

HIGHER EDUCATION FUNDING

NICHOLAS BARR
*London School of Economics*¹

The expansion of higher education throughout the OECD—and beyond—is both necessary and desirable. But it is costly, and faces competing imperatives for public spending. Higher education finance is therefore salient to an extent that is not yet fully appreciated in all countries, and is also immensely sensitive politically. This paper sets out the core lessons for financing higher education deriving from economic theory and puts them alongside lessons from country experience. The UK reforms announced in 2004 are assessed against the backdrop of those two elements. A concluding section briefly maps out unfinished business.

I. INTRODUCTION

Higher education matters. No longer only a consumption good enjoyed by an élite, it is an important element in national economic performance. So it is no accident that the numbers in higher education have increased in all advanced countries. However, a mass, high-quality university system is expensive and competes for public funds with other imperatives.

Though in part about the British reforms announced in 2004, the paper is general in its application. It starts with some background issues. Section II sets out lessons from economic theory, largely rooted in

the economics of information. Section III considers lessons from country experience, which complement and illustrate the theoretical analysis. Section IV assesses the 2004 Higher Education Act in England against the backdrop of the previous two sections, on the assumption that the legislation going through Parliament at the time of writing is not substantially changed. The concluding section considers the unfinished agenda.

Some caveats about what the paper is not about. The emphasis on funding does not imply the crude fallacy, against which Wolf (2002) rightly cautions, that increased spending automatically increases economic growth. The quality of higher education

¹ This paper draws on Iain Crawford's and my 15-year collaboration (see Barr and Crawford, forthcoming), on assistance from Colin Ward and his team at the Student Loans Company on factual matters and administrative feasibility, and on work by the three of us advising the Hungarian government. I am also grateful for helpful comments from Howard Glennerster, Michael Shattock, the editors, and an anonymous referee, and for help on factual matters from officials at the New Zealand Ministry of Education.

and its ability to adapt to changing economic conditions are critically important, and central to later arguments that market forces do a better job than central planning in matching the skills of graduates with their own preferences and the demands of the labour market.

Second, the concentration on the economic importance of higher education does not diminish the pursuit of knowledge for its own sake, nor downplay the centrality of academic freedom, nor deny that for many people getting a degree has important consumption benefits and is not simply an investment in their career. Third, the paper focuses on the finance of teaching, setting to one side the issues raised by research funding (on which see McNay, 1999; Roberts, 2003). Fourth, it is rooted in economic theory, but is not quantitative. Finally, though country experience is discussed, this is not a comparative paper.

(i) Background Issues

Higher education matters, first, because of the nature of technological change. Though it can reduce the need for skills (e.g. computers are increasingly user-friendly), it mostly increases the demand for skilled workers. Amplifying the trend, skills date more quickly and need to be replenished. The ‘information age’ can be taken to mean a need for education and training that is larger than previously, more diverse, and repeated, in the sense that periodic retraining is required.

Demographic change offers a second reason for expansion. The rising proportion of older people foreshadows increased spending on pensions, medical care, and long-term care. Part of the solution is to increase output sufficiently to meet the combined expectations of workers and pensioners. If workers are becoming relatively more scarce, the efficient response is to increase labour productivity. Demographic change is thus an argument for additional spending on investment in both technology and human capital.

Two debates shed light on implicit assumptions which often underpin opposing arguments. The first is about the nature of higher education, which can be characterized in terms of two stylized models.

- In the ‘Anglo-American’ model, policy sees higher education as heterogeneous, regards this as proper, and encourages diversity, varied forms of provision, and quality comparisons between them.
- In the ‘Scandinavian model’, policy is based on the assumption that institutions are homogeneous, and therefore treats them equally and regards all programmes as equal.

This paper argues that the second model, whatever its merits, is incompatible with mass higher education, and that funding should therefore support a diverse, decentralized system. That line of argument is supported by the theoretical discussion in section II.

The second debate is about ability to pay. There is agreement that this should be a central element in policy design, but disagreement about how it should be measured. Should it be based on current income—i.e. on where people start? The strategy to which this leads is support for people whose family is poor, even if recipients end up becoming rich. Or should ability to pay be based on future income—that is, on where people end up? This approach leads to finance based on income-contingent loans or graduate taxes, with more generous support, *ex post*, where someone derives little financial benefit from his or her degree.

Section II argues that the second approach is correct for people who are well informed. Thus support for the generality of students should derive from a mix of tax funding and income-contingent loans (i.e. loans with repayments calculated as x per cent of the borrower’s subsequent earnings). However, there is a socioeconomic gradient in the extent to which people are well informed, so that children from disadvantaged backgrounds may not even think of going to university. For such people, the first approach may be required.

Policy objectives

Higher education in Britain faces three widely agreed problems.

- Universities have too few resources: real funding per student almost halved in the 20

years to 2000 (Greenaway and Haynes, 2002, Figure 1).

- Student support is inadequate (Callender and Wilkinson, 2003).
- Access is unequal. In 2002, 81 per cent of children from professional backgrounds went to university; the comparable figure for children from manual backgrounds was 15 per cent (UK Education and Skills Select Committee, 2002, p. 19).

There is also widespread agreement about two core objectives: strengthening quality and diversity, both for their own sake and for reasons of national economic performance; and improving access, again for both efficiency and equity reasons. At least in the UK, therefore, the argument is less about what policy is trying to do than about the best way of doing so.

(ii) Blind Alleys

Before proceeding, it is helpful to clear the undergrowth by considering a series of often-asserted propositions.

Higher education is a basic right and should therefore be free.

The assertion that access to higher education is a right is a value judgement that commands widespread agreement. But it does not follow that higher education must be free. We all agree that food is a basic right, yet competitive supply at market prices is uncontroversial. The equity objective is not free higher education, but a system in which no bright person is denied a place because he or she comes from a disadvantaged background.

In arguing for free higher education, however, people are reaching towards an important point: there is a strong case for making higher education *free at the point of use*. The arrangements set out below are designed to make that possible.

It is immoral to charge for education.

The same arguments apply. It is immoral (in my view) if people with the aptitude and desire are denied access to higher education because they cannot afford it; it is also immoral if underfunded

earlier education means that they never even aspire to university. Similarly, it is immoral if someone is malnourished. But that is not an argument for making food free for everyone, including the rich; rather, it argues for income transfers so that everyone can afford a healthy diet.

Making something free for everyone can be justified in efficiency terms, where market failures make consumer choice problematic, and in equity terms, where the commodity is consumed by everyone—for example, school education and health care. As discussed below, higher education conforms with neither criterion. As a result, taxpayer subsidies are regressive and, as already noted, free higher education has done badly on access.

Elitism has no place in higher education.

Argument often blurs two separate elements. Many people, including me, agree with the value judgement that *social* elitism is wrong—social background *per se* should not influence access to the best universities. In contrast, *intellectual* elitism is both proper and desirable. The best musicians and athletes are chosen precisely because of their abilities, irrespective of whether their background is poor (Pele) or middle class (Tiger Woods). There is nothing inequitable about intellectually elite universities. The equity objective should be a system in which the ability of the brightest students to study at the most intellectually demanding universities is unrelated to their socioeconomic background.

Graduates pay for their higher education through income tax.

It is sometimes argued that higher education should be wholly tax funded because graduates earn more than non-graduates and therefore pay for their higher education through subsequent higher income tax payments. There are three counter-arguments.

- Income tax raises only one-quarter of government revenue and is paid by many more non-graduates than graduates: 82 per cent of working-age adults in the UK do not have a degree (OECD, 2002, Table A3.1a).
- Suppose a person with a degree pays an additional £100,000 in tax, of which £20,000 is deemed to pay for his higher education. By implication, he therefore pays £80,000 towards

the National Health Service, schools, etc.—less than the £100,000 contributed to those services by someone with identical lifetime income who has not been to university. This is horizontally inequitable.

- If the argument is that the taxpayer gets a ‘good deal’ by paying for people’s investment in higher education, the same logic says that the US taxpayer should pay all Microsoft’s development costs.

A further argument against sole reliance on taxpayer funding is a practical one. There are limits to taxation, not least because of political pressures, which collide with other priorities for public spending. Thus it is no accident that real funding per student declined sharply over the years as UK student numbers increased.

II. LESSONS FROM ECONOMIC THEORY

Economic theory offers three strong lessons for financing higher education (for fuller discussion, see Barr, 2001a, chs 10–13): the days of central planning have gone; graduates should share in the costs of higher education; and well-designed student loans have core characteristics.

(i) Lesson 1: The Days of Central Planning Have Gone

Present arrangements

Central planning of UK universities has increased considerably since the mid-1970s. The problem has not been academic freedom, but reduced economic freedom through price control, quantity control, and heavily bureaucratic quality control.

Price control. UK universities are free to set fees for non-EU undergraduates and for all postgraduates. For UK and other EU undergraduates, fees were forbidden until 1998; since then, universities have been required to charge a flat fee (£1,150 in 2004/5), i.e.

the same for all subjects at all universities. It is illegal to charge more and illegal to charge less.

Quantity control. Universities in England and Wales contract with the Higher Education Funding Council for England to teach a specified number of students. Though those controls have varied, universities have been penalized for recruiting fewer students than their quota and for recruiting too many.²

Monitoring quality. Universities are rightly held accountable for their receipt of public funds and rightly subject to quality control in the interests of consumer protection. However, the specific methods, notably the regime to assure teaching quality in the late 1990s, have been roundly criticized.³

The following analysis argues that central planning is no longer feasible and, separately, that it is not desirable.

Central planning of higher education: no longer feasible

The literature on the communist system (see Kornai, 1992, ch. 9) distinguishes extensive and intensive growth. The former refers to an era when surplus inputs, notably agricultural labour, could be brought into the industrial sector, characterized by rapid growth in the Soviet Union in the 1930s. Intensive growth, when surplus inputs had been used up, depends on technological advance and more efficient use of inputs. Central planning was not able to cope with the more complex problems that arose when inputs became scarce and with more advanced technology, as manifested by declining, and in some countries negative, growth rates in the 1980s and 1990s.

The analogy with higher education is instructive. Forty years ago, with a small university system offering degrees in a limited range of subjects, it was possible, as a polite myth, to assume that all universities were equally good and hence fund them broadly equally. Today there are more universities, more students, and much greater diversity of subjects. As a result, the characteristics and the costs

² ‘Prince William’s university has been fined £175,000 for attracting too many students. Applications . . . leapt by 45 per cent after it was revealed that the prince planned to start his studies there last autumn. However, higher education funding rules penalize universities that exceed their recruitment targets.’ (*Independent* (London), 29 March 2002)

³ A prized possession is the photograph I took of the 14 filing cabinets of material for the 3½ day visit to assess LSE’s teaching of politics in October 2000.

of different degrees at different institutions vary widely, so that institutions need to be funded differentially. In principle, this could be done by an all-knowing central planner. In practice, the problem is too complex. A mass system in an increasingly complex world needs a funding mechanism which allows institutions to charge differential prices to different costs and missions. Central planning is no longer feasible.

Central planning of higher education: undesirable
 Prices give signals to buyers and sellers. In contrast with communist central planning, the OECD countries all have mixed economies in which most resources are allocated by the market.

However, markets can fail—information failures being key—giving a robust case for public provision of health care and school education (see Barr, 2004, or, more briefly, Barr, 1998). Consider the following stylized facts about health care: consumers are imperfectly informed because much health care is highly technical; treatment is frequently not by choice but because of an external event, such as breaking a leg; and there is often only limited choice about the type of treatment. Much of the efficiency case for the National Health Service is based on these facts. With food, the story is different. We are generally well informed about what we like and about its costs, and there is considerable choice over how we meet those needs. These *technical* differences start to explain why we ensure access to health care by giving it to people (largely) free; with food, in contrast, we ensure that a person has access to nutrition by paying her a pension and letting her buy her own food at market prices.

In the case of school education, small children are not well informed; attendance is compulsory, so that education is consumed by all young people; for younger children, the range of choice about content is constrained; and a case can be made in terms of social cohesion for providing all children with a similar educational experience. These arguments and others provide a compelling case for publicly funded and publicly organized schools.

Higher education contrasts strongly. Students are generally well informed and can and should be made

better informed. The process is assisted because going to university can be anticipated (unlike finding a doctor to deal with injury after a road accident), so that students have time to acquire the information they need, and time to seek advice. Second, people can choose whether or not to go to university—it is precisely that fact that has made taxpayer-funding of higher education so regressive. Finally, the choice of which subject to study and at which university is, quite properly, large and growing.

It can be argued that students are well informed, or potentially well informed, and hence better able than planners to make choices which conform with their own interests and those of the economy. To maintain otherwise is to argue that even with extensive regulation, students (the best and the brightest, by assumption) are unable to choose sensibly. The argument of well-informed choice is central, and underpins the efficiency case for variable fees in section II(v). It implies that price signals will be useful and hence that competition will improve welfare by making universities more responsive to the preferences of students and the needs of employers.

Though that proposition is robust, two caveats are discussed below. First, students from poorer backgrounds might not be fully informed, with implications for access generally and debt aversion in particular. Second, though the approach gives a greater role to students, employers, and universities in making choices about subject, content, and mix, it does not imply unrestricted markets. Rather, the analysis points to regulated markets.

(ii) Lesson 2: Graduates Should Share in the Costs of Higher Education

There are strong qualitative arguments that higher education creates benefits to society above those to the individual—benefits in terms of growth, social cohesion and the transmission of values (Bynner and Edgerton, 2001; Bynner *et al.*, 2003), and the development of knowledge for its own sake. Those arguments suggest that taxpayer subsidies to higher education should be a permanent part of the landscape. Quantifying those benefits, however, entails a series of difficulties, not least because it is hard to

separate the effects of education from other determinants of a person's productivity.⁴ Thus the division of costs between the taxpayer and the graduate—like the definition of poverty—has no definitive answer.

In contrast, there is much firmer evidence of the substantial private returns from a degree (e.g. Blundell *et al.*, 2000). Such estimates are based on data for an earlier, smaller cohort of graduates, suggesting that increased numbers may drive down those returns. But Blundell *et al.* rightly point out that the demand for graduates is also increasing. To the extent that demand and supply increase broadly in step, there is no reason why private returns should fall.

In sum, there is limited quantitative evidence of external benefits and robust evidence of private benefits. The latter suggests that it is efficient that graduates bear some of the costs. In that case, however, the design of student loans becomes critical.

(iii) Lesson 3: Well-designed Student Loans have Core Characteristics

Discussion thus far argues for a graduate contribution for the following reasons.

- It is efficient in microeconomic terms because of the private benefits of a degree and, given earlier arguments, because price signals in higher education are useful.
- It is necessary for fiscal reasons, given the high cost of mass higher education and competing fiscal pressures, such as population ageing and combating social exclusion.
- It improves equity by reducing the regressivity of a system in which the degrees of mainly better-off people are paid for by people who on average are less well off.

This section argues that graduate contributions should be based on student loans which have income-contingent repayments, charge a rational interest rate, and are large enough to cover tuition charges and realistic living costs.

Income-contingent repayments

I have argued for many years (Barr, 1989), as have others before me (Friedman, 1955; Peacock and Wiseman, 1962; Prest, 1962; Glennerster *et al.*, 1968) that student loans should have income-contingent repayments, i.e. repayments calculated as x per cent of the borrower's subsequent earnings, collected alongside income tax or National Insurance contributions, until the borrower has repaid. There are both efficiency and equity arguments for that position.

Problems with conventional loans. It is useful to use a conventional loan—for example, to buy a house—as a benchmark. The loan will have a fixed duration (e.g. 25 years) and a positive interest rate. Monthly repayments are entirely determined by three variables: the size of the loan, its duration, and the interest rate. Apart from adjustments reflecting changes in the interest rate, the monthly repayment is fixed.

Buying a house is a relatively low-risk activity.

- (a) The buyer generally knows what he is buying, having lived in a house all his life.
- (b) The house is unlikely to fall down.
- (c) The real value of the house will generally increase.
- (d) If income falls, making repayments problematic, he has the option to sell the house.
- (e) Because the house acts as security for the loan, he can get a loan on good terms.

For these reasons, the market provides home loans. The contrast with lending to finance investment in human capital—for example, a university degree—is sharp.

⁴ The screening hypothesis argues, first, that education beyond a basic level does not increase individual productivity and, second, that firms seek high-ability workers but are unable, prior to employing them, to distinguish them from those with low ability. Individuals, therefore, have an incentive to make themselves distinctive by some sort of signal. According to the screening hypothesis, post-primary education fills exactly that function: it gives a signal to prospective employers. Just as an individual's good health may be due more to a strong constitution than to medical care, so, according to this view, is productivity the result of natural ability rather than post-primary education.

Demand-side problems. Earlier discussion concluded that university students are well informed (element (a)). However, some people, particularly from poor backgrounds, may be poorly informed, an issue taken up in section II(v). In addition, all borrowers face risk and uncertainty because (b), (c), and (d), though true for housing, are less true for investment in skills. A qualification can ‘fall down’, because a borrower may fail his exams. He still has to make loan repayments, but without the qualification that would have led to the increased earnings from which to make those repayments. Separately, even well-informed students face risk: though the average private return to investment in human capital is positive, there is considerable variation about that average. Finally (element (d)), someone who has borrowed to acquire a qualification, but then has low earnings and high repayments does not have the option to sell the qualification, further increasing exposure to risk.

For all these reasons, borrowing to finance investment in human capital exposes the borrower to more risk and uncertainty than borrowing to buy a house. The problem arises for all borrowers, and most acutely for those from poorer backgrounds. As a result, borrowing to finance investment in human capital will be inefficiently low.

Supply-side problems. Lenders also face risk and uncertainty. If I borrow to buy a house, the house acts as security. If I am unable to repay, the lender can repossess the house, sell it, and take what he is owed. Deliberate default is not a problem: though I could disappear, I could not take the house with me. For both reasons, loans are available on good terms. An analogous arrangement with human capital would allow the lender, if I default, to repossess my brain, sell it, and take what he is owed. That being ruled out, lenders have no security: they face uncertainty about the riskiness of an applicant—whether the person will acquire the qualification and whether their subsequent earnings will allow him or her to repay—and therefore charge a risk premium.⁵ A risk premium assessed by a well-informed lender is efficient (analogous to higher automobile insurance premiums for bad drivers). But since lenders are not

well informed about the riskiness of an applicant, they face incentives to cherry pick, i.e. to find ways of lending only to the best risks, analogous to private medical insurance. An obvious way to do so is to lend only to students who can provide security, e.g. a home-owning parent. The resulting lending will be inefficiently low.

Thus conventional loans lead to inefficiently low borrowing and lending. They are also inequitable. The various efficiency problems impact most on people from poor backgrounds, women, and ethnic minorities, who may be less well informed about the benefits of a qualification and therefore less prepared to risk a loan. In addition, these groups are likely to be on the wrong end of cherry picking.

The case for income-contingent loans. Income-contingent repayments have a profound effect in ways that are not widely understood (Barr, 1991, 2001a, ch. 12). Low earners make low or no repayments. People with low lifetime earnings do not fully repay. A larger loan (or a higher interest rate) has no effect on monthly repayments, which depend only on the person’s income; instead, a person with a larger loan will repay for longer.

In efficiency terms, income-contingent loans are designed explicitly to protect borrowers from excessive risk; in equity terms, they assist access because they have built-in insurance against inability to repay. Following through the consumption-smoothing analogy, we pay National Insurance now to finance our pension later; income-contingent graduate contributions are the mirror-image.⁶

A rational interest rate

Well-designed loans have income-contingent repayments. They should also charge a rational interest rate. However, many schemes incorporate an interest subsidy whose aim is to promote access by preventing excessive debt. The aim is commendable, but blanket interest subsidies will not achieve it. Like many price distortions, they cause inefficiency and inequity. Current UK arrangements, like those in some other countries (e.g. Australia), charge a zero real interest rate.

⁵ The problem is compounded by adverse selection; see Barr (2001a, pp. 177–8).

⁶ It was for this reason that my first specific UK proposal (Barr, 1989) argued that income-contingent repayments should be an add-on to National Insurance contributions, an idea originally suggested by Mervyn King.

The first resulting problem is cost. In the UK, about one-third of all money lent to students is not repaid because of the subsidy, partly because loans extend over a long duration, and partly because of arbitrage (i.e. students who do not need the loan nevertheless borrowing as much as they are allowed and putting the money into a savings account to make a profit). Second, the subsidy impedes quality because student support, being politically salient, crowds out the funding of universities. Third, it impedes access: loans are expensive, therefore rationed and therefore too small.

Finally, interest subsidies are deeply regressive. They do not help students (graduates make repayments, not students). They help low-earning graduates only slightly, since unpaid debt is eventually forgiven. They do not help high-earning graduates early in their careers: with income-contingent loans, monthly repayments depend only on earnings; interest rates only affect the duration of the loan. Thus the major beneficiaries are successful professionals in mid-career, whose loan repayments are switched off earlier because of the subsidy (for fuller discussion, see Barr, 2003, section 4.3).

The discussion thus far leads to the question of what interest rate is efficient. The simplest arrangement would charge the government's cost of borrowing. If all students repaid in full, this would make it possible for the loan to stand on its own feet. In practice, however, there will be losses because of low lifetime earnings, early death, etc.—such non-repayment being a deliberate design feature of income-contingent loans. The taxpayer could cover those losses, as currently in the UK. Alternatively, the cohort of borrowers could cover at least some of the loss through what is, in effect, a form of social insurance. In New Zealand in the 1990s, for example, the interest rate on student loans was set about 1 per cent above the government's cost of borrowing, thus, according to official estimates, covering about half the loss on the portfolio, the taxpayer covering the remaining loss.⁷ There is also a case,

discussed in section II(v), for interest subsidies targeted at low earners.

Large enough to cover tuition fees and realistic living costs

Loans are an instrument for consumption smoothing. Where there are no distortions such as interest subsidies, the amount people choose to borrow should not be strongly constrained. An implication is that loans should be large enough to cover tuition fees and realistic living costs, resolving such problems as student poverty, excessive reliance on expensive credit-card debt, long hours spent earning money, and/or forced reliance on family support. A ceiling on borrowing each year and on the number of years for which a student may borrow would offer protection against improvidence.

Entitlement to a loan that covers all costs is not an argument against earning opportunities or family support, but for allowing individuals to make choices in the face of an efficient budget constraint (for fuller discussion, see Barr, 1993). A rational interest rate—another price signal—is thus central to ensuring adequate student support.

(iv) The Balance between Market and State

As discussed in section II(i), the case against central planning does not mean, and should not mean, that government is marginalized.

Part of the government's role is to empower demand:

- as partial funder of higher education, not least because of its external benefits;
- as organizer of student loans, to provide a mechanism for individual consumption smoothing in the face of the capital-market imperfections discussed earlier;⁸
- as promoter of access. Options for consumption smoothing may be sufficient for people

⁷ In New Zealand the Student Loan Scheme Act 1992 requires that the Student Loan Scheme interest rates be set annually and that, in determining the rates, the Governor-General has regard to, but shall not be bound by: 'the movements, as determined by the Government Statistician, that have occurred in the Consumers Price Index in the year to the 30th day of September immediately preceding the making of the regulations' and 'the costs to the Crown of the Student Loan Scheme, including the cost of Government borrowing in the year to the 30th day of September immediately preceding the making of the regulations'. In the later 1990s, the interest rate was based on the 10-year bond rate.

⁸ See Palacios (2004) for a proposed arrangement for private income-contingent loans.

who are well-informed, but further action, including grants and other activities discussed in section II(v), is necessary for those who are not.

On the supply side, government has a role:

- as regulator, to ensure that satisfactory quality assurance is in place. Consumers may be well-informed, but that does not mean that they are perfectly informed, justifying quality assurance for reasons of consumer protection. But this task does not necessarily mean a state-run bureaucracy (Brown, 2000). A minimalist approach would require universities to publish timely, accurate performance data on their web sites—for example, the destinations of its recent graduates—giving prospective students the information they need to vote with their feet;⁹
- as setter of incentives. In addition to targeting resources at particular individuals for reasons of access, government properly sets incentives in other ways. It can target resources at particular subjects. Even if we agree that students and employers are well informed, that does not deny government the right to have views about subject mix. It can be argued that subjects such as accounting, law, and economics can look after themselves. But governments might wish to target additional resources at subjects such as classics, music, or drama, or (a perennial worry of governments) at engineering. Government might also wish to target resources at particular institutions for reasons of regional balance.

One further set of incentives—the degree of competition—requires separate discussion. At one extreme, the government could intervene only minimally on the supply side. Universities would compete for students; those attracting large numbers flourish and expand, those failing to do so go to the wall. Universities, however, are not the conventional firms of economic theory: they do not make a homogeneous product; they do not maximize profit; and the ‘product’ is not well defined (see Winston, 1999). Thus red-in-tooth-and-claw competition is

not the best environment for higher education. But this is not the only approach. The more government ties funding to specific subjects or institutions, the less powerful is competition—in the extreme, mimicking a system of central planning. Competition is more usefully thought of as a continuum, from completely unconstrained (law of the jungle) to 100 per cent constrained (pure central planning), or anywhere in between.

The approach thus allows intervention to foster both distributional and educational objectives. The system can be as redistributive as desired; and the degree of competition is a policy variable, with different answers possible for different subjects. The resulting system is efficient, because outcomes are determined not by a single, dominant—and often badly informed and ineffective—arm of government, but by the interacting decisions of students, universities, and employers, subject to transparent influence by government. Particularly with complex mass systems of higher education, this approach is more likely than central planning to achieve individual and national objectives.

(v) A General Funding Strategy

The preceding analysis points to a strategy with three elements: variable fees (i.e. prices) assist the efficient allocation of resources within higher education; well-designed loans provide consumption smoothing, thereby assisting efficient allocation over a person’s life cycle; and measures to promote access improve equity.

Leg 1. Variable fees

Universities should be free to vary their tuition fees, though, as discussed later, there is a case for a ceiling. Students should be helped to pay through Legs 2 and 3, discussed below. Charges should be deferred: thus graduates make repayments, not students.

Variable fees—not least because they are so contentious in Europe (though taken for granted in the USA)—require careful justification.

The efficiency case. A major conclusion of the theoretical argument in section II(i) is that price

⁹ Students themselves are an important source of information. Student satisfaction is not all that matters, but that is not a reason for ignoring it. The 2004 UK legislation includes help for student organizations in gathering relevant information.

signals are useful in higher education, improving efficiency and, through competition, making the system more responsive to student and employer preferences.

Resources are misallocated if students face no price signals between subjects. Employers want people with quantitative skills and computer literacy. Both mathematics and engineering graduates have these skills, but one degree is considerably more expensive than the other. In the absence of price signals, students are indifferent; the taxpayer is not.

The same is true of the choice of university: a well-taught cheaper course at a local university might well suit a student better than a more expensive course; there are gains for the student, the taxpayer, and (through increased competition) the higher education system if the student can give the right signal in responding to the price mechanism.

As well as distorting demand, fixed prices also have adverse effects on the supply side. Price ceilings erode incentives to improve quality (whose costs cannot be covered by price increases); price floors erode incentives to increased efficiency (whose benefits cannot be appropriated through lower prices). Flat fees, including zero fees, are both a floor and a ceiling, and thus particularly inimical to efficiency gains.

These arguments are rooted in the economics of information, not in ideology. The argument that price should have no effect on a student's choice of subject or university is wrong because it uses a price subsidy to pursue equity objectives. This is inefficient and, as argued shortly, also inequitable.

The previous paragraphs relate to microeconomic efficiency. A second efficiency aspect is more macroeconomic, in that variable fees make funding open ended. With flat fees, the Treasury controls the funding envelope. If tax funding falls (for example, because of the competing claims of nursery education and health care), so does university income—the example of Australia, discussed later, being a case in point. With variable fees, in contrast, funding is open ended. Universities have at least some autonomy over their income stream.

The equity case. Perhaps counter-intuitively, variable fees are not only more efficient than flat fees, but also fairer, notably by facilitating redistribution from better-off to worse-off. One of my earliest newspaper articles criticized the 1974 Labour government for restoring universal milk subsidies. The aim was to help the poor, but the subsidy was worth more to the middle class because they drank more milk. Much more progressive to have charged an unsubsidized price and used the resulting savings to increase pensions, child benefit, and poverty relief.

Variable fees replace the former strategy, price subsidies for milk, by the latter, income transfers targeted at particular people. The strategy has two elements.

- Variable fees introduce higher charges for those who can afford them (note that with income-contingent loans, 'can afford' refers to a person's earnings as a graduate, not to family circumstances while a student).
- Redistributive policies help poor people to pay those charges.

To an economist, these elements are staggeringly familiar: the first, a price increase, represents a movement *along* the demand curve. Taken alone, this element would harm access. However (a) the fees are deferred (Leg 2, below), and (b), there are targeted transfers to groups for whom access is fragile (Leg 3). This moves their demand curve *outward*.

Thus the strategy is deeply progressive. It shifts resources from today's best-off (who lose some of their fee subsidies) to today's worst-off (who receive a grant) and tomorrow's worst-off (who, with income-contingent repayments, do not repay their loan in full).

As well as redistributing between people, variable fees facilitate redistribution between institutions. With flat fees or tax funding, the volume of resources going to the sector is fixed by government, so that prestigious universities and local institutions compete for the same pot of money in a zero sum game. Variable fees start to address this gridlock.

Third, variable fees are directly fairer. Flat fees force someone going to a small local university to pay the same fee as someone going to an internationally renowned one. This is inequitable. With the milk subsidy, at least everyone got broadly the same quality of milk. In countries with a diverse higher education system, charging everyone the same fee is more like taxing beer to subsidize champagne.

A fourth part of the equity puzzle arises if a country controls fees for home students but allows greater freedom for overseas students. In the UK context, this causes a problem that was both predictable and predicted:

A further impediment to access is the incentive to discriminate against British students. A flat fee will continue the erosion of quality at the best universities, which face the biggest shortfalls in funding. British students could suffer in one of two ways. The quality of the best institutions might fall; though British students could still get places, the quality of the degree would be less. Alternatively, the best institutions will largely stop teaching British undergraduates (for whom they receive on average £4,000 per year) and will use the fees from foreign undergraduates (around £8,000 per year) to preserve their excellence. The government is considering trying to prevent British universities from charging additional fees to UK/EU students. . . . [This] ends up harming the very people it is aimed at helping. (Barr and Crawford, 1998, p. 80)

Variable fees, by reducing or eliminating the price differential, avoid such discrimination.

The resulting landscape. Each university sets a fee for each of its degrees, though, for the reasons set out in section III(i), subject to a maximum. Fees would be influenced by the level of demand for each degree and by its cost. Demand would be influenced by educational factors (the university's reputation for teaching, completion rates, subsequent destinations, and employment rates) and by broader aspects (ancient buildings, access to the city centre).

Under such a system, economics at Oxford might charge a higher fee than classics, with potential adverse effects on staff–student ratios in classics and on the ability of students from poor backgrounds to afford economics. These are valid worries in a pure market system. That, however, is not the model to which economic theory points. The major continuing role of government was discussed earlier, notably in promoting access and through its ability to

target resources at particular subjects, for example classics. The result is a market that can make beneficial use of price signals, but a regulated market. In an English context, universities will have more freedom, but constrained by the Higher Education Funding Council, the Access Regulator, and the fees cap.

Why not fees decided by government? As argued in section II(i), with a mass and diverse higher education system, the problem is too complex for a central planner to decide the different efficient price for each degree at each university. Why not flat fees that rise over time? As argued above, this is equivalent to a simultaneous price floor and price ceiling.

Variable fees alone, however, would impede access—hence the other two legs of the strategy.

Leg 2. A well-designed loan scheme

Loans should have income-contingent repayments and should charge an interest rate broadly equal to the government's cost of borrowing. The full loan should be large enough to cover tuition fees and realistic living costs, and all students should be eligible for a full loan, i.e. entitlement should not be income tested. As a result, higher education is free at the point of use, unless students choose to pay in part through earning activities or family support. With a rational interest rate, there is no major distortion to such choices.

Some amplification is needed about interest rates. The default rate should be related to the government's cost of borrowing. However, if someone has extended spells out of the labour force, his or her loan can spiral upwards. In terms of strict rationality that should not matter, since repayments will never exceed x per cent of monthly earnings; and if the person never fully repays that is not a problem. But in practice, large nominal debts worry people. Thus, though there is a strong case against blanket interest subsidies, there are good arguments for targeted subsidies, discussed below, for people with low earnings or out of the labour force.

Leg 3. Action to promote access

At this stage we return to the debate about whether ability to pay should be assessed relative to a student's current income, i.e. where he starts from, or his future income, i.e. where he ends up? The

latter is philosophically appealing, and it is therefore sometimes argued (*a*) that income-contingent loans have built-in insurance against inability to repay and, to that extent, are a no-lose bet, and therefore (*b*) that provided loans are large enough to make higher education free at the point of use, such loans are all that is needed. Leg 2 is sufficient.

If all students were well informed, that argument would be strong, and consumption smoothing through income-contingent loans would be all that is necessary. But not all potential students are well informed. In particular, if they underestimate the benefits of higher education and/or overestimate the costs, it might be rational for them, *given what they know*, to be unwilling to take out a loan. This is the origin of so-called debt aversion.

Addressing the problem requires measures to tackle exclusion which, it can be argued, has three roots: financial poverty, information poverty, and poor school education.

Measures to address financial poverty should be wide-ranging.

- An income-tested stipend for children above the minimum school leaving age would encourage them to complete school.
- An income-tested grant should cover some or all costs at university. There are advantages in offering full scholarships to first-year students from poor backgrounds, who may not be well informed about whether they are well suited to university. By the end of their first year they are no longer badly informed and, if doing well, are more prepared to finance the rest of their degree, at least in part, through a loan.
- Both policies could be supported by financial incentives to universities to widen participation, and by extra resources to provide additional intellectual support at university for students from disadvantaged backgrounds.

A second set of money measures supports access by offering assistance for people with low incomes after graduation.

- Targeted interest subsidies could freeze the real value of debt of people with low earnings, including people who are unemployed.
- People with low lifetime earnings could be protected by writing off any loan not repaid after (say) 25 years.
- The loans of workers in the public sector could be progressively written off. In the UK, 10 per cent of the loan of new teachers in shortage subjects is written off for each year in the state system. That scheme could be extended to other groups.
- People caring for young children or elderly dependants could be granted loan remission—for example, 10 per cent of outstanding debt for each year caring for a pre-school child and 5 per cent per year if the child is of school age.

Information poverty, the second strategic impediment to access, is inadequately emphasized. Action to inform school children and raise their aspirations is therefore critical. The saddest impediment to access is someone who has never even thought of going to university.

Finally, problems of university access cannot be solved entirely within the higher education sector. More resources are needed earlier in the system, not least because of the growing evidence (Feinstein, 2003) that the roots of exclusion lie in early childhood.

III. LESSONS FROM COUNTRY EXPERIENCE

Country experience supports the strategy just discussed.¹⁰

(i) Financing Universities: Lessons about Fees

Three lessons should be pondered: fees relax the supply-side constraint; big-bang liberalization is politically destabilizing; but no liberalization is also a mistake.

Fees relax the supply-side constraint

The funding of higher education faces a paradox. Large taxpayer subsidies can create supply-side

¹⁰ For a survey of higher-education finance in different countries, see UK Department for Education and Skills (2003).

constraints because of the desire to contain public spending. Where qualified students have no automatic entitlement to a place, the constraint takes the form of a view (typically by the Treasury) about student numbers. The result can be a high-quality system, but one which turns away qualified applicants. In countries where students have a right to a place, cost containment impacts mainly on quality. In contrast, in countries which offer less public funding per student (e.g. the USA), there are no externally imposed supply-side constraints. Unless limited taxpayer funding is sufficiently redistributive, however, students from lower-income backgrounds will be deterred from applying. Thus high subsidies can harm access on the supply side, but their absence can harm it on the demand side. This is the dilemma which Legs 2 and 3 of the strategy are designed to alleviate.

Table 1 shows public and private spending on higher education in OECD countries, and also participation rates. Given the differences in country systems and in definitions, comparisons should not be pushed too far. However, in a range of countries (Australia, New Zealand, Korea, and (from other data sources) Canada and the USA), high private spending goes along with high participation rates. A few countries combine high participation with little private spending, notably Finland and Sweden, but only because those are the two countries with the highest public spending on higher education—levels that might be unsustainable given other budgetary demands and international competitive pressures.

What matters is not only the total amount of private spending, but also how it is determined. With flat fees, government controls total funding. If fees go up and public spending on higher education declines, all that happens is a change in balance between public and private funding. In 1989, Australia introduced centrally-set tuition fees to address a funding crisis. Over the years, fee income increased but tax funding fell back. By 2000, the system was back in crisis, leading to reform, announced in 2003, partially liberalizing fees.

Big-bang liberalization can be politically destabilizing

In 1992, New Zealand introduced twin reforms: fees set by universities, with no constraint on fee

levels; and student loans which (a) had income-contingent repayments, (b) charged a positive real interest rate related to the government's cost of borrowing, and (c) covered all fees and realistic living costs.

On the face of it, these arrangements were close to the strategy outlined above, but mistakes were made. First, reform was to some extent big-bang. Student loans were new, and fees, though not new, were fully liberalized. Second, though the system included targeted interest subsidies for low earners, more could have been done. In addition, the third leg of the strategy—active measures to promote access—was not strongly emphasized. Fourth, and equally important, the politics were not handled well: the government treated reform as an event not a process and, having implemented the reforms, stopped campaigning for them; in particular, the government did not do enough to explain to students and parents the considerable advantages of income-contingent repayments. As a result, when nominal student debt rose over the years, worried middle-class parents created political pressures. The scheme was diluted in 2000 (for assessments, see Larocque, 2003; McLaughlin, 2003).

Without liberalization quality and access suffer

The opposite policy direction—no liberalization—is equally a mistake. 'Free' higher education or low fixed fees create two problems. Quality suffers because the education budget has to compete with other budgetary imperatives; and, within the education budget, universities compete with nursery education, school education, and vocational training. As a result, real funding per student declines.

Access also suffers. If places are scarce, it will disproportionately be middle-class students who get them; and if places are not scarce, the need to finance a mass system typically means that resources for the pro-access strategy are limited.

(ii) Student Support: Lessons about Loans

This section focuses on four lessons: income-contingent loans do not harm access; interest subsidies are expensive; positive real interest rates are politically feasible; and the design of the student loan contract matters.

Table 1
Spending on Tertiary Education and Participation Rates, OECD

	Spending as % of GDP, 2000			Net entry rate 2001 ^a
	Public	Private	Total	
Australia	0.8	0.7	1.6	65
Austria	1.2	0.0	1.2	34
Belgium	1.2	0.1	1.3	32
Canada	1.6	1.0	2.6	n.a.
Czech Republic	0.8	0.1	0.9	30
Denmark	1.5	0.0	1.6	44
Finland	1.7	0.0	1.7	72
France	1.0	0.1	1.1	37
Germany	1.0	0.1	1.0	32
Greece	0.9	negligible	0.9	n.a.
Hungary	0.9	0.3	1.1	56
Iceland	0.8	0.0	0.9	61
Ireland	1.2	0.3	1.5	38
Italy	0.7	0.1	0.9	44
Japan	0.5	0.6	1.1	41
Korea	0.6	1.9	2.6	49
Mexico	0.8	0.2	1.1	25
Netherlands	1.0	0.2	1.2	54
New Zealand	0.9	n.a.	0.9	76
Norway	1.2	negligible	1.3	62
Poland	0.8	n.a.	0.8	67
Portugal	1.0	0.1	1.1	n.a.
Slovak Republic	0.7	0.1	0.8	40
Spain	0.9	0.3	1.2	48
Sweden	1.5	0.2	1.7	69
Switzerland	1.2	n.a.	1.2	33
Turkey	1.0	negligible	1.0	20
United Kingdom	0.7	0.3	1.0	45
United States	0.9	1.8	2.7	42
OECD average	0.9	0.9	1.7	47

Notes:^a The net entry rate is based on the probability of a 17-year-old entering higher education for the first time by the age of 30. n.a. = not available. Numbers do not always add up, due to rounding.

Source: OECD (2003).

Income-contingent loans do not harm access
 Australia introduced a system of income-contingent loans in 1989 to cover a newly introduced tuition charge, and thus offers the longest historical record. Chapman (1997; see also Chapman and Ryan, 2003) notes the increase in overall participation since 1989 and finds, superimposed on that trend, that women's participation grew more strongly than men's, and that the system did not discourage participation by

people in the lowest socioeconomic groups. Similarly, though participation by Maoris and Pacific Islanders needs continuing work (McLaughlin, 2003, p. 37), participation in New Zealand since the introduction of fees has increased for all groups.

There are two sets of reasons why we should expect these results. First, the income-contingent mechanism is designed explicitly to reduce the risks

borrowers face. Second, fees supported by loans free resources to promote access.

A recent study emanating from Statistics Canada offers empirical support for the overall strategy in section II(v). Canada liberalized fees (Leg 1) in the early 1990s with no changes to Legs 2 and 3. Predictably, access suffered. In the mid-1990s, the loan limits on the student loan scheme were raised, with knock-on increases in other forms of loan and student support. Again, predictably, access improved, notwithstanding that the Canadian loan scheme is not income-contingent. The report concluded that:

There is a clear positive correlation between parental income and university attendance, and this correlation . . . became stronger during the mid-1990s when tuition fees began increasing significantly. This change reflected declines in participation rates of youth from middle income families. . . . The correlation, however, declined during the latter half of the decade reflecting rises in participation of those from the lowest income groups. This pattern is consistent with the fact that the changes in the Canada Student Loans Program raising the maximum amount of loan occurred only after tuition fees had already begun to rise. (Corak *et al.*, 2003, p. 14)

Interest subsidies are expensive

Simulations by Barr and Falkingham (1993, 1996) found that for every 100 the government lends, only about 50 is repaid. Of the missing 50, 20 is lost because some graduates have low lifetime earnings and so never repay their loan in full, and 30 is not repaid because of the interest subsidy. In other words, the interest subsidy converts nearly one-third of the loan into a grant. Sales of student debt by the UK government in the late 1990s offer independent evidence. The debt was sold for about 50 per cent of its face value. Official estimates suggest that of the missing 50, about 15 was because of low lifetime income, etc., and 35 because of the interest subsidy. The evidence is compelling because the two sets of results are independent, the latter with a market test.

New Zealand offers parallel evidence. A government elected in 1999 acted early on a manifesto commitment. It introduced an interest subsidy in the form of a zero *nominal* interest rate while a student was still at university (previously a real interest rate was charged from the time the student took out the

loan). In addition, the real interest rate charged after graduation was frozen at somewhat below its previous rate. The impact of these changes was startling. Previously, according to official estimates, of every 100 that was lent, 90 would be repaid. As a result of the changes, it was estimated that only 77 out of every 100 would be repaid (New Zealand Ministry of Education, 2002, p. 7). The change is so expensive precisely because the subsidy to students while still at university applies to *all* students. A key message is that seemingly small adjustments can be very expensive.

Not least for these reasons, an official inquiry, echoing the discussion in section II(iii), concluded:

Participation goals should continue to be supported through a Student Loan Scheme with income-contingent repayments as at present. The Commission believes, however, that the current policy of writing off interest on loans for . . . students while they are studying is not an effective use of the government's resources. While this policy has decreased the length of time taken to repay loans after graduation, it has also led to an increase in the number of students taking out loans and in the overall level of student debt. To compound matters, the policy has made it possible for learners to borrow money and invest it for private gain (arbitrage). Consequently, the Commission believes that this policy should be discontinued—or that, as a minimum, the incentives for arbitrage should be removed. Any savings . . . should be reinvested in the tertiary education system and be used for the benefit of students. (New Zealand Tertiary Education Advisory Commission, 2001, p. 14)

Positive real interest rates are feasible

In the Netherlands and Sweden (and, no doubt, elsewhere), as in New Zealand until the changes in 2000, a real interest rate is charged from the moment the student takes out the loan, both matters which are taken for granted. As noted earlier, with income-contingent loans a higher interest rate does not increase a graduate's monthly repayments, only the duration of the loan.

Contract design is important

International labour mobility is high and, with EU enlargement, likely to increase, raising questions about potential default if a person emigrates. In Australia, loan repayments are part of a person's tax liability, so that someone outside the Australian tax net has no liability to make repayments. With

interest subsidies this is a costly error. In the UK, in contrast, there is an explicit loan contract which includes the collection of repayments through the tax system, but does not exempt a person outside the UK from making repayments. Clearly, default and administrative costs are higher for people working abroad, but the effect is not large. Certainly there is no question of emigration causing a repayment black hole.

IV. THE 2004 REFORMS IN THE UK

(i) Assessment

Reforms in 1998 brought in income-contingent loans, for which loud cheers.¹¹ Beyond that, however, the system had serious problems (Barr and Crawford, 1998; Barr, 2002):

- central planning continued;
- fees were introduced, set by central government and the same for all subjects at all universities, and fees were an upfront charge, since there was no loan to cover them;
- loans displayed serious design problems—they were too small to cover realistic living costs (let alone fees), and incorporated an interest subsidy;
- on the access front, the 1998 reforms abolished the previous system of grants which partially covered a student's living costs.

I strongly support the UK reforms of 2004 because they address most of these problems (see Barr, 2003). They simultaneously conform with the strategy in section II(v), based on economic theory, and accommodate the main lessons from country experience. Other countries had attempted to move in the same direction for the same reasons (Commonwealth of Australia, 1998; New Zealand Ministry of Education, 1998), but were unable to move forward for a variety of reasons, not least political opposition.

Leg 1. Tuition fees

From 2006, the reforms replace the upfront flat fee with a variable fee between 0 and £3,000 per year.

Within those limits each university can set the fee for each of its courses. Students can pay the fee upfront or take out a loan. In the latter case, the student loans administration pays the fee directly to the university, whose financial position is therefore independent of how students choose to pay their fees.

As discussed earlier, variable fees improve efficiency by making funding open-ended, hence increasing the volume of resources going to higher education and, by strengthening competition, improve the efficiency with which those resources are used. Both trends are assisted by appropriate regulation, for example the cap on the maximum fee.

The equity advantages of variable fees were also discussed earlier. They contribute to access by redistributing from better-off to worse-off; they facilitate redistribution from universities with more market power to those with less; they are directly fairer, in that students do not have to pay the same fee at a small local university as at an internationally famous one; and they reduce discrimination against home students if there is a differential between home and overseas fees.

Alongside these advantages of principle, the fees regime also draws on international experience by liberalizing fees, but not completely. The fees cap is crucial in this context. It should ideally be high enough (*a*) to pay the best universities the rate for the job and (*b*) to bring in competition, but low enough (*c*) to ensure that the new regime is politically sustainable by giving students and parents time to adjust, and (*d*) to give universities time to put in place management suitable for a competitive environment.

Leg 2. Loans

The 1998 reforms introduced income-contingent loans, but they did not cover tuition fees and were too small to cover realistic living costs. The 2004 reforms improve the system by extending loans to cover tuition fees and by increasing the loan for living costs. They also raise the threshold at which loan repayments start: from 2006, graduates will repay 9 per cent of earnings above £15,000 per year, up from £10,000.

¹¹ Repayments were 9 per cent of income above £10,000 per year.

From the point of view of the student, the situation is little different from the days of 'free' higher education: their fees are paid on their behalf, and money is paid into their bank accounts to cover living costs. From the point of view of the graduate, the arrangements are like a system financed out of income tax, except that the repayments (*a*) are only made by people who have been to university and benefited financially and (*b*) do not go on forever.

Notwithstanding public anxiety, these repayments should not be exaggerated. The taxpayer will continue to pay the bulk of the costs of higher education. And a loan of (say) £20,000 should not be daunting compared with other expenditure: over a 40-year career, a typical current graduate will pay (in cash terms) about £850,000 in income tax and National Insurance contributions,¹² and will spend about £½ million on food. As an alternative comparator, it is possible to pay off £10,000 of student debt in about 10 years by giving up a smoking habit of 20 cigarettes per day (Barr, 2003, para. 84). Part of the problem is that people continue to conflate credit-card debt (rightly a concern to parents), with income-contingent loan repayments.

In one important respect, however, the loan arrangements conform neither with theory nor country best practice—the 2004 reforms continue the interest subsidy.

Leg 3. Action to promote access

Grants to cover at least part of living costs, abolished in 1998, will be restored. From 2006, students from poor backgrounds will be entitled to a grant of £2,700 per year, in addition to a loan,¹³ and universities charging fees of £3,000 will be expected to provide students from poor backgrounds with bursaries of at least £300 per year to help to pay those fees. The intention is that no student from a poor background will be made worse-off by the reforms.

The Act also brings in an Access Regulator, whose formal task is to ensure that institutions have satisfactory plans to widen access as a *quid pro quo* for charging higher fees. Those plans can include schol-

arships for students from poor backgrounds; importantly, they can also include outreach to schools to improve the information available to schoolchildren.

(ii) Remaining Issues

In sum, the arrangements, which are intended to come fully into effect in 2006, bring in additional resources and strengthen competition, both of which contribute to quality, and redistribute from better- to worse-off, contributing to access. Those desirable features do not, however, mean that the scheme is perfect.

Fees

The desirability of a cap on fees was discussed earlier. Some commentators argue that the cap is too low and/or that it will be kept at £3,000 for too long (roughly the life of a Parliament). This is a balancing act. If the cap is too high, it risks destabilizing the system politically, but if it is too low for too long, most universities will charge the maximum, approximating a system of flat fees. The result would be to reintroduce closed-ended funding and to restore central planning by the back door.

Loans

Notwithstanding the improvements, loans display continuing problems. The interest subsidy is expensive and regressive. In addition, the reforms raised the threshold at which graduates start to make repayments. The change reduces the repayments of all graduates, hence increases the average duration of repayment, and hence increases the leakage caused by the interest subsidy.

Digging more deeply, matters are even worse. Student loans are currently off-budget. Thus eliminating the interest subsidy yields saving only off-budget. Redirecting those savings towards larger grants (for example) would involve on-budget spending; that is, would increase measured public spending.

What is needed, therefore, is a twofold reform: eliminating the blanket interest subsidy and replac-

¹² Dearden *et al.* (2004) estimate payments of income tax and National Insurance contributions of £330,000. Their figure is lower than mine mainly because it (*a*) covers a shorter time period, (*b*) is in real terms, and (*c*) starts from a lower starting salary. The point is not the exact number, but that loan repayments are small relative to income tax and National Insurance contributions.

¹³ Students receiving the maximum grant are entitled to a somewhat reduced loan.

ing it by a targeted subsidy; and bringing loans on-budget for reasons of rational public budgeting.¹⁴ These reforms would make it possible to offer somewhat larger loans, and to offer all students a full loan; they would also free considerable resources for pro-access policies.

Access measures

More could be done to protect low-earning graduates as described in section II(v); for example, targeted interest subsidies, loan-write-off for some public-sector workers, and loan remission for people undertaking caring activities.

A second area of potential progress is to address public concerns by improving information. Some of these worries are that:

- the new system will leave students with large debts;
- higher participation will lower the return to getting a degree;
- student debt will make it harder to get a mortgage;
- variable fees are inequitable;
- variable fees will harm access;
- variable fees will create a two-tier system;
- it is morally wrong to charge for higher education.
- this is the start of a slippery slope.

Some of these concerns have been discussed in this paper. For responses to the others, see Barr (2003, paras 121–30).

V. THE UNFINISHED AGENDA

Economic theory and practical experience offer solutions to avoidable problems: (a) unsustainable public spending; (b) public spending which is hijacked by the middle class; (c) loans absent, or badly designed, so that they bring in few, if any, extra resources; (d) economic constraints on universities, which reduce incentives to efficiency; and (e) specific design features that are costly (interest subsidies), administratively demanding (income testing), or both.

These are widespread in OECD countries, though (b) and (d) are less of a problem in countries which

allow variable fees. They also occur elsewhere: an account of Latin America reported that

Most of the public institutions . . . have argued that low or no tuition fees have provided greater equality of educational opportunity by providing greater access. . . . Such reasoning is simply incorrect . . . the overwhelming public subsidy has been and continues to accrue to students from middle and high-income families. (Lewis, 1999)

The policy in section II(v) is designed as a strategic whole explicitly to address these problems. Each of the elements—deferred variable fees, income-contingent loans, and active measures to promote access—can be crafted in various ways and with differing weights, to reflect differences in national objectives and different constraints. Broadly, the strategy is applicable to any country which can do an effective job in collecting income tax—and hence student loan repayments.

The three elements offer a benchmark against which countries could assess future policy directions. The USA, for example, does well on Leg 1 (variable fees) but less well on Leg 2 (loans are not income-contingent, nor collected as a payroll deduction, and generally attract an interest subsidy) and Leg 3 (where scholarship arrangements can be criticized both for parsimony and complexity). Canada, too, might consider action on the second leg. Australia has recently moved partially to liberalize fees under Leg 1, but its loan scheme, though with income-contingent repayments collected by the tax authorities, does not cover living costs for most students, and continues to include a blanket interest subsidy. New Zealand came close to getting all three elements right in the 1990s but was burnt by moving too fast. Most countries in mainland Western Europe and in the Nordic countries have yet to address fees under Leg 1, and with few exceptions, have work to do on the loans front.

In these Western countries, the unfinished agenda has more to do with politics and administration than with policy.

- In many of the European countries, tuition fees for higher education are a no-go area—a Nordic education minister used the word ‘taboo’.

¹⁴ For more detailed discussion of targeted interest subsidies and a critique of the Education Department’s position, see Barr (2003, paras 104–20); see also UK Education and Skills Select Committee (2003).

The British government showed considerable courage in addressing these serious political obstacles. Other governments will have to do the same, sooner or later. Their task should be made easier by the example of countries such as England, Canada, Australia, and New Zealand.

- Greater public understanding both of the centrality of higher education and of the nature of income-contingent repayments has thus far been slow in coming, and merits continuing effort.

- International cooperation in collecting loan repayments (discussed briefly in Barr, 2001a, ch. 14) requires attention with increasing urgency as international labour mobility increases both generally and within the wider EU.

Outside the OECD a challenge that continues to haunt commentators is how to design a loan scheme which mimics income-contingent repayments in poorer countries with a large informal sector and only limited capacity to collect income tax. This is, perhaps, the greatest challenge of all.

REFERENCES

- Barr, N. (1989), *Student Loans: The Next Steps*, Aberdeen University Press for the David Hume Institute and the Suntory–Toyota International Centre for Economics and Related Disciplines, London School of Economics and Political Science.
- (1991), ‘Income-contingent Student Loans: An Idea Whose Time Has Come’, in G. K. Shaw (ed.), *Economics, Culture and Education: Essays in Honour of Mark Blaug*, Cheltenham, Edward Elgar, 155–70; reprinted in Barr (2001b, Vol. III, 583–600).
- (1993), ‘Alternative Funding Resources for Higher Education’, *The Economic Journal*, **103**(418), 718–28; reprinted in C. R. Belfield and H. M. Levin (eds), *The Economics of Higher Education*, The International Library of Critical Writings in Economics 165, Cheltenham and Northampton, MA, Edward Elgar, 534–44.
- (1998), ‘Towards a “Third Way”: Rebalancing the Role of the State’, *New Economy*, **4**(2), 71–6.
- (2001a), *The Welfare State as Piggy Bank: Information, Risk, Uncertainty, and the Role of the State*, London and New York, Oxford University Press.
- (ed.) (2001b), *Economic Theory and the Welfare State, Vol. I: Theory, Vol. II: Income Transfers, and Vol. III: Benefits in Kind*, Edward Elgar Library in Critical Writings in Economics, Cheltenham and Northampton, MA, Edward Elgar.
- (2002), ‘Funding Higher Education: Policies for Access and Quality’, House of Commons, Education and Skills Committee, *Post-16 Student Support*, Sixth Report of Session 2001–2002, HC445, London, The Stationery Office, Ev 19–35, available at <http://econ.lse.ac.uk/staff/nb>
- (2003), ‘Financing Higher Education in the UK: The 2003 White Paper’, House of Commons Education and Skills Committee, *The Future of Higher Education, Fifth Report of Session 2002–03, Volume II, Oral and written evidence*, HC 425-II, London, the Stationery Office, Ev 292–309, available at <http://econ.lse.ac.uk/staff/nb>
- (2004), *The Economics of the Welfare State*, 4th edn, Oxford, Oxford University Press, and Stanford, CA, Stanford University Press.
- Crawford, I. (1998), ‘The Dearing Report and the Government’s Response: A Critique’, *The Political Quarterly*, **69**(1), 72–84.
- — (forthcoming), *Financing Higher Education: Lessons from the UK*, Routledge.
- Falkingham, J. (1993), ‘Paying for Learning’, Welfare State Programme, Discussion Paper WSP/94, London, London School of Economics.
- — (1996), ‘Repayment Rates for Student Loans: Some Sensitivity Tests’, Welfare State Programme, Discussion Paper WSP/127, London, London School of Economics.
- Blundell, R., Dearden, L., Goodman, A., and Reed, H. (2000), ‘The Returns to Higher Education in Britain: Evidence from a British Cohort’, *The Economic Journal*, **110**(461), F82–99.
- Brown, R. (2000), ‘The New UK Quality Framework’, *Higher Education Quarterly*, **54**(4), 323–42.
- Bynner, J., and Egerton, M. (2001), *The Wider Benefits of Higher Education*, London, Higher Education Funding Council.
- Dolton, P., Feinstein, L., Makepeace, G., Malmberg, L., and Woods, L. (2003) *Revisiting the Benefits of Higher Education*, London, Higher Education Funding Council.

- Callender, C., and Wilkinson, D. (2003), '2002/03 Student Income and Expenditure Survey: Students' Income, Expenditure and Debt in 2002/03 and Changes since 1998/99', Research Report 487, Nottingham, Department for Education and Skills.
- Chapman, B. (1997), 'Conceptual Issues and the Australian Experience with Income Contingent Charges for Higher Education', *The Economic Journal*, **107**(442), 738–51.
- Ryan, C. (2003), 'The Access Implications of Income Contingent Charges for Higher Education: Lessons from Australia', Australian National University, Centre for Economic Policy Research, Discussion Paper No. 463, April.
- Commonwealth of Australia (1998), *Learning for Life: Review of Higher Education Financing and Policy: Final Report*, Canberra, AGPS.
- Corak, M., Lipps, G., and Zhao, J. (2003), 'Family Income and Participation in Post-secondary Education', Statistics Canada, Family and Labour Studies Division, Analytical Studies Branch, Research Paper No. 210, Ottawa.
- Dearden, L., Fitzsimons, E., and Goodman, A. (2004), *An Analysis of the Higher Education Reforms*, Briefing Note No. 45, London, Institute for Fiscal Studies, available at <http://www.ifs.org.uk>
- Feinstein, L. (2003), 'Inequality in the Early Cognitive Development of British Children in the 1970 Cohort', *Economica*, **70**(277), 73–98.
- Friedman, M. (1955), 'The Role of Government in Education', in A. Solo (ed.), *Economics and the Public Interest*, New Brunswick, NJ, Rutgers University Press, 123–44.
- Glennerster, H., Merrett, S., and Wilson, G. (1968), 'A Graduate Tax', *Higher Education Review*, **1**(1), 26–38; reprinted in Barr (2001b, Vol. III, 570–82), and in *Higher Education Review* **35**(2), 25–40.
- Greenaway, D., and Haynes, M. (2002), 'Funding Higher Education in the UK: The Role of Fees and Loans', *The Economic Journal*, **113**, F150–66.
- Kornai, J. (1992), *The Socialist System: The Political Economy of Communism*, Princeton, NJ, Princeton University Press.
- Larocque, N. (2003), *Who Should Pay? Tuition Fees and Tertiary Education Financing in New Zealand*, Wellington, Education Forum, available at http://www.educationforum.org.nz/documents/publications/who_should_pay.pdf
- Lewis, D. (1999), 'Latin America Must Raise Fees to Help Poor', *Times Higher Education Supplement*, 11 June.
- McLaughlin, M. (2003), *Tertiary Education Policy in New Zealand*, Fulbright Report, available at <http://www.fulbright.org.nz/voices/axford/docs/mcLaughlin.pdf>
- McNay, I. (1999), 'The Paradoxes of Research Assessment and Funding', in B. Little and M. Henkel (eds), *Changing Relationships between Higher Education and the State*, London, Jessica Kingsley.
- New Zealand Ministry of Education (1998), *Tertiary Education in New Zealand: Policy Directions for the 21st Century*, White Paper, Wellington, Ministry of Education.
- (2002), *Annual Report: Student Loan Scheme*, Wellington, Ministry of Education.
- New Zealand Tertiary Education Advisory Commission (2001), *Shaping the Funding Framework: Fourth Report of the Tertiary Education Advisory Commission: Summary Report*, Wellington, Tertiary Education Advisory Commission, November, available at <http://www.teac.govt.nz/fframework.htm>
- OECD (2002), *Education at a Glance, 2002*, Paris, Organization for Economic Cooperation and Development.
- (2003), *Education at a Glance: OECD Indicators 2003*, Paris, Organization for Economic Cooperation and Development.
- Palacios, M. L. (2004), *Investing in Human Capital: A Capital Markets Approach to Student Funding*, Cambridge, Cambridge University Press.
- Peacock, A., and Wiseman, J. (1962), 'The Economics of Higher Education', *Higher Education: Evidence—Part Two: Documentary Evidence*, Cmnd 2154-XII, 129–38, London, HMSO.
- Prest, A. R. (1962), 'The Finance of University Education in Great Britain', *Higher Education: Evidence—Part Two: Documentary Evidence*, Cmnd 2154-XII, 139–52, London, HMSO.
- Roberts, G. (2003), *Review of Research Assessment: Report to the UK Funding Bodies*, Bristol, Higher Education Funding Council for England.
- UK Department for Education and Skills (2003), *Higher Education Funding—International Comparisons*, London, Department for Education and Skills, available at <http://www.dfes.gov.uk>
- UK Education and Skills Select Committee (2002), *Post-16 Student Support*, Sixth Report of Session 2001–2002, HC445, London, The Stationery Office, available at <http://www.parliament.uk>
- (2003), *Post-16 Student Support: Government response to the Sixth Report from the Education and Skills Select Committee, Session 2001–2*, Second Special Report of Session 2002–3, HC440, London, The Stationery Office, available at <http://www.parliament.uk>
- Winston, G. C. (1999), 'Subsidies, Hierarchy and Peers: The Awkward Economics of Higher Education', *Journal of Economic Perspectives*, **13**(1), 13–36.
- Wolf, A. (2002), *Does Education Matter: Myths about Education and Economic Growth*, London, Penguin Books.