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FINANCIAL CRISIS ONE YEAR LATER

Robert C. Merton

on opportunities arising from the crisis

TILBURG UNIVERSITY

Understanding Society

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CentER is on the right

Last June our Dean presented the FEB's strategy plan for 2009–2012: "What will we have achieved in 2012?". An important chapter in this plan is of course "Research". In this column I would like to highlight the most important research issues of this strategic plan.

Research output:
We aim for outstanding research output published in leading international journals. In 2012, a position in the top-20 in the international rankings for Economics and Business, and retaining our place in the European top-3 will indicate that we have become an internationally renowned research faculty. Since there is no up-to-date international ranking for economics research, the Faculty will develop and maintain such a ranking. We will create more awareness of the importance of publishing in top journals. To stimulate top publications, we will keep up the current celebration activities (flowers, champagne and personal bonus). Furthermore, we will add a considerable bonus to the current research funds allocated for each top-core publication.

Graduate School:
The Faculty wants to give a boost to the CentER Graduate School. The main reason for this is that PhDs have a very positive influence on the research quality and quantity of the entire school. First of all, we will expand the capacity of the programmes: by 2012, we will be able to offer the Research Master programme to 60 Research Master students, along with 48 PhD places. We will intensify our efforts in getting PhD grants from e.g. NWO and private companies. The aim is to get 24 PhD positions financed by external funds. We will raise the School's profile by developing the CentER Honours Programme focusing on the very best Bachelor's students, and will also intensify international recruitment to create sufficient inflow from abroad. We will look into the possibility of organising joint degree programmes with foreign universities. We will also investigate the idea of a dual PhD, consisting of PhD work combined with research elsewhere. By attracting the best students and offering them the best programmes, we aim to achieve top placements at internationally renowned universities and institutes for at least 10% of our PhD students by 2012. Together with *CentER Society*, we will develop plans to strengthen the relations with our alumni.

Interdisciplinary centres:
The investment that our interdisciplinary centres make in cultivating relations with society at large will serve as an example to our Faculty. After all, collaboration with social partners inspires fundamental research and is an instrument for enhancing income from commercial sources. We will therefore continue our policy of encouraging interdisciplinary cen-

track!

tres. We already participate in several interdisciplinary centres: CIR, FIT, NETSPAR, TILEC and TIBER. In 2009 the European Banking Center (EBC), the Research Institute for Flexicurity, Labour Market Dynamics and Social Cohesion (ReflecT), the European Research Institute in Service Science (ERISS), and the Center for Sustainable Enterprise and Society (SES) were or will be launched. We aim to strengthen our fundamental research in the field of entrepreneurship within the Brabant Center of Entrepreneurship. The Faculty will establish initiatives for the continuation of the existing institutes, such that these centres will eventually be expected to be self-supporting.

Visibility:
We will raise the profile of the Faculty's accomplishments, thereby emphasising the relevance of our research to society. The quality of research at the Faculty has an excellent national and international reputation among fellow professionals. We will highlight our academic performance through the development of an international ranking of universities engaged in economic research. We will strive to establish better connections with international networks like the Centre for Economic Policy Research (CEPR) and the National Bureau for Economic Research (NBER). But our research also deserves greater recognition from the business sector and government bodies, at home and abroad. The Faculty therefore aims to encourage staff to take a more active and frequent part in social debate. We will actively create awareness among researchers of the importance of media appearances and help them to popularise their scientific publications. Moreover, we will co-establish the *Tilburg University Society* that will organize meetings in which politicians, policy makers and academics discuss topical current affairs issues. Last but not least, we will continue our investment in the *Me Judice* website, and will develop a new web portal for a broader audience featuring the results of economics research. To maximize visual attention the content will be supported by video clips on interesting research issues.

On 17 June, the FMT presented the Strategy Plan 2009-2012. The FMT received a lot of enthusiastic and positive feedback. You should have received a copy of the booklet 'What will we have achieved in 2012?'. If you have not received it, please contact Anja Schellekens, via: a.schellekens@uvt.nl.

It might seem difficult to achieve all of these goals by 2012. Let me tell you that several recent developments strengthen our confidence that we will achieve these goals. The CentER (Research Master) graduate programs were re-accredited by the NVAO, and in the summer our graduate school received one of the nine NWO Graduate Programme grants of € 800k. Moreover, in September we started with more than 60 students in the second year of the Research Master. With respect to research we cannot resist the temptation to tell you that that the preliminary VSNU evaluation report is very positive on CentER's research. On a 1-5 scale, four research groups scored 4.5 and five research groups scored a 5 for 'quality'. For 'productivity' seven research groups scored a 5 and two research groups a 4.5. In the next issue of *Centerpoint*, when the final VSNU report is available, we will extensively discuss this evaluation report.

CentER is on the right track!

Dick den Hertog,
Vice-Dean Research
Scientific Director CentER

How to uncover barriers to European innovative businesses?

Fabiana Penas and Marco Da Rin are the winners of a substantial grant from the European Investment Bank. With € 300,000 to spend they will have to live up to high expectations. They plan to find answers to the question of why European businesses tend to grow slower than businesses in the rest of the world. Time therefore to ask them what the money is going to be spent on, during the next three years.

"With this grant we will finance several projects in which specific research is done to understand why innovative European businesses find it so hard to grow into large international businesses. We will do so by gathering and analysing systematic evidence on how finance affects the growth of entrepreneurial, innovative firms into large, profitable businesses. We will build on our expertise in uncovering systematic data on early-stage financing to assemble novel and ambitious pan-European databases. With these we will develop several different projects focussed on specific questions. Building on our experience in public policy evaluation, we will apply rigorous econometric techniques for their analysis, in order to derive compelling insights for public policy.

We aim to find the answer to a variety of questions, such as: 'How important is angel investing for entrepreneurship? Do 'angels' complement or substitute formal venture capital? How do public and private sources of finance compare in bringing firms to adopt effective innovation strategies? How has European venture capital evolved in the last decade, and does it contribute to creating a competitive business environment?' We will also look at how private equity contributes to creating successful European innovators through growth capital and buyouts. Finally, we will assess how the recent credit crisis is going to affect the long-term availability of finance for fast-growing companies, and evaluate how several economic policies affect company growth.

About half of the grant will be spent on supporting a graduate student, and the rest will be used to buy research assistance and data and to cover travel expenses. We will present our work at various international conferences, where we can obtain feedback from expert colleagues in different fields."

What's in it for Europe? "We believe our analyses will produce insights that are useful to the private sector, with possible successful strategies for both firms and investors. Our findings should also be useful to policymakers, in helping them to identify what features can make public intervention successful."

Penas and Da Rin, the two EIB-grant winners, have no fear of failing. "We're in it to win it" is their answer to the question: Where does the challenge meet with the fear of failing?

Marco Da Rin is Associate Professor at the Department of Finance. He is also a Research Fellow of TILEC. His research is focused on entrepreneurial finance, venture capital and private equity.

Fabiana Penas is Assistant Professor at the Department of Finance. She is also a Research Fellow at EBC and TILEC. Her research is focused on the role of banks, venture capitalists and business angels in fostering small business growth, and on the role of the legal system in alleviating financial constraints.

How to stimulate cash withdrawals from automated teller machines

Money in the pocket!

Automated teller machines are worldwide-known robot copies of the former bank clerks who handed you your money in the old days. Barclays introduced their first one in London, in 1967. A year later, networked ATMs were pioneered in Dallas. You can find the rest of the teller machine history on almost every street corner in almost every city in the world. Hans Degryse's paper studies investment and usage in a shared ATM network. Because all banks coordinate their ATM investment decisions, there is no strategic but only a pure cost-saving incentive to invest. At the same time, because retail fees for cash withdrawals are regulated to zero at both branches and ATMs, consumers may not have the proper incentives to substitute their transactions from branches to the available ATMs.

Hans Degryse is Professor at the Department of Finance. He holds the TILEC-AFM Chair on Financial Market Regulation, which is sponsored by the AFM (the Dutch financial markets regulator – Autoriteit Financiële Markten). His research interests include theoretical and empirical banking, market microstructure, and the industrial organization of financial markets.

Consumers are not encouraged to use the network that belongs to their own bank, because they don't have to pay for the service provided by other banks' networks. That appears to be the problem. Degryse explains:

'In their withdrawal decisions, consumers can decide to withdraw at the counter of their own bank branch or to withdraw from an ATM network, either affiliated to their bank or belonging to competing banks. The situation we study is one where all ATMs are fully compatible, i.e. where no fees are charged when using a bank's own ATM or another ATM. In many countries, we also observe that banks are restricted in charging (differential) fees for different types of withdrawals. This one network – zero retail fees – is an industry setting that occurred in many countries and is still in place in some countries.'

It is clear that the zero-fee system doesn't encourage banks to invest in shared networks. It would seem a bit strange however, to charge the end-consumer for his use of ATMs, he would therefore pay for withdrawing his own money without any additional service. According to Degryse's paper, this will probably not be the case.

'Our analysis actually suggests that banks should be allowed to charge fees for in-branch cash withdrawals and no fees for ATM withdrawals. The reasoning is that in-branch withdrawals involve higher labour costs and are therefore less cost-efficient. The zero-fee system does then not stimulate the more cost-efficient ATM transactions. Consumers can still withdraw cash at zero transaction costs at ATMs.'

Thinking in that direction, the size of the network can play a larger role in the future, because larger networks are more cost effective than smaller ones.

'Our analysis starts from one ATM network and does not incorporate other incentives to install ATMs or to introduce ATM fees. The US experience however has shown that the introduction of surcharges – i.e. a fee charged by the installer of the ATM when you withdraw at an ATM that does not belong to your own bank's network – introduces a role for network size. In particular, depositors have a greater willingness to pay for banks with a larger ATM network. Banks with larger networks can therefore afford to pay lower deposit rates than banks with smaller networks.'

Accounting Spring Camp looks for answers to global financial crisis

Is it time to reduce the governm

Is the worst recession in 80 years caused by the lack of transparent information prepared by financial institutions and companies, and used by investors and regulators? Are excessive bonuses to blame for the irresponsible behaviour of corporate executives? Several politicians and regulators have pointed at accounting practices for contributing to the credit crisis. Is more regulation and government enforcement of accounting rules the solution? Philip Joos, co-organiser Accounting Spring Camp 2009 reflects on an inspiring day.

A transparent capital market in which all parties have access to unbiased, trustworthy information is paramount to sound financial and economic decision making. Many are convinced that the financial information at hand on market performances leading up to and during 2008 played a key part in the crisis that followed. The public outcry in 2008 for better accounting, more regulation, better enforcement and improved executive compensation practices prompted Stephan Hollander, Philip Joos and Jeroen Suijs from the Research Group Accounting to organise a special Research Camp on 'Reporting and Regulation' on April 22, 2009.

During the Accounting Spring Camp, four distinguished accounting researchers and four high-profile practitioners from the big four accounting firms and the Dutch Financial Markets Authority (AFM) debated on the presentations of several expert speakers.

Philip Joos is Professor at the Department of Accountancy. His research is situated in the area of empirical financial accounting. In particular, he is interested in disclosure practices, risk assessment and option-based valuation of IPOs, and economic effects of the adoption of international financial reporting standards (IFRS).

Keynote speaker Ray Ball, an expert on capital market research and author of the most cited accounting research paper ("An empirical evaluation of accounting income numbers", *Journal of Accounting Research*, Autumn 1968), offered his controversial view on the effectiveness of government regulation and oversight in times of crisis. Ball discussed the crisis and the reactions to the scandals at the turn of this century such as Enron, Global Crossing, Freddie Mac, Tyco, Ahold, Parmalat and Lernout & Hauspie. These scandalous events of fraudulent reporting in 2001-02 and the regulatory reaction that followed with the 2002 Sarbanes-Oxley Act (SOX), show similarities with the current financial crisis and the public support for regulatory reform and more government oversight. Director of the Dutch Financial Markets Authority Steven Maijoor, who discussed Ball's presentation, confirmed that regulatory reform is indeed much easier and can be implemented much faster in times of crisis (see also AFM 2008 annual report). Investors expect swift and bold action against the perpetrators. Ray Ball analysed what caused these scandals and distilled three major elements. First, the long economic boom in the 1990s put pressure on managers to deliver high growth in earnings and revenues, share prices and option values. In addition, corporate monitors such as corporate boards, auditors, analysts, rating agencies and regulators came to accept high growth as normal at the risk of falling asleep at the wheel. Finally, a "rule-checking" mentality seemed to have crept over the accounting profession, including the Financial Accounting Standards Board, audit firms, researchers and educators. Financial reporting standards are formulated in rules, not in principles. In the US, compliance with rules-based accounting seemed sufficient, whereas a requirement to reflect economic substance seemed superfluous. Ball further argued that regulators prefer to administer rules. The application of principles requires judgement, which is hard to defend in court. As a consequence, Ball conjectured that regulation itself played a substantial role in setting the stage for accounting scandals.

So what can be done to prevent corporate misreporting and improve financial transparency in the future? Ball offered two perspectives. The market can regulate itself, and on the other hand regulators can increase the legislative proceedings and government oversight. Private litigation and reputation effects are powerful market mechanisms that impose penalties on market parties who

ent footprint?

act inappropriately. Ball was not so much in favour of the regulatory and political answer to the 2001–2002 crisis. The Sarbanes-Oxley Act was passed in August 2002 and is one of the most extensive regulations of securities markets since the Securities Act of 1933 and 1934 following the Great Crash of 1929. Ball questioned the necessity of sox and even whether the Securities Acts in the 1930s were beneficial for investors. Politicians and government officials, including the Securities Exchange Commission, did not hesitate to seize the opportunity offered by the crisis to increase their influence over the financial markets. Ball seriously questioned the effectiveness of this increased regulatory influence.

Ray Ball, keynote speaker during the Accounting Spring Camp, offers his controversial view.

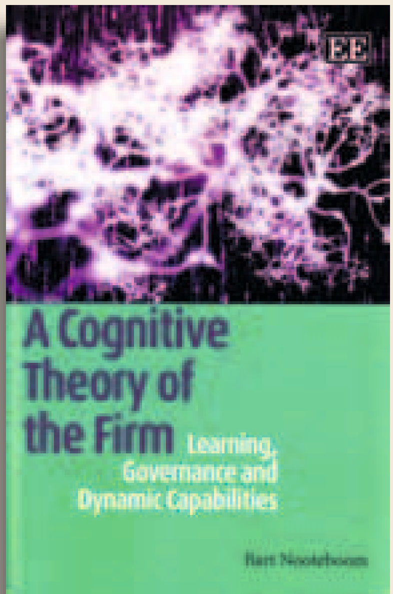
Ray Ball's presentation offers an important insight into the ongoing regulatory efforts to solve the global crisis and improve financial transparency. Increased government influence on businesses and financial markets could impose severe long run costs on society and prolonged low economic growth. Perhaps it is time to reduce the government footprint?

More information on Ray Ball's opinion:
Ball, R., Market and political/regulatory perspectives on the recent accounting scandals. *Journal of Accounting Research*, 47(2), p.277, May 2009.

A Cognitive Theory of the Firm

Bart Nooteboom, part-time Professor at the Department of Organisation and Strategy, has recently written a book: 'A Cognitive Theory of the Firm'. In this publication Nooteboom looks into the sources of innovations in firms. To this end, he steps into the emerging field of cognitive economics.

Nooteboom combines several innovative research streams such as neural science, social cognition, and strategy and organization, being well aware of the fact that old school tools, such as entrepreneurial vision and variety and dispersion of knowledge alone do not suffice. Nooteboom's theory draws on a combination of the works of economists Friedich Hayek, Joseph Schumpeter and Edith Penrose. The dilemma for innovative companies, as Nooteboom puts it, is whether to concentrate on developing new innovations (exploration), or on selling what's already in store (exploitation). Exploration must derive from exploitation, Nooteboom argues, and be based on observations of how existing technologies are received by the market. From his point of view, an innovative firm should develop a particular cognitive focus which distinguishes it from others, thus giving it a particular niche in the market. Nooteboom truly stands out in his ability to unite material perspectives from diverse disciplines and in his solid understanding of how firms actually work. With its original and thought provoking way of putting things in perspective, the book sets a whole new standard.



Financial crisis one year later:

The financial and economic crisis, which turned out to be the most severe since the 1930s, started a year ago. The world economy stalled and the European and American economies fell into a deep recession. If it was not for hundreds of billions of euro's and dollars from the governments, many European and American banks and insurance companies would have vanished. What are the most important lessons the world has learned or should have learned out of this crisis? That is the question we have put to four prominent experts from various fields of economics at the Faculty of Economics and Business Administration at Tilburg University.

Sylvester Eijffinger, is Professor at the Department of Economics. He is also board member of the EBC and advisor to the European Parliament on monetary economics.

"The world has learned that it needs a type of structure in the financial world that can limit human behaviour. We need to invent a system that contains human greed. The current structure and institutions cannot do that so we need change. Look at the financial markets. For investment bankers for example, it was a challenge to see how far they could go with taking enormous risks in the financial markets. It gave them a kick. The Anglo-Saxon economic model has stimulated individualism and excessive risk-taking.

Quite some steps will need to be taken in order to come to such a new structure. Take for example a financial institution. The system is in need of more checks and balances, in the field of risk management and between the supervisory board and the executive board. The world needs courageous, independent and involved supervisors. Supervisors that do not hesitate to fire managers that are only focused on maximizing their own wealth instead of those who approve of everything the executive board does. Supervisors need to focus on containing the greed of those they supervise."

The recently published report of the so-called Maas-committee in the Netherlands on the lessons the banking sector can learn from the crisis – Eijffinger was one of the four members of the committee – emphasises that these points are important in order to create solid banks. After all, if the fundamentals are weak, the house that is built upon it will crumble sooner or later.

Lans Bovenberg is Professor at the Department of Economics. He is also founder and scientific director of Netspar and independent member of the Social-Economic Council.

"Supervisors have to change the way they do their job. Central bankers for example have learned, or should learn, that just paying attention to price stability does not suffice. Asset price inflation, on the financial markets or housing markets, is just as bad from a macro-economic point of view. Central bankers must pay attention to those macro-economic imbalances and increase their interest rates when it's needed to counteract them. This even if price stability is not in immediate danger and thus does not warrant a rate hike.

There is also an important lesson for other supervisory authorities. Before the financial crisis they mainly looked at each financial institution as a stand-alone identity. It was satisfactory for just the solvability ratios to be sound. The financial crisis has shown however, that supervision should focus more on the systemic risk, i.e. the linkages between various financial institutions, such as claims they might have on each other. That should not only be done on national level, but on international level as well.

On a broader level, the crisis has shown that there is a need for more global integration on the highest level. Globalisation forces have led to a large degree of integration in the financial markets all over the world. However, integration of supervision authorities and governments has lagged far behind. I think they must integrate more as well, in order to be able to act as a counterweight for financial markets."

"Supervisors need to focus on containing the greed of those they super

lessons learnt

"We need to invent a system that contains human greed"

Harald Benink is Professor at the Department of Finance and founder of the European Shadow Financial Regulatory Committee.

"I blame the crisis on moral hazard. Bankers were encouraged to take on too much risk, because they knew if anything went wrong, the governments would bail them out. I agree with Bovenberg that supervision authorities should integrate more in order to perform their future duties better. I call for a European supervisory authority for big, pan-European banks. There are some 50 financial institutions in Europe that fall into that definition. In Europe supervisory authorities will now coordinate their tasks within a macro-prudential supervisory framework centred around the European Systemic Risk Council (ESRC). They will also coordinate their tasks within a micro-prudential supervisory framework, the European System of Financial Supervisors (ESFS). I am however of the opinion that Europe has missed a chance to set up a real European supervisor. Coordination of national supervisors within such councils does not guarantee good functioning of supervision. National interests will continue to dominate. The Dutch-Belgian company Fortis is a good example. Coordination between Belgian and Dutch supervisors appeared to be very complex and difficult when Fortis run into trouble."

Benink, who founded the European Shadow Financial Regulatory Committee eleven years ago, points out that with its internal market and the euro, Europe has in the past been able to set a deadline for changes to the financial market. "Sadly, with a European supervision authority that is not the case."

Henriëtte Prast is part-time Professor at the Department of Finance and member of the Scientific Council for Government Policy (WRR).

"I do not blame the complex financial products for the crisis, I blame their misuse. Years ago, research showed that people tend to underestimate the chance a certain event will occur if they cannot recall a similar event to have happened in the past. Somebody who has never witnessed a bank failure, cannot imagine that this could happen. The same applies to crashes on the housing market and stock exchanges. Moreover, during good economic times people want to hear and believe things that make them happy. So, in good times customers do not want their financial advisors to point them to the various risks of the products they are buying. Someone who wants to buy a house goes to the bank that offers them the highest loan and the lowest interest rate. A bank that assesses and prices the risks for the housing market properly, will soon loose costumers to its competitors, who take too many risks and grant loans that are too high. In 2003 and 2004 I already warned that the Dutch deposit guarantee scheme on savings accounts would result in Dutch savers parking their money at foreign banks that took too much risk gaining. But at the time nobody believed a Dutch bank could fail.

I hope this crisis will not result in a destruction of the good aspects of financial innovation. That, including complex financial products, can lead to welfare gain without excessive risks for the ordinary man. That is, if the products are used in the proper way."

vise"

Top economist Robert C. Merton:

'Allowing Lehman to go bankrupt was a mistake'

Thanks to Nobel Prize winner Robert C. Merton, who delivered the 2009 Van Lanschot Lecture at Tilburg University, the options market exploded. According to many critics, option trading was the cause of the crisis. 'Nonsense,' he replied. 'The financial sector cannot function purely on common sense alone.'

With a bit of imagination, you could regard him as the inventor of the financial atom bomb. The American-born Robert C. Merton (64), Professor at the renowned Harvard University, is one of the youngest winners ever of the Nobel Prize for Economics. However, he is seen by many as the intellectual father of everything that is wrong with the financial sector: the deceptive tricks, the intensive use of computer models and the array of exotic financial products such as options, forward contracts, swaps and credit insurance, referred to collectively as derivatives.

This is largely an unloved and misunderstood market that has deridingly become known as high finance. The American super-investor Warren Buffett once called derivatives 'financial weapons of mass destruction' because they can result in incredibly large losses. On this issue, Merton does not agree. "The fact that derivatives are misused does not justify such a label. Banks are ruined by mortgage lending. For that reason, we no longer refer to such loans as weapons of mass destruction. Moreover, Buffett's remark was not meant as it sounded. Indeed, he himself uses derivatives."

In 1973, Merton refined the formula of the two Americans Myron Scholes and Fischer Black so that the price of options could be precisely calculated. Trade in options had already taken place for centuries but the revised formula offered dealers a rational footing and gave derivative traders extensive opportunities. More than three decades later, hundreds of millions of euros are circulating through the derivatives market. Merton: "Many see derivatives and mathematical models – everything that the financial sector creates – as being the cause of this crisis. That's not correct. I believe that modern financing offers a means to increase prosperity. Financial innovation allows costs to drop and offers the chance to share risk."

Sylvester Eijffinger, Professor at Tilburg University, knows Merton and invited him to the Netherlands to speak at the University's Van Lanschot Lecture. Merton delivered an impassioned lecture about the crisis. "In the United States, $15 billion (i.e. $15,000 million) has been lost on the housing market. These are real losses that someone must be accountable for. Politicians do not want to attribute these losses to anyone. Everyone would hate you. Hence, they prefer to say: "we are going to help you." Why did the risks increase so dangerously fast during the crisis? Because losses on mortgages, for example, do not advance linearly, but rather represent a concave curve. That means that with each decrease in house prices, the losses increase disproportionately. "The first crash is incomparable with the second, the second is incomparable with the third." The good news: "If the prices

The 4th Van Lanschot lecture was introduced by Floris Deckers (Board of Directors, Van Lanschot) and Sylvester Eijffinger.

During the lecture of Robert Merton, one of the most prominent economists in the USA, attention was focused on the current financial crisis. In general, Merton is not in favour of government intervention and argues for the 'American Way': The market is capable of solving its own problems.

increase, then the risks fall equally disproportionately."

During the lecture, the acclaimed economist explained that the government now uses exactly the same tricks as the banks did in the run up to the crisis, whilst the banking sector is now being criticised for adopting such tactics. "What irony", he says. "Western governments have put themselves in high-risk financial positions that they omit from the records. How? By guaranteeing loans from banks, just as the Dutch government did for the ING."

Transparency

"Granting guarantees is one way to give money to the banks without having to request funds from Congress or Parliament. Governments are essentially offering free insurance. They do not keep official records of this money. It is not transparent. Can you think of an organisation that has also been accused of this?" Merton asks the participants. "That's right, the banks. Every bank in the world has been accused of failing to keep official records of loans in order to evade regulation. The government now does exactly the same thing as a means to avoid questions by Congress and the taxpayer. I'm not making any judgment because they may not have a choice. But there is irony in that fact that the government now adopts the same financial procedures as the banks."

Earlier in the day, during an interview with *Elsevier*, Merton gave a comprehensive answer to the question of whether he felt in any way personally responsible for the current mess. He apologises by saying that his answer has to be a long one. "Because you are actually asking me a strange question which is similar to a question like this: 'Suppose that you're a hatchet murderer; how does it feel to be a hatchet murderer?' I don't have a concise answer to that since you're making assumptions that I don't agree with."

Merton's answer reduces to this: neither computer models nor derivatives have caused the crisis. "There is a tendency to depersonalise this crisis. But computers are simply tools, just like pens. People are responsible." And to make that crystal clear, he added: "We all know that disreputable and incompetent people and companies have brought shame upon the financial sector and the financial supervisory authorities. I hear many people saying that we must dispense with the mathematical models and the 'quants' (i.e. financial whiz kids) and allow healthy common sense to once more prevail. But the modern financial sector is unable to operate with pens, paper and sound common sense alone. No bank or central bank can function without derivatives or computer models. You have to compare the use of models in the financial sector with a pilot in an aeroplane. I landed a couple of months ago in Geneva, Switzerland. It was an excellent landing. Directly afterwards, the pilot announced via the intercom that the landing was carried out entirely by a computer. He did not have to do anything. Such a computer model is incredibly sophisticated. Still, no one would board an aircraft without a pilot."

"In 1997, during my speech on receiving the Nobel Prize, I warned already that every model is an incomplete depiction of reality. We want to have a pilot in the cockpit just in case something happens that the model cannot respond to. In such situations, there is no substitute for a trained professional. However, the pilot does need the model because otherwise he would be unable to carry out all the procedures that are necessary to land the aircraft. The same also applies to financial models. The cause of this crisis is not attributable to models that were too complicated or that too much trust was placed in them. Rather, there was too much trust in the people who used the models. This view very clearly contrasts with general opinion. The solution is not: the models are too complicated to understand for bank managers and supervisors, and hence, the models must go. No, the bank managers and supervisors who do not understand the models must go! In health care, we would also not accept that the government says: we do not understand

From left to right: Kees Koedijk (Dean FEB), Philip Eijlander (Rector), Robert Merton (keynote-speaker), Hein van Oorschot (president of the Executive Board) and Sylvester Eijffinger (Professor of Financial Economics).

nanotechnology and so should we therefore prohibit nanotechnology. You can laugh about it, but that is precisely what many people currently believe."

As an example, Merton refers to the enormous fraud carried out by the American trader Bernard Madoff who recently received a prison sentence of 150 years. According to reports, $50m has disappeared in his pyramid game; large banks and wealthy people throughout the Western world gave him money. "Top professionals who heard about his investment strategy concluded that you could not earn the amount of money that was claimed by Madoff. So, there had to be something wrong. Every bank manager and supervisor should be sufficiently competent to make such a judgement."

Robert C. Merton

Born: 31 July 1944 in New York
1966 Graduated in mathematics from Columbia University
1970 Graduated in economics from the Massachusetts Institute of Technology and worked there until 1988
1988 Moved to the Harvard Business School where he is still a Professor
1993 Established the LTCM investment fund
1997 Received the Nobel Prize

Intellect

Without a doubt, the least sophisticated branches of the financial sector using out-of-date models are responsible for the crisis. These are the mortgage providers, insurance companies and rating agencies who judge the credit worthiness of businesses and financial products. They use models that Merton describes as obsolete. "And I really mean that – models developed before the 1970s."

Since the formulas of Black, Scholes and Merton, a close relationship has emerged between financial science and the high-flyers from Wall Street. The smartest university graduates secure jobs at the best commercial banks and earn a fortune. Dealing in derivatives is mathematics, and mathematics demands intellect.

In the mid '90s, Merton (together with fellow Nobel Prize winner Scholes) managed one of the largest and most renowned hedge funds in the world – LTCM (Long-Term Capital Management). The immense company LTCM suffered financial problems in 1998 when the Russian government could no longer pay off its debts and almost swept away the worldwide financial system as a result. 'When genius failed' was an appropriate title for one of the many books written about the incident. Super-investor Buffett had almost rescued LTCM but Buffett was on holiday with the founder of Microsoft and multi-millionaire Bill Gates in the wilderness of Alaska. "The telephone connection was poor and the rescue plan was unsuccessful", recounts Merton. "Buffett wanted to buy it for $4m and we wanted to sell but it was one of those cases where a small hitch resulted in losing the war. In 1998, satellite telephones were simply not good enough."

Insights

Merton says that LTCM taught him many personal lessons. He emphasises that the founders had already lost their money. But the bankruptcy provided him with no new scientific insights. What Merton cannot understand is why the Federal Reserve System (or 'Fed' – the American central bank and regulator) did its best to rescue LTCM in 1998 but allowed the merchant bank Lehman Brothers to go bankrupt in September 2008. In

1998, the Fed ensured that a consortium of banks injected money into LTCM. "Relatively little money was lost. The consortium earned almost $1m. Only a small percentage of LTCM investors lost money. Lehman and LTCM appeared to be very similar to one another: both had huge balances, and both had many derivatives included in their financial records. In comparison with the enormous derivative positions, the net risk that they had taken was small: the sell positions became almost fully neutralised by opposite sell positions."

But for all these positions, Lehman and LTCM encountered opposition. If you allow such a company to go bankrupt, then all the opponents must abruptly reverse their positions. That causes a chain reaction, enormous pressure on the financial markets, and therefore chaos. Conversely, if you rescue such a company, then you contend merely with the net risks, that is, the difference between all buy and sell positions. "Allowing Lehman to go into bankruptcy was a big mistake. It changed a bad situation into a complete crisis. If LTCM had gone bankrupt, then that would have meant an even bigger nightmare. If the Fed understood this in 1998, why then didn't they understand this in 2008? This is most certainly not advanced mathematics and only requires a very basic insight into how markets operate." Do not think that Merton said that the government only had to inject money into banks if Lehman and the bankers were to be saved. "There was no government money put into LTCM and the government offered no guarantees. The Fed merely co-ordinates the rescue process. An excellent role for a central bank."

Source

This article is a translation of the article entitled 'Lehman failliet laten gaan was fout', written by Marike Stellinga. The article was published in the summer edition of Elsevier 2009. *Elsevier*, 11 July 2009, pp. 58–60.

Stand aside for two excellent talents

Van Lanschot Scholarship 2009

Yike Wang is one of the best students the FEB has ever had. Last year, she obtained an unbelievable average score of 9.4, and in addition, the excellent Wang carried out not one but two studies at the same time (International Economics and Finance & Econometrics). Wang's efforts were rewarded during the 4th Van Lanschot lecture. Dean Kees Koedijk handed her the Van Lanschot Scholarship 2009, worth € 10,000.

Van Lanschot Prize 2009

Jochem de Bresser also excels. For his Master thesis, entitled *The Value of Serenity in an Urban Environment: A Hedonic Price Analysis of Real Estate in Rotterdam,* he received a score of 9. The Research Master student in Economics also excelled during his Bachelor phase, when he received an 8.8 average. Here, he receives the Van Lanschot Prize 2009 for the Best Master Thesis from Theo Nijman, Director of Netspar. The prize is worth € 5,000.

Van Lanschot Bankiers

Financial crisis – what’s

CFO Survey sees end of crisis on the horizon

There is one thing that is certain with regard to the current financial and economic crisis: sooner or later, the crisis will make way for recovery. The million dollar question is then when that will happen. Kees Koedijk, Dean of the Faculty of Economics and Business Administration, says recovery has already set in. “The world economy is absolutely on its way up.”

Koedijk is referring to the outcomes of the worldwide survey of chief financial officers (CFO Survey). This survey is conducted each quarter by the Fuqua School of Business at Duke University, *CFO Magazine* and Tilburg University. Tilburg University coordinates the CFO Survey in Europe.

The CFO Survey tracks the opinion of CFOs around the world from both public and private companies. It does so on over a dozen key economic indicators, including economic outlook, corporate hiring, capital spending, earnings and merger plans. It also tracks how the economy is affected by topical issues, such as the high price of fuel, rising interest rates or global events, including major elections.

“The results lead the economic developments by 6 to 8 months”, says Koedijk. “Since the end of 2007 the indicator turned negative and during the whole of 2008 the mood among CFOs deteriorated further. From March this year, pessimism declined, especially in the US and Asia. “The Survey points out that economic recovery in Europe will lag behind Asia and the US. The state of the economy of tomorrow will depend on how the banking sector will recover. If the banks can fulfil their tasks as before, CFOs won’t see the world economy to be much different than before the crisis.”

There is, however, one sector for which the picture does look bleak. “For the next five to ten years governments all over the world will have to cope with deficits and debts they have taken on in order to save the financial sector from collapse.” CFO Survey, which has been running since 1996 in the US, and in 2004 was expanded to include the rest of the world, is an internationally recognized leading indicator which is used avidly by economists, researchers, and investors worldwide. “Prominent international newspapers, such as the *Financial Times* and *International Herald* are eager to get the results as they become available. Ben Bernanke, chairman of Fed, the American central bank, and the Fed-Board also receive the results as soon as they are available.”

“This shows that the CFO Survey means a lot for Tilburg University in terms of exposure. The next step is to do much more with the CFO Survey. Besides expanding the CFO Survey, to be able to better understand society, Tilburg University’s aim is to provide more relevant indicators. One example is TILCOM, the Tilburg Consumer Outlook Monitor (see opposite page). Koedijk: “I think the CFO and the TILCOM will be complementary to one another. Together, they will create a full picture of where the economy is heading, with the indicator on optimism among decision makers and consumer behaviour and expectations.”

Kees Koedijk has been Dean of the FEB and Professor at the Department of Finance since September 2007. His research deals with a number of topics, including sustainable and socially responsible investing, for which he has won many awards. Koedijk is one of the initiators of the global CFO Survey and of *www.mejudice.nl*, an opinion site for economists.

ahead of us

New tool predicts valuable consumer behaviour

With its CFO Survey, Tilburg University tracks the expectations at the top of firms, in the boardroom. However, consumer expectations, for example about unemployment risk, are equally important in order to assess how the economy will develop in months to come. That is why Tilburg University has introduced a new tool with which to monitor economic development: the Tilburg Consumer Outlook Monitor (TILCOM).

Rik Pieters is Professor at the Department of Marketing. His fields of interest are marketing, communication, consumer behaviour, and services marketing.

Rik Pieters, Professor of Marketing and Consumer Behaviour, who initiated TILCOM, is asked why. “Why do people climb mountains? Because they are there. A tool like TILCOM did not exist, which I found peculiar. Consumer behaviour is, via its influence through its decisions, the key for economic growth. Therefore it is valuable to know how the consumer reacts to economic developments and how their reaction influences their economic decisions, such as spending plans. Last year, the economy started to behave weirdly, as I like to call it. At the same time I noticed that people reacted very emotionally to the developments. For example, there was anger about the high bonuses that bankers got.”

Except anger, there was also fear, such as in the case of the Icelandic savings bank Icesave. People found out that all of a sudden they could not withdraw their money because the bank went belly-up. Apart from fear, it also brought on a feeling of doubt, says Pieters. “People no longer knew where to deposit their money. Many opened savings accounts at various banks and divided their savings to spread the risk.”

Pieters points out that the CBS, the Dutch Statistics Bureau, has been keeping track of consumer confidence since the early seventies. “I think however, that we could extract much more information in that field. TILCOM is the tool to do just that.”

Another reason why TILCOM was created has to do with the positioning of Tilburg University. “Tilburg University positions itself as a university that understands society. If you understand society, you are able to say something about future economic development. In that sense, Tilburg is the logical place for TILCOM.”

The first results of the survey will be available in the first half of October. “We are going to report the results in a different way than we do with our research. The results will be actively distributed to various media, from nationwide newspapers to regional ones.”

Preparations for the launch have been conducted during the summer. TILCOM is based on the Centerdata LISS-panel data. Four times a year, some 3,000 panellists will get approximately 50 questions that do not vary. In addition, every survey will contain some 15 to 20 questions that will change each time. That way, TILCOM can harvest information on hot topics quarterly. For example, in the first survey, the varying part contains questions on the debate about pension-age in the Netherlands and the proposed government policy for the next year, which was published on the third Tuesday in September (‘Prinsjesdag’). Pieters: “The power of any survey is its time-series. We hope that TILCOM will become the leading indicator for the Dutch economy.”

First in, first out
Predicting developments in an oligopoly

Jaap Abbring studies a dynamic oligopoly model with firm entry and exit, ongoing demand uncertainty, and sunk entry costs. In general, such models are hard to analyse, because they typically have multiple equilibria that cannot be easily computed. These models are thus difficult to use for computing the effects of policy interventions and other changes in the market environment, and to estimate from data. The paper, which he wrote with Jeffrey R. Campbell, a research economist at the Federal Reserve Bank of Chicago, will be published in *Econometrica*. What did they find out? Four questions for Abbring.

Jaap Abbring is Professor at the Department of Econometrics & Operations research. He is also a member of the Jonge Akademie of the Royal Netherlands Academy of Arts and Sciences (KNAW). His current research interests include topics in econometrics, notably duration analysis, and the empirical analysis of firm and industry dynamics, imperfect information in insurance markets and labour markets.

What did you find out?
The paper shows that, under certain assumptions on timing and expectations, our model has a unique equilibrium that can be computed by solving a finite sequence of standard dynamic optimization problems. Thus, we have reduced the difficult problem of computing the equilibria of a dynamic entry and exit game to the much simpler problem of solving a limited number of standard optimization problems.

We use our results to reflect on important empirical literature that uses static entry models and data on demand and numbers of firms in a cross-section of markets to learn about the economic primitives of and competitive conduct in these markets. By applying the static methods from this literature to (artificial) data generated from our dynamic model, we show that "true" dynamics - ongoing demand uncertainty coupled with irreversibility of firms' dynamic decisions because of sunk entry costs - may distort the empirical conclusions obtained with these static methods.

In what way will society benefit from the theory?
Dynamic oligopoly models of market structure are indispensible for the quantitative analysis of the effects of (competition) policy interventions and changes in the market environment. The assumptions that underlie our analysis are particularly natural in markets in which early entrants have competitive advantages over later entrants, for example because of learning by doing. So, I particularly expect our paper to be used in the applied (policy) analysis of such markets.

What does the paper mean for CentER?
There are quite some people at CentER, across various departments and institutes, who work more broadly in related fields such as competition policy, theoretical and empirical IO, and computational economics and structural econometrics. This publication helps me to continue contributing to this strength of CentER.

What is the subject you are currently working on and how is it related to your previous research?
Jeff and I are currently working on two follow-up papers, together with Nan Yang, a PhD student at the Tinbergen Institute in Amsterdam.

The first of these papers develops parallel results for a version of our model extended with firm-specific productivity progression. The second paper empirically implements our framework and applies it to the dynamic analysis of sunk costs, market structure and competitive conduct, using longitudinal data on demand and numbers of firms in a cross section of US retail markets.

New appointments

01-04-2009 Matteo Picchio, Researcher, Dept. Economics
01-04-2009 Gregory Sidak, part-time Professor
01-06-2009 Jeroen Derwall, Assistant Professor, Dept. Economics
01-06-2009 Geert Duijsters, Professor, Dept. Organization & Strategy
01-06-2009 Meir Statman, Visiting Professor, Dept. Finance
01-08-2009 Joost Driessen, Professor, Dept. Finance
01-09-2009 Patricio Dalton, Assistant Professor, Dept. Economics
01-09-2009 N. Meltem Daysal Trandafir, Assistant Professor, Dept. Econometrics & OR
01-09-2009 Daniela Defazio, Researcher, Department Organization & Strategy/CIR
01-09-2009 Bruno Gerard, part-time Professor, Dept. Finance
01-09-2009 Reyer Gerlagh, Professor, Dept. Economics
01-09-2009 Nicole Mead, Postdoc, Dept. Marketing
01-09-2009 Marianna Nagy, Researcher, Dept. Econometrics & OR
01-09-2009 Florian Schütt, Postdoc, Dept. Economics
01-09-2009 Wolfgang Sofka, Assistant Professor, Dept. Organization & Strategy
01-09-2009 Oliver Spalt, Assistant Professor, Dept. Finance
01-09-2009 Emanuele Tarantino, Postdoc, Dept. Economics
01-09-2009 Gonzague Vannoorenberghe, Assistant Professor, Dept. Economics
01-09-2009 Hans Verkruijsse, part-time Professor, Dept. Accountancy
01-09-2009 Arnt Verriest, Assistant Professor, Dept. Accountancy
21-09-2009 Zheying Wu, Assistant Professor, Dept. Organization & Strategy
15-10-2009 Barbara Briers, Assistant Professor, Dept. Marketing

Promotions

- Lieven Baele, Associate Professor, Dept. Finance
- Pavel Cížek, Associate Professor, Dept. Econometrics & OR
- Etienne de Klerk, Full Professor of Mathematical Programming, Dept. Econometrics & OR
- Juan Carlos Rodriguez, Associate Professor, Dept. Finance
- Renata Sotirov, Associate Professor, Dept. Econometrics & OR

Recent top publications

The publications are listed per department in alphabetical order.

Economics

Wagner: Diversification at financial institutions and systemic crises. *Journal of Financial Intermediation*

Econometrics & Operations Research

Abbring, Campbell: Last-in first-out oligopoly dynamics. *Econometrica*

Boldea, Magnus: Maximum likelihood estimation of the multivariate normal mixture model. *Journal of the American Statistical Association*

Van Dam, Muzychuk: Some implications on amorphic association schemes. *Journal of Combinatorial Theory, A.*

Van Keilegom, Hjort, McKeague: Extending the scope of empirical likelihood. *Annals of Statistics*

Klein: Heterogeneous treatment effects: Instrumental variables without monotonicity? *Journal of Econometrics*

Magnus, Powell, Prüfer: A comparison of two model averaging techniques with an application to growth empirics. *Journal of Econometrics*

Finance

Beck, Martinez Peria: Foreign bank entry and outreach: Evidence from Mexico. *Journal of Financial Intermediation*

Degryse, Ferrari, Verboven: Investment and usage of new technologies: Evidence from a shared ATM. *American Economic Review*

Degryse, Masschelein, Mitchell: Staying, dropping or switching: The impacts of bank mergers on small firms. *Review of Financial Studies*

Jacobs, Karoui: Conditional volatility in affine term-structure models: Evidence from treasury and swap markets. *Journal of Financial Economics*

Koijen, Van Binsbergen: Predictive regressions: A present-value approach. *Journal of Finance*

Laeven, Levine: Bank governance, regulation, and risk taking. *Journal of Financial Economics*

Marketing

Cleeren, Verboven, Dekimpe, Gielens: Intra- and inter-format competition among discounters and supermarkets. *Marketing Science*

Geyskens, Gielens, Gijsbrechts: Proliferating private label portfolios: How introducing economy and premium private labels influences brand choice. *Journal of Marketing Research*

Geyskens, Steenkamp, Van Heerde: What makes consumers willing to pay a price premium for national brands over private labels? *Journal of Marketing Research*

For the entire list, please go to:
center.uvt.nl/toppublications.html

Internet and technology

ERISS – an ambitious international think tank

The service industry plays an increasingly important role in all aspects of the economy. As such, there is an ever-increasing demand for integrated research and education in this area. At the beginning of this year, the European Research Institute in Service Science (ERISS) was established. Its aim is to become a think tank with a far-reaching impact on both European and global research.

"Imagine a chronically ill patient implanted with a microchip with which he can be continually tracked by satellite. If something happens to him, the sensors within the body detect this and the nearest hospital will be immediately alerted. The patient's medical records are then promptly sent via his mobile telephone, so that he can receive the most appropriate help as quickly as possible, wherever he is."

Mike Papazoglou, scientific director of ERISS and Professor of Computer Science, talks about his visions of the future like these with just as much confidence as enthusiasm. They have not simply been plucked out of thin air: the technological innovations necessary for similar ideas were introduced very quickly. But technology alone is insufficient to create effective and modernised services.

"There are commercial issues to consider. Does the service, for example, effectively address any given question?" explains Papazoglou. "And then there are social aspects. Introducing this type of service implies that all sorts of people and existing organisational bodies become necessarily involved; in this case, patients, hospitals, doctors, and pharmacies. Finally, there are legal considerations, including privacy and security. These also warrant the necessary attention."

This depiction highlights the increasing complexity of automated services where the internet and technology play an important role. Twitter, LinkedIn and Google Maps are well-known examples of such developments. Expectations are that automated services will expand enormously in the coming years. ERISS wants to play a prominent role in this area. It is the first research institute in Europe that investigates service provision, in particular automated services, from a multidisciplinary perspective. This integrated approach undoubtedly makes the institute unique in Europe.

"We want higher quality services, better functioning automated services that deliver more revenue", says Papazoglou. "That requires multi-disciplinary insight across areas including IT, economics, business, marketing and organisation. Generally speaking, the approach within Europe is still too one-sided because it focuses on a single aspect of service provision. ERISS aims to introduce changes in this respect. For example, it has already happened in California where research organisation CITRIS approaches the matter from a multi-disciplinary perspective."

In both Europe and the US, the Service Sciences have been declared one of the most important research domains of the century. In America, large companies in particular (e.g., IBM) are investing in new technologies. The European Union has allocated € 2.5m over the next 10 years for research into service provision. "These investments are essential for Europe's competitive position", says Willem-Jan van den Heuvel, managing director of ERISS and Professor of Information Systems at Tilburg University. "Approximately 75% of the Gross National Product of developing countries now already emanates from the service sector. Quite surprisingly, research and education are still continuing to focus more on the traditional production industries than on the service industry. A few disciplines, however, do pay attention to the provision of services, such as marketing and finance. But an integrated vision remains absent."

ERISS is hosted by Tilburg University's Faculty of Economics and Business Administration. No less than 15 research organisations from all over the world are associated with the institute, and the research carried out by ERISS focuses on five areas: Globalisation and Service Networks, Evolution of Science, Compliance Management, Health Care Services, and Business Cases for Service Oriented Applications. Health Care Service is probably the area that the majority of people are most familiar with. In this sector, Automated Services can offer considerable help in improving currently available services. Papazoglou explains further: "New internet technologies must make it possible for more complex organisations to be linked up to one another. Since more data is being exchanged and analysed, we can identify new needs whilst also improving the quality of life. Consider, for instance, the vaccine for the Mexican flu. Concerning the implications of that remedy, there is simply not enough available data at the moment. As soon as it becomes technically possible to integrate and link random samples from health care organisations from all over the world, we will be equipped with more knowledge to help patients."

The Globalisation and Service Networks branch of ERISS addresses the formation of new international services. Evolution of Service Networks looks at the transition from relatively simple services to international, complex and dynamic service networks, designed to deal with future needs and demands. Compliance Management Services provide the necessary attention when it comes to issuing guidelines for international services. Furthermore, Business Cases for Service Oriented Applications will deliver practical insights regarding the conditions for successful application of service oriented applications. For that reason, ERISS collaborates with companies such as IBM, PWC, Ericsson, Telefonica and KPN. Papazoglou believes that the input provided by the industry is essential. "We are, without question, this successful due to sound business partners like these. Our work to date gives an insight into the difficulties that exist in society. Researchers are somewhat detached from the commercial world and might have a different perspective about the problems that exist there. Thus, the scientists need to cooperate and work more closely with people in the business community to find effective and innovative solutions."

The institute receives financial support from FEB for overhead costs. Furthermore, the salaries of the twenty or so staff members that work at ERISS are fully paid from NWO subsidies, European grants and funding from the business community. As a result, ERISS has, since 2007, been able to manage the European research network S-Cube. For the research, the EU has allocated € 10m from its budget. The ERISS international Masters degree programme in Service Engineering, scheduled to start in 2010, will also be financed by the EU.
"ERISS is a self-maintaining institute", Papazoglou says proudly. "With various different projects we have secured € 3m of funding. This

Willem-Jan van den Heuvel is Professor at the Department of Information Management and Managing Director of ERISS. His research interests are located at the intersection of software service systems and business process management with an emphasis on (global) networked enterprises. His expertise revolves around business process management, service engineering and legacy system modernisation. He is currently a visiting Professor at CITRIS (UC Berkeley).

Mike Papazoglou is Professor at the Department of Information Management. He is also Director of INFOLAB and the Scientific Director of both ERISS and S-Cube. In the last few years, he has written three books on Service Sciences that have been issued by prominent publishers. His research is also financed by the European Commission, the Australian Research Council, the Japanese Society for the Promotion of Science, and various other scientific research institutes within Europe and Australia.

requires, in particular, a lot of communication. I've invested much time in travelling to Brussels to explain to officials what we do."

The proven successes of this recently established institute are impressive and future plans are equally promising. ERISS ultimately wants to function as an international think tank. "It is our ambition to become the European leader in the area of Service Sciences," says Van den Heuvel. "This might involve relying on insights from Palo Alto, Silicon Valley, where we will develop prototypes in close cooperation with research institutes such as Berkeley, Carnegie Mellon and other interested newly established organisations. This can, in turn, lead to further transatlantic cooperation. Such an international focus has always been a characteristic of Tilburg University. For Service Sciences to have an impact requires adequate scope and the ability to function at an international level."

Tax competition and tax evasion

The Battle of the Taxes

Traditionally, European countries compete severely in order to host foreign companies within their borders. The Netherlands form an attractive location; foreign companies can simply keep the money they earn outside Dutch borders. It is no more than a public secret that Shell has chosen the Netherlands as their headquarters for this reason alone. Johannes Voget (1977, Mannheim, Germany) has studied the pro's and cons of tax competition and tax evasion.

Johannes Voget obtained his Master's degree in Econometrics (cum laude) from Maastricht University, the Netherlands, in 2003. He carried out his PhD studies at CentER and is currently a Research Fellow at the Oxford University Centre for Business Taxation. His research interests are in the fields of public economics, international economics and finance.

Can the conclusions of your dissertation be looked upon as a possible limitation of the free market and of the competition between countries that host multinationals?
"No, the first part of my thesis shows that multinationals tend to locate their headquarters in (tax-) favorable places. This does not imply yet that countries compete with each other in attracting headquarters or that such competition is detrimental to society. The second part of my thesis describes scenarios in which multilateral cooperation between countries is superior to an approach where every country just muddles along."

The current system of tax competition and tax evasion has been made possible by the existence of borders. Could you in theory imagine a world where everyone has to pay taxes, regardless their nationality or residence?
"Yes, in theory that is an easy exercise. However, has there ever been a world without borders? The EU is trying to implement a CCCTB (Common Consolidated Corporate Tax Base). So far, this is going nowhere."

From a pragmatic point of view, a multilateral cooperation between tax authorities only seems to be possible between European countries. But that could imply the departure of Europe-based companies. Can such a theoretical development be avoided?
"Yes, initiatives like the EU Savings Tax Directive should be seen as a first step. If the follow-up steps do not occur then the first steps will eventually be abandoned as well. Hence, we do not have to be scared of an exodus of European firms. Any policy with such an effect would be quickly abandoned. It would just mean that cooperation within the group of EU countries only is not sustainable."

Is there a risk that poorer countries with little economic activity will suffer from tax regulation if they join the multilateral cooperation?
"All countries are free to choose if they want to join or not. They would simply not join in that case. If they would be forced to join, then they may be worse off than if they were able to choose their own policy. More interesting is the following scenario: No poor country wants to join by itself. However, if all the other poor countries join at the same time, they could (under certain circumstances) all be better off."

What is there still to be done if you want the real world to benefit from your conclusions? In other words: what's in it for the people?
"The Dutch already benefit from their policy of attracting (sub-)headquarters of multinationals. The Netherlands is comparably strong in these areas. Will this policy ever be changed? Not in the near future. With respect to information exchange: Without effective information sharing, there will be no meaningful taxation of capital income. So people with lots of capital income benefit, people with mainly labour income (wages) lose because taxes are raised somewhere. With more information sharing, this situation could change, which would be good for people with no capital and lots of labour."

Johannes Voget defended his PhD thesis on January 30 this year. His supervisors were Harry Huizinga and Jenny Ligthart. His thesis *Tax Competition and Tax Evasion in a Multi-Jurisdictional World* was nominated for the dissertation prize of 2009.

Best Dissertation Award 2008-2009

During the opening of the Academic Year in September, CentER PhD graduate Mario Schijven was announced as the winner of the Best Dissertation Award 2008-2009 for his PhD thesis on Acquisition Capability Development. Schijven promoted cum laude and his research has appeared in the *Academy of Management Journal* and the *Journal of Management*. Rector Magnificus Philip Eijlander handed him this prize, a cheque of € 5,000.

National Marketing Master Thesis Prize 2009 goes to Millie Elsen

The FEB has produced yet another prize winner. Millie Elsen has received the National Marketing Master Thesis Prize 2009. She wrote the (Master) thesis *Dynamic Impression Formation During Ad Exposure: Prototypicality Effects From 100 Ms Onward*. The jury chose Elsen over six other nominees.

CentER dissertations 2009

Andreas Würth: *Pricing and Hedging in Incomplete Financial Markets*, CentER Dissertation Series (CDS) 235, 08-05-2009 / Supervisor: Prof.dr. J.M. Schumacher.

Peter Kroos: *The Incentive Effects of Performance Measures and Target Setting*, CDS 236, 29-05-2009 / Supervisor: Prof.dr. J.F.M.G. Bouwens.

Geraldo Cerqueiro: *Information Asymmetries, Banking Markets, and Small Business Lending*, CDS 237, 31-08-2009 / Supervisor: Prof.dr. S. Ongena.

Forthcoming in 2009

Gijs Rennen	20-11-2009
Piotr Stryszowski	25-11-2009
Baris Ciftci	04-12-2009
Karen van der Wiel	04-12-2009
Maciej Szymanowski	07-12-2009
Ilya Cuypers	09-12-2009
Andrea Krajina	09-12-2009
Zhen Shi	18-12-2009

History of successes warrant bright future

"The CentER Graduate School has reason to look back in pride", says Luc Renneboog, Director of Graduate Studies in Business. "Many of the former CentER graduates are successful internationally. This however, does not mean that we can rest on our laurels." Renneboog on successes past, present and future.

Luc Renneboog is Professor of Corporate Finance and Director of Graduate Studies (Business) at CentER. His research extends to corporate finance, law and economics, mergers and acquisitions, remuneration contracting, ethical investing, shareholder activism, and the economics of art.

Recent years have seen a gradual rise in the number of students graduating with Research Master (RM) and PhD degrees. The quality of our graduates is excellent as shown by the number of working papers they produce during their studies in Tilburg, the number of placements at top universities and the number of publications by our alumni in top journals. Ralph Koijen (Finance) – who was one of the stars on the job market (receiving offers from virtually all top US universities) and was hired by the University of Chicago in the summer of 2008 – and Mario Schijven (Organization) who went to the Texas A&M University – are just two of our graduate successes over the past few years. The CentER graduate school however, keeps developing in order to remain this successful in the future.

Last year it was decided to increase the number of students from 45 to 60 in the second year of the Research Master programme. When this number is reached in 2013, CentER will strive for 48 students to start each year in the PhD programme, as opposed to 28 (international) students this year. Besides economics and management, CentER also welcomes students who have studied mathematics, physics, and engineering. In addition, the CentER graduate school will work more closely with the other research institutes in terms of PhD supervision. The school already works closely with Netspar, which has over the years funded many PhD positions in macro, micro and finance, and the European Banking Center, which funds two PhD positions per year, one in economics, one in finance. Closer collaboration on PhD research will be sought with CIR (Center for Innovation Research), Tiber (Tilburg Center for Behavioural Economics Research) and Tilec (Tilburg Law and Economics Center).

CentER has made it a priority to increase its visibility and enhance its profile for the target intake group: BSc/MSc students with excellent grades from the best universities worldwide. This will be done with a targeted marketing campaign. Furthermore, CentER wants to make its own undergraduate students enthusiastic for research by means of the CentER Honours Programme. Forty excellent students in their third year will be admitted from all the undergraduate programmes in economics and management to the Honours programme. This Programme consists of a lecture series in economics, finance, accounting, organization, marketing, and operations research presented by some of our best researchers. The CentER graduate school is internationally perceived as one of the very best PhD programmes in Europe. We expect that our international and local initiatives will generate more student interest in research and an academic career such that an increase in number of applicants will enable us to be even more selective. Notwithstanding the financial crisis, the subsequent reduction in government subsidies to public universities and the reduced value of private universities' endowments, CentER's aim remains to place 15% of its students at top international universities. We believe that, through the ongoing efforts of our faculty, our students will remain competitive on the international job market.

CentER alumnus Esther Eiling:

'I have certainly not forgotten my Tilburg roots'

Esther Eiling, one of CentER's success stories and currently Assistant Professor of Finance at the University of Toronto gives an insight into university life from both sides.

The combination of quantitative analysis and economic theory has always attracted me to the finance field. As a Master student I soon discovered my ambition to do fundamental academic research in this area. During my four years as a PhD student at CentER, I received continuous support from my advisors and other faculty members. They encouraged me to present my work at various international conferences, and I even got the opportunity to visit the UCLA Anderson School of Management for a few months. It was there I realised I wanted to look for an academic position abroad.

In July 2007 I joined the Rotman School of Management at the University of Toronto, one of the largest universities in North America. Besides a business school it facilitates many other faculties, such as medicine, engineering, architecture and music. I find it very exciting to work in such a diverse and intellectually challenging environment. At Rotman, there is a lot of interaction among colleagues and with other visiting academics. I am currently collaborating with researchers from Canadian, American and European schools.

One of my main research interests is the role of human capital in asset pricing and investments. For most investors, the single most important source of wealth is their human capital, i.e. the capitalized value of all future labour income. Research has shown that labour income is risky, and that it is correlated with stock returns. In one of my papers[1] I demonstrate that industry-specific human capital has a significant impact on equity returns. Consequently, investors' human capital can play a major role in their optimal portfolio decisions. For example, an investor who works as an investment banker may want to invest less of their own money in stocks of financial firms in order to diversify their risk. I am currently further analysing the impact of human capital on portfolio choice for investors working in different industries. This type of research potentially has implications for sector pension funds as well.

"Investors' human capital can play a major role in their optimal portfolio decisions"

Although I have lived in Canada for over two years now, I have certainly not forgotten my Tilburg roots. In fact, every summer I visit Tilburg University for about a week as a junior Extramural Fellow of CentER. This is a great opportunity for me to work with co-authors, meet with former colleagues, and of course, to buy a few pounds of real Dutch cheese to bring back to Canada!

10 years CentER Society

1. "Industry-Specific Human Capital, Idiosyncratic Risk, and the Cross-Section of Expected Stock Returns," E. Eiling, 2009, working paper.

Memberships

Four FEB Professors have recently been appointed as a member of various influential institutions:

- Frank van der Duyn Schouten – member of the NWO Division for the Social Sciences
- Lans Bovenberg – member of the Royal Netherlands Academy for the Arts and Sciences (KNAW)
- Henriëtte Prast – member of the new Monitoring Committee Corporate Governance Code
- Sylvester Eijffinger – member of the Monetary Experts Panel of the European Parliament (reappointed for the third time)

2 x Duisenberg Research Fellowship

Sylvester Eijffinger (Dept. Economics and EBC) and Steven Ongena (Dept. Finance and EBC) have been awarded the Duisenberg Research Fellowship by the European Central Bank. This fellowship focuses on leading economists who are internationally recognized experts in their fields of research.

Rankings

Tilburg University starts worldwide Economics Ranking

CentER will host the only economics ranking in the world: the Tilburg University Top 100 Economics Schools Research Rankings. This ranking fills the gap that was created when its predecessor, the Econphd.net ranking ceased to be updated. This ranking is comparable to the UT Dallas ranking for Business Schools. The Tilburg University Economics Ranking will be officially launched in December of this year.

IJRM hosted in Tilburg

The *International Journal of Research in Marketing* (IJRM), one of the top journals in Marketing, will be hosted by Tilburg University's Marketing Department for the next 3 years. Prof. Marnik Dekimpe has been appointed editor-in-chief of IJRM. He will be in charge of both the journal and the website. The website will also be hosted by Tilburg University.

Eric van Damme: Knight in the Order of the Lion

Eric van Damme has been awarded the honour of Knight in the Order of the Lion of the Netherlands. He received this decoration at Tilburg's Willem II Stadium on 29 April.

Institute news

New research institute: SES

On the 1st of October a new research institute will be established at FEB: the Center for Sustainable Enterprise and Society (SES). It aims to become an internationally leading centre for scientific expertise in the field of sustainability, and to be recognised as such. SES's ambition is to provide support to companies, governments and other organisations in their quest for a sustainable economy. Prof. dr. Aart de Zeeuw is the scientific director, ir. Hilde Baert is the administrative director.

▸ www.tilburguniversity.nl/ses

Upcoming Events

14 and 15 December 2009

The 2nd Conference on Competition in Banking Markets will be held in Antwerp, Belgium. Tilburg's European Banking Center is organizing this event together with the Centre for Economic Policy Research and the University of Antwerp. Banking structure has changed dramatically since the first conference took place in Leuven, with some banks recapitalized or even nationalized. The conference therefore aims to bring together leading researchers on banking competition to discuss recent developments.

▸ www.tilburguniversity.nl/ebc

CentER Graduate School receives 800,000 euro from NWO

CentER Graduate School is one of nine graduate schools that will receive an additional grant in the new Graduate Programme of the NWO. Minister Ronald Plasterk of the OCW made this announcement on 12 August 2009. The grant (800,000 euro per school) is meant for the formation of an excellent education and research environment for very talented young researchers.