the company on a social basis for a while when they asked me to head operations," he says.

One of the main challenges for Jayaram is to ensure that while Twitter continues to scale really fast, they protect the culture of the organisation. "We have to exhibit strong financial control but keep innovating," he says, "and to do that I have to hire the right kind of people: people with unique passion and intelligence and that hard to define fire in the belly. If we get that right, this product will be relevant for generations to come." □



**DAVID LIVINGSTON**  
AUTHOR, BLOOD OVER WATER

**F**or Saïd Business School alumnus David Livingston, the Boat Race is the source of family conflict. In 2003, David and his brother James, a Cambridge alumnus, became the first brothers to race against each other in the Oxford Cambridge Boat Race for over a hundred years.

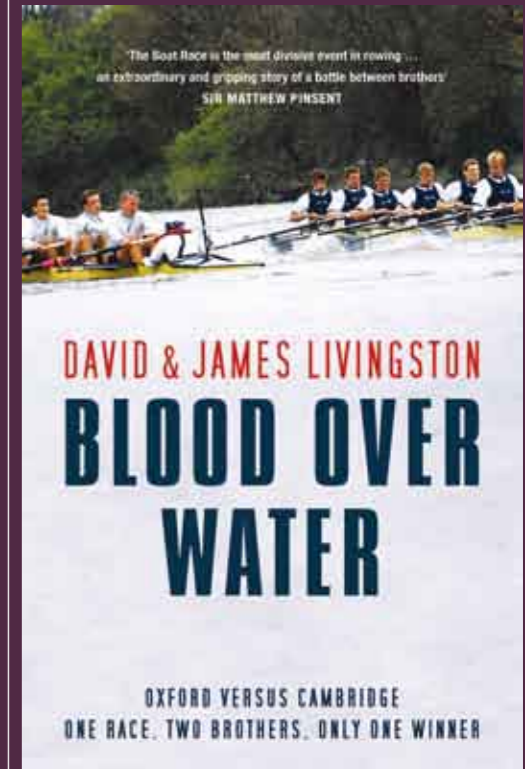
In their new book, *Blood Over Water*, the brothers tell the story of their battle in the 149th Boat Race, giving a locker-room insight into this national sporting occasion. The race itself was the closest in history; it was decided by just one foot after four and a quarter miles, and strained the siblings' relationship to the limit.

"Writing the book was the ultimate cathartic exercise," David says. "It got all our views out in the open and helped to reconcile our broken relationship. Reading what my brother

had written led me to have feelings of anger, guilt and even brought me to tears but it was great to finally have an understanding of his thoughts and feelings surrounding the race."

*Blood Over Water* by David and James Livingston is published by Bloomsbury. □

For more information visit [www.bloodoverwater.com](http://www.bloodoverwater.com)



# STOPPING THE DOMINO EFFECT

JOHN ARMOUR LOOKS AT THE ROLE OF  
INSOLVENCY LAW IN LIMITING LEHMAN  
TYPE SHOCKS.

The Lehman bankruptcy brought to light many difficulties for insolvency laws posed by complex financial firms. Lehman went into conventional bankruptcy proceedings on both sides of the Atlantic – the parent company went into Chapter 11 in New York, and a subsidiary went into administration proceedings in the UK. Financial institutions are highly interconnected and fragile to liquidity shocks. Consequently, bank insolvency can create contagion risk – a domino effect, as other banks' finances are suddenly and dramatically affected. The Lehman bankruptcy provoked the near-complete shutdown of interbank lending, as no-one knew who might collapse next as a result.

One response to such contagion risk is to try to insulate financial sector creditors. US and European insolvency laws already permit creditors who are party to financial market transactions to waive the stay and enforce their claims, regardless of the impact on the value of the debtor's assets as a whole, on

the basis that this will create a firebreak between financial institutions.

The Lehman failure showed us that this was not enough. With the huge complexity of modern financial assets, it may not be possible to identify quickly enough which assets are exempt without a lengthy determination, during which time the fire has spread. What's more, this process may result in a large-scale hurried liquidation, as counterparties who have withdrawn financial assets dump them onto the market, driving down prices with the result that every bank holding such assets suffers.

With hindsight, many have argued that the costs of the Lehman debacle would have been less had the US authorities simply bailed out the troubled bank. But whilst such life support can avoid a financial sector meltdown, it may struggle to deliver enough fresh capital to permit banks to start lending effectively again. And without banks providing credit, an increasing number of industrial firms are likely to find themselves in cash-flow difficulties.

Bank recapitalisation may be achieved either by injecting equity into the banks or through providing subsidies, such as state guarantees, to facilitate the sale of the illiquid or "toxic" assets that have been at the centre of the crisis. The UK has implemented a combination of these. However, governments' abilities to advance funds to banks are constrained both by taxpayer anger and by their own budget constraints: the assets of RBS alone are stated in its 2008 accounts at £2.4 trillion, nearly twice as much as the UK's GDP.

If a bailout can't resolve things, then bank insolvency needs to be made safer. The new Banking Act 2009, in force from February, creates a Special Resolution Regime (SRR) for banking institutions,

modeled on the US Federal Deposit Insurance Corporation's bank receivership regime. Such regimes allow deviation from purely protecting the creditors of the bankrupt entity if this is necessary to minimise systemic costs. The idea is that the bank is restructured by being split into a "good bank" – with sound assets and adequate capitalisation, and a "bad bank" – with "toxic" assets and no future. The good bank can then get on with providing credit to the real economy. It may be that the bad bank is kept open for a while to facilitate the success of the good bank, or to try to minimise systemic shock. This may or may not be good for its creditors, but it will be better for the system as a whole.

We don't yet know if the new SRR is enough to avoid a Lehman-type shock. In particular, it still permits "firebreak" enforcement of financial collateral, which as discussed above may be a problem in its own right. Another important question concerns allocation of losses between the creditors and the state. Making creditors pay gives them an incentive to price such losses in *ex ante*, hopefully encouraging banks to take on less systemic risk. However, such costs may be difficult to quantify in advance, and more pertinently, may depend on the exercise by the government of its discretion.

Worse still, fear of government discretion leading to open-ended losses for bank

creditors may exacerbate the difficulty banks have in borrowing. The secondary legislation associated with the Banking Act 2009 puts a floor on the amount bank creditors may lose under the SRR, providing that they must receive at least as much as they would get were the entity that owes them liquidated. However, much uncertainty remains: there may be a considerable difference between the liquidation value and the actual value if the bank is restructured, and the SRR gives the authorities discretion to select the amount paid to creditors within this range. Moreover, the hypothetical "liquidation value" is determined by a government-appointed expert, and is likely to be contestable.

A final, and crucial, question yet to be answered concerns the scope of the category of institutions which merit special treatment in insolvency. The case for special treatment for banks rests on their importance as providers of finance to the real economy. If the banks can get back to performing these tasks, there is no cause to rethink insolvency policy generally. However, the longer the banks are in crisis, the more problematic become the assumptions upon which conventional insolvency policy is based. A policy of auctioning assets to the highest bidder in insolvency assumes that those who value them highest are able to raise any finance necessary to pay them. The longer the crisis continues, the more difficult it may become to justify the application of conventional insolvency policy to industrial firms. □

John Armour is Lovells Professor of Law and Finance at the University of Oxford and a Fellow of Oriel College.

**"FINANCIAL INSTITUTIONS ARE HIGHLY INTERCONNECTED AND FRAGILE TO LIQUIDITY SHOCKS. CONSEQUENTLY, BANK INSOLVENCY CAN CREATE CONTAGION RISK – A DOMINO EFFECT, AS OTHER BANKS' FINANCES ARE SUDDENLY AND DRAMATICALLY AFFECTED."**



# THE MECHANICS OF FINANCIAL CRISIS

BY: BEVERLY CHANDLER

## ALEXANDER GUEMBEL AND OREN SUSSMAN SUGGEST THAT PUMPING LIQUIDITY INTO A DISTRESSED MARKET MAY HAVE LITTLE EFFECT.

**A**lexander Guembel and Oren Sussman, Readers in Finance at the Saïd Business School, have recently turned their attention to attempting to understand the underlying mechanics of our current financial crisis. They believe that liquidity – or indeed the lack of it – underlies our current problems. In their research paper *Liquidity, Contagion and Financial Crisis*, the pair spell out their belief that during a financial crisis, the pressure point for the economy lies in the market for liquidity.

The argument is straightforward. Once financial crisis starts, market participants need liquidity which means that they need to be able to sell assets in a hurry. Fire-selling assets leads to a death spiral. Prices drop and the sellers become

distressed, and are forced into the debt market. “Debt,” Guembel and Sussman explain, “unlike equity, is hard financing. Debt puts the recipient of the funds into a straightjacket of periodical fitness tests, with well-specified penalties that are triggered upon failure.” In common commercial terminology, when the borrower gets into financial distress and defaults on a payment, the creditor can repossess the collateralised assets and sell them off.

In their simulations, Guembel and Sussman model the effect that forced selling by people in debt has on the markets showing fire-sale prices against the fundamental value of the assets. Further problems arise for debtors because creditors demand collateral and liquidation rights in order to impose some discipline on the debtor. Worse than this, the lower the fire-sale price, the more assets the borrower needs to pledge and so in cases of distress, more assets will be sold off and more liquidity will be required in order to absorb them.

Markets work on supply and demand, and the supply side is provided for by speculators who are professional traders who make it their business to profit from differences in prices. The lower the price relative to fundamental value, the more

profitable the deal for the speculator. In turn this means that the incentive is greater to increase the amount of available liquidity.

“Speculators such as hedge fund managers buy fire-sale assets because they are motivated by profit,” explains Sussman. “They will hold a sufficient amount of liquidity which allows prices to fall further quite sharply.” When prices fall, the cost is felt by the companies whose assets are being priced. Speculators who buy fire-sale assets make money at the same time that value is being destroyed for the economy.

One method of destroying the profit opportunities for speculators is for the central banks to pump liquidity into the market. However, the simulations produced in Guembel and Sussman’s study show that the amount of value generated by a policy of liquidity is very modest and the potential cost of such intervention could be very high. In theory, the government should be able to create value by moderating the price impact of the shock and stopping the price-liquidation spiral. But Guembel and Sussman’s simulations demonstrate that this is not the case.

Clearly, at the outset, the cost of a policy of injecting liquidity into a distressed market and supporting fire-sale prices could be very high, but a further concern is that, during normal times, such a policy would mean that governments would have to hold significant amounts of idle liquidity.

“We have to realise that competitive financial markets come with lots of benefits but it is not all a rose garden” says Sussman. “It’s tough, but there is no easy solution to our current crisis.” □

## GIVE THE SOCIAL SECTOR THE TOOLS AND IT WILL FINISH THE JOB, SAYS SIR RONALD COHEN.

# FINANCE FOR CHANGE

**T**he social sector is facing a storm comparable only with the 1930s. Social needs resulting from unemployment, home repossessions and general disruption to people’s lives are increasing rapidly while we witness a very significant reduction in the value of assets held by individuals and charitable foundations.

While the UK government is forced to invest massively in buttressing the financial system, profits and tax revenues from financial services are falling. The government is under pressure to cut expenses wherever it can in order to maintain its credibility in the financial markets and fund its borrowing at a reasonable level of exchange and interest rate.

Against this background of escalating social need and falling government and charitable resources, how should the social sector react? We cannot give up on government.

It is crucial for us. Hitherto the social sector’s voice has been weak. We must now raise it and lobby for government to increase significantly its support for our sector in several ways:

### TAX INCENTIVES

In the UK, the government should expand the application of, and more actively promote, Community Investment Tax Relief (CITR) – a scheme that offers an enhanced after-tax yield on investments made to support disadvantaged communities. The rules for CITR have unnecessary restraints in excluding activity that relates to property or personal finance.

### MATCHED FINANCE

Government can stimulate investment flows into vehicles such as social venture funds, social enterprise funds and micro-finance funds. Government matched funding was crucial for the launch of Bridges Ventures’ first fund which raised £40 million for investment in areas of the UK suffering from high levels of deprivation.

### THE CREATION OF A SOCIAL INVESTMENT BANK

The role of this institution, which should be independent of government, would be to ease access to capital markets for the sector as a whole. There is a chronic lack of long-term capital for both new and existing social organisations. Just as there is a debate about reviving the idea of a new 3i type institution to help industry, so a social investment bank should be established to stimulate investment in the voluntary sector. Without it, capital will not flow to social organisations from capital markets. With it, social investment driving sustainable and scaleable enterprises will become a real opportunity.

The Social Investment Bank was proposed by the Commission on Unclaimed Assets in its 2007 Report. It suggested that some of the proceeds of the Dormant Bank and Building Society Accounts Act, which passed into law at the end of 2008, could be used to establish this institution. To take the idea forward, a group of us from the voluntary and financial sectors have set up Social Finance Ltd to begin to demonstrate the role.

### SOCIAL IMPACT BONDS

Social Finance has been looking at new approaches for financing governmental initiatives in the social sphere, reducing government expenditure today in return for payment by results in the future. The team

at Social Finance has developed an instrument – the “Social Impact Bond” into a powerful example of achieving this.

To illustrate the concept, I will use the specific social issue of prisoner re-offending. The Social Impact Bond might be used to raise finance to support organisations working with released prisoners to bring down the rate of re-offending. Government would agree to pay a certain amount each year based on the reduction in re-offending. Payment would only be made based on quantifiable results that would have already achieved large savings for the public purse. The payments from government would be sufficient to repay the bond and provide a margin to enable the initiative to become sustainable and achieve greater scale. It is a powerful, innovative approach capable of broad and powerful application.

The social sector’s role is to accomplish what neither the market economy nor the government can accomplish for the benefit of society. This role is more needed today than at any time before. If given the tools, the sector will finish the job. □

Sir Ronald Cohen is chairman of Portland Capital LLP, The Portland Trust and Bridges Ventures. He was the founding partner of Apax Partners, one of the world’s leading private equity funds. He is chairman of the Social Investment Task Force and the Commission on Unclaimed Assets and a Director of Social Finance.

This article is based on extracts from Sir Ronald’s talk, “Capital Markets in Crisis - Government and the Social Sector”, which he delivered at this year’s Skoll World Forum on Social Entrepreneurship, held at the Saïd Business School from 25-27 March 2009.

For further information, blogs and a video stream from the sixth Skoll World Forum on Social Entrepreneurship go to [www.skollworldforum.com](http://www.skollworldforum.com) and [www.socialedge.org](http://www.socialedge.org)



# CHANGING TACK

RESHAPING BRITISH BUSINESS AROUND INVESTMENT AND TRADE IS THE WAY FORWARD, SAYS **RICHARD LAMBERT**, DIRECTOR OF THE CONFEDERATION OF BRITISH INDUSTRY.

**H**istory tells us that just as there can be too much optimism in the good times, so there can be much too much pessimism when the going gets rough. I'd like to suggest why and how our economy may change its shape in the next years, what is the best way for us to create new investment and jobs, and what are the policies that we need to set in train to get us from here to there.

Let's start by looking at the expenditure components of our gross domestic product. From that perspective you can see clearly that the main engines of growth over the last ten years have been household consumption and government consumption, with public spending rising faster than the overall economy for quite a few years. Both of these growth engines have been driven by rising levels of borrowing, and the result has been private and public debt that has reached unsustainable levels.

The other main drivers of GDP are investment and trade. With house building dead in the water, and companies deferring their investment plans in the face of the credit shock, private sector investment in the UK appears to be undergoing the most severe contraction since the early 1930s, so there will be no immediate comfort from this source. Although the big devaluation in Sterling should help the trade balance over time, the trouble right now is that demand for goods and services in our main export

markets is falling just as sharply as it is here. So there is no big help on this front either, at least for the time being.

Let me complete my catalogue of gloom by looking at a UK business sector which has been one of the most powerful sources of growth so far in the twenty-first century, and that is finance. Finance is by no means the dominating force in the economy that you would conclude from reading the newspapers. It represents about eight per cent of gross value-added in our economy, which is a bit less than the share in the United States. However, finance has made a disproportionately large contribution to our economic growth since around the year 2000, growing at nearly six per cent a year, at a time when average real gross domestic income has been growing at 2.7 per cent a year. Of course, there can't be much doubt that this is a sector that is going to shrink pretty sharply in the next year or two.

So how are we going to get out of this mess? A number of important opportunities will be opening for our economy over the next 20 years, which bold political and business leaders must prepare to grasp. The opportunities, I believe, are most likely to be found in the two sectors of our economy that have tended to do rather poorly over the last years, and those are business investment and trade.

Let's take investment first. We know that in the next 20 years, the UK is going to have

to rebuild about a third of its power generating capacity, including the whole of its nuclear fleet, due to obsolescence and the need to mitigate greenhouse gas emissions. We're also committed to a massive investment in renewable energy. Over the same period we're going to have to shift to a different sort of economy, one that is much more energy efficient and uses energy with a much lower carbon content than we are used to, and this will throw up opportunities as well as challenges in both the manufacturing and services sectors. We also know that we are going to have to rebuild and extend great swathes of our transport infrastructure.

So one big question for policy makers and business is how to pay for these massive projects? And how to capture as much as possible of the wealth and intellectual property that they will generate here in the UK? The priority for policy makers must be to make the UK a welcome home for the kind of mobile investment and huge-scale investment capital that will be required. Among other things, this means developing a competitive tax structure, and an intellectual property regime that makes the UK an attractive place to locate knowledge intensive industries. This requires a different sort of approach to regulation, one that is designed to attract new investment; and it means developing a much more strategic approach to education, training, and skills. ▶



Whatever their colour, governments of the future simply won't have the resources to do the job on their own, and will need private sector help if they are to meet rising public expectations about service delivery. So we need to develop or devise new versions of PFI initiatives, and more trusted versions.

After investment, trade is the other most important opportunity. By most measures Sterling has been overvalued for most of the past decade, at great cost to our manufacturing sector. Now it's swung in the opposite direction, we can at last hope that net trade will start to make a contribution to economic growth in the years ahead. Britain is a world leader in the export of services, with a much bigger share of the total market than either France or Germany, and the UK also has a strong record in trade in a number of specialised manufacturing sectors such as pharmaceuticals and precision instruments. In the past 20 years it has become fashionable to write off our manufacturing sector, but the fact is that we remain the sixth largest manufacturer by value added in the world.

The policy priorities here must start with an absolute commitment to free trade and open markets, and this is going to be seriously tested in the coming years.

So what does all this add up to, in terms of policy choices and the overall economic outlook? For the short-term, I think it's clear that the government has to do whatever it takes to protect the operation of the banking system, and to get the credit flowing again across the economy. The government also has to work with international partners to

build a global response to this crisis, and to build a regulatory structure for the financial system that recognises what's gone wrong in the past years. At the same time it has to start developing a credible pathway back to sustainability in public finances in years ahead, away from what is today a very, very exposed position. Clearly there are going to be lots of difficult choices about public spending in this exercise.

The priority, I hope will be to support a knowledge rich economy, flexible labour markets, and to build a system of tax and regulation that encourages investment and trade. It's obvious that the next twelve months are going to be a very uncomfortable time for the UK economy, as for those in most of the rest of the world. But I think with the right blend of policies and determination, the UK will rebalance itself in a way that will put us onto a more sustainable and comfortable path for the future. □

This article is an excerpt from a lecture given by Richard Lambert, Director General of the Confederation of British Industry (CBI), at the Saïd Business School on 19 February 2009. The lecture was part of the Exeter at Saïd series, in which the Rector of Exeter College, Oxford brings a high level speaker to the School.

## BUSINESS AS USUAL



**SIX MEN IN A BOAT - OXFORD WIN 155TH BOAT RACE**

**F**avourites Oxford won the 155th Boat Race by three and a half lengths thanks to a surge in the second half of the race.

Everything went well for Cambridge at the start. They won the toss and chose the Surrey station. The Light Blues took an early lead, and were ahead for the first seven minutes of the race. The two crews stayed virtually level up to the Hammersmith Bridge, with both teams receiving warnings from the umpire as blades clashed.

Along the Chiswick Eyot, Oxford fought back. The Dark Blues, the heaviest crew in the race's 180-year history, upped the rate to 38 strokes per minute. They drew away and had a two length lead by the bandstand, were nearly three lengths ahead by Barnes Bridge, and won by three and a half lengths in a time of exactly seventeen minutes. This was the Dark Blues' fourth win in five years.

The Dark Blue boat included six Saïd Business School students. They were:

- Colin Smith (MBA)  
Olympic Silver medallist (British)
- George Bridgewater (MBA)  
Olympic Bronze medallist (New Zealander)
- Ante Kusurin (MBA)  
Olympian (Croatian)
- Alex Hearne (MBA)  
(American)
- Ben Harrison (MSc Management Research) (American)
- Tom Solesbury (MSc Management Research) Olympian (British).

The four MBA students spent the night before the race completing an assignment due in at noon on 30 March. George Bridgewater says that studying helped to take his mind off the race. "Having to study reduced the nerves," he said. "I'd not really had time to worry about the race and I felt calm on the start." □



### OXFORD RANKED AMONG TOP TEN START-UP COMMUNITIES

**T**he University of Oxford has been ranked as one of the top ten university start-up communities worldwide by YouNoodle, the online platform for the global entrepreneurial community. The data-driven leaderboard ranked the University of Oxford sixth overall based on data compiled from more than 10,000 start-ups.

Generated from a proprietary YouNoodle algorithm calculating each university's significance as a start-up community, the rankings take into account available resources for startups, entrepreneur groups and competitions, availability of talent, and the number and quality of startups emerging from the school.

"This is our industry's first ranking of significant entrepreneurial university communities based on such a large quantity of startup data," says Bob Goodson, CEO and co-founder of YouNoodle. "Because we assembled it from over half a million startup data points, we were able to assemble an authoritative recognition of the world's most relevant, influential university incubators for new enterprise today."

There are over 100 Saïd Business School alumni-founded companies; Oxford Entrepreneurs the student society based at the University of Oxford has 3,000 members and has generated over 30 start-ups; and 15,000 people have come to the School on its open entrepreneurship courses, seminars and networking events. □



### NEW MBA SCHOLARSHIPS FOR MIDDLE EASTERN APPLICANTS

**T**he Saïd Business School is delighted to announce two new scholarship programmes designed to help candidates from the Arab world fund their one-year MBA studies at Oxford. Mohammed bin Rashid Al Maktoum Foundation Scholarships will be awarded to deserving applicants from the

League of Arab Nations who demonstrate relevant professional experience and leadership potential, and who provide evidence of their aspiration to serve the interest of the Arab World and the region through dedicated commitment to its progress and development. The scholarships will cover tuition fees and include an allowance for living expenses.

The second new scholarship programme for students from the region is The SMBC Europe Al Mustaqbal MBA Scholarship funded by Sumitomo Mitsui Banking Corporation Europe Limited (SMBCE).

SMBCE wishes to identify and support MBA students with the potential to make a real long-term difference to the bank's Islamic finance business. This award covers £25,000 worth of tuition fees and the £3,000 college fee (for students joining St Hugh's College) and will be made for the year 2009/10. The scholarship is open to citizens of the Arab League States and Gulf area nationals. □



### THE BEST SOLUTION

**S**even entrepreneurs battled it out in the final of University of Oxford's fifth annual Idea Idol competition on 5 March 2009.

Over 350 people attended the event held at the Saïd Business School.

Each finalist had two minutes to deliver their "elevator pitch" to a panel of four judges including Julie Meyer, founder of Ariadne Capital and Will Ghali, marketing director at Cobra Beer. The shortlisted proposals chosen from more than 100 initial entries included a hormonal gel that helps prevent the transmission of HIV, and a microcredit programme that connects street children in the developing world with the resources to launch community businesses.

The winning idea was Easy Solution, developed by Camilla Oxley and Jochen Klingelhofer. Their product is an automated system for creating a chemical solution that will facilitate research in 100,000 life and biomedical science research labs across the world. Easy Solution won the first prize of £7,500 and was also awarded £2,000 in initial legal support from Henmans LLP. □

# HAVENS IN A STORM

GEOFFREY LOOMER AND GEORGIA MAFFINI LOOK AT THE FUTURE FOR OFFSHORE FINANCIAL CENTRES.

**R**ecent policy statements and media reports might lead one to believe that there is some connection between tax havens and the global financial crisis. However, the connection is rarely explained. Offshore financial centres (OFCs) are certainly relevant to the discredited international financial system, but their role tends to be exaggerated or misconstrued.

The G20 communiqué issued at the London 2009 Summit stated that “major failures in the financial sector and in financial regulation and supervision” were fundamental causes of the financial crisis, and few informed observers would disagree. As one aspect of their commitment to strengthen financial regulation and supervision, the G20 leaders agreed that they would:

“... take action against non-cooperative jurisdictions, including tax havens. We stand ready to deploy sanctions to protect our

public finances and financial systems.

The era of banking secrecy is over. We note that the OECD has today published a list of countries assessed by the Global Forum against the international standard for exchange of tax information.”

The Organisation for Economic Cooperation and Development (OECD) itself draws a connection between tax havens and the financial crisis when it states: “Removing practices that facilitate tax evasion is part of a broader drive to clean up one of the more controversial sides of a globalised economy”. But these statements leave unexplained the exact role, if any, of tax havens in the crisis.

To understand this issue, one must distinguish between three different concepts: tax evasion, tax avoidance, and financial regulation avoidance. OFCs have been popular with the financial industry in facilitating avoidance, and in some cases evasion, of both taxes and regulatory requirements of larger countries.

## TAX EVASION

Tax evasion is criminal behaviour – for example, deliberate concealment of taxable income. In most countries evasion is punishable by fines, imprisonment or both. A notorious example is the 2008 investigation of high net-worth individuals from the UK, Germany, US and elsewhere who are alleged to have evaded tax by funnelling billions to secret accounts in Liechtenstein banks.

Developed countries, being justifiably unhappy with international tax evasion, have on various occasions sought to blacklist tax havens. The G20 communiqué refers to the OECD’s latest progress report on jurisdictions which have or have not made progress in implementing its “internationally agreed tax standard”. The essence of this standard is that states agree to exchange tax information when requested for the administration and enforcement of the requesting state’s domestic tax laws. The standard is aimed

squarely at transparent information exchange for countering specific cases of tax evasion. It has nothing to do with either international tax avoidance or financial regulation, and no one suggests that tax evasion was a cause of the financial crisis.

## TAX AVOIDANCE

Tax avoidance (or tax “planning”) is a term used loosely by many commentators but its legal meaning is distinct from tax evasion. It refers to structuring one’s affairs so as to reduce one’s tax liability within the limits of the law. A given form of tax avoidance is legal unless and until otherwise determined by a court. A notable example of tax avoidance is a multinational enterprise choosing to locate intellectual property in a subsidiary based in low tax jurisdiction. Such activity is usually legal, yet some may regard it as unethical given that it can substantially reduce tax contributions and therefore deplete public finances.

Commentators have differing views on whether different forms of tax avoidance are legitimate or illegitimate, depending on their commercial, political and ethical position. When the losses of large financial institutions such as Citigroup, AIG and RBS are met by domestic taxpayers, the tax avoidance activities of these institutions become more controversial than ever. As with evasion, however, tax avoidance cannot be blamed for the near collapse of the financial system.

## FINANCIAL REGULATION AVOIDANCE

Financial regulation avoidance, sometimes conducted through tax havens, is more closely linked to the recognised causes of the credit crunch. In particular, OFCs with lax regulation were often home to structured investment vehicles (SIVs), conduits, and other off-balance sheet and off-budget vehicles, which were at the heart of events triggering the crisis. SIVs in particular invested mainly in the asset-backed securities at the very centre of the credit crunch. In August 2007, SIVs were the first institutions to encounter problems when liquidity suddenly disappeared from the wholesale asset-backed commercial paper market exposed to US sub-prime mortgages.

The fact that many of these entities were located in OFCs has created confusion about the role of tax havens in the crisis. The location of off-balance sheet and off-budget vehicles in offshore jurisdictions certainly does not contribute to the transparency of the system. But the problems experienced by SIVs at the onset of the crisis were not due to their offshore location but to their off-balance sheet status – leading to information

failures and low capital ratios – and their business model – they use short-dated commercial paper to fund investments in longer-dated assets.

Moreover, what is now widely defined as the “shadow banking system” is lightly regulated not only offshore but also in the main onshore financial centres such as London and New York.

## THE FUTURE FOR OFFSHORE FINANCIAL CENTRES

OFCs may be tax havens, regulatory havens, or both. They have long been used for a variety of purposes, including tax evasion, tax avoidance and regulatory avoidance. Taking action against global tax evasion and improving standards in global financial regulation are both laudable goals, but they are different goals. The OECD’s promotion of exchange of information for combating tax evasion has little to do with the financial crisis. The G20’s commitment to improve financial regulation is very relevant to the financial crisis but has little to do with enforcement of tax. Moreover, success in either of these goals is unlikely to have any effect on international tax avoidance. Only substantial developments in the way international income is taxed will change that. Short of such developments, tax havens will maintain a significant role in attracting corporate capital from higher tax countries. □

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# WHAT HEDGE FUND INVESTORS WANT

**DRAWING ON A UNIQUE SOURCE OF TRANSACTION DATA IN THE SHARES OF HEDGE FUNDS, TARUN RAMADORAI UNCOVERS INSIGHTS ABOUT WHAT THEIR INVESTORS REALLY CARE ABOUT.**

**H**edge fund assets under management have exploded over the past decade, and declined significantly in the past few months, and press reports are full of anecdotes about the stellar – or more recently, dreadful – performance of a handful of funds each month.

Most of these star (or dud) funds are closed to new investments, or impose restrictions on redemptions, or both. This raises several important questions. How costly is it for investors to be locked in to a poorly performing fund? Which restrictions bind the most, long-term lock-ups or shorter-term redemption notice periods? How much would investors pay to get into a fund that has done spectacularly well recently, but is closed to new investment? Are hedge fund investors thinking about these questions rationally? Given the diversity of contracts between limited and general partners, the self-reported nature of most hedge fund data, and most importantly, the lack of data on hedge fund investors' entry and exit decisions in hedge funds, these questions have thus far been difficult to answer.

Using transaction data from 1998 to the present from the longest-running secondary market for hedge funds, Hedgebay, I attempt

to shed light on some of these questions. This marketplace allows investors in closed hedge funds to trade their limited partnership stakes with one another, at premiums and discounts to the net asset values reported by these funds. These transactions represent a unique insight into what hedge fund investors are thinking when entering and exiting hedge funds, offering a laboratory in which to answer some of these important questions.

The data yield several clear findings. First, the past risk-adjusted performance of a hedge fund is an important determinant of high transactions premiums. An increase in the average risk-adjusted performance (or 'alpha') of a fund over the past twelve months translates into significantly higher transactions premium paid to acquire it. In other words, good past performance seems to be interpreted by investors as an important signal of future hedge fund performance. This signal translates into a higher price paid to acquire the fund.

Second, the volatility of past performance is also an important determinant, but in the opposite direction. Investors are not willing to pay high premiums to acquire funds with highly volatile past returns. Third, short-term redemption restrictions matter for the price people are willing to pay to acquire a fund. If a fund imposes restrictions on investors' ability to withdraw money, this decreases investors' willingness to invest in the fund. Fourth, high management fees cause investors to pay significantly less for hedge funds. A one per cent increase in management fees for a fund is on average associated with a one per cent reduction in the transactions premium paid to acquire it.

These findings are not surprising if your prior belief is that hedge fund investors are rational decision-makers, who will pay less for funds that impose withdrawal

restrictions, but are willing to pay up for high expected future performance. In support of this hypothesis, my research also shows that hedge fund transaction premiums display some forecasting power for future risk-adjusted hedge fund performance. What is surprising, however, is the connection between the results of this study, and a long-standing debate in academic finance about a different market – the market for closed-end mutual funds.

The closed-end mutual fund premium is the difference between the price on a secondary market (like the New York Stock Exchange) of the closed-end fund, and the net asset value of the closed-end fund that it reports periodically to investors. This premium sometimes turns into a discount, fluctuates greatly over time, and has puzzled financial economists by its behaviour. The presumption has been that in an efficient market, the price and the net asset value should be identical, as they both represent claims to the same underlying portfolio of assets. Some have argued that the behaviour of the closed-end fund premium represents irrationality on the part of closed-end mutual fund investors, while others have argued that in a market which deviates from efficiency because of frictions such as illiquidity and asymmetric information, one would expect the premium to fluctuate in this fashion.

The connection between closed-end mutual funds and hedge funds comes from the startlingly high correlation (54 per cent over ten years of monthly data) between the average hedge fund premium measured using Hedgebay data, and the average US closed-end mutual fund premium. What's more, there are sharp predictions on the behaviour of hedge fund premiums that arise from the theories formerly put forward to explain closed-end mutual fund premiums. These sharp predictions, such as a predicted nonlinear relationship between past performance and transaction premiums, also receive strong support in the hedge fund transactions data.

This evidence, when combined with the previously discussed findings on the rational behaviour of transaction premiums on the secondary market for hedge funds, provides support for rational theories of the closed-end mutual fund market. Sometimes the study of a new market can help to resolve old debates. □

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PENSION SCHEME PROVIDERS NEED TO LEARN THE LESSONS OF THE CREDIT CRUNCH, SAY **PATRICK RUDDEN** AND **DAVID HUTCHINS** OF ALLIANCEBERNSTEIN.

# THE LOOMING PENSIONS CRISIS

One of the lessons of the credit crunch is that long-term outcomes can be distorted by short-term rewards. This

lesson extends beyond sub-prime loans to pension buyouts, whereby an insurance company is paid to take on someone else's pension commitments.

For now, buyouts are off the agenda. Plugging the holes caused by falling equity values has pushed them beyond the reach of most pension scheme providers. But if they are down, buyouts are far from out. When markets revive, many employers and trustees will once again start looking at ways to offload their retirement schemes.

Why this disaffection with pensions? The onerous nature and short-term focus of regulation and accounting rules make it attractive for pension schemes to replace equities with bonds. This may fix the immediate problem, but it doesn't address the fact that pensions are long-term obligations, and over the long term equities have proved a better investment than bonds.

Faced with these often irreconcilable demands, many pension sponsors and trustees simply want to hand the problem

over to someone else. A buyout is the perfect answer. After all, managing risk is what insurance companies are about, so they should be able to handle pension risks better than most. Furthermore, their capital is regulated specifically to take the strain of that risk. And, if things go badly wrong, the UK insurance industry's Financial Services Compensation Scheme (FSCS) is a more comprehensive safety net than the pension industry's Pension Protection Fund (PPF).

However, we believe many of the apparent benefits of buyouts may be illusory. Take the management of risk. While historically many more company pension schemes have collapsed than insurance companies, insurance companies have often failed to meet policy holders' long-term expectations. The total assets involved in various insurance debacles ranging from endowments, through pensions mis-selling and Equitable Life to zombie funds top £200 billion.

Capital adequacy complicates the picture further. Imagine a massive bulk buyout involving the pension scheme of every FTSE 100 company. We calculate that transferring such a large chunk of the UK's private sector pension obligations would cost in excess of £400 billion. The total liabilities

thus taken on would represent more than ten times the additional security of £40 billion that would be required of the buyer by the regulator to approve such a deal.

This is leverage by any other name and, as we are all now painfully aware, leverage spells trouble tomorrow if the buyer miscalculates the risks or the costs. Of course, if one insurer has miscalculated it's likely to come at a time when other insurers have made similar miscalculations. This is how a problem becomes systemic.

Now contrast that with leaving the pension assets where they are, backed by the combined and highly diversified market capital of around £1 trillion that still stands behind the UK's 100 largest companies. We think it is clear where the nation's private pension assets might be safer, at least in aggregate.

And what of the FSCS? True, it nominally underwrites 90 per cent of an insured's losses, against an average of just 60 per cent for the PPF. But it has recently only been raising around £120 million on average in annual levies and has a limited pool of industry participants on which to call for more. As a safety net, it remains untested. While the market turmoil has pushed issues such as these onto the back burner, we don't believe that is where they will stay once

markets pick up. At that stage, those involved with handling pension fund risks may want to remember the hard lessons of the credit crunch.

To return to where we started, perhaps the most important lesson concerns the problems that arise from misaligned interests. Sometimes the immediate incentives for those putting together pension buyout deals encourage them to get the business quickly rather than to price it correctly. Rapid growth is likely to be more speedily rewarded than long-term profitability. It is easy to see how the interests of the managers of the insurance company may be shorter in term than those of the pension fund.

We are not saying that buyouts are simply a dangerous diversion. They make sense for small pension schemes and schemes with weak sponsors. These will benefit from the diversification of mortality risk provided by being pooled with other schemes and the extra protection given by the insurer's capital.

But larger schemes of stronger employers may find that salvation lies closer to home. The covenant strength and diversification provided by their own sponsoring businesses may turn out to be superior to anything a buyout provider can offer. In these circumstances, we believe they may be better off keeping their pensions, but using more sophisticated solutions for their management. These could include transferring some of the risk to participants by offering a well-designed DC scheme; more closely matching assets with eventual liabilities by using bonds and derivatives to reduce balance sheet volatility; and/or laying off risk in the capital markets by purchasing annuities or other guarantees.

The key with all these solutions is that they are likely to be more closely tailored to the risks faced by the fund, rather than those of the buyout provider. As a result, they are likely to end up being cheaper, more flexible and, just possibly, safer. □

Patrick Rudden is Head of Blend Strategies and David Hutchins is Head of UK Research and Investment Design at AllianceBernstein. Patrick Rudden gave a lecture on pension buyouts to Oxford MSc in Financial Economics students in March 2009 as part of the MFE Senior Practitioner series.



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