PAUL G. HARE

TARGETS, INCENTIVES AND PUBLIC ACCOUNTABILITY IN EUROPEAN UNIVERSITIES

Most modern European universities are funded almost entirely from public sources or, more recently in some countries, from a mix of student fees, research grants and public funding of the teaching function. Efforts to expand university systems, under conditions of diminishing ability or willingness by governments to pay the full costs of such expansion, have led to demands for greater accountability of these institutions to their paymasters. The result has been an increasing trend towards target-setting in universities, combined with diverse efforts to assess and improve the quality of both teaching and research. In some respects, this makes our universities one of the last bastions of old-style central planning, with all its attendant inefficiencies and distortions, a curious irony in view of the rapid shift towards a market-type economy in central and eastern Europe since 1989. Moreover, the same tendencies are also apparent in the widespread shift from academic autonomy towards a more managerial type of university. In this paper I review these trends in the European university system, assess their impact on both academics and the institutions where they work, and examine the extent to which European and wider networking across universities can provide a valuable counter-weight to protect institutions from excessive pressures of accountability.

1. INTRODUCTION

> "The University is no longer a quiet place to teach and do scholarly work at a measured pace and contemplate the universe as in centuries past." [OECD 2007c]

The university as an institution is undoubtedly one of the great inventions of humanity, though its purposes and roles in society, notably in European society in the context of this paper, have evolved considerably over the centuries. Early European universities were mostly founded by kings or members of the nobility, often as extensions of the patronage that commonly supported individual eminent scholars. In medieval times, the reputation of a noble house would be greatly enhanced by the scholars whom it was able to attract. The establishment of universities merely expanded the scale of such patronage, the institutions being supported largely through grants of land and the income therefrom, sometimes to a modest extent by fees paid by their students. Most older universities had close links to the

The views expressed herein are based on my own personal experience of changing university systems over the past four decades. The institutions where I have been fortunate enough to work might not agree with everything I say in this paper, and nothing in the paper should be taken as representing the official policy of these universities.

church; and most focussed on recording, preserving and transmitting received knowledge.

The idea that universities should not only teach, but should also foster research – in other words, engage in the creation of new knowledge – was a later development, perhaps stimulated in Europe by the Reformation that broke the hold of the then very conservative Catholic Church over the intellectual life of many countries; by the Renaissance that re-awakened the thirst for new understanding across the continent; and later by the emerging industrial revolution which provided, from the side of demand, a massive stimulus to solve for the first time a huge range of novel technical and scientific problems. Not all were solved in the universities, naturally, but many were, and universities proved to be especially adept at devising and developing the conceptual foundations for emerging new technologies. In this way, universities came to be increasingly intertwined with the wider economy, something we take for granted nowadays. At the same time, the idea of special funding streams to support research, or even funding for specific projects, was still almost unknown. To the extent that research required funding (e.g. for equipment and the like), this was still usually provided from institutions' general budgets.

In the early 21st century, with university systems having expanded massively in most European countries, the higher education landscape is enormously different from that just briefly sketched. No longer a system serving a tiny elite, there are now more institutions and more students than ever before. Key features of the system are summarised in Section 2.1 of the paper. Lacking the endowments that supported the medieval university, modern universities – whether legally they are private sector or public sector bodies – are almost wholly dependent upon public funds for their support. Recently, however, many countries have found direct public funding lagging behind rising student numbers, resulting in a declining unit of resource to support the teaching function. Increasingly, too, research is funded differently from teaching, and from multiple sources, both public and private. Last, financial pressure has led to debates about contributions from the students themselves, involving both tuition fees, contributions towards student living expenses, and a variety of grant, scholarship and student loan schemes. These financial aspects are reviewed briefly in Section 2.2.

Diverse funding streams, including funding to meet entirely new objectives for higher education, such as widening access (the social inclusion agenda) or fostering university-business links, have led to calls for more accountability. Higher education institutions now face a multiplicity of goals and performance indicators linked to these, in the best traditions of old-style central planning. One has to question the merits of such an approach to managing the university system, since by now it is well known and understood that system performance rarely improves by adding ever more targets, ever more performance measures. Moreover, given the increasingly hierarchical management structures within universities, top level targets feed down to individual departments, to individual academics, and give rise to individual plans for research output; for teaching loads and performance; and for engagement with other institutional objectives. All this makes many universities much more bureaucratic institutions than they used to be, providing less 'space' for individual diversity, individual academic eccentricity. In the end, is the result a superior, more

productive university system across Europe? Personally, I am quite sceptical, as I explain in Section 3. The concluding Section 4 then pulls together some threads from the preceding discussion, and speculates about possible ways forward for European universities.

2. THE EUROPEAN UNIVERSITY SYSTEM IN THE EARLY 21ST CENTURY

2.1 THE NUMBERS

According to the European Commission [2006], the EU has about 4 000 institutions of higher education (including both universities and tertiary education institutions with other designations) with over 17 million students and around 1.5 million staff; of the latter just under a third are researchers. Just over a quarter of students are in the areas of mathematics, science and engineering. The report argues that European universities are often relatively small, and that they are grouped into fragmented national systems that make the achievement of the highest standards difficult, while also hampering international competition and mobility. Implementing the Bologna reforms consistently by each member state would undoubtedly facilitate academic mobility within Europe, though a full discussion of this lies outside the scope of the present paper [see EUA 2007].

Eurostat data shows that in the EU25 (i.e. current EU members, excluding the two newest members, Bulgaria and Romania) total student numbers rose from 13.3 million in 2000 to 17.7 million in 2006, an annual growth rate of 4.8%. For the UK, the US and Japan, the corresponding average annual growth rates of student numbers over the same period were 2.4%, 4.8% and 0.4%, respectively. For Hungary, student numbers grew by 6.2% per annum over the same period. The sex ratio of those in higher education varies a good deal between countries. Thus across the EU25 in 2006, 55.1% of students were female, while in the UK the corresponding female share was a little higher, at 57.3%. In the US and Japan, the shares were 57.4% and 45.7%; for Hungary, the share of female students was 58.5%. Thus among developed countries, Japan's female participation in higher education is still relatively low.

Data assembled for OECD [2007a] show that in 2005, about 55% of young people entered higher education over the OECD area, the participation ratio being just a little lower for the EU. The UK's gross ratio was lower, though still just over 50%, while for Japan the ratio was just over 40%. In contrast, over 65% of young Hungarians entered higher education in 2005. In virtually all OECD countries, higher education results in significant wage premiums and much lower unemployment rates than for those with lower levels of education [on rates of return to university education, see DG Education and Culture, 2007].

2.2 FUNDING THE EUROPEAN UNIVERSITY SYSTEM

So much for the basic numbers. Now let us turn to the funding of European universities and the students who attend them. From OECD [2007b], it is clear that fund-

ing methods in Europe are quite diverse. While most higher education institution (HEI) spending is by the state, in different national systems the share of state funding in total higher education budgets ranges from under 20% to over 90%, most countries lying in the range 60% to 90%. The EU, however, only devotes about 1.2% of its GDP to higher education, while in the US the corresponding share is about 2.9%. This is one rather clear indication that European universities are significantly underfunded; as a result, in most cases they face an uphill struggle to be truly internationally competitive.

Funding pressures in higher education have led to many changes in funding methods. Institutions themselves, naturally, prefer block grants with few strings attached, but public authorities are much more inclined to fund universities on the basis of a variety of funding formulas, accompanied by performance measures to be fulfilled in the relevant funding period. In addition, public funding is increasingly split into multiple streams, each with its own criteria, performance indicators and so on. Thus in the UK, as we report below, there are separate streams for teaching, research, improving access, and links with business (and no doubt others that we lack space to examine here).

Not only has public funding become more complex and differentiated, but institutions have been encouraged to seek other sources of funding. These include private funding of research, already quite common in the UK and becoming more common elsewhere; capital grants from companies to fund new teaching and research facilities; and donations from university alumni. In the UK, these last two sources are still quite unimportant for most HEIs, though Cambridge University recently launched a campaign to raise £800 million (to mark the University's forthcoming 800th anniversary in 2009), and Oxford University has launched a campaign to raise £1.2 billion. However, we are far behind US practice in terms of corporate and alumni donations to universities. Most European countries lag behind the UK in these areas.

If governments won't pay enough and the private sector (firms and alumni taken together) is also insufficiently generous towards higher education, then HEIs have little option but to turn to the only remaining part of the system, namely the students themselves. In many European countries, fees from students now account for a significant fraction of higher education funding, sometimes as much as 30% or so. But both in the UK and elsewhere, the issue has been hugely controversial politically.

3. TARGETS AND INCENTIVES

When I first entered academia in 1971 (leaving aside my student days), the requirements placed by the UK's higher education system on individual academics were pretty much as I had envisaged. Thus we were expected to perform teaching duties as assigned to us by the relevant Head of Department, usually following one or two rounds of informal negotiation, but otherwise there was no overt pressure to do anything. True, most academics did some research, but there was no pressure to fit in with departmental research interests or an institutional research strategy (not least because most institutions didn't have such a strategy back then). What motivat-

ed people was a mix of personal ambition, for promotion was unlikely in the better universities without a solid research performance; professional pride; and departmental 'culture', in that an academic who was not research active would have felt quite uncomfortable, even out of place, in a research-oriented department. There was no personal appraisal, and there were no targets to fulfil. Not many jobs offered such amazing freedom, and for me this aspect was undoubtedly one of the big attractions of the academic life.

Academic freedom in this sense, offering endless opportunities to be creative and productive, was also, for some, the freedom to be idle. Many academic departments and research centres contained a few staff who were not terribly productive, but usually these formed a tiny minority, and one could argue that such 'slack' was part of the price to be paid for the highly productive freedom of the majority. Moreover, even in a well functioning and research-active department where everyone is performing to the best of his or her ability, it is quite normal for the distribution of research output across individuals to be highly skewed [see Hare and Wyatt 1988]. From a department of 20 academics, say, two or three of them can easily account for three-quarters of the departmental research output in a given period. Such skewed performance distributions, of course, create real difficulties for university managers, for how can they tell whether someone reporting low research output in a given period is lazy, or whether he or she has either just been unlucky (some research didn't work out as well as it was hoped) or is on track to produce a major long-term breakthrough? There is no easy answer.

3.1 FUNDING

In common with much of the rest of Europe, UK higher education expanded rapidly in the last few decades, both by establishing new institutions (especially in the 1960s), by expanding existing ones, and by re-labelling former polytechnics as universities (mostly in the 1990s). The rapid expansion from elite higher education for only 5–10% of the relevant age group (back in the early 1960s), to a mass system currently taking in over 40% of each age cohort in England, closer to 50% in Scotland, has posed some big challenges for public spending, and has resulted in some enormous changes in the funding model. For brevity, the key changes are summed up in the following points:

(1) The unit of resource per student (i.e. the public funding provided to universities to support each student, differentiated by major subject group) fell by about a half in real terms from the 1970s to the late 1990s, with only modest recovery since then.
   - One could argue, and the government sometimes has, that this reflects a massive improvement in academic productivity over the period – if so, it is interesting that academics have not shared much in the gain, since UK academic pay has lagged behind that of other professional groups until the last few years.
   - But most academics, I think, would argue to the contrary, that the change in per student funding has forced us to teach larger classes (and sometimes

fewer classes), and to have less contact with individual students, hence worsening the 'student experience' at the very time when the government increasingly exhorts us to treat students as 'customers.'

(2) The per student income flow into the universities was, in the past, assumed to pay not only for our teaching, but also for an element of our research activity. It was understood that much research did not need the support of specific research grants, but simply required access to well equipped laboratories (in the sciences) and staff time to think and write. All this was covered by our core teaching grants right through the 1970s. Thus research was funded partly from the core grant, partly from specific research grants awarded competitively. In the UK we call this model the dual support system of research funding.

(3) Since the early 1980s, the UK funding model has changed in important ways, both as regards research and teaching. In addition, various new funding streams have emerged, to support activities other than the universities' traditional activities of teaching and research.

(4) For research, the idea that the core grant already funded much of our research was quietly dropped. Instead, basic research funding was increasingly provided to universities on the basis of their recent past performance. Starting with so called Research Selectivity Exercises in the 1980s, the system of appraising research became more systematic with the advent of the Research Assessment Exercise (RAE). RAEs took place in 1992, 1996, 2001 and 2007, the results of the latest one (called RAE2008) due to be announced by end-2008 (for details, see the RAE website, www.rae.ac.uk). In each RAE, individuals and their departments were evaluated using a number of performance indicators, including publications, research grants won, and others (e.g. measures of 'esteem'). Departments were then rated (by a committee of their peers) on a seven point scale (1, 2, 3a, 3b, 4, 5, 5* – only the British could come up with such a bizarre scale!). Levels 4 and above indicated research of at least national, and increasingly of international significance. In the early exercises, some research funding went to all levels, but by 2001, only levels 4 and above received this research funding stream, with the result that public research funding became increasingly concentrated across the universities [on advantages and disadvantages of the RAE, see Hare 2003]. Universities now routinely use their RAE scores to help them recruit both staff and students.

(5) The UK government has already decided that this approach to research assessment, based on peer review, is too complex and burdensome, and has proposed that for 2013 or 2014 there will be a new system, largely based on metrics (such as citation indexes and the like). The new system has been named the Research Excellence Framework (REF), which I suppose is good propaganda if nothing else [see HEFCE 2007]. Personally, I shall be surprised if the new system turns out to be much different from the old one, but the details are still to be settled.

(6) For the teaching function, systemic expansion both put pressure on public funds (as noted above), and also gave rise to calls for greater accountability of universities, both to the taxpayer in general, and to their 'customers', namely the students.

(7) The funding pressures themselves have had several effects. First, the government was always unwilling to allow institutions to expand as they wished, since that would have implied an open-ended commitment of public funds; instead, therefore, we have always operated with student number targets for our main undergraduate degrees, and stand to be penalised financially if we under-fulfill or over-fulfill the approved student recruitment plan each year. Second, institutions have sought to expand in areas where student numbers were not capped, such as masters programmes for which there has been less public funding, universities being quite free to set their own student fees. Third, quite a time ago the UK government accepted the idea that overseas students (defined as any other than Home or EU students) should pay fees roughly in line with the estimated full economic cost of their education at a British university, so that they should no longer be subsidised by the taxpayer. This led to big recruitment drives by many universities, seeking to plug gaps in their funding by attracting large numbers of overseas students, both at undergraduate and postgraduate levels. But in the long run, this is likely to prove a risky strategy, since the competition to attract such students is getting fiercer, and several of the main 'source' countries are rapidly developing and improving their own higher education systems (e.g. China, India, Malaysia).

(8) Finally, in the last few years the government has finally accepted that fees should be paid by Home and EU undergraduate students, whereas previously there was either no fee, or a small fee paid by the student's local authority rather than directly by the student [much of the related academic debate on fees is covered in Barr 2001 and 2004; and Greenaway and Haynes 2003]. The government has stated that fee income would be genuinely 'additional income' for the universities, but many people fear that the government could all too easily cut back its own direct funding as student fee income rises. At present the maximum permitted fee for English universities is ?3 000 per student per year, and most institutions chose to charge at that rate (different arrangements apply here in Scotland); the maximum is expected to be reviewed by 2010, after which there may be more competition, and more differentiation in the fees charged by different universities. Most students now take out student loans to cover both their fees and much of their living expenses, these loans being repayable after graduation through the income tax system. Repayments are income contingent, students repaying nothing if their annual income is below £15 000. Any student debt remaining after 25 years is written off. The quid pro quo for getting government agreement on fees was that universities agreed to use a significant fraction of their fee income to fund bursaries for students from disadvantaged backgrounds (in line with the government's social inclusion agenda). A thorough analysis of the likely distributional impact of these reforms can be found in Dearden et al. [2008], showing a significant reduction in net higher education costs for students from low-income families, more than offset by higher taxpayer contributions, and higher costs for middle and upper income families.

(9) Concerning accountability, teaching quality in UK universities is now regularly assessed, subject-by-subject, by external panels, a process now overseen by the

Quality Assurance Agency (QAA) established in 1997. Universities that receive low ratings are expected to take steps to improve what they do, while those that do well do not hesitate to use the results in their student recruitment brochures. QAA reports are public documents and can all be found on the QAA website (www.qaa.ac.uk). Many institutions found the early teaching assessments extremely intrusive and time consuming, and it is more usual now for the reviews to be broader, and supposedly to operate with a 'lighter touch' (an interesting instance of UK bureaucrat-speak). For many institutions, the practical impact of teaching assessment, nevertheless, has been to generate massive amounts of additional paperwork without, I suspect, changing much of what we actually do at the student-teacher interface.

(10) Accountability to the students themselves has led to gradual increases in the feedback students get on their performance at various stages of their degree courses, and I would certainly regard that as an improvement over my own student days (I received almost no feedback except for my final degree result at the end!). On the other hand, there are now far more appeals by students challenging their degree classifications than there used to be, and far more formal complaints about teaching quality and other matters. I have some doubts over whether this results in better service delivery to the students; sometimes I think it merely makes us more careful to improve the background paperwork (it's easier, after all, to be a good bureaucrat than to be a good teacher!).

3.2 INCENTIVES

Much of the above was about the UK university system, and the ways in which teaching and research are publicly funded and assessed. But these arrangements, and others that we shall mention shortly, have an impact on the behaviour of individual institutions, and on the departments and individuals within them.

Institutions

At the institutional level, the traditional university goals of producing high quality graduates and excellent research have come under pressure from several directions, notably the ever-tightening budgets, the demands for greater public accountability, and diverse social concerns. Financial pressure is what fundamentally drives universities to pay attention to issues which, a few decades ago, would not have greatly concerned them. The same pressure also undermines the statutory autonomy of universities, for even in their core areas of teaching and research universities are now much less free than they used to be to decide what to do and how, since they have to fulfil the requirements of the QAA and RAE systems sketched above.

The social concerns that UK universities are now expected to address include building links with the business community and widening access; funds are available to support these new goals, so institutions scramble to produce programmes that will win them a share of the available money (using a lot of top-level manage-

ment time in the process). As regards the business community, there are at least two aspects, namely the commercialisation of new technology, e.g. through spin-off companies; and the development of courses tailored to the needs of particular firms or industries. I have nothing against such activities, but I find it quite hard to identify the market failures that would justify the public subsidies currently on offer to support them. Various government reports have claimed that there are 'too few' spin-off companies from UK universities, or that we offer 'too few' tailored courses, but to my knowledge no one has any idea what the 'right' numbers would be. It seems to me that this sort of activity will be undertaken by universities as and when it is judged to be profitable or advantageous in some other way, and I don't personally support the creation of special funds to encourage it.

The question of widening access is even more controversial. The government seeks to get more young people into universities, as part of its general policy of strengthening the UK's human capital. In itself, this is not a terrible idea, but implementing it through quite complex social engineering at the university level is not necessarily the best approach. One inevitable effect of raising the annual intake of students into the universities is that entry standards fall somewhat, so the weakest or marginal students are barely well enough prepared academically to cope with university-level courses of study. Some universities have responded by adding a year to degree courses (e.g. in maths or engineering), or by running pre-admission summer schools to bring students up to the right standard. Such measures are naturally quite costly.

In addition, the government expects universities to find more of their intake from disadvantaged groups or from areas where relatively few young people go on to university. Targets are even set for each institution in England specifying what fraction of the undergraduate student intake is expected to come from state schools rather then private schools. The context for this is that the UK's better universities, such as Oxford and Cambridge, have always recruited large fractions of their intake from private or independent schools, even though such schools only account for a small fraction of the secondary school population across the country. Some funding is available to support additional students from poor backgrounds, but I suspect this is insufficient to cover the extra costs of teaching these groups; and these groups also experience higher drop-out rates than other students, adding to the associated costs.

In my view, it is not appropriate for the universities to be pressured in this way to help meet the government's social inclusion agenda. Rather, it seems to me that the problem, if there is one, lies within the secondary education system itself. Hence I would prefer to see extra resources directed at secondary schools with a view to raising standards of attainment, instead of universities being 'leaned on' heavily to accept students who are not really ready to benefit from university courses.

To sum up, the financial conditions under which they operate nowadays oblige UK universities to pursue multiple objectives, at the very least including teaching, research, business links and social inclusion. Each objective has targets and funding streams linked to it, and institutions can face penalties for failure to meet their key targets. Penalties can be financial, or the institution might simply attract closer scrutiny from one or other body set up to meet the demands for public accountabil-

ity. None of this will be unfamiliar to readers familiar with old-style central planning.

The system differs from central planning, however, in that there is remarkably fierce competition between institutions – to attract good students and good staff, to gain a reputation for excellent research (preferably international), to satisfy government aspirations, to help graduates embark on interesting careers, and so on. Competition is facilitated by the publication of various university league tables in the UK, ranking universities according to a huge range of performance indicators. Most universities assert publicly that these league tables are unsound methodologically, which is very likely true, but it is amazing how much attention is paid to them internally, and how pleased institutions are if they move up a few places when a new table comes out. Interestingly, competition has not forced failing universities out of business in recent decades. However, very occasionally a university in financial difficulty has been forcibly merged with a neighbouring, financially sounder university. Again, this sort of event is very much in line with the treatment of loss-making firms under central planning.

Departments

Within an institution, departments deliver the teaching programmes and undertake research in their respective subject areas. At the same time, given their aggregate budgets, institutions are free to allocate resources as they wish between departments, so there is scope for considerable tension between the departmental and university-wide levels of a given institution. This tension is usually sufficient to keep departments in line with broader university policies and goals. Reinforcing that, institutional targets are also commonly broken down to departmental level.

Individuals

How are individual academics supposed to operate in this evolving environment of targets, performance indicators, and the like? Teaching is managed very much as it always was, except that nowadays it involves massively more paperwork so that proper documentation is always in place for QAA and other audits of teaching activity and performance. Academic staff are no longer treated like competent and responsible professionals who can be relied on to do a good job; rather, their institutions are more inclined, nowadays, to think that they need to be managed and constantly monitored.

Research is more complicated because of the requirements of the RAE or whatever might replace it. As compared to the past, there is more emphasis on applying for and (hopefully) winning research grants. From a social perspective, though, it is actually hard to regard that as a very productive activity, since if more people are applying for essentially the same pot of research money, then more of the application effort is simply going to be wasted. Likewise, there is a focus on securing publications in the so called 'good' journals, since to be included in recent RAEs, each

academic has needed at least four good publications. That might not seem a lot, but doing quality research and getting it published is a highly competitive business, and there is a good deal of sheer luck in being accepted by the right journals. Moreover, the focus on journals and on the number of articles can encourage some bad research practices. For example, people can split one good article into two or three to get more publications; researchers often focus on quick, short-term results rather than longer-term studies; people become less willing to do valuable academic work that does not result in journal articles, e.g. writing a textbook, writing more 'popular' articles to disseminate research to a wider public, external examining.

Sometimes the government argues that university research should be 'relevant' or even that it should 'contribute to the development of the UK economy.' This is nonsense, since neither the government nor the researchers themselves have much idea what is relevant or what might help the British economy. In practice, where this sort of condition is imposed, researchers simply have to waste time making up stories to justify what they want to do. We can all do that perfectly well, but it does nothing to improve the resulting research.

As for the other objectives that institutions try to pursue nowadays, individuals have to be mobilised and – to use a horrible instance of 'management speak' – incentivised to achieve them. While administrative and other support staff can be employed specifically to work on goals other than teaching and research, the situation is less straightforward for academic staff. The latter have to contend with dual loyalties, namely to their discipline/subject area and to their employing institution. Most academics are well aware that their professional reputation and their ability to move between institutions depends almost entirely on their research profile, both in terms of publications and their participation in well funded research projects. Moreover, even within institutions, most academics only win promotion through their research, so anyone modestly ambitious must strive to be a productive researcher. That said, research carried out in the US showed, as part of a wider study of academic research networking, that academics who remained loyal to a given institution ended up being paid less than those who move, implying that institutions capture some of the 'quasi-rent' that mobile academics capture for themselves [Kim et al. 2006]. Academics' institutional loyalty might induce them to contribute to institutional goals beyond the core teaching and research, but since this is likely to slow down their research and hence threaten their external marketability, they increasingly expect to be rewarded appropriately. Many UK universities have modified their promotion arrangements in recent years to enable them to reward more effectively contributions other than research.

3.3 EUROPEAN COMPARISONS

A great deal of useful comparative information about European universities is provided in two reports prepared for the European Commission, DG Education and Culture [2006 and 2007], supplemented by the four country studies included in OECD [2007b]. DG Education and Culture [2006] covers 32 European countries, through a mix of short country studies, more detailed case studies, and surveys. The

focus of the report is on governance reforms being undertaken in European universities, in part as a response to the need to reform curricula and course structures as part of the Bologna process, in part reflecting the requirements of the Lisbon agenda to promote European science and technology and to improve workforce quality, and in part resulting from a wide range of factors specific to individual countries. To help structure the vast amount of information collected for this study, the report grouped it in two ways. First, a broad overview of changes in governance arrangements as viewed from the perspective of national higher education systems. And second, an institutional perspective organised under eight main headings.

(a) National systems

Formally, institutions have often gained autonomy in relation to higher education ministries or their equivalents, but this is tempered in some countries (e.g. Denmark) by a trend towards defining the relationship between HE ministries and institutions through contracts that specify a variety of performance indicators. The higher education environment is becoming more competitive in virtually every country, and in all major areas: recruitment of academic staff, student recruitment, securing public funding for teaching, and securing basic research funding. Further, as in the UK, many European countries are striving to cut the unit costs of higher education (sometimes by merging institutions to achieve economies, as has been happening in Hungary), or are considering other income streams such as student fees. Practice, however, remains very diverse.

At the national level, too, increasing numbers of European countries have established agencies to monitor teaching quality, and sometimes other aspects of university performance, though as yet there is little trans-national monitoring. Moreover, these agencies can complicate the 'normal' relationships between HE ministries and 'their' institutions. Sometimes national legislation seeks to influence directly the internal governance/management arrangements within individual universities, sometimes these are determined by their founding charters and amendments thereto.

(b) Institutions

Mission and strategy. Because of their public funding sources and the demands for accountability, agencies other than the universities themselves everywhere influence their missions and strategies. Formal autonomy could only imply real independence if an institution's funding did not rely on state subventions, as with the major private, research-led universities of the United States. *Internal governance structures* are likewise constrained by external influences, but in this case more legal/political than financial.

Introduction of new study programmes is mostly an institutional responsibility, though national ministries sometimes provide funds to support degree programmes in new 'priority' areas, and in many professional fields external accreditation is vital

if a programme is to attract good students. In the UK, the relevant Funding Council has to provide 'funded student numbers' to support new undergraduate programmes and elsewhere similar bodies, or the ministry, operate in substantially the same way, hence giving them some 'voice' in relation to new approved programmes. *Quality of teaching and learning* is nearly everywhere an institutional matter, supported by national guidelines and often by an independent agency set up to monitor, evaluate and audit institutional performance.

Internal financial policies are entirely institutional concerns. Even when university budgets are determined by national formulas, once they receive the money institutions are formally free to re-allocate it in accordance with their own internal priorities. Interestingly, though, a high proportion of institutions in most countries more or less replicate the national formula in their internal budgeting. Thus potential autonomy is far from fully exploited, apparently.

Conditions of employment of staff are generally set by national authorities, especially as regards the national wage and salary scales in effect at any time. Within these national framework conditions, institutions are then free to hire as they wish (or as they can, given the job market conditions), and to develop their own human resource management policies. In many countries in Europe, the result is relatively low academic wages compared to other professional groups, accompanied by problems in recruiting and retaining high quality staff. It is unclear how and when this might change, but it must slow down many countries' efforts to move towards fulfilling the Lisbon objectives.

Access policies and admission policies. Here the picture is very mixed, with countries such as the UK, Finland, the Netherlands and others emphasising the institutional role in student selection and access, while other countries still place more weight on national criteria and guidelines. Concerns over institutional reputations and quality, and to some extent about funding, are tending to push more national systems in the direction of a greater institutional role here. Last, *Public-private partnerships* mostly refer to university-business links of various sorts. They are increasingly emphasised in the UK, though not necessarily for especially compelling reasons (as noted above), and some other national systems are moving in the UK direction, providing new funding streams to support links. But in many European countries it remains the case that such links are rare and are not always considered especially important.

(c) Hungary

Here we briefly sketch some points about higher education in Hungary by way of illustrating the above with a concrete case. Table 1 presents the basic information.

Table 1. Hungary: Aspects of Internal Governance

Aspect of governance	Authority
Mission/strategy	The founder issues a Deed of Foundation specifying the main tasks. The mission statement was formulated by the Council and is now formulated by the Senate. The most operative document is the Institutional Development Plan (IDP) which is prepared mainly by the Senate but the Economic Council has influence as well. The IDP covers a 4-6 year period and is required to participate in competitive state-funded development actions.
Internal governance and management	Obligatory governance bodies are: Senate, Economic Council, Doctoral Council and Student Union. The new Act gives the institutions full autonomy in re-structuring themselves.
New study programmes	The Ministry of Education has to authorise the launch of new programmes. The three-cycle (Bologna) system was due to be effective for all programmes from September 2006. There has been some concentration of programmes in fields of study that used to be highly fragmented. This was coordinated by the National Bologna Board.
Quality assurance	The Ministry of Education defines the national quality policy and supports institutional quality assurance activities. Accreditation of institutions, faculties and programmes is carried out by the Hungarian Accreditation Committee in an eight year cycle. The method used includes an evaluation by external experts based on self assessments and concluded with an evaluation report that, as of 2004, is published. Visiting committees have at least one student member since 2004. Quality requirements have focussed on input factors but a shift towards output factors is developing. Institutions are required to develop internal quality assurance systems.
Finance/resource allocation	The new Act created the Economic Council as an entity responsible for financial management and efficient operation. The Council/Senate has the right to allocate state funding for teaching using a different formula than that used by the Ministry. State supported students (about half) pay no tuition fees while other students pay full cost.
HR management	University staff are civil servants. Institutions are free to determine staffing levels and HR policies. When appointing a full professor, institutions are obliged to seek the judgement of the Hungarian Academy of Sciences before proposing the nomination to the President of the Republic via the Minister of Education.
Student access and selection	State-supported student places are distributed by the Ministry of Education based on applications, labour market needs, institutional capacity and tradition. Before 2005, institutions had the right to organize admissions exams, but since then secondary school scores provide the only basis for admission.
PPP	Between 2005 and 2008, 175 billion HUF (over 600 million Euros) was expected to be invested in the infrastructure of the HE system in order to create more competitive institutions.

Source: Adapted from DG Education and Culture (2006), vol.2, pp.101–106.

4. CONCLUSIONS

The entire European higher education system has been expanding rapidly in the past couple of decades, often accompanied by falling real-terms funding per student as public funding has lagged behind student demand. The expansion has been

accompanied by demands for greater external accountability in terms of institutional teaching quality, as well as in research. Universities have also had to deal with a wider social agenda concerned with access and social inclusion, and to a lesser extent business links, and these too have led to new funding streams, new targets. At the same time, many individual institutions have shifted away from traditional 'collegial' models of the university towards much more strongly 'managerial' models. These models ensure that core teaching programmes are delivered reliably to acceptable standards, though in my view they are less successful in delivering high quality research.

Within individual national systems, there is now a high degree of competition – for staff, students, and funding. However, with limited exceptions the individual national systems – especially the many smaller ones – remain quite inward looking, focussing on their own internal standards and practices. The exceptions include the occasional use of external assessors to help in examining PhD students (e.g. I am currently acting for a Finnish university) or evaluating research grants (e.g. I sometimes evaluate research proposals for OTKA, the Hungarian research fund); and diverse EU programmes both to facilitate student and teacher mobility and to support collaborative scientific research projects.

The result, though, is a set of national systems which, taken as a whole, are mostly far from being internationally competitive when evaluated in terms of their overall 'output' quality. Teaching programmes, I think, are mostly of a good standard and generally produce graduates of the quality needed for the European labour market. But many universities are not well set up to do good research. They often have inadequate basic funding; also, academic staff are sometimes sufficiently poorly paid that they need second jobs to be able to live comfortably, and this is not good for their research effort; and some countries, notably those in Central and Eastern Europe, previously operated (and mostly still do operate) networks of research institutes separate from the universities (usually under the relevant Academy of Sciences). This is not the proper place to debate whether such a separation between the research and teaching functions of higher education is desirable, but it certainly makes it somewhat harder for universities to develop their own strong research profiles.

Thus on the one hand we have a European higher education system where international competition is not yet vigorous enough to drive university academic standards, especially in research, up to the best international levels. On the other hand, competition on the input side is also making such convergence increasingly difficult. This works in several ways. First, the relatively low academic wages in many European countries make it harder to attract younger people into the academic profession, or into the PhD programmes that usually serve as the entry point. The brightest young people simply choose to work in other parts of the economy, and for several European countries the consequence is a looming 'succession crisis' in higher education. Second, the external monitoring and target setting discussed earlier in this paper, while justified from the standpoint of external accountability, is gradually worsening the working conditions of academic staff; in my view, this tends to reinforce the first point. Third, the market for academics – the academic job market – is increasingly international, especially for those with good language skills.

Hence increasingly, the best academics gravitate to the already strong universities, the institutions that offer the most attractive working conditions, the best research facilities, and to some extent the best salaries.

What does this mean for the evolving European university system? I think we can be fairly confident that the system will deliver the graduates Europe needs in the coming decades, but the picture as regards research will be more complex and differentiated. The competitive forces referred to above will very likely result in an increasing concentration of top-level research in a small number of leading institutions, very much along the lines that periodic RAEs in the UK have fostered there (as discussed in Section 3.1). Which institutions will turn out to be the leading ones in Europe is at present hard to predict, but I suspect that they will not be found in any of Europe's very small countries – there are simply not the resources, nor indeed the political will, to support internationally competitive universities in most countries.

For some countries, perhaps hoping to host a leading university, this picture might seem a little depressing. But I do not consider the situation quite as bleak as it might appear to be, at least from the standpoint of individual academics. For nowadays the combination of the internet, multi-country research projects funded by the EU, and diverse other funding opportunities that support research-related travel make it less advantageous than it was to be based at a leading institution. Moreover, academics who win funding for international research, or are partners in such projects, gain some leverage in their home institution, and may be able to argue for improvements in their working conditions (such as lower teaching loads, relief from departmental or university administration, etc.). In this way, international research networking makes it possible for some of Europe's top academics to remain in their home countries, and to enjoy the best of both worlds.

REFERENCES

Barr, Nicholas [2004]: 'Higher Education Funding', *Oxford Review of Economic Policy*, 20(2): 264–283.

Barr, Nicholas [2001]: *The Welfare State as Piggy Bank*, Oxford: Oxford University Press

European Commission [2006]: *Delivering on the Modernisation Agenda for Universities: Education, Research and Innovation*, Com(2006) 208 final, Brussels: Commission of the European Communities

Dearden, Lorraine–Fitzsimmons, Emla – Goodman, Alissa – Kaplan, Greg [2008]: 'Higher Education Funding Reforms in England: The Distributional Effects and the Shifting Balance of Costs', *Economic Journal*, 118(526): F100–F125

DG Education and Culture [2007]: *Rates of Return and Funding Models in Europe*, Report for Directorate General for Education and Culture, Brussels: Commission of the European Communities

DG Education and Culture [2006]: *The Extent and Impact of Higher Education Governance Reform across Europe*, 4 volumes, Report for Directorate General for Education and Culture, Brussels: Commission of the European Communities

EUA [2007]: *Trends V: Universities Shaping the European Higher Education Area*, [by David Crosier, Lewis Purser and Hanne Schmidt], Brussels: European University Association

Greenaway, David–Haynes, Michelle [2003]: 'Funding Higher Education in the UK: The Role of Fees and Loans', *Economic Journal*, 113(485): F150–F166

Hare, Paul G. [2003]: 'The United Kingdom's Research Assessment Exercise: Impact on Institutions, Departments, Individuals', *Higher Education Management and Policy*, 15(2): 43–62

Hare, Paul G.–Wyatt, Geoffrey [1988]: 'Modelling the determination of research output in British universities', *Research Policy* 17(6): 315–328

HEFCE [2007], *Research Excellence Framework: Consultation on the assessment and funding of higher education research post-2008,* Paper 2007/34, Bristol: Higher Education Funding Council for England

Kim E. Han–Morse, Adair–Zingales, Luigi [2006]: 'Are Elite Universities Losing their Competitive Edge?', *NBER Working Paper* 12245, Cambridge, Mass.: National Bureau of Economic Research

OECD [2007a]: *Education at a Glance* 2007, Paris: OECD

OECD [2007b]: *Funding Systems and their Effects on Higher Education Systems – International Report*, Education Working Paper No.6, Paris: OECD

OECD [2007c]: *On the Edge: Securing a Sustainable Future for Higher Education*, Education Working Paper No.7, Paris: OECD