Has the introduction of full economic costing of research contributed to the physical and financial sustainability of UK HEIs?

It is difficult to judge and make any validated or quantified statements at such an early stage after the introduction of fEC, as universities are still flowing through the work priced in the pre-fEC era and working out how to deal with the fEC income at the institutional level. However, due to the heavy emphasis on research council income, physics departments have benefited from the introduction of fEC. Some universities have chosen to pass some or all fEC elements directly to the departments, which has left them better off than they have been in the past. In time, fEC should increase the overall financial viability of university research and allow investment in infrastructure.

However, there are a number of concerns.

There is still uncertainty regarding the purpose of fEC, and this should be addressed urgently. Some academics believe their departments are being used as a ‘cash cow’ to make up for the shortfall in the general lack of university investment. Conversely, we hear from senior university administrators that it is appropriate to spend fEC income on institution-wide activities. A clear reminder of the purpose of fEC from RCUK and UUK would lead to greater harmony and consistency of expectations across all stakeholders, i.e. academics, university administrators, the research councils and the business sector.

It appears that many universities do not have a clear plan on how fEC income will be used to support future infrastructure demands. There is an undesirable possibility that many departments will use the windfall to support growth in non-capital items, principally new staff, while not paying sufficient attention to their future infrastructure needs. This matter needs urgent attention before the fEC funding element becomes locked into university models.

Fewer research grants are being awarded so there is greater variation between universities and between disciplines within a given institution. There is also the issue that certain costs (i.e. direct and/or indirect) are linked to project grants and research income is often secured in large chunks on a variable basis rather than in a smooth, sustainable, way.

In raising the price that universities expect for research, fEC has made it more difficult for them to compete with the private sector for industry funding, narrowing the range of funding streams available for some activities and reducing their sustainability.

In many universities, indirect and estates costs levied on departments have escalated since the introduction of fEC, although it is not clear where the top-down pressure on charges, in practice, comes from. There is a perception among academics that university administration and other central services have been major beneficiaries and that such costs have been raised cynically. This is a concern.
because there was an expectation that external research sponsors would be paying (i) a higher level of indirect costs which would contribute to the development and maintenance of high-quality infrastructure in universities (estate, administrative support, etc.), and (ii) a contribution towards the salaries of academic staff carrying out the research, previously entirely charged to the HEFCE block grant.

The reality is that research income has increased overall following the introduction of fEC, but not as much as had been anticipated (at least by the universities), because (i) most private sponsors cannot or will not fund full fEC awards, and (ii) for research council funding, part of the increased indirect cost income has to be vired back into direct costs, since the research councils do not even pay 80% fEC. So 20% of indirect cost funding must be used to make up the direct cost element (e.g. postdoc salaries) to 100%. In some cases, this can reduce the indirect cost component by a factor of two, still above the pre-fEC rate but not by much.

The academic staff time element component of fECed research grants has only made a very small contribution to academic staff payroll costs, probably of the order of a few per cent for most universities when averaged over all staff. The bulk of the payroll bill has therefore still to be found from student fee income and the HEFCE QR grant.

Has the introduction of full economic costing of research improved the human and intellectual sustainability of UK HEIs?

As already mentioned, a worrying aspect of fEC is that the research councils have been unable to maintain the same volume of research as before, despite assurances to the contrary before fEC was introduced. The reduction in the number of research posts supported by research council grants is reducing the pool of new researchers as income that was formerly used to fund postdocs now has to be used to pay increased indirect costs. This will, in the long term, have a negative effect on the intellectual sustainability of universities.

Fellowships have become much more expensive under fEC and have hence reduced in number, with considerable adverse consequences for the human and intellectual sustainability of universities. With 100% fEC, the typical cost of a fellowship is now of the order of three times the replacement salary. The result is that a few departments benefit enormously from having one of these funded, but fellowships now make less of a contribution to the career paths of researchers. If a university is still benefiting from the research performed by individuals on fellowships, it would seem reasonable that they should only claim, say, 50% of their time previously spent on administration and teaching.

Has the introduction of full economic costing of research caused changes a) in the nature of grant applications to Research Councils and National Academies, and b) in the model for internal allocation of grant-overheads received by HEIs?

a) There is anecdotal evidence that the increased pressure on individuals, research groups, departments and universities to attract fEC income has led to an increase in the number and cost of applications. In the context of a flat public spending settlement, this appears to have triggered a decline in the success rate of grants. There is also a perception that it has made multi-institution bids more difficult and therefore discourages collaboration.
However, the widespread introduction of software costing tools, which can automatically include the various direct and indirect cost elements of the project, has taken much of the labour out of preparing grant applications. Because the various cost drivers for the indirect cost components of fEC are determined on a formulaic basis, and monitored by HEFCE and RCUK to ensure consistency and comparability, there is very little scope for principal investigators (PIs) to ‘manipulate’ the figures to maximise grant income.

b) The allocation of grant overheads varies considerably between universities, which may complicate collaborative projects. There is generally a lack of transparency on where the income is spent and in many cases, no visibility to the researchers who earn the income.

In addition, there is a central question which the consultation questions do not explicitly address, namely how fEC funding of the time allocated to PIs and other researchers on successful grants has affected:

(i) the personal time budgets of individual researchers; and
(ii) the management, by universities, of the personal time budgets of university staff.

The allocation of a ‘PI time’ fund, a new feature of the fEC approach to grant funding, is causing concern. We hear from academics that they feel entitled to make use of these funds to ‘buy themselves out of’ teaching for the hours they were funded by the external sponsor to work on the research project. However, many vice-chancellors are of the view that such use would have severe consequences for the future of university teaching, and that these funds are a contribution to the overall salary budget, to be retained centrally.

Clearer guidance is needed on the implementation of investigator time for academic staff. For instance, to what extent is fEC time concrete and visible at the working academic level? Conversely, to what extent is it lost in the ‘infinitely extensible time budget’ model that one sometimes sees applied? Expectations here may differ between the research councils, university management and university staff.

Is the implementation of fEC by Research Councils efficient and transparent?

The research councils’ administration has worked efficiently, but clearly the introduction of fEC has greatly increased the bureaucracy for both them and the universities, increasing the cost of administration. The implementation of fEC has not included any effective mechanisms to contain university charges, since the loss of research opportunities that might occur as a result of a university overcharging does not have any visible impact on those who set the charges. At present there are large disparities in fEC costs at different universities (by up to £30,000 per annum per researcher for indirect costs) and significant differences in post classification (i.e. between a researcher and a technician). The extent to which this variation is taken into consideration by the research councils is not clear when evaluating value for money aspects of proposals with significant fEC components.
Has the introduction of fEC influenced work funded by, or undertaken for, Government, the EU and Charities? What are the key issues arising from these different funding sources and their funding policies and how does this relate to HEI sustainability?

Obviously, the more generous overheads of research council grants make them more desirable. Contract research is made to look less appealing as, once internal funding models assume fEC, there will be a disincentive to apply for any funding that is not fEC compliant. Charities and other grant giving bodies that do not include fEC are less financially valuable to universities; hence, there is reluctance by some universities to allow staff to apply for such funding. Furthermore, the raising of UK costs relative to some other countries is making it more difficult for the UK to compete for work within some multinational EU projects.

However, no university can afford to give up on low-fEC sponsors in the hope of making up the shortfall from elsewhere. Universities are also apparently willing to offset the prestige of winning awards from the Leverhulme Trust, Wellcome Trust, the European Commission, etc., against the shortfall in indirect costs from these sponsors.

Has the introduction of fEC influenced the pricing strategy of research undertaken for business, and what are the implications for both HEIs and businesses?

Anecdotal evidence points to the fact that the introduction of fEC has made UK academics more expensive for businesses; therefore, they are increasingly looking to place work outside of the UK, which undermines the UK’s competitiveness. This tends to be more of the mainstream work rather than any highly critical research which the (mainly large) companies will keep with the leading academics in the UK. SMEs are increasingly reluctant to place work in universities because the fEC formula makes it too expensive, so the old form of ‘sponsored postdoc’ is disappearing. Therefore, these companies are encouraged to hire people themselves.

The view of the business community is that if universities offer better value for money, they will be used more: this means the total package, including direct/indirect costs and the assured delivery of outputs. The value offered from overseas universities may be higher; with more companies undertaking their business globally, overseas universities are now much more accessible than a few years ago. If the activity in overseas universities is still effectively subsidised by national or regional governments, direct costs will be lower than those in the UK. Moreover, overseas universities are often willing to deliver a better service to companies, given that they do not have the other pressures that drive UK universities, such as the RAE that distort academic outputs towards open literature publication, etc., which can be a disincentive for business.

Even though there is a general reluctance by businesses to fund fEC, resulting in less applied research being undertaken, universities must be flexible if they are not to lose this income stream. In some cases, the price negotiated with external sponsors will be substantially less than the actual cost of delivering the research. An example is PhD studentships; businesses are generally unwilling to pay more than the standard ‘fees plus stipend’, which is approximately half the fEC.

In addition, there has always been a problem in the UK about how to capitalize on academic research by developing applications into a commercial proposition. The
strict application of a fEC model to any form of research once it becomes 'industrial' has widened this gap. This is not fundamentally a problem of fEC, but is a result of the attitude which it has bred in university administration which regards all work not paid for on a fEC basis as making a 'loss'.

Finally, repeated changes, reviews and further changes on the rebound before steady state is reached are probably causing more difficulty for university-business interactions than the introduction of any individual change. Given a little stability, universities and businesses will find ways of working, as efficiently and effectively as possible. Repeated changes cost businesses, in particular, a huge amount of effort tracking and analysing what they mean in practice.
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