

FORMER DIRECTOR'S REPORT

The Director normally writes his report on the previous year's activities after the end of that year. The Director's Report looks back over the past year, and forward to the prospects for the future. David Newbery ended his term as Director on 30 September 2003, and Sean Holly then became Director for the year, pending the University's decision on the future of the Department of Applied Economics. We have therefore decided to divide this report into two sections. This part is the retiring Director's report on the past year. The next part presents the incoming Director's views about the future.

Looking back

David Newbery gave his reflections on his time as Director in last year's report, and will close the first part of this report with a few valedictory remarks made at the lunch to mark his end of office. In addition to the normal research activities reported below, the main event was the University's decennial Review of the Faculty, including the Department of Applied Economics. The Review is discussed below, after the report of the other events of the year.

Research activity decreased by nearly 12% compared to last year, falling to 20.8 full-time staff equivalence (measured by the number of staff-months during the year, and excluding the Director). This was supplied by a total of 40 researchers, of whom 7 held established posts, 17 held full-time appointments, and 14 were registered for higher degrees. The proportion continuing in post remained at two-thirds, the same as last year, although 9 people left during the year and 17 arrived, so the number in post at the end of the year rose from 23 to 31.

Our research activity can also be measured by the number of research grants submitted; we applied for 26 (compared to 32 last year) and have so far only been successful with 11 and unsuccessful with 10 (compared with 9 successes and 13 unsuccessful last year). One application was abandoned when the Principal Investigator left Cambridge. We are still waiting decisions on 4. Our research income from the Research Councils (mainly the ESRC) as a proportion of the total fell to 47% (compared with 62% last year and 65% the year before) and our share from the European Commission fell slightly from 24% to 19%, but our share from the UK Government rose from 8% to 25%. Our research income from external grants fell by 13%, but payments for research stipends fell 24%, and the amount we needed to pay out of Departmental funds fell even more dramatically by, 42%. Total expenditure was reduced by 14%, reversing the small loss of £32,493 in 2001/2 to a small surplus of £19,658 last year.

Over the last 12 months, eight people, excluding the Director, were fully funded by the Department (although three of these only held half-time appointments, the balance being funded from college teaching posts). The number of full-time equivalent posts supported by DAE funds rose to 6.4 from 5.2. At a time of low interest rates it was pleasing to be able to

increase our investment income by 10%. Our speculative investment in the stock exchange of £100,000 made in late 1994 grew to over £170,000 at one point, but was worth £131,731 on 31 July – a cumulative rate of growth in nominal terms of 3.1% p.a. (compared to the FTSE's 3.4% p.a.) or 0.3% p.a. in real terms. Of course, we received dividends on top of this, and at least protected the real value of the funds. We also continued to beat the target for overheads set by the University.

Research Agenda

Comparing this year's Table of Contents with last year's gives some idea of the extent of continuity and change in the research programme of the Department. Five of the 23 projects listed in last year's *Report* were completed in that year and so do not appear here; of the 27 projects reported, 9 are new, 10 ended during the year reported here, and 8 are still continuing. As with last year, we have identified projects supported entirely by the Department, in all cases where the researchers are waiting to hear the results of external grant applications, but where there is clear research activity to report. The following pages of the *Report* give more details of the individual research projects, and I shall confine my remarks to picking out some of the highlights.

The first section, entitled *Network Utilities and Industrial Organisation*, is very much the outgoing Director's contribution to the Department's research agenda. Its core is made up of the ESRC-supported project *Efficient and Sustainable Regulation and Competition in Network Industries* and the CMI-supported project with MIT on *Promoting Innovation and Productivity in Electricity Markets*. Tanga McDaniel secured additional funding from the Newton Trust to extend the ESRC project into an experimental study of auction design, a topic rapidly moving up the agenda with the reform of electricity trading arrangements and the auctioning of entry capacity in the gas transmission system. On both these issues we were able to contribute to the academic literature and the policy debate. We were finally successful in persuading Ofgem (the electricity regulatory office) to hold an academic discussion on the New Electricity Trading Arrangements, where I was able to present my critique of that reform. As Director General Callum McCarthy observed, there are not many regulatory meetings at which twelve distinguished professors from around the world attend to debate electricity market design. In a similar vein, members of the group (Tooraj Jamasb and Michael Pollitt) responded to a commission from the Rapid Response Unit of the World Bank to review and update content for the impact of privatisation on competitive industries, and privatisation of infrastructure industries. The resources provide references to relevant papers, case studies, and web-sites for these reform areas.

The ESRC project ended in March 2003 and we duly submitted the end-of-grant report, which was graded *outstanding* by the ESRC – their highest grade. With the *CMI Electricity Project* the regulation group reached critical mass in terms of funding and staff, and allowed us to bid with other universities for *SuperGen* funds from the Engineering and Physical Science Research Council. We secured two closely related projects looking at developing sustainable electricity futures over the next 20-40 years. The Cambridge component contains a large fraction of the economics element of *SuperGen* (and the rest is supplied by Richard Green, a former member of the group who left to become head of department in Hull). Our end was launched in November 2003 with a highly successful one-day conference (co-

ordinated by Michael Grubb, Tooraj Jamasb, Karsten Neuhoff and Veronica Kunze) that brought most participants and other experts together to present fourteen papers on future generation technologies. The papers were placed on our *SuperGen* web-site and represent an impressive summary of the current state of knowledge. We hope that the papers will appear next year as an edited volume, in line with our plans to ensure that this collaborative research feeds into publishable output. *SuperGen* extends our local collaboration with the Judge Institute to engineering departments in this and other universities, and considerably broadens our interdisciplinary range.

We were also successful in our bid (led by Paris) for 6th EU Framework funding for a *Sustainable Energy Supply Special Support Action*, where we are in charge of a work-package and have to organise an international conference next Spring. Finally, we bid for the UK Energy Research Centre as part of the unsuccessful solely Cambridge group and also as part of the short-listed Imperial College-Cambridge-Edinburgh consortium. We await news on that front.

The CMI *Electricity Project* completed its first two years in November 2003. The project has a part-time administrator (Liz Hooper), a web site, and an active working paper series with a target to produce 15 papers a year (which we have exceeded with 31 published in less than two years). The project aims to draw on international experience in order to investigate how we can best ensure that electricity sector reforms promote economical and reliable supplies of electricity. We keep in close contact with our MIT colleagues, exceeding our target number of visits and exchanges each year. Michael Pollitt spent six months on one such exchange, and our research students benefit from these contacts and visits. The project held workshops in Cambridge in October 2002 and April 2003, as well as a specialist workshop on *Transmission Pricing* in July (organised by Gert Brunekreeft), with the leading international experts in the field. This led to invitations from the European Transmission System Operators (charged by the European Commission with delivering an integrated electricity market) to present our work on designing cross-border trading arrangements to mitigate market power.

We also co-hosted with MIT the annual international conference in Cambridge in September 2003, for which we secured extensive industrial sponsorship, and which was considered one of the most successful and intellectually rigorous conferences in this field. The regulation group can therefore take considerable pride in becoming an internationally recognised centre of excellence in network utility regulation and particularly electricity liberalisation. We attract visitors from around the world, and are regularly contacted by policy makers in a range of countries seeking advice.

Part of the CMI *Electricity Project* and the major part of *SuperGen* are concerned with policies to deal with emissions from the electricity sector, and particularly with green-house gases. Again, the synergies provided by collecting a group of researchers together are evident from its links to the Tyndall Climate Change Centre (and also, via Michael Grubb, to the Carbon Trust). Terry Barker, Jonathan Köhler and Haoran Pan working on the second phase of *Technology and The Economy-Energy System in an Integrated Assessment of Climate Change*, a project funded by the Tyndall Climate Change Centre, have completed a pilot global model of long term economic structure - E3MG. The aim is to model technical change, its drivers and their effects at a sectoral level and at different spatial scales over a time scale

of 5 to 100 years in a model suitable for inclusion in a global integrated assessment framework. The ultimate ambition is to identify policies required to influence technical change in directions favourable to climate change mitigation.

The ESRC project *Efficient and Sustainable Regulation and Competition in Network Industries* also studied competition issues in the Internet. Again, the project allowed us to successfully bid for 6th EU Framework funding (supplemented by Newton Trust funding) for the consortium COCOMBINE (*Competition, Contents and Broadband for the Internet in Europe*) led by the Department, thanks to the energetic work of Emanuele Giovannetti. The consortium will study the performance of the Internet, developing the knowledge and tools to understand the related markets for long distance transit, public peering and broadband access. The study will help the EU Directive on Electronic Networks identify best practice for network access.

Daniel SgROI will be involved in the COCOMBINE project, but for the past year has been half supported by the Department and half by an AEA Technology fellowship at Churchill College. Providing such speculative funding can be risky for the Department where there is no clear project to which the holder can be attached, but where such projects can be identified, it works very well. This case might have seemed speculative, but Daniel SgROI's strengths in industrial organisation theory were so evident that the risk was low, as events have demonstrated. Over the past year he has published work on investment by firms who can delay their actions to observe each other's behaviour (in the *Economics Bulletin*) and a supporting experimental study (in *Experimental Economics*), both of which show that firms can and will generate excessive delay under the influence of observational learning. His other work involved examining firms' reactions to herding behaviour by consumers and using neural networks to model bounded rationality.

Two other projects link in nicely with the Internet/COCOMBINE projects. *The Internet and Price Competition in Retail Markets in the EU* ended last year but was replaced by *Price Comparison Sites and Competition* which forms part of the broader ESRC funded e-Society programme. Rupert Gatti and Paul Kattuman are examining the impact of price comparison sites on on-line retail markets. The study will collect and analyse consumer search and purchase decisions from the price comparison site Kelkoo.com to estimate, amongst other things, own- and cross-price elasticities of demand for a range of products on the site, together with the importance of non-price characteristics such as service and delivery quality. The results will provide valuable insights into the structure and competitiveness of on-line markets and the impact of price comparison sites on their development.

The former weekly workshop on network industries has diversified into two weekly workshops, one more narrowly focussed on the CMI/Supergen agenda of energy and environment, the other broadening out into information, internet and computing, effectively resuscitating the former seminar series of the *Centre for Communications Systems Research*. The DAE was a co-founding member of that centre, together with Engineering, Computing and the Statistics Lab. As I look back on my period of office, I feel proud that my earlier conviction that network industries pose fascinating theoretical and policy challenges has been so fully demonstrated. Not counting the Tyndall Centre funding, the network group has secured at least ten ESRC projects on network industries: electricity, gas, telecommunications, internet, rail and road. True to its name, the group is now interlinked in

a network of research collaborations stretching from Berkeley and Stanford, through MIT to Stockholm, Paris, Toulouse, Berlin, Milan, Norway, Australia, and Japan (and a large number of points in between).

The other projects in this first section deal more loosely with networks: roads and supply chains respectively. Georgina Santos conducted empirical and theoretical research on the London Congestion Charging Scheme in her project *External Costs of Road Transport in the UK*. The average marginal congestion cost within the central zone was estimated at £1.65 per veh-km, which indicates that the £5 congestion charge in the charging zone in Central London, with a diameter of just above 5 km seems to be about right. She very capably managed Raphaël Tardy, a star student from L'École Polytechnique, and they developed and calibrated a theoretical model of response from motorists to different congestion charging revenue allocations.

The section covering *Applied Microeconomics, Microeconometrics and Microsimulation* groups together some of the more data-intensive projects that study the household or firm. The other major long-running research group in the Department is the Microsimulation Unit. The University recognised Holly Sutherland's contribution in running this unit for the past eleven years by promoting her to a personal readership, a suitable reward for a unit that has managed one of the most complex projects in the history of the Department. EUROMOD, which has been running in one form or another since 1997, involves seventeen research groups covering all 15 EU member states, and explores the impacts of social and fiscal policies, and reforms to these policies, on poverty and on the feasibility of meeting a range of possible targets for poverty reduction. The Unit also studies the UK in greater depth, and reports this year that between 1996/7 and 2000/1 relative poverty fell, largely as a result of improvements in employment rates and in the level of some benefits. Overall poverty fell by about one million, including about half a million fewer children in poverty. The effect of policy changes introduced between 1997 and 2003/4 would have been to reduce child poverty by about 1.3 million children, other things being equal. Because incomes generally continue to rise, raising the relative poverty threshold, the actual reduction in child poverty is lower: there are likely to be about one million fewer children in poverty in 2003/4 than in 1997. Pensioner poverty will be lower in 2003/4 than in 1997 but the size of the fall is very sensitive to the measure of income used: a one million fall based on income after housing costs but only one quarter of this based on income before housing costs. The Government could just succeed in reaching its first milestone of reducing child poverty by a quarter by 2004. However, achieving its longer-term targets for child poverty is likely to be more difficult and will require the government to continue to give this priority.

The three other projects in the second section deal with labour markets. Sara Horrell's project with Supriya Garikipati and others, *Labour Markets, Gender and Pro-Poor Growth*, sponsored by the Department for International Development, ended in June 2003. The project sought to understand the link between the labour market, poverty and potential policies for poverty alleviation in rural Africa and India by studying the formation of labour markets and the changing allocation of males and females between different time uses in four countries. Interviews of 300 households in India and Africa found that few households were doing substantial amounts of waged work, instead preferring to be able to improve their own agriculture. There was no real indication that people currently have surplus time to allocate

elsewhere, most men and many of the women were already working full days (7 – 8 hours). Few African households were demanding labour because of problems of securing good workers and supervising their labour. Poor households were found to be vulnerable to macro-economic factors such as high inflation, poor supplies and falling world price of commodities. Furthermore, far from being empowering, undertaking waged work could actually be detrimental to a woman's welfare. Female-headed households were in a more vulnerable position than other poor households. Demographic change will make such households more common in Africa causing greater poverty, unless the barriers to profitable labour opportunities can be removed.

The advantages of establishing a base-line survey were demonstrated in a further project funded by the Newton Trust, *Labour Supply and Risk Mitigation in Rural Indian Households*. Andhra Pradesh faced drought in the first survey and was re-surveyed to see how the families coped with the shortage of work, the effects on crop yields and the extent of shortfalls in income. An organised market for migration existed to help income smoothing, and contracts often required the labour of both husband and wife, leaving children, home, land and livestock to be cared for by others in their absence. The overwhelming evidence was that people would like affordable insurance, perhaps using current Self Help Groups to administer micro-finance loans.

Professor Brown's ESRC project *The Basis and Characteristics of Mutually Beneficial Employer/Trade Union Relationships* ended in March 2003. The research examined co-operative arrangements emerging between British employers and unions. Increased competition and pro-union legislation have encouraged many employers to re-think employment relations strategy, and caused unions to re-assess their role. Nine case studies have been conducted, identifying the characteristics of robust partnership arrangements, and demonstrating the importance of the quality of recognition that trade unions receive.

The final section gathers together *Macroeconomics and Applied Econometrics*. The KPMG-funded project involving Sean Holly, Arnab Bhattacharjee and Paul Kattuman in Cambridge, *Identifying and Modelling Macro-economic Effects on Counter-party Default*, establishes the links between macro-economic instability and firm exit through bankruptcy or acquisition. The empirical work uses firm-level panel data from Compustat, DTI/DAE, Exstat, Datastream and FAME, over a substantial period of time. The project follows on from the earlier Leverhulme project that examined business cycle influences on corporate growth and profitability in the UK. For quoted companies in the UK there is clear evidence that instability is detrimental, while for the US the provisions of Chapter 11 significantly alters the probability of bankruptcy versus acquisition. This reduces the harmful impact of macroeconomic instability on business survival in the US, and suggests that it may be economically efficient to temporarily protect failing firms from their creditors.

We have three projects in quantitative economic history, strengthening our links to the History faculty here. Chris Meissner's ESRC project *Issuing Debt in Local Currency, 1850-1939* collected data to analyse the determinants of currency denomination of debt. The issue is topical because many believe that issuing debt in foreign rather than local currencies makes countries more vulnerable to exchange rate depreciation. The term 'Original Sin' refers to a country that cannot issue long-term debt in its own currency. The project found that the USA, Canada, Australia, New Zealand and South Africa all suffered from Original Sin in the

nineteenth century, refuting a number of leading theoretical hypotheses that suggest bad monetary policy, exchange rate risk, or poor property rights protection for investors are necessary to explain the state of Original Sin. The US broke free from Original Sin when Roosevelt rescinded all gold clauses on US debt. Canada and the other countries gradually emerged from Original Sin as financial markets become deeper and more sophisticated to allow for hedging exchange rate risk. Overall they emphasise large shocks like the Depression or the collapse of Bretton Woods which stimulated domestic debt markets and the economic size of countries as the prime determinants of Original Sin.

On the ESRC project *Episodic Economic Growth Since 1850*, Solomos Solomou and Cristiano Ristuccia use historical data from three time periods to identify the determinants of episodic growth and the effects of different types of policy regime. This should shed light on new policy frameworks such as European monetary union. Their results suggest, paradoxically, that the spread of the gold standard in the 1870s resulted in growth based increasingly on internal demand, undermining the view that countries on the gold standard traded proportionally more with each other. Such countries were faced with exchange rate shocks that reduced overall export growth for the bloc, lowering the net benefits of the gold standard. Exchange rate movements in the late 19th Century had significant adverse impact effects on the core European economies but were of limited benefit to the periphery silver standard economies.

The final quantitative economic history project, *Economic Policy and Political Myopia*, funded by ESRC, was completed by Toke Aidt, Jayasri Dutta (now at Birmingham) and Martin Daunton (of History) in August 2003. Its aim was to investigate 'short-termism' or myopia, in making economic policy. The core theoretical work shows that policy myopia (in the sense of over-investment in those public services whose output can be observed sooner rather than later) is accepted by voters only where electoral accountability is sufficiently imperfect. The theory is tested on three datasets. One covers 12 Western European countries over the period 1830-1939 with information on (central) government expenditures, indicators of democracy and other relevant economic variables. The second historical dataset consists of a panel of 75 municipal boroughs in England and Wales (1865-1888). Fiscal data on spending and taxation have been matched with data for the extension of the local government franchise. The contemporaneous dataset contains information on fiscal outcomes and indicators of the quality of democracy in 80 countries in 1995. Despite the differences across time and space, the three datasets tell a similar story: the spread of democracy or the quality of democracy is not invariably associated with an expansion of government spending. Surprisingly, they find robust evidence of a negative correlation between spending on public services and investment and the quality of democracy.

The final set of projects on *Financial Econometrics* shows the Department again reaching out in exciting ways to form powerful interdisciplinary links, this time with Mathematics, where Chris Rogers has set up a Cambridge Finance web-site. Under the *Financial Econometrics Programme* Steve Satchell and Alessio Sancetta have submitted a successful application to the ESRC for two years' funding to investigate the statistical properties of soft commodity prices and the implication for soft-commodity derivatives. Satchell and Zhang have worked on constructing house price forecasts for the

UK housing market. Their methodology has become incorporated in the Financial Times House Price Index.

In the DAE-financed project *Application of Bayesian Model Averaging to Volatility Forecasting and Risk Management* Hashem Pesaran and Paolo Zaffaroni are developing new techniques for forecasting conditional volatility and conditional cross-correlations of financial asset returns. These are essential for optimal asset allocation, managing portfolio risk, derivative pricing and dynamic hedging. They propose to compare different volatility models in terms of their performance in trading and risk management, and to develop simple criteria for evaluating forecasts. They anticipate presenting a more unified treatment of the empirical portfolio analysis from a decision-theoretic perspective.

Links with L'École Polytechnique

For the fifth year running, we have been privileged to host final year students from the L'École Polytechnique in Paris as *stagiaires* spending three months working on a project under our direction. This year we were lucky to secure an excellent student. Raphaël Tardy worked with Georgina Santos on *The Political Acceptability of Road Pricing*, developing a theoretical model of the London Congestion Charging Scheme. They found that a hybrid policy of revenue allocation yields the highest shift from the car to public transport and the highest number of commuters who end up better off. Raphaël Tardy's final report earned special congratulations of the jury at L'École Polytechnique. He is now doing an MSc in Transportation at MIT. As before, the paper the student presented forms part of the continuing research activities of the Department, so we benefit in a very direct sense. We trust that this link will continue to bear fruit in the future, and urge our colleagues to take advantage of this quite remarkable source of research skills.

The Review of the Faculty, including the Department of Applied Economics

The main event last year was the University's decennial Review of the Faculty, including the Department of Applied Economics. We asked for this a year early, well before the end of Newbery's Directorship, to allow for the possibility of advertising and appointing a new Director. In the event, the Committee did not report to the Faculty until 25 February, after the Lent term meeting of the Advisory Committee. The Faculty Board responded in late April and the Director sent his response on 6 May, immediately after the next meeting of the Advisory Committee. Little happened until after the end of Newbery's Directorship on September 30. A new sub-committee of the School of Humanities and Social Sciences was set up at the start of the Michaelmas term, 2003, to decide how to proceed.

The Review Committee made many sensible suggestions that have commanded wide support. They recognised the importance of research leadership, without which the viability of the DAE as currently structured is questionable, and without which the Faculty will struggle to reach 5* status. The only solution is to recruit internationally excellent senior staff to provide that research leadership. The aim is to make senior appointments that will attract better research students, work with junior faculty and inspire the best to stay, and provide the breadth of research leadership needed to make the DAE viable while enhancing its links with the teaching faculty. It is therefore encouraging that the Faculty recruited Professor Seppo Honkopoulos to

the Professorship of International Macroeconomics. The Department will surely benefit from his research leadership in this important field.

We were happy that the Committee argued for retaining the Department. They suggested that the quality of research, and the relationship between the Teaching Faculty and DAE, would be enhanced by appointing Associate Directors to lead research groups. This is an attractive model that we proposed to the Committee. The Committee also accepted our strong recommendation that Associate Directors should be remunerated for heading research groups in addition to fulfilling most of their University responsibilities. If successful, this model should enhance the productive interaction between senior Faculty and more junior staff, both within the Teaching Faculty and in the DAE. At present this happens in a rather unstructured way when UTOs are encouraged to secure grants and recruit researchers who are then placed in the Department. What is arguably lacking at present is a sense of obligation that senior faculty should actively facilitate research collaboration. Creating these new posts, and recruiting more professors as suggested, might go some way to addressing this weakness.

The University will soon devolve financial responsibility down to School level via the RAM, or Resource Allocation Model (a task complicated by the arbitrary set of prices imposed by HEFCE, and the problems of dealing with museums, libraries and other local public goods). This will make it necessary to reconsider the funding model for the Faculty and the Department, although the intention is to make adjustments gradually, with changes in budgets probably not exceeding 2% p.a., modest compared to our annual fluctuations in grant income. There is, therefore, time to make careful and considered judgements on how to reallocate funds within the Faculty, and here one of the main priorities must be to continue to secure external grant income. There is a danger that the potential dilution of responsibility to a faculty research committee may weaken the commitment to secure funds that is one of the prime duties of the Director. On the other hand, if Associate Directors take full responsibility for both creating research programmes and then securing the necessary funding, this could amplify research activity and resources.

We would take issue with the perception in the Review that there are serious weaknesses in the relationship between the Teaching Faculty and the DAE. No doubt some UTOs would like to teach less and have access to the DAE's funds to support their research, and may resent the lighter teaching loads of Department researchers. Similarly, some DAE researchers envy the tenured security of their teaching colleagues, and demonstrate their willingness to change positions by their repeated and frequently successful quests to seek tenured teaching positions here and elsewhere. But a large fraction of both the teaching faculty and the Department are actively engaged in collaborative funded research. Many funded projects are headed by UTOs, and many DAE researchers hold college teaching positions, lecture, and help examine.

It is worth remembering that the prime function of the Department is to house and provide support for research projects headed by teaching faculty, and the senior staff of the Department go to considerable lengths to encourage collaborative research. The Department provides working paper outlets, finances summer RA support supplied by undergraduates, helps organise conferences and workshops, and finances joint external and internal seminars, not to mention the common room that makes a major contribution to collegiality and collaboration. We recognise that the links could be stronger, and we think that the concept of

Associate Directors responsible for research groups is a positive step to strengthen links and research quality. Indeed, several such groups exist and have demonstrated as much already.

Joint posts with colleges

The DAE has been innovative in forging links with Colleges through joint appointments. The typical format involves the college offering a 50% CTO post with a 6-hour teaching obligation, and the DAE offering a 50% Research Associate post. These have advantages for the Faculty because it is easier for Colleges to recruit research active economists who might otherwise be discouraged by the 12 hour teaching requirement of a full-time college lectureship. It benefits the college and the holder in integrating their teaching fellows more fully into the Faculty. We have had, and in some cases continue to have, joint appointments with Trinity Hall, St Catherine's, Clare, Churchill and Robinson Colleges.

The intention is that the holder will secure funds for the DAE share of their post, and if successful in securing full funding, would then relieve the college of part of its cost. Looking back at what makes for a successful appointment, it is now clear that it is difficult for a young researcher (the typical applicant for these posts) to secure ESRC funding for a project of their own devising. As a general rule, successful projects have had a more experienced researcher (with an existing track record of ESRC projects) as Principal Investigator. In most other cases, we have been unsuccessful in securing external funds, and the Department has, in effect, acted as a research fellowship scheme. That may be a good use of Departmental funds, but it is costly and may not continue to be feasible under the RAM. It would be highly desirable if the Faculty and DAE could secure external funds to finance research fellowships of this kind. The CMI *Electricity Project* is a good model; we have secured PhD funding from industrial sponsors and hope to extend this more broadly.

Radical changes

Research excellence is costly, as it requires time free from distractions. There are various possible methods of encouraging excellence, none easy to get to from here. The Chicago model is to hire and retain only the very best faculty, aiming at a small but outstanding department. It requires a degree of ruthlessness in not granting tenure to a significant fraction of new hires, and rewarding those who remain. It would require some other method of teaching undergraduates, possibly involving graduates more actively as college lecturers, supplementing UTOS who, as college fellows, would limit their small group supervision to a maximum of one hour per week per student.

Another common model is that of summer money, ideally secured through external sources, otherwise from the University, as a way of differentiating between those who need support for research, and those who use the summers to earn money in other activities. One of the latter could be putting on summer schools to generate funds that would be shared with the faculty (to pay the summer money for research) and which would reward the extra effort involved. The LSE and the Judge Institute follow this model very profitably.

All these changes require a greater degree of leadership from the Faculty and University than in the past, and which is not encouraged by the stifling way in which business is conducted at present. Let us hope that changes at the School level and a new vice-chancellor can foster this

kind of leadership and the required reforms to restore Cambridge to international excellence in areas where it currently falls short.

Farewell

I gave my reflections on the recent history of the Department in last year's *Report*, and it only remains for me to thank my colleagues for their support over the years. At the lunch given by the Faculty to mark the retirement of Sir James Mirrlees and the end of my term as Director, I noted that appropriateness of a joint farewell. Jim Mirrlees was instrumental in convincing me to change from mathematics to economics, the first to teach me, and my PhD examiner.

I step down as Director with some regret, and not just because I lose the best office in the building. I consider myself extremely fortunate to have held the post for the last 15 years, following such distinguished predecessors. Dick Stone was my other PhD examiner, and it is a pleasing thought that both my examiners went on to win Nobel prizes, and that the first serious book I wrote was with Joe Stiglitz, a more recent Laureate.

Consider the attractions of being Director - no examining, lecturing on one's current research, a superb administrator in Margaret Guy to lighten the administrative burden, considerable budgetary autonomy, and the opportunity to mount significant research endeavours. Over the past 15 years the University has given us about £6 million to spend with remarkably few strings attached, and we have raised rather more again from funding bodies. I have been lucky to attract stimulating colleagues to work on fascinating topics – the transition to a market economy in Hungary, road pricing and utility privatisation being the most significant. I count myself lucky in choosing electricity reform and restructuring as my main research endeavour, little realising what a fruitful and exciting topic that would continue to be. It continues to offer fascinating problems, access to an excellent academic and policy network around the world, and stimulating local colleagues.

The DAE has been remarkably successful in securing funds from the ESRC and EU. Last time I had access to the relevant figures I calculated that the DAE accounted for more than one-quarter of the ESRC's entire economics research grant funding. This year we discovered that we accounted for one-third of the entire ESRC energy research support over the past five years.

So I am hugely indebted to the University for supporting both the DAE and my position in it. I have been lucky with my Assistant Directors, from Steve Pudney who contributed so much to our earlier work on Hungary, through Brian Henry and now Sean Holly, in whose safe hands the Department will continue to flourish in the coming year. I have already mentioned Margaret Guy, who with Sean has insulated me from much of the more bureaucratic aspects of university administration. But the support goes much wider - and includes Beth Morgan, and before her Ann Newton, who keep our intellectual output in the public eye, Colin Saunderson, who keeps the finances on track despite CAPSA, Bella Campbell-Stewart, and before her Olga Peppercorn, who looks after the library, Howard Cobb, who works tirelessly with Brian Holley and Craig Peacock, to keep us on line, my personal secretary, Sharon Swann, and of course, Anne Mason, Teresa Gurner, Irene Rogers and Ye Dan who look after the practical things that matter.

Staff Changes

Seventeen researchers joined the Department during the year. Christine Lietz arrived from Vienna to work with Holly Sutherland as a Research Associate, and Daniel Sgroi became a joint

appointment between the Department and Churchill College. Fifteen Research Assistants joined for varying lengths of time: Saeed Ahmed, Mutita Akusuwan, Wagner Dada, Wendy Foster, Roxana Gutierrez, Veronica Kunze, Stephen Lewis, Constantinos Repapis, Rozana Salih, Alessio Sancetta (who was then promoted to a Research Associate in October 2003) and Qi Zhang. In addition, Alvaro Angeriz, Antonio David, Giuliano De Rossi and Rafael De Hoyos joined as RAs but left before the end of the year.

Five staff left during the year: Jagjit Chadha left to become a Professor in St. Andrews University, Tony Garratt left to become a Senior Lecturer in Leicester University following a well-worn path previously trodden by Steve Pudney and Kevin Lee. Sarah Oxenbridge moved to work for ACAS as a full-time researcher. Herwig Immervoll joined the OECD in Paris while Supriya Garikipati returned to Glasgow with her new baby. Tanga McDaniel left after the end of the academic year in October to become Assistant Professor at the Department of Economics, Appalachian State University in Boone, North Carolina, USA. Karsten Neuhoff successfully completed his PhD and thus came to the end of his time as a sponsored research student working on the CMI *Electricity project*, and was appointed as a Research Associate on the SuperGen project from October 2003.

David Newbery

THE NEW DIRECTOR'S REPORT

Sean Holly was appointed by the Vice Chancellor to the Directorship of the DAE until the end of September of 2004, pending the outcome of the Review of the Faculty and the Department. This report expresses his own views about how he would like the DAE and the Faculty to evolve over the next few years.

So what of the future? The first thing is to salute David Newbery's achievements over the last 15 years in steering the Department through difficult waters. The external and internal constraints under which the DAE operates have changed radically since 1988. Although the first Research Assessment Exercise took place in 1986, the effects of the particular (and often perverse) incentives that it provided took some time to work themselves through. There is objective evidence that, since 1986, the research output of British universities at the international level has risen, not only in volume but also in the number of citations that are given to published work. This is a positive effect and something that a research department welcomes, but other incentives can militate *against* the building of sustainable research capacity in the absence of designated research centre status and long term finance from a research council. The introduction of the Dual Support System in 1992 switched resources that used to come directly to universities through the higher education funding bodies, to the research councils. In a competitive environment, this should have made more funds available to the DAE. However, the actual effect was to create a system in which the unit price allocated to economics as a whole (in order to ensure that the allocation of resources between research and teaching remained broadly the same) was particularly disadvantageous, as the proportion of ESRC resources that were won by economics steadily diminished.

Looking back at DAE Annual Reports from the early days of David Newbery's tenure as Director, what is striking is the number of positions held at the level of Research and Senior Research Officer. Many of these individuals also held college fellowships. Now the number in post has fallen to a handful and will, eventually, disappear altogether. Part of the reason for this is that the university prefers tidy administrative structures, where established positions, largely in research, are discouraged. The effects of the EU Directive on Fixed Term Contracts also make it very difficult for a researcher to be in position for much more than three years. This undermines our ability to build and sustain research capacity that depends on specific human capital. An example of the law of unintended consequences if ever there was one.

The move away from established positions in research is somewhat ironic since there is evidence of fresh thinking in the world beyond the university. I will return to this later.

Despite David Newbery's attempts to get the university to undertake the decennial Review well before the end of his tenure, delays in its production, and slow deliberations by the university, have meant that there is still some uncertainty about our future. However, we do have wind of some of the broad principles that will underscore the proposals from the General Board.

A change in governance should lead to better integration of the Department of Applied Economics into the Faculty, with the DAE reporting to the Research Committee on a termly

basis and to the Faculty Board annually. The DAE will maintain its organisational structure which is designed to promote and support new research initiatives, support existing programmes and foster a strong research climate in the Faculty. In order to ensure that the existing research infrastructure is retained, the DAE will also retain its operational independence, but will be accountable to the Faculty Board.

In some ways this change will be a return to the position before 1988. However, the difference is that the DAE will be more clearly embedded within the organisational structure of the Faculty and a greater recognition given to promoting research in the Faculty as a whole through the Research Committee. Research activity can thus be more clearly aligned to the strategic objectives of the Faculty. There are many details to be worked out, but with the right will and the determination to have in place a research strategy that facilitates research from everyone of international quality, then success in the RAE should follow as a matter of course.

However, it is important that we continue to give thought to the problems of recruiting, rewarding and retaining the very best staff we can find. I hope that, finally, the university will recognise that the salaries that Cambridge offers to economists must compare favourably, not only to the middle range of British universities, but to our direct competitors. While this is out of our hands, we can at least address the question of recruitment. The standard model for recruitment to the position of University Teaching Officer envisages a five year probation period followed by appointment to retiring age, if performance has been satisfactory. The combination of a Faculty position and the holding of a College Fellowship can sometimes make it difficult to launch a successful academic career in research. The last thing we want is for UTOs to refrain from holding college positions. A substantial flow of resources comes from undergraduate teaching and Colleges control admissions. The DAE has helped many faculty members by providing internal resources and by sharing its expertise in gaining external funds for joint research projects. This has provided links into international and national networks, and generally to help to generate an academic profile. We could do more to create an attractive environment for young academics and to recruit successful academics in mid-career and beyond.

QR is government funding that comes to universities through the Higher Education Funding Councils and is based on research excellence as measured by the Research Assessment Exercise. As the consultation document¹ *The Sustainability of University Research* makes clear, the role of QR is to cover the salaries of permanent academic researchers and the costs of training new researchers. It also provides the base from which permanent academic staff can make and carry out credible proposals for research project funding from Research Council and other providers, as well as providing the freedom to pursue some blue-skies research.

Here there is evidence of some fresh thinking in the wider world that might be adopted, with some changes, to the situation in the Faculty (and elsewhere in the University). The Roberts' Review of the higher education system proposed the setting up of an *Academic Fellowships* scheme. In its official response to the Roberts' Review the Government has

¹ This consultation document out of the Office of Science and Technology is considering reforms to the Dual Support System. It can be found at: <http://www.ost.gov.uk/policy/invest-innov.htm>.

promised that it would provide funding to create 1,000 new academic fellowships (200 a year, each lasting 5 years). The overall aim of the new scheme is to ease the passage between post-doctoral work and a permanent academic position. It proposes -

- To award up to 200 new Fellowships per year, where each fellowship will be five years in length;
- To guarantee a permanent position, subject to satisfactory completion of a probationary period once the Fellowship has been completed;
- To include teaching and supervisory activities as an integral aspect throughout the award.

The basic idea is that someone appointed to a UTO position would have a much more structured path towards confirmation of a permanent position. The first two years would be spent largely in research, possibly funded out of external Research Council resources or from internal funds. The teaching commitment would then increase steadily until, after five years, the UTO would become a full-time teaching officer with the normal responsibilities of any other member of the Faculty. Within the Cambridge system, the holding of college positions is a complicating factor. Colleges want to secure the full services of a UTO straight away, and it is clear that the burden that a college fellowship places on young academics is one of the most important obstacles to developing a strong research career. Nevertheless, the college system also provides significant non-pecuniary advantages for many academics. Changes to the way funds come to universities and the way resources are allocated within the university through the Resource Allocation Model and between the colleges and faculties suggest that we need to re-think the present model and encourage more joint positions between the colleges and the Faculty.

Within the newly proposed governance system, the Department of Applied Economics can play a key role in attracting to the Faculty the best people coming out of Graduate Schools. The DAE would be, in part, a nursery for young academics. This is not such a radical idea since one has only to look at annual reports of the DAE over the last fifteen years to see how many of the present Faculty spent some time in the DAE as research officers working on externally funded research programmes.

The offer of a permanent position, but with significant protection from excessive administrative and teaching commitments in the early years, will increase the attractiveness of a position in economics at Cambridge. Of course the difficulties that this might bring for the Faculty's commitment to deliver high quality undergraduate and postgraduate programmes will also have to be addressed. There is no point in making the position of established UTOs more difficult. We also need to retain those whom we have helped to launch onto a research career. There are a variety of models that could be adopted that maintain commitment to teaching as a whole. There are internal resources and external funding from Research Councils and other bodies. But the most effective might be better integration of college teaching posts into the Faculty. Ultimately the colleges are keen to attract and retain the very best, and if they can be persuaded that a five year fellowship scheme would secure them a UTO in the longer term, they could be brought on board. The Newton Trust College Teaching scheme has been very helpful in supporting the provision of

college supervision. A new initiative that supported academic fellowships within the university would be equally attractive.

It is also true that we need to attract academics in mid career who have already forged a successful research career. Recruitment at Readership level might be made particularly attractive if it came with the promise of a significantly lower teaching commitment in the first few years. This might provide a mechanism to recruit, not just individual academics, but established research groups that could be used to quickly build capacity in particularly exciting areas of research.

With a little imagination, the resources that Cambridge has can be harnessed to achieve a big improvement in research performance to the benefit of all. The increasing concentration of research funding in a small number of universities must inevitably alter the balance within Cambridge between teaching and research. Outside bodies will not wish to see teaching subsidised out of research funds. It may not be unthinkable in the future for there to be a position of University Research Officer, with a clear obligation to teach and examine, appointed, after probation, until retiring age.

Sean Holly

² This consultation document out of the Office of Science and Technology is considering reforms to the Dual Support System. It can be found at: <http://www.ost.gov.uk/policy/invest-innov.htm>.