Paying for higher education: What policies, in what order?

Nicholas Barr

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London School of Economics

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Contents

Executive summary

1. Building on earlier work (Barr 2004*a*), this paper discusses the role of tuition fees in paying for teaching at universities in England, though much of the analysis applies also to the rest of the UK and to OECD countries. There is no discussion of financing research. The paper addresses three sets of questions: what happened in 2006, and why (section 2); what has happened since then (section 3), and what should happen next (section 4)?

2. The opening section establishes a theme that arises throughout the paper – the central role of information, both in underpinning beneficial competition and in addressing constraints to participation. A particular conclusion is that the short-run pressures of the economic crisis and the longer-term arguments rooted in economic theory converge to the strategy that underpins the 2006 reforms.

3. Section 2 sets out that strategy, which has three elements:

- *Variable fees* bring in private finance by sharing costs between the taxpayer and the beneficiary, through his/her loan repayments. This approach provides more resources and strengthens competition; the combination contributes to quality and autonomy;
- *A good loan scheme* should have income-contingent repayments, should charge an interest rate equal to the government's cost of borrowing, and should be large enough to cover fees and living costs, thus making higher education free to the student.
- *Policies to widen participation* should treat the issue more an a 0-18 problem than an 18+ problem.

4. Section 3 discusses what has happened since the present system was introduced in 2006. Fees have brought in additional resources; and widely expressed earlier worries that fees would harm access have proved to be groundless. Recent evidence (section 3.1), shows significantly improved participation by young people from disadvantaged backgrounds.

5. Section 3 also lays out a series of pressure points facing each element in the strategy:

- The fees cap: there is pressure from universities for more resources, but the issue is politically sensitive;
- Loans continue to charge a zero real interest rate, a feature which is costly in fiscal and policy terms, and is also politically sensitive; the cost of the interest subsidy is a contributory cause of the current shortage of university places.
- Political pressure continues towards the wrong polices to widen participation.

6. Section 4 discusses reform directions, starting with political communication, and then proceeding to policies to address each of the stress points. There are four sets of recommendations.

7. *Urgently institute a campaign to improve understanding of the system of loans and deferred fees*. Key messages include:

- Higher education is free for students, it's graduates who repay.
- What we are talking about is a payroll deduction, not credit-card debt. Repayments are a fraction of each month's earnings, and any loan that has not been repaid after 25 years is forgiven. The system is thus equivalent to a graduate tax that stops after a maximum of 25 years, and for most people significantly earlier.

- The scale of debt should not be exaggerated. A payroll deduction of £25,000 should be seen in the context of the £1 million (cash terms) of income tax and national insurance that a typical graduate will pay over a full career.
- Parents do not lie awake worrying about their child's future tax bill; no more should they worry about loan repayments.

8. *Expand the loan system by replacing the blanket interest subsidy with targeted subsidies*.

- In the current system, graduates pay a zero real rate of interest. As explained in section 3.3, this arrangement is fiscally incontinent, inimical to quality and quantity, regressive and a major barrier to increasing loans to cover an increase in the fees cap.
- Because of its cost, the interest subsidy is at least a co-defendant in connection with the current shortage of university places.
- The interest rate should be increased to one related to the government's cost of borrowing, with targeted subsidies for low earners.
- Income-contingent repayments lead to an important but counter-intuitive result: *a higher interest rate does not lead to higher monthly repayments*, only to a longer duration of repayments. The only effect of a higher interest rate is to increase (say) a 10-year graduate tax into (say) a 12-year graduate tax. In addition, *since low earners receive a write-off after 25 years a higher interest rate has no effect on them*.

9. The savings from increasing the interest rate makes it possible to expand the loan system

- Larger loans for existing recipients, to cover an increase in the fees cap and to raise the maintenance loan;
- Expanding the system to cover new groups, notably to part-time students and to postgraduates.

10. *Raise but retain the fees cap, simultaneously strengthening quality assurance*. The fees cap should be increased to bring in additional resources, to strengthen competition, to reduce the financial preference for foreign over home students, and to reduce the subsidy to the best off. This argument is all the more powerful because *an increase in the fees cap has no effect on the lowest earners, who qualify for a write-off*. For the reasons set out in section 4.2, however, the increase should not be phased in sharply.

11. *Continue and strengthen action to widen participation*. Such policies should be wide-ranging.

- Policies to address the attainment constraint, including increased emphasis on early child development, and action to improve school outcomes.
- Policies to address constraints relating to information and aspirations include student mentoring schemes, visit days, summer schools, weekend schools, and better online assistance for students and their advisers.
- Policies to address credit constraints include financial support at age 16, and income-contingent loans that make higher education free at the point of use.
- These constraints interact (e.g. attainment is influenced by aspirations); thus alongside policies aimed at relaxing specific constraints, cross-cutting policies are needed, including policies that respond to genuine debt aversion, and – importantly – policies to make part-time study easier.

Paying for higher education: What policies, in what order?[1]

Nicholas Barr[2]

London School of Economics

On 27 January 2004 the Higher Education Bill, sponsored by a government with a Parliamentary majority of 160, passed its Second Reading by five votes. The reforms subsequently passed into law and took effect in 2006.[3] The main changes are summarised in Box 1:[4]

This paper starts by setting out the backdrop, including the international context, core objectives, a brief overview of lessons from economic theory, and the implications for policy of the economic crisis. Against that backdrop, the rest of the paper addresses three sets of questions: what happened in 2006, and why (section 2); what has happened since then, including pressure points (section 3), and what should happen next (section 4, which, at the price of minor repetition, can be read on its own)? Readers in a hurry should go to the four main recommendations in the concluding section.

[1] The origins of this paper lie in my long collaboration with Iain Crawford. I am grateful to Howard Glennerster for many conversations over the years and for cogent comments on an earlier version of this paper. The results on interest subsidies in section 4.3.2 are based on joint work with Alison Johnston, who also steered me through the minefield of UCAS data and gave valuable comments on earlier versions. I am also grateful for helpful interchanges with Abby Innes, Judith Shapiro and Simeon Underwood, and for comments on earlier versions from Gill Barr.

[2] Professor of Public Economics, London School of Economics and Political Science, Houghton Street, London WC2A 2AE, UK: T: +44-20-7955-7482; E: N.Barr@lse.ac.uk; http://econ.lse.ac.uk/staff/nb.

[3] The legislation applies to England. The system of student loans covers the UK, but arrangements for fees and non-loan student support differ across the countries of the UK.

[4] For fuller discussion, see Barr 2004*a*, and on the turbulent history of reform, Barr and Crawford 2005. For an international overview, see OECD 2008*a*, *b*.

Box 1 Summary of the 2006 reforms

Fees. The 2004 Higher Education Act replaced the previous upfront, centrally-set flat fee for UK and other EU undergraduates with deferred variable fees.[5] Specifically, the tuition charge of about £1,000 irrespective of subject or university was replaced by one where universities can choose what fee to charge, up to a cap of £3,000 per year, rising in line with price inflation. In contrast with the earlier regime, fees are covered by a loan, and so can be deferred until the borrower starts to earn.

Loans. The previous system provided a loan to cover living costs (the maintenance loan), with income-contingent repayments of 9% of income above £10,000. There was no loan to cover fees, and the maintenance loan was too small. The reforms introduced a loan to cover fees, increased the size of the maintenance loan, and raised the threshold at which repayments start for both elements to £15,000 per year. Thus someone earning £18,000 repays 9% of £3,000, i.e. £270 per year or £22.50 per month. The maintenance loan and fees loan charge an interest rate equal to the rate of inflation,[6] that is, a zero real interest rate. Since this is less than it costs the government to borrow the money, the system incorporates a blanket interest subsidy. For most people, repayments are collected as a payroll deduction alongside income tax and national insurance contributions. Any loan that remains unpaid after 25 years is forgiven.

Policies to widen participation. The Act restored maintenance grants for students from poor families, required universities that charge the full £3,000 to provide students from poor backgrounds with a bursary of at least £300 and established the Office for Fair Access.

1 Backdrop: The longer term during economic crisis

1.1 Core objectives

Why, first, does any of this matter? Higher education matters because knowledge for its own sake is important, as is the transmission of core values. In contrast with earlier years, however, higher education now matters also for national economic performance and for individual life chances. Technological advance has driven up the demand for skills; as discussed in Box 2, human capital is even more important a determinant of economic competitiveness than in the past – a core argument underpinning increased education

[5] Universities face no government-imposed restrictions on the fees they charge non-EU undergraduates, nor on fees for postgraduate students from the EU and elsewhere.

[6] A person's outstanding balance increases each year in line with the increase in the retail price index.

spending in the USA, the crisis notwithstanding. To compete internationally, countries need mass high-quality systems of tertiary education.[7] But public spending faces competing imperatives like population ageing and increased pressures on medical spending.

Box 2: Investment in human capital: more important than ever

The simplest way to make the point starts from a conventional production function

$$Q = f(K, L, M)$$

where output, Q, is related to inputs of capital, K, labour, L, and raw materials, M, through the production function f. Considering each of these in turn:

- In the nineteenth century, access to raw materials was critical. Today value-added comes increasingly from other sources: the material component of computers is a trivial part of their cost; the steel used in a modern car costs less than the electronics.
- Historically, countries with a larger capital stock were generally richer and so, through higher savings, could invest more than poorer countries, further increasing their capital stock. With today's global capital markets, domestic investment is less constrained by domestic savings: investment by an entrepreneur in Thailand is not constrained by Thai domestic savings, since he can borrow elsewhere.
- Historically, technology tended to be tied to specific countries. Today, not least because of rapid communication, technology moves across countries more quickly than in the past.

If technology, capital and raw materials are relatively less important as explanations of differential economic performance it must be the case that the remaining variable, L, assumes increasing importance. In short, a combination of technological advance and international competitive pressures makes skills a more important source of economic performance than ever.

Countries typically pursue three efficiency goals in higher education: larger quantity, higher quality, and constant or falling public spending. Systems that rely on public finance can generally achieve any two, but only at the expense of the third: a system can be large and

[7] In South Korea the participation rate in tertiary education in 2003 was 82 per cent, and total spending on tertiary education 2.6 per cent of GDP, double the average for the EU19 of 1.3 per cent; *private* spending on tertiary education in South Korea is significantly higher than *total* (public plus private) spending in any OECD country except the USA and Canada (OECD 2006, Table B2.1b, all figures for 2003).

tax-financed, but with worries about quality (France, Germany, Greece, Italy); or high-quality and tax-financed, but small (the UK until 1990); or large and high-quality, but fiscally expensive (as in Scandinavia). There is nothing illogical about the last option, but it has been unsustainable in most countries. Even before the current economic crisis (on which more below), the only realistic route by which higher education could avoid being starved of funds was to supplement public finance on a significant scale by private finance.

However, the case for private finance is not just as a response to fiscal constraint. Alongside fiscal arguments is a parallel microeconomic argument, that higher education has significant private benefits, justifying a contribution from the beneficiary on both efficiency and moral grounds. Thus the case for some private finance is robust, but policy needs to be designed carefully so that it does not harm efforts to widen participation. In particular, if private finance relies on family resources, the resulting credit constraint will be inefficient and, by particularly affecting people from poorer families, also inequitable.

These considerations suggest a series of objectives for higher education policy. First, the government needs to establish efficient and equitable priorities for education as a whole. The need for a holistic view arises for efficiency reasons, given higher social returns to early education; in addition, and a recurring theme, impediments to participation in higher education have their roots much earlier in the system.

Within that overarching objective, policy should pursue four sets of objectives for higher education. Policy should seek to:

- Widen participation, both for equity reasons and on efficiency grounds, in that countries cannot afford to waste talent;
- Strengthen the quality of teaching and research;
- Protect the autonomy of universities, which is desirable both for its own sake and, more instrumentally, because autonomy and quality are strongly linked; and
- Protect the fisc.

1.2 Lessons from economic theory

This is not a paper about economic theory, so discussion is brief. But it is important that policy makers and the electorate know that the 2006 strategy has a theoretical basis that is

sound and – unusually – not very controversial among economists.[8] The strategy is based on three sets of arguments.

COMPETITION IN HIGHER EDUCATION IS BENEFICIAL. Competitive systems of higher education appear to produce higher quality, at least as measured by world rankings. Yet in most countries, universities have been centrally planned. The case for competition is not ideological, but based on the economics of information, which argues that competition is useful where consumers are well-informed. In sharp contrast with school children (or people with complex medical problems), university students are well-informed, or potentially well-informed, consumers.[9] Though that proposition is robust, there are important caveats. First, the assumption does not necessarily hold for students from poorer backgrounds, who may not be well-informed, with major implications for widening participation discussed in section 4.4. Second, to argue for competition is not necessarily to argue for an unconstrained market; the important continuing role of government is taken up in section 4.6.

On the supply side, central planning, whether or not it was ever desirable, is no longer feasible. Technological change has led to more universities, more students, many more subjects, and more diverse modes of delivery. A view of universities as similar in mission, subject mix, and balance between teaching and research deviates further and further from reality and from what is desirable. In principle, differential funding could be implemented by an all-knowing central planner, but the problem is too complex for complete reliance on that mechanism: diverse mass higher education needs to match the different interests and attributes of students with the different dimensions of degrees; that matching function needs a system of finance in which institutions can charge different prices to reflect their different costs and objectives, and the different packages they offer to different kinds of students. No central planner can be that clever.

In sum, a competitive environment creates incentives for universities to be more responsive to demands from student and employers, to the benefit of both. Such competition needs to be supported by robust and effective quality assurance (discussed later).

[8] I remember Martin Wolf, when discussing these matters over coffee at a conference, shrugging his shoulders and saying 'It's all so obvious'. For fuller discussion, see Barr 2004*a*.

[9] See Barr, 2004*b*, Chs 12-14 for the application of the argument to health care, schools, and universities, respectively.

GRADUATES SHOULD CONTRIBUTE TO THE COST OF THEIR DEGREE. A second conclusion from economic theory is that costs should be shared. Higher education creates benefits beyond those to the individual – benefits in terms of growth, the transmission of values, and the development of knowledge for its own sake. All these justify continuing taxpayer support. However, graduates typically also receive private benefits – higher earnings, more satisfying jobs, greater enjoyment of leisure – making it efficient and equitable that they bear some of the costs. However, they should bear those costs when they can afford them, as graduates, not when they are students. This leads to the third set of lessons from economic theory.

WELL-DESIGNED STUDENT LOANS HAVE CORE CHARACTERISTICS. Loans should have income-contingent repayments, that is, repayments calculated as *x* per cent of the borrower's subsequent earnings, collected alongside income tax.[10] Borrowing to finance investment in human capital (in contrast with a home loan) offers no physical collateral. As a result, with conventional loans (i.e. loans with fixed monthly repayments), lenders charge a high risk premium, and borrowers, facing considerable uncertainty, borrow an inefficiently small amount. Income-contingent repayments increase efficiency by protecting borrowers from excessive risk and, for the same reason, they also protect access. And because repayments are collected alongside income tax, such loans also protect the lender from much of the risk of making an unsecured loan. Note that what is being discussed is not a tax, which goes on forever, but a loan, where repayments stop once the loan has been repaid. In ways that will be explained, income-contingent loans are profoundly different from conventional loans.

A second design feature is that in order to provide efficient consumption smoothing the loan should be large enough to cover fees and realistic living costs.

Thirdly, loans should attract an interest rate broadly equal to the government's cost of borrowing. Many countries, including the United Kingdom, offer loans at a zero real interest rate. The high cost and bad targeting of interest subsidies is shown internationally by Shen and Ziderman (2009). In a system with (*a*) income-contingent repayments and (*b*) forgiveness after (say) 25 years, interest subsidies are particularly pernicious, as explained in section 3.3.

[10] For a fuller justification, see Barr 1989; 2001, Ch. 12. The original argument was set out by Friedman 1955.

IN SUM, economic theory points to a system with three elements:

- Variable fees, but deferred, not upfront: fees bring in private finance by sharing costs between the taxpayer through continuing support for higher education, and the beneficiary, through loan repayments. This approach provides more resources and strengthens competition; the combination contributes to quality and autonomy;
- A well-designed loan scheme, with income-contingent repayments, and large enough to cover fees and living costs, making higher education free to the student.
- Policies that really widen participation: as discussed extensively, participation failures are much a 0-18 problem than an 18+ problem.

1.3 The economic crisis

How does the economic crisis affect these arguments?

MISTAKEN RESPONSES: PUBLIC FINANCE. It is helpful to start by ruling out some bad answers.

Response 1: Protect higher education at the expense of the rest of the sector. This response is mistaken because it fails both the efficiency objective and the widening participation objective. It is inefficient, given the huge weight of evidence[11] that the social returns to early education are the highest. It is inequitable, given the evidence, discussed later, that attainment in school is the central determinant of participation in higher education. Finally, though 50,000 students were excluded from higher education in 2009, there was also an increase in births of about 60,000. It is politically inept to argue that university students should be given priority. 'Stealing from babies' is a predictable tabloid headline.

Response 2: Protect all public education spending. This response avoids the previous problem, but instead fails the objective of protecting the fisc, putting at risk all the higher education objectives as well as broader national objectives. This is not an ideologically-motivated argument that public spending should be minimised, but a non-controversial proposition that the necessary response to prevent the economic crisis spiralling downward

[11] See, for example, Alakeson 2005, Carneiro and James Heckman 2003, Carneiro, Crawford and Goodman 2007.

led to a large increase in national borrowing that needs to be addressed in the interests of resumed growth.

Response 3: Protect quality by cutting student numbers. This approach avoids the previous problem, but is inefficient because it puts national competitiveness at risk, and inequitable because it compromises the participation objective.

Response 4: Impose yet more conditions for the receipt of public finance. This approach avoids cutting student numbers; but underfunded numbers targets compromise quality, and politically-motivated conditions compromise autonomy, with further risks to quality.

MISTAKEN RESPONSES: PRIVATE FINANCE. The previous arguments lead to the conclusion that public finance has to be supplemented by private finance. Here, again, there is a litany of mistaken responses.

Response 5: Upfront fees financed from private sources will generally be inefficient, in that they will lead to underinvestment in higher education, and inequitable in that they compromise access. Thus the following policies are mistaken ways to finance fees.

- Family resources: these are a proper part of the picture alongside a good system of loans (so that students are not forced to depend on family resources if they do not wish to do so); but family resources *instead of* loans (i.e. upfront charges) lead to underinvestment in higher education, and the resulting credit constraint puts participation at risk.
- Student's earnings while a student: again, these are a proper element in the system alongside loans. But time spent on paid work is at the expense of time studying or other aspects of higher education, and thus potentially compromise the quality objectives. Separately, reliance on paid work while at university puts access at risk because a potential student faces considerable uncertainty about whether he/she will get a job, how long the job will last, and how well paid it will be.
- Contributions from employers: when jobs were long term it was in the employer's interests to pay for training, since he was likely to benefit from employing a better-trained worker. With today's fluid labour markets, however, though it is in the

interests of employers generally to finance training, it is in the interests of each individual employer to free ride on training expenditure by other employers. The resulting weak incentives to contribute – a classic externality – leads to inefficiently low investment in higher education, compromising quantity, quality, or both.

- University resources, financed by entrepreneurial activities, charitable giving, or both: again, these are a proper complement to a loan system (though it is important to be clear that the loan system is the dog and fundraising the tail), but included in a system instead of loans, again put quantity, quality and access at risk, since the potential revenue from both sources is easily overestimated.[12]

If we rule out upfront fees for efficiency and equity reasons, the only way to bring in private finance is through a student's future earnings, i.e. loans. Here, too, there are errors.

Response 6: deferred fees, financed through privately-organised loans. As discussed earlier, conventional loans (fixed monthly repayment, fixed repayment duration) are an inefficient mechanism to finance investment in human capital because there is no physical collateral. It is possible to have a publicly-organised loan scheme that is privately financed; but a privately-organised loan scheme faces serious and probably insurmountable problems in implementing income-contingent repayments as well as incentives to select only the best risks. This approach, therefore, is inefficient because it ignores long-understood capital market failures, and fails on participation because of the incentive for lenders to cherry pick.

SENSIBLE RESPONSES. The failure of responses 1-4 rule out increased reliance on public finance. The failure of responses 5 and 6 rule out private finance through upfront fees and through privately-organised loans, respectively.

What policies are still left standing that respond to the financial crisis but still contribute to the objectives of higher education policy? The answer is a system which (*a*) brings in private finance by charging tuition fees, but where charges are not upfront but deferred, (*b*) allows students to pay tuition charges and meet living costs through income-contingent loans, and (*c*) pursues the participation objective by measures that address the real

[12] It would be interesting to see properly costed estimates of the net gain to universities from business activities and fundraising.

constraints to participation, notably those that have their roots in early child development and attainment in school.

1.4 Convergence

This is a rare instance where the short-run pressures of the crisis and the longer-term arguments rooted in economic theory point in the same direction.

- The fiscal pressures from the economic crisis merely accentuate the longer-term fiscal pressures from the rising demands for skills on the one hand and rising pressures on pension and medical spending on the other.
- The responses that help to weather the economic crisis are precisely those suggested by economic theory to strengthen higher education in the longer term.

The rest of the paper sets out the longer-term justification for these policies.

2 The 2006 strategy

The strategy – variable fees, income-contingent loans, and policies to widen participation – is based on the theoretical analysis in section 1.2. Thus it is no surprise that the reforms have the shape they do.

2.1 Variable fees

The previous fixed fee of £1,000 per year for UK/EU undergraduates, irrespective of university or subject was replaced by a variable fee, set by the university, of up to £3,000 per year in real terms. Thus universities are financed by a mix of taxpayer support (about £4,300 per student in 2009-10) and fees (capped at £3,225 in 2009-10). As discussed below, most institutions charged the full £3,000. The arguments for variable fees are set out in Box 3.

Box 3: Strategic arguments for variable fees

Variable fees contribute in a range of ways to quality, autonomy and fairness.

More resources. The fees cap of £3,000 is higher than the previous flat fee of £1,000, bringing in more resources.

Open-ended finance. The previous argument applies equally to a flat fee of £3,000. Variable fees, however, make finance open-ended. With a flat fee of £1,000, the Treasury controls total spending on higher education, and universities compete against each other for shares from a fixed pot of money. With variable fees, if a university is not content with its teaching grant, it has a means to respond, supporting both quality and autonomy.

Stronger competition. By strengthening competition, variable fees create incentives to use the extra resources efficiently. With suitable regulation (see sections 4.2 and 4.6), competition improves quality by making universities more responsive to the needs of students and employers. To maintain otherwise is to argue that, even with extensive regulation, students (by assumption the best and the brightest) are unable to choose sensibly.

Variable fees also contribute to fairness.

Redistribution from richer to poorer. The increase in fees promotes equity, in that most students are from better-off backgrounds (if I argued for a subsidy for champagne to make it more affordable for poorer people I would rightly be shouted down as looking after my own interests under the pretence of widening access).

Variable fees also open up the possibility of redistribution within higher education. With flat fees, the total volume of resources going to the sector is fixed by the Treasury, so that Oxbridge and Balls Pond Road Tech compete in a zero-sum game. Variable fees start to address this gridlock.

Directly fairer. Many regard it as wrong to require a student at a small local institution to pay the same fee as one at Oxbridge. It is also inefficient, as discussed more fully in Box 4.

Fairer to UK students. There is no fees cap for non-EU undergraduates, creating an incentive at the margin to favour overseas students.[13] The increase in fees from £1,000 to £3,000 does not eliminate that incentive but weakens it; and variable fees make it easier for individual universities to seek to reduce the difference between the two sets of fees.

Alongside these strategic arguments about variable fees, Box 4 sets out some more detailed arguments that disentangle efficiency and equity aspects.

[13] For example: 'Leading universities have closed their doors to well-qualified British applicants while recruiting heavily from overseas candidates paying up to £15,000 a year' Sunday Times, 9 August 2009, http://www.timesonline.co.uk/tol/life_and_style/education/article6788739.ece.

Box 4: Variable fees in close focus: why higher fees at some universities?

It is sometimes argued that it is right to charge higher fees at Oxbridge because on average their graduates earn more than those from Balls Pond Road Tech. In assessing that argument the starting point is to ask why Oxbridge graduates earn more.

- Oxbridge graduates may be more productive, for example, because:

  (*a*) Oxbridge has higher value-added in teaching, or
  (*b*) Oxbridge students are stretched by their bright student counterparts, or
  (*c*) Oxbridge students are brighter, so Oxbridge is merely a screening device.

- It may not be productivity, for example higher earnings may be because

  (*d*) Oxbridge attracts middle-class students with accents which employers prefer.

Cause (*a*) suggests an efficiency argument for higher fees.

Cause (*d*) suggests an equity argument for higher fees if taxpayer subsidies can thereby be used instead to widen participation.

Cause (*c*), for the same reason, gives an equity argument for higher fees; it also gives an efficiency argument for reducing public subsidies for higher education to the extent that it creates only private benefits.

Cause (*b*): higher fees are Oxbridge's rent for admitting students to their bright peer group. A place at Oxbridge is a positional good, so to that extent, as discussed in the main text, universities have an element of monopoly power – part of the reason for a fees cap.

The obvious argument against fees is that they deter students from poor backgrounds. That is true of upfront fees, but not where students go to university free and make a contribution only after they have graduated.[14] This brings us to the second part of the strategy.

2.2 Income-contingent loans

The system of loans was enlarged both by introducing loans to cover fees (a missing element in the previous system) and by increasing maintenance loans to a more realistic level. Where a student takes out a fees loan, fees are paid on his or her behalf by the Student Loans Company directly to the institution; thus universities are indifferent between students who

[14] Debt aversion is discussed in Box 5 and, more fully, in section 4.4.

pay fees upfront and those who do so through a loan. As a political necessity, however, the blanket interest subsidy was retained.[15]

Thus loans cover fees and most living costs, making higher education free, or largely free, at the point of use, in principle addressing student poverty, and rescuing students from expensive credit card debt. By design, income-contingent repayments protect people with low annual earnings, and forgiveness after 25 years protects people with low lifetime earnings. Thus the system promotes efficiency and equity by addressing the capital-market imperfections identified by Friedman (1955), notably the lack of physical collateral.

The idea of loans to finance higher education, however, is controversial. Some people argue that debt is bad by definition. But a person who takes that view should also be arguing against home loans. Too much debt (e.g. an out-of-control credit card) is clearly bad; but so is too little debt, meaning, for example, that a young couple would have to save for decades before buying a home. Borrowing should be optimised both in quantity and by type, e.g. borrowing to finance investment rather than consumption.

A separate argument is that student loans reduce the capacity to take out a mortgage. Mortgage lenders are normally interested in a person's income net of deductions such as income tax, national insurance contributions and student loan repayments. Thus on the face of it (*a*) loan repayments reduce borrowing capacity, but (*b*) not by much, since student loan repayments are a relatively small fraction of a person's earnings. However, (*c*) on average a person's income will be higher because he or she has a degree and (*d*) lenders regard graduates as good risks; for both reasons, even allowing for loan repayments, borrowing capacity on average will be higher with a degree than without.

A third argument is that tuition fees, even if covered by loans, will harm access because of debt aversion. The topic is discussed in detail in section 4.4, but is such a hair-trigger issue, that Box 5 previews the core arguments.

[15] The government was well aware of the argument against blanket interest subsidies, which were part of the reform strategy till late in the day. In the end it was decided that, given the controversy of introducing variable fees, raising the interest rate would have been a step too far politically. Given the Second Reading majority of five that judgement was clearly correct.

Box 5: Preview: what policies to widen participation?

It is often argued (*a*) that fees harm access by putting off students from poor backgrounds, and (*b*) that loans do not help because people from poor backgrounds are debt-averse. What can be said about these propositions?

The incidence of tax-financed fees. University students are mainly from better-off backgrounds, hence the rightful continuing concern about the UK record on participation. Though richer people pay more taxes than poorer people, tax-financed higher education continues to redistribute from poor to rich.

What prevents participation? Constraints on participation are usefully grouped into three types, discussed in detail in section 4.4. First is lack of attainment in school; in data that control for A level performance the socioeconomic gradient in participation largely disappears (Figure 3). Access fails when someone leaves school at 16, usually for reasons that start a lot earlier. A second constraint is the lack of information and low aspirations. A third is a potential credit constraint. A good loan system is therefore essential in this context provided that debt aversion does not get in the way.

Debt aversion. People from poorer backgrounds do not shy away from mortgages and credit-card debt, suggesting that they are not debt averse per se. Why, then, might such people not take out a student loan?

- Lack of prior attainment: as discussed in section 4.4, much of the literature on debt aversion is flawed because it fails to control for school performance.
- Lack of information and low aspiration also explain why someone might not apply or, having applied and got a place, might not be prepared to take out a loan.
- Risk aversion: a student from a disadvantaged background may be risk averse about going to university because he does not know what he is getting into (an information problem), and is uncertain about how well he will do at university and about subsequent job opportunities. In such cases, grants and additional support at university (especially in the first year) come into their own, but more as a response to risk aversion than to debt aversion.

These arguments are not just an exercise in academic logic chopping. The errors make the wrong diagnosis and therefore lead to the wrong prescription. They spend money on 'free' higher education instead of improving earlier education, providing more and better information, and raising aspirations, and thus spend money on a policy that does not work.

'Free' higher education – the system in Britain for over 40 years – produced the shameful participation figures in section 3.4.[16]

If the world consisted only of well-informed middle-class families with high aspirations, these two elements – variable fees and income-contingent loans – would be all that is necessary. The fact that the world is demonstrably not like that leads to the third part of the strategy.

2.3 Measures to widen participation

Policies under this head in the 2006 reforms restored grants, which had been abolished in the 1998 reforms, and established the Office for Fair Access. Other policies, separate from the 2004 legislation, offer support earlier in the system: AimHigher encourages young people, especially from families with no tradition of higher education, to think about its benefits; and Education Maintenance Allowances (EMAs) offer income-tested financial support from 16-19 to encourage people to stay in school.

It is frequently not realised how progressive this strategy is. One of my earliest newspaper articles criticised 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. It would have been more progressive to charge an unsubsidised price and to use the resulting savings to increase pensions, child benefit and income support. Variable fees adopt the latter strategy. They 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); and redistributive policies help poor people to pay those charges.

To an economist, these elements are totally 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, and (*b*), there are targeted transfers to poorer students. This moves their demand curve *outward*. Thus the strategy shifts resources from

[16] These findings are not idiosyncratic. Ireland abolished fees in 1995 explicitly to widen access; yet there was virtually no change in participation by socioeconomic group. See Clancy and Wall 2000.

today's best-off (who lose some of their fee subsidies) to today's worst-off (who receive a grant and benefit from AimHigher and EMAs) and tomorrow's worst-off (who, with income-contingent repayments and forgiveness after 25 years, do not repay their loan in full). Combining these policies with grants to address risk aversion is highly progressive.

3 From theory to evidence: What has happened?

The benefits of the 2006 reforms are summarised in section 3.1. On the other hand, each of the three elements in the strategy – fees, loans, and measures to widen participation – faces stress points, discussed in sections 3.2, 3.3 and 3.4.

3.1 What went well

The increase in fees brought in significant additional resources. In 2006-07, when the system applied only to first-year students, additional fee income (i.e. fee income above the level of the previous flat fee) was £460 million. In the second year, additional income had risen to £893.5 million (Office for Fair Access 2009). Total undergraduate contributions for the sector as a whole have now reached £2.5 billion.

Some legitimate worries have turned out to be largely misplaced.

A widespread and central argument was that variable fees would deter students from poorer backgrounds, making higher education even more the province of the rich.

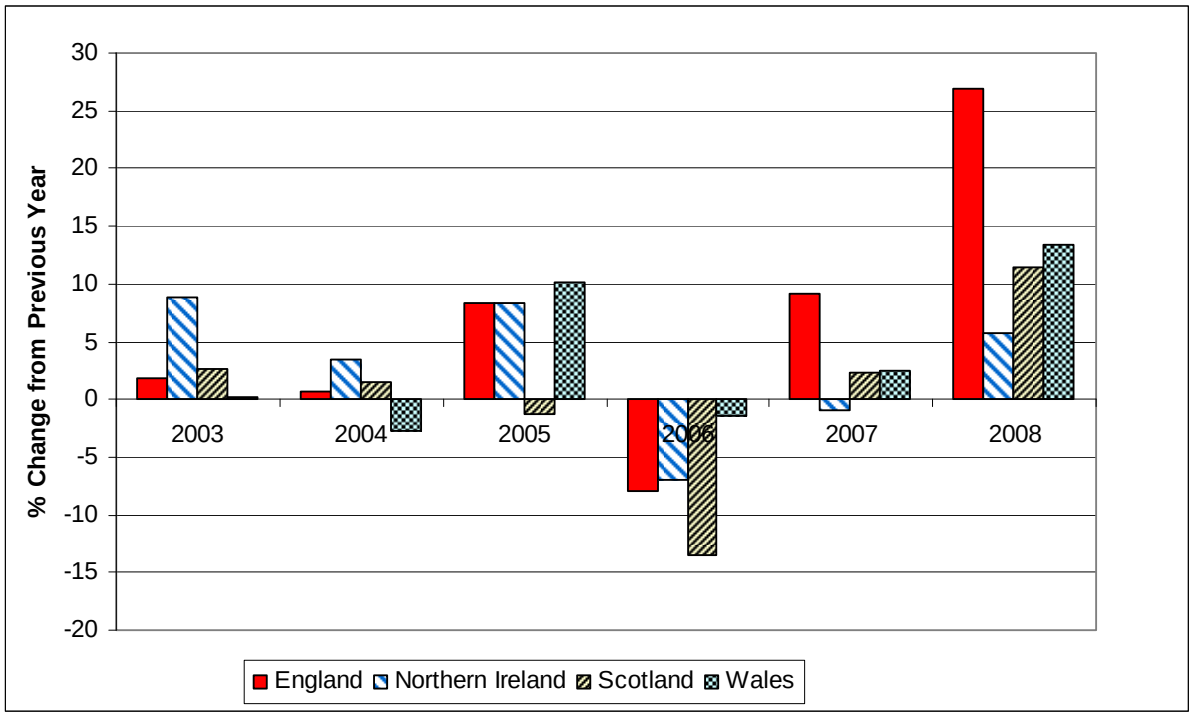
> 'NUS national president Mandy Telford said: "The new plans for variable top–up fees will create a market in higher education. Students from poorer backgrounds will be put off going to more expensive courses"' (*Independent*, 4 January 2004).

That has not happened. In 2006, the first year of the new regime, total applications declined as students cancelled gap years to benefit from the lower fees for those starting in 2005.[17] With the exception of that predictable hiccough, applications rose each year.

[17] The difference is charges should not be exaggerated. Up to and including 2005, there was a flat fee of £1,000 (indexed to price inflation), but with no fees loan, so that the fee was an upfront charge. From 2006, the fee at most universities was £3,000, but covered by a subsidised loan. The combined effect of interest subsidy and forgiveness after 25 years was that in present value terms only about 50% of borrowing was repaid.

Nor was the increase in applications just from middle-class students. From 2002 to 2008 applications in England rose by 4.3 per cent per year; the comparable figure for the bottom three socioeconomic groups was 6.5 per cent in England, compared with 0.5 per cent in Scotland, 3.1 per cent in Northern Ireland and 3.7 per cent in Wales. Figure 1 shows these figures on a year-by-year basis. Those for 2008 are particularly dramatic: applications in England rose by 11.7 per cent, those from the bottom three socioeconomic groups by a startling 26.9 per cent (UCAS data throughout). These data support the claim that the reforms did not harm access, creating a platform for the further policies to widen participation discussed in section 4.4.[18] These results are supported by a report by HEFCE, summarised in Box 6. Though progress has been noteworthy, however, there are no grounds for complacency – see, for example, Panel on Fair Access (2009).

Figure 1: Year on year change in applications from the three lowest socioeconomic groups



Source: UCAS data.

[18] These figures abstract from the 'not classified/unknown' category which is sizeable. If the lowest 3 socieconomic groups reported their parents' socioeconomic status more frequently in later years there would, to that extent, be an upward bias in the reported numbers.

Box 6: Participation from disadvantaged backgrounds has improved

The conclusions of a study by the Higher Education Funding Council for England (2010) are powerful and worth quoting at some length.

' … there is no indication from the national-level trends that changes to HE tuition fees or student support arrangements have been associated with material reductions in the overall HE participation rate' (para. 23).

'Substantial, sustained and materially significant participation increases for the most disadvantaged areas across the 04:05 to 09:10 cohorts are found regardless of whether educational, occupational or income disadvantage is considered. *Typically, young people from the 09:10 cohort living in the most disadvantaged areas are around +30 per cent more likely to enter higher education than they were five years previously* (04:05 cohort), and around +50 per cent more likely to enter higher education than 15 years previously (94:95 cohort)' (para. 28, emphasis added).

'Trends in social statistics – such as HE participation rates – that are associated with deeply rooted differences in advantage do not usually show rapid change. A set of robustness and credibility checks give confidence that the analysis in this report is faithfully describing HE participation trends. In particular, *the unusually rapid increases in HE participation recorded since the mid-2000s for young people living in disadvantaged areas are supported by changes in the GCSE attainment* of the matching cohorts of young people ….' (para. 31, emphasis added).

A parallel worry was that inequality between institutions would grow. Again, there has been no trend to widening inequality. At least as measured by RAE results, some 1992 universities have overtaken pre-1992 universities. Part of the reason for this result is that the increase in fee income for UK/EU undergraduates is larger for universities with a larger proportion of such students and smaller for universities with substantial numbers of non-EU undergraduates and postgraduate students. In consequence, the increase in fees to £3,000 provided a larger proportionate increase in income for the post-1992 universities than for the Russell Group universities. The share of taxpayer resources across different universities is rightly a matter for discussion, but as part of continuing scrutiny of the sector, not as crisis management.

It is therefore fair to claim that the reforms contribute to the objectives set out earlier. Problems, however, remain.

3.2 Pressure points: Fees

The central argument is that variable fees (*a*) bring in more resources and (*b*) strengthen competition, thereby (*c*) improving quality. All three aspects require discussion.

THE FEES CAP. The cap of £3,000 has created several stress points.

- The additional income, though useful, is far from transformational, so resource pressures continue. Universities that seek to compete with the best US institutions find themselves heavily outgunned financially.
- Competition has been muted. Almost all universities charge the full £3,000, so that there is virtually no price competition.
- There are political stresses. Later discussion will argue that a fees cap of some sort is an important continuing part of the system. However, the initial level of the fees cap was not a result of economic analysis (e.g. estimates of price and income elasticities) but part of the political settlement during turbulent Parliamentary debate. The level of fees was – and remains – a matter of considerable political sensitivity. The issue is taken up in section 4.2.

A separate problem with the fees cap – potential discrimination against home students – is not new. As noted prior to the introduction of flat fees in 1998, a low fee,

> '… will continue the erosion of quality at the best universities, which face the biggest shortfalls. If this policy continues, the result will be to deprive British students of the chance of an internationally cutting-edge undergraduate degree in one of two ways. The quality of the best institutions might fall; British students could still get places, but the quality of the degree would be less. Alternatively, the best institutions will largely stop teaching British undergraduates … and will use the fees from foreign undergraduates … to preserve their excellence' (Barr and Crawford, 1997, para. 57).

The current economic crisis makes the problem more salient. 'Leading universities are drawing up plans to slash thousands of places for British undergraduates and replace them with foreign students paying far higher fees to cope with an expected cut in government funding of 20%-25%'.[19]

[19] *Sunday Times*, 20 September 2009, http://www.timesonline.co.uk/tol/life_and_style/education/article6841340.ece

QUALITY. Though part of the argument for variable fees was that they would help to improve quality, that has not happened immediately, at least as exemplified by surveys of student experience. Part of the explanation is that the additional resources were used not only for teaching but to address other long-term pressures on the unit of resource, including academic pay and the maintenance of buildings. A second reason is that, as part of the political settlement, the conditionality applied to the fee of £3,000 related to participation rather than quality. Thirdly, as noted, additional fee income was least at universities with relatively larger numbers of overseas and postgraduate students, constraining efforts to strengthen quality. Whatever the truth of complaints about quality, keeping fees down is no solution.

3.3 Pressure points: Loans[20]

What I call 'pub economics' relates to something that is obviously right and everybody knows it is right – but it is wrong. The problem arises in two ways for loans – the view that student loans are credit-card debt, and the view that interest subsidies help low earners.

A WOEFUL FAILURE TO EXPLAIN INCOME CONTINGENCY. Though the UK has had income-contingent loans since 1998, discussion continues to conflate credit-card debt, which is harsh and unforgiving, with student loans, which are a payroll deduction just like income tax and national insurance contributions (see Table 1). The government should be loudly praised for passing the 2004 Act but noisily excoriated for its total failure to make a robust case for the resulting system, putting at risk one of the most socially progressive reforms of the last decade.[21] This failure makes the same mistake as the New Zealand government in the 1990s; having passed the reforms, politicians then failed to explain them and to continue to campaign for them. We return to political communication in section 4.1.

INTEREST SUBSIDIES. Equally critical as a stress point is the zero real interest rate on student loans. A zero real rate is the wrong one; it is too low. A commercial rate – the rate of interest on an unsecured individual loan, such as credit cards – is too high. One of the recommendations in section 4.3 is that the interest rate on student loans should be related to

[20] This section is drawn from Barr and Johnston (2010).

[21] I suspect that this was an error of commission. The government made no attempt in the 2005 election to explain the system nor to claim credit for socially progressive reforms.

the government's cost of borrowing, for example the rate on government bonds, with targeted interest subsidies where necessary. Box 7 sets out a key feature of higher interest rates in an income-contingent system.

Box 7: Higher interest rates don't mean higher monthly repayments

The intuition of interest subsidies is clear but mistaken. Their stated purpose, widening participation, is commendable, and with conventional loans the policy can make sense – an interest subsidy would help first-time house buyers by reducing monthly repayments. Income-contingent repayments turn the argument upside down: if a person's repayment is *x*% of her earnings, a lower interest rate has no effect on monthly repayments, but instead shortens the repayment period.

Thus raising the interest rate extends the duration of the loan. Consider a person who repays his or her loan after 10 years with a zero real rate, but takes 12 years with an interest rate equal to the government's cost of borrowing. *The higher interest rate adds not a brass farthing to anybody's monthly repayments* until the later years of the loan (in this example years 11 and 12), when repayments continue when otherwise they would have stopped. Thus a higher interest in this example turns a 10-year graduate tax into a 12-year graduate tax. For fuller discussion of the intuition of income-contingent repayments, see Barr and Johnston (2010, Box 4).

Where loans have income-contingent repayments protecting people with low current earnings and forgiveness after 25 years protecting people with low lifetime earnings, an interest subsidy is a policy of such cleverness that it achieves not a single desirable objective. Problems include high cost, impediments to quality, quantity and access, and regressivity.

Cost. The subsidy is very expensive. The combined cost of the zero real rate and the 25-years write-off for fees and maintenance loans in 2007/08 was about £1 billion, out of total lending to students in England of £3.9 billion,[22] almost a tenth of public spending of £12.6 billion on English higher education (Department for Education and Skills Annual Report, 2007). According to government figures, an average of 29 pence of each £1 of maintenance loan will not be repaid just because of the interest subsidy; the comparable

[22] The total of £3.9 billion comprises maintenance loans of £2.6 billion and fees loans £1.3 billion (provisional figures for 2007/08. The provisional figures for 2008/09 show total lending of £4.55 billion, comprising £2.5 billion for maintenance loans and £2 billion for fees loans (Student Loans Company 2008, Table 4A and 4B).

figures for fees loans (which are deemed to be paid after the maintenance loan has been repaid) is 42 pence. Barr and Johnston (2010, Table 1), estimate that the subsidy for the average graduate in the middle quintile of graduate earners is 26.3 per cent of his or her total loan, or £5,315 for an average loan of £20,235.

There are at least three reasons why the high cost should not be surprising:

- The subsidies apply to all borrowers for the whole loan and for the entire duration of the loan. Thus *nobody*, not even the best-paid graduates, repays his or her loan in full.
- The duration of repayments is long; this is desirable, since it is efficient if the length of a loan is related to the life of the asset, hence 3-year car loans but 25-year home loans. But with an interest subsidy, the longer the loan, the more costly the subsidy.
- Borrowers face an incentive to arbitrage: students who do not need the money borrow as much as they are allowed and save the money, making a profit because the interest rate on the savings account is higher than the rate on the student loan. Unsurprisingly, the problem arises in other countries with interest subsidies.[23]

These high costs lead to further ill effects.

Impediments to the quality and size of the sector. Student support is politically more sensitive than direct spending on universities. Within a given budget, the cost of the interest subsidy crowds out the finance available for teaching and research, putting quality at risk. More dramatically, the excess demand for university places in 2009 and 2010 has its roots in fiscal constraints in which the cost of the interest subsidy is at least a co-defendant.

Impediments to access. Because loans are expensive, they are rationed. It is no accident that between 1998 and 2006 there was no loan to cover fees and the maintenance loan was too small. The 2006 reforms address the former and have made some progress on the latter. However, students from better-off backgrounds are still not eligible for a full loan, i.e. loans are income tested, [24] and the maintenance loan is not sufficient to cover realistic

[23] 'To compound matters, the policy [of interest subsidy] has made it possible for learners to borrow money and invest it for private gain (arbitrage)…. [T]his policy should be discontinued – or … , as a minimum, the incentives for arbitrage should be removed' (New Zealand Tertiary Education Advisory Commission, 2001, p. 14).

[24] Students from the best-off backgrounds are entitled to 75 per cent of the full maintenance loan.

living costs. Nor is it an accident that the loan arrangements exclude other groups, including part-time and postgraduate students; extending loans to further education has barely been discussed; nor has there been discussion of loans as an ingredient in lifelong learning. Section 4.3 makes the case for extending loans to cover these groups.

Regressive. It is easiest to see the incidence of interest subsidies by considering different groups.

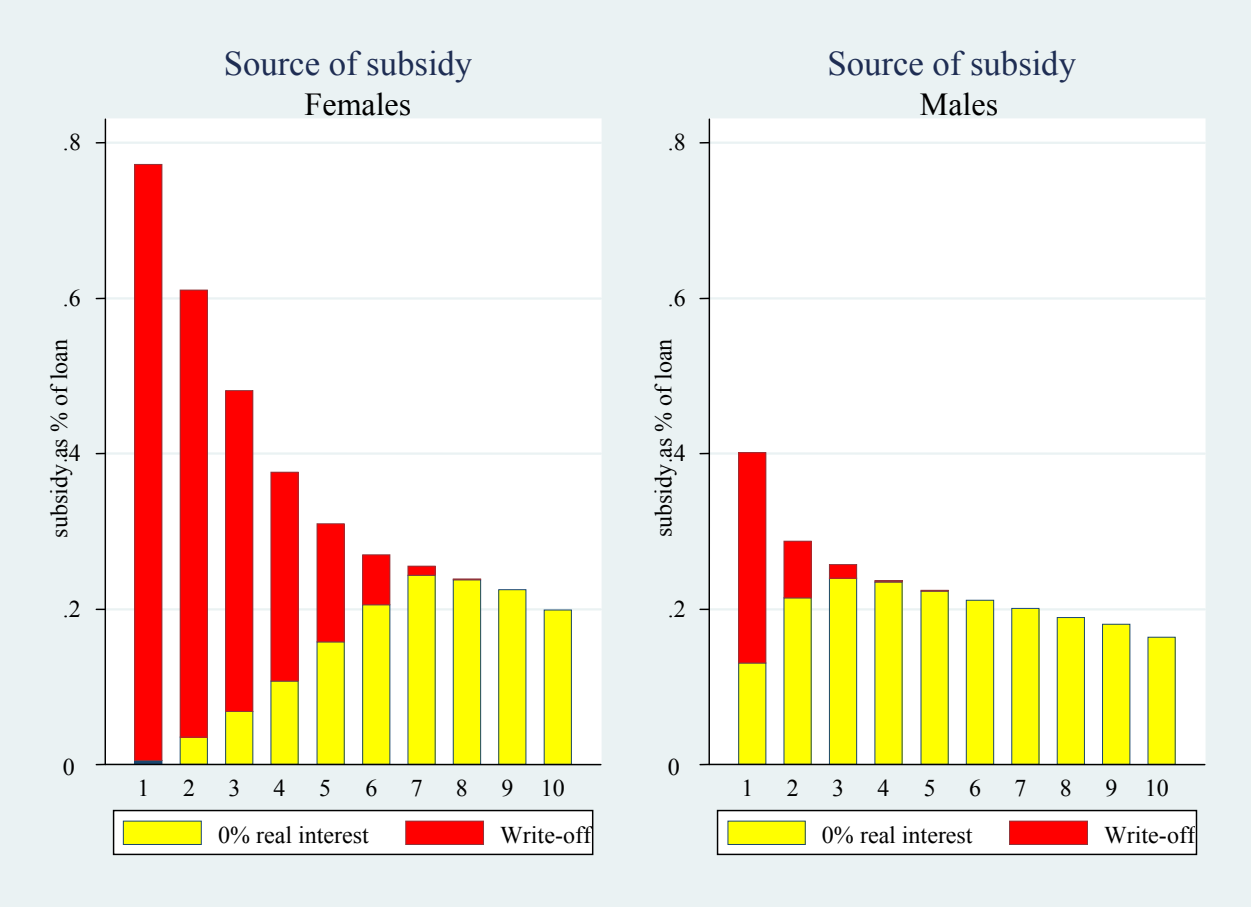
- Students do not benefit, since they make no loan repayments.
- Low-earning graduates receive relatively little benefit. The interest rate affects only the duration of the loan. People with low earnings make low or no repayments; and if earnings remain low over the long term, unpaid debt is forgiven.
- High-earning graduates with low earnings early in their career receive no benefit early in their career, when their monthly repayments are low because their earnings are low. The interest rate affects only the duration of the loan.
- Graduates with high career earnings benefit the most. For a given income profile a lower interest rate reduces the duration of the loan. Thus the repayments of a high-earning graduate are switched off after (say) 10 years, rather than after (say) 12 years with a higher interest rate.

Thus the major beneficiaries are successful professionals in mid career, whose repayments stop earlier because of the subsidy. This is not the group that the policy was intended to help.

Figure 2 confirms these arguments of principle. It shows (*a*) that what protects low earners is forgiveness after 25 years (the darker shaded area) and (*b*) that that provision mainly benefits women, since it is disproportionately women who have interrupted careers.[25] In contrast, the interest subsidy (the lighter shaded area) mainly benefits graduates in middle and higher income deciles. Instead of spending over a billion pounds annually on interest subsidies which mostly help the better-off, the resources should be used to promote access through better-targeted activities and to raise quality.

[25] On distributional aspects, see Dearden et al. 2008.

Figure 2: Subsidy as per cent of total loan, across decile of lifetime earnings distribution



Source: Institute for Fiscal Studies, personal communication.

In sum. The interest subsidy is a major price distortion. Like many price distortions, it is inefficient and inequitable.[26] The core analytical error is to use a price subsidy for distributional purposes. The greater part of spending on the interest subsidy benefits people who repay in full, and who would do so even without the subsidy – a pure deadweight cost.

The resulting inefficiencies include distortions to decisions about:

- the balance between loans and family support;
- the balance between loans and paid work;
- the balance between student support and university income, putting quality and quantity at risk;
- the balance between loans and private sources of student support (e.g. loans are too small, putting access at risk);

[26] The inefficient incentives resulting from distorted prices was one of the central ingredients in the collapse of the communist economic system.

- the availability of loans for certain groups (part-time students, postgraduate students, students in further education).

The blanket interest subsidy is fiscally incontinent, inimical to quality, regressive and a major barrier to increasing loans to cover an increase in the fees cap. None of this is new:

> 'The [1988] white paper charges no interest but indexes the principal. This implies a real rate of interest of zero. The long-term real interest rate ... is about 3 per cent. Implicit in the white paper, therefore, is a long-run interest subsidy of 3 per cent, which is inefficient and wasteful of public expenditure because it is poorly targeted. Well-off undergraduates are given an incentive to borrow up to the maximum and put the money into privatisation flotations' (Barr, 1988; also Barr, 2002, paras 29-43).

None of this is inevitable. Hungary, the Netherlands, Norway and Sweden charge a positive real interest rate on student loans, a fact that is pretty much taken for granted.

3.4 Pressure points: Widening participation

The debate about widening participation is also bedevilled by pub economics, notably the argument that it is obvious that 'free' higher education widens participation. It is said that economists are obsessed by prices, while other social science disciplines such as sociology and social policy argue that behaviour has more complex causes. Thus I am sometimes bemused that it is these latter groups who become obsessed by fees (i.e. price), while an economist like me argues that the real causes of non-participation are more complex and generally happen much earlier.

To anyone who is serious about the evidence, one message stands out – *it's school attainment, stupid*. As a researcher into early child development tragically put it, 'By the time they are eighteen, all the damage has been done'.[27] In 2002 (when students from poor backgrounds paid no fees), 81 per cent of children from professional backgrounds went to university; the comparable figure for children from manual backgrounds was 15 per cent[28] –

[27] Leon Feinstein at a conference. See also Feinstein (2003).

[28] UK Education and Skills Select Committee (2002), *Post-16 Student Support*, Sixth Report of Session 2001-2002, HC445, London: TSO, p. 19)

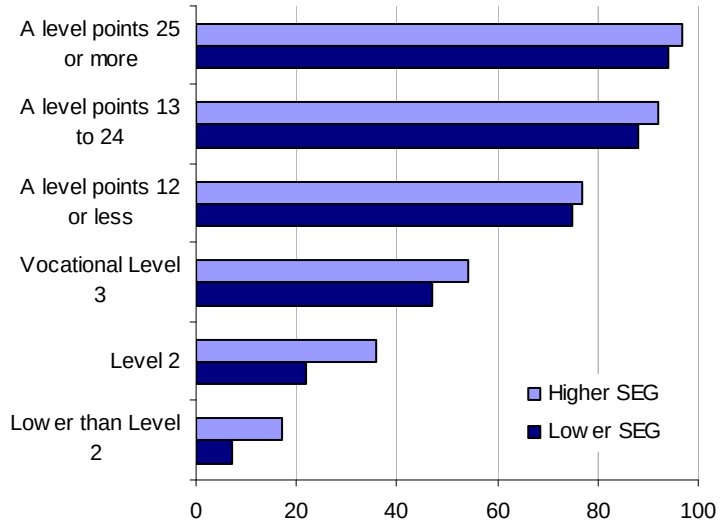
a shameful record. Yet restricting the sample to young people with good A levels, the figure was roughly 90 per cent for both groups.

It is important to unpack this conclusion by asking three questions:

- Who goes to university? Answer: people with good A levels (Figure 3).
- Who continues beyond 16? Answer: people with good GCSE results (Figure 4).
- Who has the best GCSE results? Answer: the children of professionals (Figure 5).

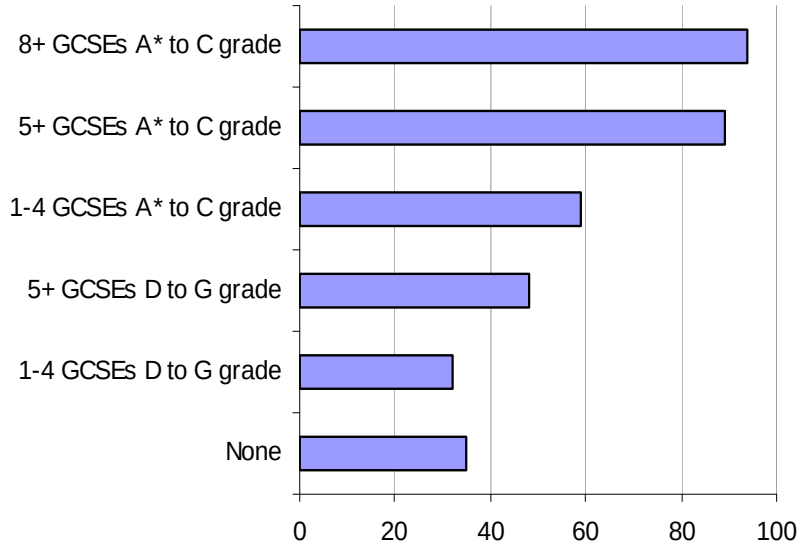
Figure 3, which is central, shows that if someone gets good A levels the problem is largely solved. About 95 per cent of people with the best A levels went to university, with virtually no socioeconomic gradient. For people with slightly less good A levels, the comparable figure was 90 per cent. Thus the evidence is robust that the major driver of participation is a person's prior attainment, with little effect of socioeconomic background. In addition, research based on more refined data, discussed in section 4.4, suggests that there is little effect on which university a person goes to. None of this should be surprising: the evidence has not changed since the Robbins Report (UK Committee on Higher Education, 1963, Appendix 1), notwithstanding all the reforms since then.

Figure 3: Who goes to university? It's school attainment, stupid: Entry into higher education by age 21: by socio-economic group (SEG) and highest qualification at age 18, 2002, England and Wales



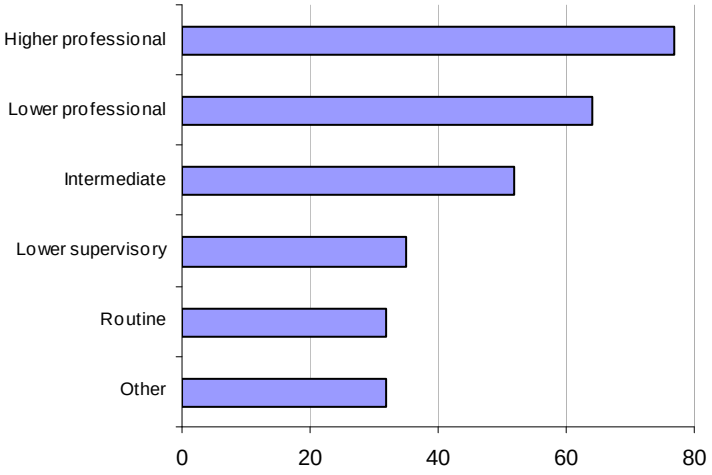
Source: UK Office for National Statistics (2004, Figure 2.15).

Figure 4: Who stays on after 16? Continuing full-time education at age 16: by GCSE qualifications, 2002



Source: Office for National Statistics (2004, Figure 2.13)

Figure 5: Who gets the best GCSE?: Attainment of five or more GCSE grades A* to C: by parental NS-SEC, 2002



Source: UK Office for National Statistics (2004, Figure 2.6).

4 Reform directions

The various pressure points are accentuated by the economic crisis. As discussed in section 1, however, the short-run pressures of the crisis and the longer-term arguments rooted in economic theory point in the same direction. This section discusses the resulting reform

directions. The starting point (section 4.1) is to improve knowledge about what the 2006 reforms are, and what they are not. Other reform directions concerning fees (section 4.2), loans (section 4.3), and widening participation (section 4.4) follow directly from the stress points just discussed. Section 4.5 explains why other policy directions are inferior, and section 4.6 discusses the role of government in a well-designed system.

4.1 Political foundations: Explaining the system

Though I am not a political expert it is clear that there has been a major failure in political communication.[29]

WHAT IS THE PROBLEM? There are good reasons why the language of 'high fees, high debt' has such widespread currency.

- It resonates with pub economics. Many people genuinely believe that it is true; and misinformation (and disinformation) blurs the distinction between student loans and credit card debt.
- It makes good headlines. It is easy to add the fees loan and maintenance loan, multiply by three years and come up with a headline figure of £25,000.
- It gives the NUS a good platform.
- It allows middle-class voters (the main beneficiaries) to defend their own interests under the guise of defending access, making it politically difficult for government to move in genuinely pro-access directions.

That the view is understandable does not make it right.

WHAT MESSAGES? If 'high fees, high debt' is wrong, what is right?

Message 1: Higher education is free for students, it's graduates who repay. If loans cover fees and living costs, higher education is free at the point of use.

Message 2: A payroll deduction, not credit-card debt. Credit-card debt has a high interest rate, a short repayment period, and fixed monthly repayments – and missing a

[29] On many occasions after I have explained the system, people have asked 'Why hasn't the government explained it like that?' A good question.

repayment can have serious consequences, including bankruptcy. Student loans are very different, with a low interest rate, a long repayment period, and with repayments related to monthly income, hence with inbuilt insurance against inability to repay, both where a person's monthly earnings are low and because of forgiveness after 25 years, which latter strongly benefits women.

One way to illustrate the point is to publish people's payslips, as in Table 1. Three points stand out: low earners make low or no loan repayments; repayments automatically and instantly track changes in earnings, and for all but the highest earners, loan repayments are much smaller than income tax or national insurance contributions.

Payslips bring out the point that loans are equivalent to a graduate tax that stops after a maximum of 25 years, and for most people significantly earlier. There are potential political advantages in calling the system a graduate tax, making it clear that what is involved is a payroll deduction.

Table 1: Monthly payslips, 2009-10

	Bill	Fiona	Tariq	Richard	Jane
Annual earnings	£15,000	£18,000	£20,000	£25,000	£50,000
Income tax (monthly)	£142.08	£192.08	£225.42	£308.75	£827.50
NI contributions (monthly)	£85.10	£112.61	£130.95	£176.78	£354.90
Loan repayments (monthly)	£0.00	£22.50	£37.50	£67.50	£262.50

Source: UK PAYE Income Tax Calculator 2009.[30]

Message 3: don't exaggerate the debt. A credit-card debt of £25,000 is seriously scary. A payroll deduction of £25,000 should be seen in the context of the £1 million (cash terms) of income tax and national insurance that a typical graduate will pay over a full career. Parents do not lie awake worrying about their child's future tax bill; no more should they worry about loan repayments.

[30] The official tax calculator does not include student loan repayments. This deficiency should be rectified as a matter of urgency

4.2 Reform directions: Fees

The links between variable fees, more resources, greater competition and quality were discussed in section 3.2. This section discusses the resulting reform directions for the fees cap and for quality assurance.

THE FEES CAP. As discussed in Box 3, there is a strong case for variable fees. But there is also a good reason for a fees cap. It needs to be high enough to bring in extra resources and to strengthen competition, thus improving the incentives to use those resources efficiently, but low enough to maintain long-term political support for the strategy and to allow institutions less used to competition the time to develop the necessary management capacity.

There is an additional argument. Though universities compete in terms of teaching, some universities are also selling access to the student's network of peers and, in this latter respect, have an element of monopoly power. Such monopoly power, it can be argued, is part of the explanation for the very high level of fees at some US universities. The resulting monopoly rent is not distributed to shareholders but ploughed back into facilities, a distortionary upward bias on spending which, it can be argued, leads to quality which is inefficiently high.[31]

For all these reasons a fees cap should be kept. But it should be higher than £3,000 – to bring in additional resources, to strengthen competition, to reduce the financial preference for foreign over home and EU students, and to reduce the subsidy to the best off. This argument is all the more powerful because *an increase in the fees cap has no effect on low earning graduates, who qualify for forgiveness after 25 years*; with a higher fees cap such people take out a larger loan to cover the higher fee, but repay no more than at present. How high the fees cap should go is a matter of balance. Access warriors should not unduly perpetuate a mainly middle-class subsidy; market warriors should remember what happens when policy overshoots (the USA) or loses political support (New Zealand). Given the political sensitivity of the issues, action on the fees cap needs to have both a technical and a political dimension.

[31] The problem is recognised. As the President of a private US university put it at a recent conference, 'It's time to call an end to the amenities arms race.'

In 2004 the increase in fees was tied to conditions about widening participation. The discussion in section 3.4 argued that fees have little to do with participation. In economic terms it makes more sense to tie higher fees to conditions about quality. Thus the fees cap and quality assurance are linked.

QUALITY ASSURANCE. Why, first, is quality assurance necessary? It is necessary in areas (*a*) where consumers are not sufficiently well-informed to provide their own quality assurance, particularly (*b*) where the cost of mistaken choice is high. Thus restaurants have to comply with strict hygiene standards, which customers would not be able to monitor, but leave it to consumers to decide whether or not they like the food. Similarly, there is little quality regulation about clothing except where safety is an issue, e.g. crash helmets.

Quality assurance in higher education can be organised in two ways. One approach is inspection. Those who lived through the QAA arrangements of the late 1990s need no reminder that this approach can be problematical. An alternative is to argue for quality assurance through well-informed consumers. Thus an important part of quality assurance is mandatory publication by universities of information that addresses questions like those set out in Box 10, that is, data such as:

- evaluation by students and others of teaching quality;
- surveys of the student experience more broadly; and
- next destination statistics – a market test of employers' views of quality.

That some of these variables are hard to measure is not an argument against the approach, whose beneficial effects can be seen by the reaction of universities which have done less well in the survey of student experience. It is also necessary to have sound regulation, for example, the various data should have common definitions.[32] It is also necessary to audit the data universities publish. Thus one of the important continuing roles for a quality assurance agency is to make sure that universities publish accurate information.

This approach concentrates the bulk of quality assurance resources where they are most needed. The system has three strategic elements:

[32] Analogously, credit card companies are required to use a common definition of the interest rate in monthly statements, to create comparability. For a voluntary US example of data about universities based on a common template with the explicit objectives of assisting comparability, see http://www.ucan-network.org/.

- mandatory publication of relevant data;
- 'light touch' self-evaluation by institutions, using criteria agreed with the quality assurance agency; and
- concentrated assistance for institutions with significant quality problems.

4.3 Reform directions: Loans[33]

This section discusses in turn what the interest rate should be, how to increase the flow of repayments, the presentation of student loans in the public accounts, and the policy gains from fixing the problem.

4.3.1 What interest rate?

As discussed, a zero real rate is too low, the unsecured individual rate too high. A further error is to have a grace period at the start of the loan. In a system with income-contingent repayments and forgiveness after *n* years, such a subsidy serves no useful purpose, and is extremely expensive (Shen and Ziderman 2009).

The right starting point is to charge an interest rate related to the government's cost of borrowing for all borrowers, for the entire loan, for the entire duration of the loan. The interest rate should vary over the life of the loan to reflect prevailing conditions (an interest rate fixed for the entire duration of the loan would cause horizontal equity problems across different cohorts of students, and hence political problems). As noted in Box 7, in a system with income-contingent repayments, a higher interest rate has no effect on a person's monthly repayments, only on the duration of the loan.

The simple approach can be modified in several ways: as discussed below, it *should* be modified by targeted interest subsidies, and it *can* be modified to share the cost of non-repayment in different ways. Box 8 describes the system in New Zealand during the 1990s, which incorporated both forms of modification.

TARGETED INTEREST SUBSIDIES. The idea is to ensure that a person's real debt does not rise substantially when earnings are low. Such a policy, can be implemented in different ways, and in ways that are compatible with the Student Loans Company's administrative processes.

[33] This section is drawn from Barr and Johnston (2010).

The simplest approach is to target interest subsidies in terms of a person's current income. One option is that anyone whose earnings in a given year are so low that his or her loan repayment fails to cover the interest element, receives an interest subsidy such that the real value of the outstanding balance remains constant. Alternatively, anyone who is receiving a credit for national insurance contributions – someone who is unemployed or looking after young children or a disabled person – can receive an interest subsidy.

The mechanism in the previous paragraph protects low earners and people with career breaks. However, some of the subsidy benefits people who subsequently have high earnings. It would improve targeting and thus reduce the loss on the portfolio to have a system which pays interest subsidies based on current income, but with a facility to claw back the subsidy for people who end up with high lifetime income. A workable scheme that achieves that is possible, with major advantages: it gives assistance at the time they need it to people with low income and/or with a career break, preventing people from worrying that their repayment obligation is spiralling upwards; but it is cost free, since the clawback mechanism ensures that only the lifetime poor keep the subsidy. It is also flexible: it would, for example, be possible to give conditional subsidies to some groups (e.g. someone who went travelling after graduation), but unconditional subsidies to others (e.g. someone with caring responsibilities).

Alongside interest subsidies for low earners, it is possible to introduce phased forgiveness (e.g. 10 per cent of a person's outstanding loan balance) for some public service workers such as teachers in the state school system (there have been moves in this direction in England for some subjects) and nurses and perhaps also doctors in the national health service. Similarly there could be a phased write-off for each year of caring activity (for example writing off 10 per cent of the outstanding loan of a parent caring for a child of pre-school age and 5 per cent thereafter).

SHARING THE COST OF NON-REPAYMENT IN DIFFERENT WAYS. Income-contingent loans create an inevitable loss because of people with low-lifetime earnings. The cost of those losses must fall somewhere. They could fall on the taxpayer, as in the UK. Alternatively, the cohort of borrowers could cover the loss through a cohort risk premium, introducing a social insurance element with redistribution within the cohort of borrowers from high earners to

people with low lifetime earnings. Or the loss can be shared between the two groups if the risk premium covers some of the loss and the taxpayer the rest, as Box 8 discusses.

Box 8: Targeted interest subsidies in New Zealand, 1992-2000

The system in New Zealand's between 1992 and 2000 was highly cost-efficient and protected low earners.

The default interest rate. It was estimated that a risk premium of 2 per cent would cover the loss on the portfolio due mainly to low lifetime earnings. The interest charge was 1 per cent above the government's cost of borrowing, thus sharing the costs of non-repayment roughly equally between the taxpayer and the cohort of borrowers.

Targeted interest subsidies. If the graduate's salary was so low that repayments did not cover that year's interest, the outstanding balance was adjusted so that his or her real debt did not increase.

Political aspects. The system in New Zealand – as close to the ideal as anyone has managed – did not survive. The government failed to explain how it worked and did not continue to campaign for it; as a result, populist political pressures and an unexpected election victory by the opposition in 1999 led to the introduction of interest subsidies.[34]

4.3.2 Increasing the flow of repayments

Barr and Johnston (2010) estimate the cost and distribution of interest subsidies using data from the Institute for Fiscal Studies on the earnings paths of 20,000 graduates. The estimates are in real terms (i.e. abstract from inflation) for a loan balance at graduation of £20,235, and assume a real government borrowing rate of 3 per cent for the entire duration of the loan.

NON-REPAYMENT IN THE CURRENT SYSTEM. As Table 2 shows, the present value of non-repayment by graduates in the lowest quintile of graduate earners is £16,080, a subsidy of just below 80 per cent of their total loan. Most graduates in this quintile never repay in full; thus non-repayment is mostly from the 25-year write-off, i.e. the darker shaded areas in Figure 2.

Non-repayment by the average graduate in the middle and top quintiles is £5,315, and £3,860, respectively, a subsidy of 26.3 per cent and 19.1 per cent of the loan. No graduate in

[34] It is said that the opposition won because of the All Black's defeat by France in the rugby World Cup in November 1999. The demise of the New Zealand loan system is thus the fault of the French.

these quintiles receives a write-off; thus non-repayment is entirely the result of the interest subsidy, i.e. the lighter shaded areas in Figure 2.

There are two and only two ways to increase the flow of repayments: higher monthly repayments or a longer duration of repayments. The options are set out in Tables 2 and 3. Each option has a moderate variant and, to provide a stress test, a more radical variant.

HIGHER MONTHLY REPAYMENTS. With an interest subsidy, the longer the duration of the loan the greater the resulting loss. Higher monthly repayments accelerate repayment, thus reducing the loss. Monthly repayments could be increased by raising the repayment rate, currently 9% of income, or lowering the threshold, currently £15,000 per year, or both.

Option 1: Increased monthly repayments. Table 2 shows two variants. Under the more radical option 1b, repayments of 12% of income above £10,000 reduce the subsidy for the bottom quintile from 79.5 per cent of their loan to just below 30 per cent. From Table 3, this option produces an average saving of £3,089 per graduate. However, the bulk of saving, £10,025, comes from the average graduate in the lowest quintile, with only £900 from an average graduate in the top quintile.

Thus raising monthly repayments on its own is problematical: the resulting savings will be small if alterations are moderate, or they will be regressive, if increases in monthly repayments are large. Except as a marginal change, this approach is politically inept and runs counter to the efficiency and equity purposes of income-contingent repayments.

A LONGER DURATION OF REPAYMENTS. Two points are noteworthy. First, as noted in Box 7, a higher interest rate has no effect on monthly repayments, only on the duration of the loan. Second, longer duration has no effect for graduates who hit the 25-year limit. Thus the average graduate earner in the bottom quintile is unaffected by a positive real interest rate.

Reducing the cost of blanket interest subsidies by extending the duration of repayments produces large savings. There are two approaches.

- A positive real interest rate increases duration by a variable amount, being shorter for someone with higher earnings.
- A fixed additional duration increases the repayment period by (say) two years. The implied real interest rate varies across graduates, being higher for someone with

higher earnings who pays more during the additional two years than someone with lower earnings.

Table 2: Loan subsidy for an average graduate with £20,235 debt, by quintile

	Lowest quintile **Non-repayment predominantly because of write-off**	**Second Quintile** **Non-repayment because of write-off and interest subsidy**	**Middle quintile** **Non-repayment because of interest subsidy**	**Fourth Quintile** **Non-repayment because of interest subsidy**	**Top quintile** **Non-repayment because of interest subsidy**
Current System	79.5% (£16,080) Write-off at 25 years	30.5% (£6,175) Repays in 20 years	26.3% (£5,315) Repays in 16 years	23.0% (£4,655) Repays in 13 years	19.1% (£3,860) Repays in 11 years
Option 1a (change in repayment conditions only – 12% above £12,500)	48.5% (£9,815) Write-off at 25 years	23.8% (£4,805) Repays in 15 years	21.2% (£4,280) Repays in 12 years	18.9% (£3,825) Repays in 11 years	15.8% (£3,190) Repays in 9 years
Option 1b (change in repayment conditions only – 12% above £10,000)	29.9% (£6,055) Repays in 23 years	21.1% (£4,270) Repays in 13 years	19.1% (£3,865) Repays in 11 years	17.2% (£3,490) Repays in 10 years	14.6% (£2,960) Repays in 8 years
Option 2a (3% interest rate with a NZ variant)	79.5% (£16,080) Write-off at 25 years	7.3% (£1,470) Repays in 24 years	5.8% (£1,185) Repays in 19 years	4.4% (£890) Repays in 15 years	3.0% (£605) Repays in 12 years
Option 2b (4% interest rate with a NZ variant)	79.5% (£16,080) Write-off at 25 years	0.5% (£110) Write-off at 25 years	-2.1% (Graduate overpays £430) Repays in 20 years	-2.4% (Graduate overpays £480) Repays in 16 years	-2.8% (Graduate overpays by £560) Repays in 12 years
Option 3a (2 year repayment extension)	79.5% (£16,080) Write-off at 25 years	20.1% (£4,235) Repays in 22 years	11.6% (£2,340) Repays in 18 years	2.5% (£500) Repays in 15 years	-10.4% (Graduate overpays £2,110) Repays in 13 years
Option 3b (3.5 year repayment extension	79.5% (£16,080) Write-off at 25 years	13.3% (£2,685) Repays in 23.5 years	0.4% (£90) Repays in 19.5 years	-13.3% (Graduate overpays £2,700) Repays in 16.5 years	-33.8% (Graduate overpays £6,845) Repays in 14.5 years
Option 4 (3% interest with a NZ variant after year 5)	79.5% (£16,080) Write-off at 25 years	0.5% (£110) Write-off at 25 years	0% (£0) Repays in 19 years	0% (£0) Repays in 15 years	0% (£0) Repays in 12 years

Source: Barr and Johnston (2010, Table 1), using data on salary paths from the Institute for Fiscal Studies.

Table 3: Savings by quintile for pure options (savings per average graduate in the quintile compared to current system)

	Lowest quintile	**Second quintile**	**Middle quintile**	**Fourth quintile**	**Top quintile**	***Average Savings per Graduate across cohort***
Option 1a	£6,265	£1,370	£1,035	£830	£670	***£2,034***
Option 1b	£10,025	£1,905	£1,450	£1,165	£900	***£3,089***
Option 2a	£0	£4,705	£4,130	£3,765	£3,255	***£3,171***
Option 2b	£0	£6,065	£5,745	£5,135	£4,420	***£4,273***
Option 3a	£0	£1,940	£2,975	£4,155	£5,970	***£3,008***
Option 3b	£0	£3,490	£5,225	£7,355	£10,705	***£5,355***
Option 4	£0	£6,065	£5,315	£4,655	£3,860	***£3,979***

Source: Barr and Johnston (2010, Table 2), using data on salary paths from the Institute for Fiscal Studies.

Option 2: A positive real interest rate, but with full protection against rising real debt. Options 2a and 2b in Table 2 show that increasing the real interest rate to 3% or 4% has no effect on the average graduate earner in lowest quintile, whose earnings are low and thus qualify for forgiveness after 25 years. A 3 per cent real rate (option 2a) yields savings of £4,130 for the average graduate in the middle quintile and £3,255 for the average graduate in the top quintile (Table 3); with a 4 per cent real interest rate (i.e. one per cent above the government's cost of borrowing) the savings are £5,745 and £4,420, respectively.

A 3 per cent real interest rate fully protects graduates in the lowest quintile. However, though it reduces the subsidy from the other quintiles it does not entirely remove it even for the top quintile because on average their earnings in the first few years after graduation are too low fully to cover the interest charge.[35] With a 3 per cent real rate, therefore, savings averaged across the five quintiles are relatively small, £3,171 (Table 3). Charging a 4 per

[35] Barr and Johnston, 2010, Box 4 explain why this outcome is typical of loans with income-contingent repayments which, by design, have end-loaded repayments, thus protecting people during early years when earnings are typically low.

cent interest rate increases the average saving to £4,273 by causing the average graduate in the top three quintiles to overpay by between 2 and 3 per cent of their total loan (Table 2).

Option 3: Extending repayment duration by n *years*. Option 3a extends repayment by 2 years; thus someone who would repay in 10 years in the current system repays for 12 years. Option 3b extends repayment duration by 3.5 years. In neither case does anyone repay for longer than 25 years.

The effect is powerful. A two-year extension reduces the interest subsidy for the average graduate in the middle quintile from 26.3 per cent in the current system to 11.6 per cent, and in the top quintile from 19.1 per cent to -10.4 per cent (i.e. an overpayment), providing average savings per graduate in those two quintiles of £2,975 and £5,970, respectively. The average earner in the lowest quintile is unaffected. Raising the repayment duration to 3.5 years eliminates the subsidy in the middle quintile, while an average graduate in the top quintile overpays by 33.8 per cent. Graduates earn more later in their career, so end-loading repayments in this way reduces the interest subsidy much more powerfully than increasing repayments at the start of a graduate's career, as in option 1.

Option 3 in its pure form thus embodies considerable redistribution from the top to the bottom quintile. It would also be possible to cap overpayments, for example, no graduate would repay more than 120 per cent of his or her initial loan.[36]

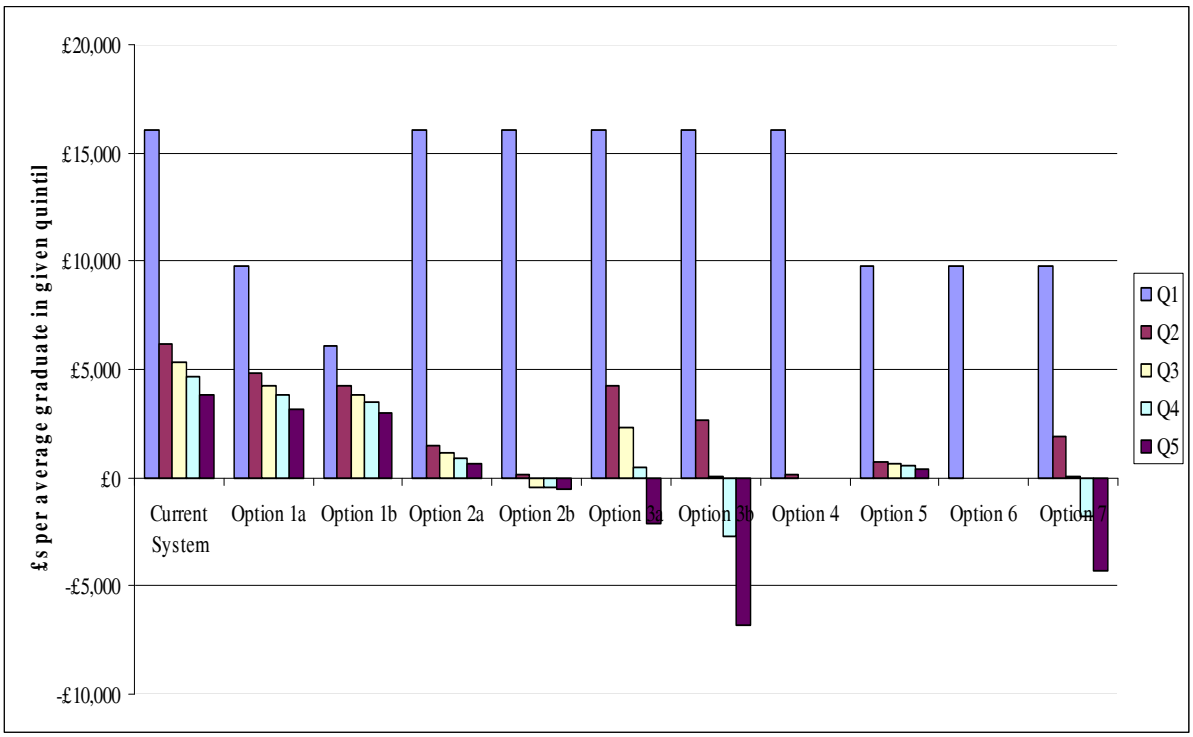
Option 4: A positive real interest rate with full protection against rising real debt after 5 years. Where the previous options produce large savings, they do so either by imposing extra repayments on the lowest quintile (option 1) or by extracting large overpayments from the top quintile (option 3). Option 4 fully protects the bottom quintile from additional repayments but also protects the middle and upper quintiles from overpayments. It does so by allowing a person's real outstanding loan balance to rise for up to five years after graduation, i.e. New Zealand type protection from year 6 onwards. The primary purpose of the New Zealand variant is to protect people with low lifetime earnings. Removing such protection, but only for the first five years continues to protect people with

[36] The National Union of Students has advocated a progressive graduate tax. Option 3 shows how it is possible to build a progressive element into the loan system.

low current earnings (through income-contingent repayments) and low lifetime earnings (because of 25-year forgiveness), but ensures that graduates in the middle and upper quintiles of earner repay in full, since non-repayment in the early years, which was previously forgiven, is now repaid but on average not overpaid (see Tables 2 and 3).

Barr and Johnston (2010) also explore a number of hybrid options which combine some increase in monthly repayment with some increase in the duration of repayments. These options, and those just discussed, are summarised in Figure 6. Box 9 summarises a recent proposal by Shephard (2010), for a hybrid with a higher interest rate and a *lower* repayment rate.

Figure 6: Loan subsidy as a per cent of total loan in the current system and alternatives



Source: Barr and Johnston (2010, Figure 4) using salary path data from the Institute for Fiscal Studies.

Note: Option 1: Monthly repayments of 12% of income over (a) £12,500 and (b) £10,000.
Option 2: Positive real interest rate of (a) 3% and (b) 4%, where real debt does not rise
Option 3: Repayment extension of (a) 2 and (b) 3.5 years
Option 4: Positive real interest rate of 3% with real debt allowed to rise for first 5 years
Option 5: Option 1a + Option 2a
Option 6: Option 1a + Option 4
Option 7: Option 1a + Option 3a

Box 9: Shephard's proposal: a higher interest rate with a lower repayment rate

Neil Shephard (2010) argues that an interest rate 0.5 per cent above base rate – in terms of the analysis above, about 3.5 per cent – together with a repayment rate of 7 per cent (i.e. lower than the current 9 per cent), simultaneously reduces monthly repayments *and* reduces the fiscal cost of loans.

The apparent paradox – lower repayments with lower taxpayer cost – requires explanation. Compared with the present system, a repayment rate of 7 per cent reduces monthly repayments for all graduates. However, the higher interest rate extends the duration of the loan sufficiently that the additional repayments in the latter years of the loan by graduates who are older and, on average, better-off, outweigh the effect of lower monthly repayments.

The policy thus offers potential fiscal gains, is more much progressive than the present system and has political appeal.

COMPARISON OF THE OPTIONS. Comparison starts from two value judgements: lower earners should continue to be protected; and average and higher earners should not receive interest subsidies. On that basis some options are clearly suboptimal:

- The present system is expensive, inimical to quality, quantity and access, and regressive.
- Option 1: higher monthly repayments: most of the savings from this approach come from the bottom quintile.
- Option 2: a higher interest rate with full protection against any increase outstanding loan balance: this option leaves the best-off graduates with some subsidies. Option 4 avoids this problem and is therefore superior.

The remaining options are:

- Option 3: a repayment extension: this approach preserves the subsidy to the lowest quintile. A two-year repayment extension (option 3a) reclaims about 44 per cent of the current subsidy; the middle quintile retain some of their subsidy; the top quintile overpay by 10.4 per cent. With a repayment extension of 3½ years only the bottom

quintile is subsidised, but the top quintile overpays by nearly 34 per cent. A realistic version of this option would cap the maximum overpayment by any graduate.

- Option 4: a positive real interest rate with real debt allowed to rise for the first 5 years: this option reclaims nearly 55 per cent of the current subsidy; the bottom quintile retains all of the current subsidy; the average graduate in the second quintile retains a very small subsidy; and the average graduate in the three upper quintiles receives no subsidy but does not overpay.

Note that options 3 and 4 cause little change to the present system, since monthly repayments and methods of collection are the same. In addition, there is no change for lower earners who continue to qualify for forgiveness after 25 years.

There is no unambiguously best choice between these latter options. The optimal policy will depend on the relative weights policy makers attach to (*a*) protecting graduates with low lifetime earnings, (*b*) reducing public spending and (*c*) protecting the highest earners from repaying significantly more than they borrowed. If we want the bottom quintile to keep its current subsidy, the choice is between lower saving in public spending or larger overpayments by the best-off graduates.

That said, a repayment extension has powerful advantages.

- It produces larger savings than a real interest rate, since the top quintile overpays.
- It fully protects graduates in the lowest quintile, and is more progressive than a real interest rate for earning quintiles above the poorest.
- The combination of full protection for the lowest earners together with good performance of the loans portfolio as a whole improves the prospects of private finance by offering private lenders a capped equity stake in the graduate cohort.[37]

4.3.3 Student loans in the public accounts

Raising the interest rate on student loans reduces the loss on the portfolio, hence in principle releases resources for other uses. This is true, but with a complication concerning the

[37] Milton Friedman's original (1955) proposal was for equity finance, not loan finance.

resource budget in the public accounts (which seeks to present a picture in present value terms) and the cash-flow budget, which presents a picture in current terms.

THE RESOURCE BUDGET. Assume that lending to students in year 0 is £2 billion, of which £1 billion is not repaid (the combined effect of interest subsidy and 25-year forgiveness). This non-repayment appears as an expenditure item in the education budget in year 0 (known as the Resource Accounting Budget (RAB) charge). Thus the RAB charge loads onto measured public spending this year the estimated future loss on this year's lending.

Consider the effect of increasing the interest rate on student loans. With conventional loans this raises monthly repayments immediately, and hence brings in extra resources immediately. With income-contingent repayments, a higher interest rate means that people make an unchanged monthly repayment, but for longer. Suppose that raising the interest rate (*a*) extends repayment duration for a representative individual from 10 years to 12, hence (*b*) reduces non-repayment from 50 per cent of all lending to one-third. With a loss on the portfolio of one-third, a RAB charge of £1bn can support expansion of the loan system from £2bn to £3bn Though lending rises from £2bn to £3bn in year 0, the loan fund is off budget. Thus it is possible to expand the loan system with no increase in measured current spending.

The same is not true, however, if the savings are diverted to other uses such as additional resources for universities to improve quality or more money for nursery education to assist participation. The savings from the higher interest rate do not arise until the end of the repayment period, in the example in years 11 and 12. Using those future savings to increase spending today increases the PSBR today.

The bottom line is that raising the interest rate makes it possible to expand the loan system immediately, or to divert the savings to other uses in the future.

THE CASH FLOW BUDGET. However loans are presented in the public accounts, expanding the system makes it necessary to finance the initial cash-flow costs. If that is a concern, one option is to sell student debt to private buyers. In previous sales the net proceeds have been about half of the face value of the debt, largely because of the interest subsidy. Charging a

positive real interest rate correspondingly reduces the cost of raising private finance.[38] In order to build a track record in financial markets, it would be desirable to start as soon as possible, initially selling small tranches. Even if much of the cash-flow cost falls on the fisc in the short run, it should be remembered that much of it finances investment in human capital, the importance of which was emphasised in Box 2.

4.3.4 Resulting policy gains

The blanket interest subsidy on student loans has high costs and no benefits. A targeted interest subsidy, with most graduates paying an interest rate related to the government's cost of borrowing reduces costs, alongside beneficial distributional effects, and makes possible a range of desirable policies, all of which have a claim for urgent action.

Specifically, predicated on action on the interest rate, the next wave of reform should:

- Provide larger loans for existing recipients:
    - Increase loans to cover an increase in the fees cap;
    - Increase maintenance loans;
- Expand the system to cover new groups:
    - Extend loans to part-time students;
    - Extend loans to postgraduate students.[39]

As economic conditions allow, future reform should:

- Extend loans to students in tertiary education and training more broadly;
- Offer a full loan to all students (i.e. abolish the income test on loans), thus no longer forcing student to rely on parental contributions;[40]

[38] The system of student loans in Hungary, which a team from the LSE and the Student Loans Company helped to design, is largely privately financed; see Berlinger 2009.

[39] It is worth considering a slightly different scheme for postgraduate students, with a lower threshold and a lower repayment rate.

[40] There are good reasons why *requiring* students to rely on their parents is bad policy: students are adults and, it can be argued, should be treated as such; student support is better targeted on where a student ends up, than on where he or she starts; parental contributions may not be paid; or they may be paid only on the basis of conditions, e.g. going to a local university, or doing a 'sensible' subject. None of this is an argument against parents helping their children if that is what parents and children wish; charging a sensible interest rate on student loans, by facing families with an efficient budget constraint, is helpful to that end.

4.4 Reform directions: Widening participation

Earlier discussion identified the real impediments to participation: lack of prior-attainment; constraints relating to information and aspirations; and the credit constraint. Clearly these factors can interact – for example, aspirations and attainment can feed off each other in an upward or downward spiral. This section discusses in turn policies that address each of the constraints, and then cross-cutting policies that address multiple constraints.

POLICIES TO IMPROVE ATTAINMENT. Chowdry et al. (2009) use administrative data to show that,

> 'Once we have added in all available measures of prior attainment …, the association between socio-economic status and HE participation rates is substantially reduced. In particular, boys (girls) in the bottom SES quintile are now just 3.2 (4.6) percentage points less likely to go to university at age 19 or 20 than boys (girls) in the top SES quintile' (p. 15).

That finding does not exclude the possibility that people from poorer backgrounds go to lower-status universities. However,

> '...once we control for a range of individual and school characteristics, plus detailed measures of prior attainment, these differences [in the likelihood of attending a high status university] are substantially reduced. This again highlights the importance of increasing attainment amongst poorer children in secondary schools as a route through which the socio-economic gap in HE participation (including at a high status university) might be reduced' (p. 18).

The strategic policy direction – improved attainment – is clear. It is equally clear that it is mistaken to concentrate narrowly on the transition at 18. Relevant policies include:

- Fostering early child development (e.g. Sure-Start), including action to increase the quality and availability of nursery education;
- Action to improve primary and secondary education outcomes;
- Policies to encourage staying on at age 16.

POLICIES TO IMPROVE INFORMATION AND RAISE ASPIRATIONS. Policies to improve attainment go hand in hand with policies, amplified in Box 10, to increase information about what going to university involves and its benefits. Policies under this head include:

- Bringing the university to schools, for example through student mentoring schemes; and bringing schoolchildren to university, through visit days, weekend schools, summer schools, etc. Universities have an important role in both these aspects of widening participation;
- Additional support for school teachers who advise young people on potential pathways;
- Better online assistance: well-designed expert systems can help to prompt potential applicants – and their advisers – to ask the right questions, and to help them sift through large amounts of information.

Box 10: Improving information: What do we mean?

Assume that there are two sorts of school pupils, those from backgrounds that are well-informed (i.e. mainly middle class) and those that are not.

Type 1 information. Thinking about higher education, a bright 16-year old in the first group will ask questions like 'Will it be fun?', 'Will I be well taught?' and 'Will I get a good job?' Much of the necessary information already exists.

- There is an increasing amount on the broader quality of the student experience;
- There is much material on the quality of teaching;
- The better the data on next-destination, e.g. graduate studies, type of job, unemployment, military service, etc., the better the information to prospective students about job prospects – a market test.

This sort of material is already available piecemeal. More can and should be done.

Type 2 information. For students from disadvantaged backgrounds a prior set of activities is needed to ensure that higher education crosses their radarscope. Activities include those just mentioned, such as student mentoring in schools and events at universities. Such activities have the twin purpose of developing skills and demystifying higher education. A young person in this group will ask questions like 'Will I be good enough?', 'Can I afford it?', 'Will it be worth it?'

- Academic matters include information about such things as staying on to do A levels or an equivalent qualification, choice of A level subjects, the sort of A level marks needed to get into different universities, and the fact that universities vary and so do students, so that the issue is one of matching.
- Financial matters include nuts and bolts on fees, realistic living costs, bursaries, and the operation of the loan system.

This approach (like the reform strategy more generally) divides policy into two parts: a default system for middle-class students, and additional elements that explicitly address the real impediments to access.

POLICIES TO ADDRESS CREDIT CONSTRAINTS. Lack of attainment prevents a person from even getting to the starting gate. The credit constraint affects those who reach the starting gate, but then cannot proceed for lack of finance.

A study from Statistics Canada offers empirical support. Canada liberalised fees in the early 1990s but without any parallel increase in loans or additional expenditure on scholarships. Predictably, access suffered. In the mid 1990s, the maximum amount that students could borrow was increased, as were other forms of student support. Access improved, notwithstanding that the Canadian loan scheme is not income-contingent. The report (Corak, Lipps and Zhao 2003) 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' (p. 14).

Dearden, Fitzsimons and Wyness (2009), looking at the impact of the 1998 reforms, which brought in flat fees of £1,000, found 'a small but significant negative impact of up-front fees on participation, and positive impacts of a similar magnitude of grants and loans'

(Abstract). The central point is that, holding attainment constant, credit constraints can harm access; but credit constraints can be relaxed by loans, and do not necessarily require grants.

Strategic policies to address the credit constraint include:

- Financial support, for example, Education Maintenance Allowances, and other encouragement to stay on at age 16;
- Better information about available sources of finance and the way they work;
- Loans with income-contingent repayments, large enough to make higher education free at the point of use, and with targeted interest subsidies;
- A system of grants for people who underestimate the benefits of higher education and hence are not prepared to take out a loan, even one with income-contingent repayments;
- Financial support for part-time study.

The policies discussed sofar address the three sets of constraints individually. But, as noted, they can interact. Additional, cross-cutting policies address multiple constraints.[41] Two stand out: policies to address genuine (rather than wrongly-identified) debt aversion; and policies to facilitate part-time study.

POLICIES TO ADDRESS GENUINE DEBT AVERSION. It is argued that people from poor backgrounds are debt averse, and hence will be unwilling to borrow. Thus, it is argued that fees impede access, even if covered by an income-contingent loan.

Some people are, indeed, reluctant to borrow to finance their degree. But it is mistaken to argue that this is caused by a blanket phenomenon 'debt aversion'. People from poorer backgrounds frequently have mortgages and credit-cards, so are not debt averse per se. Studies of debt aversion can be flawed in two ways: they are based on survey evidence, hence on what people say not on what they do;[42] and they do not control for differences in

[41] There is growing evidence that a longer-term, more holistic approach is necessary to make a substantial differences. See, for example, 'To unlock millions of children's lives, Britain must look to the Harlem miracle', *Guardian*, 5 August 2009, http://www.guardian.co.uk/commentisfree/2009/aug/05/harlem-poverty-children-schools.

[42] Yet even so, in the 2008 Ipsos MORI Student Survey, worries about acquiring student debt were only tenth in a list of eighteen reasons why young people said that they were unlikely to go to university.

the characteristics of potential applicants, notably their school results and the extent of their information. Correct analysis distinguishes at least three reasons why someone might be reluctant to borrow.

Lack of prior attainment. The flawed argument is that people from poor backgrounds do not go to university because they are debt averse; thus money intended to widen participation should be spent on grants and bursaries. The argument that the evidence supports is that a key reason why people from poor backgrounds do not go to university is because of low attainment, and that if that problem is fixed are just as likely to go to university as people from better-off backgrounds (Figure 3; see also Box 6). Thus money intended to widen participation should be spent mainly on raising GCSE grades, increasing staying-on rates, and improving information. The error, in short, is to attribute to the credit constraint behaviour that is determined mainly by the attainment constraint.

Lack of information and low aspirations Some people, especially those for whom we want to promote access, are badly informed about higher education and how the loan system operates. If such students under-estimate the benefits of higher education and/or over-estimate the costs, it is rational for them, *given what they know*, to be unwilling to take out a loan.[43] The primary policy to address the problem is to foster improved information. The case for grants arises where that approach is insufficient. There is also a case for full scholarships to finance a student's first year, on the basis that once a student has successfully completed a year, he or she is likely to be well-informed both about process and outcome, and hence prepared to take out a loan for the rest of the degree.

Risk aversion. A student from a poorer background may be risk averse about going to university because of fear of the unknown, and because he is uncertain about how well he will do at university and about the benefits from a degree, including employment outcomes. To that extent, risk aversion is more an information problem than a debt aversion problem. As with information problems, the primary response is to improve information and, where that fails, to pay grants.

[43] See Usher (2006) for a Canadian study.

Even if debt aversion does not stop people going to university, does it affect which university they go to? As discussed at the start of section 4.4 (see the quote from Chowdry et al. 2008), the evidence suggests that, holding school attainment constant, the likelihood of going to a high-status university is not strongly influenced by a person's background. Work in this area, however, is at an early stage, and gives no basis for complacency.

EXPANDING OPTIONS FOR PART-TIME STUDY. As Friedman (1955) pointed out, investment in human capital is risky, and the primary efficiency reason for income-contingent loans is to protect the borrower from inefficiently high risk. But different prospective students perceive risk differently, and perceived risk is likely to loom larger for people from disadvantaged backgrounds, emphasising the importance of part-time options. For the reasons set out in Box 11, a wide array of part-time options is important for that and for much wider reasons.

Box 11: Part-time study: much more than an optional add-on

Efficiency arguments. The world has changed. Fifty years ago not many people needed a degree so the sector was small, with a limited range of subjects and with full-time study the norm; and training when young lasted a lifetime. Today, because of technological advance, there is much greater demand for skills, for more diverse skills, and for retraining, since knowledge has a shorter half-life than previously. Separately, 50 years ago long-term, full-time employment, often with the same employer, was the norm. Today labour market relations are much more fluid, with portfolio careers embracing full-time work, part-time work, self-employment, etc. Thus matching students to degrees, discussed in Box 10, relates not only to the choice of subject and academic approach but also to mode of study, including whether study is full-time or part-time and, if the latter, whether (say) half time or a much smaller fraction, hence building up a degree over a longer period. Given diversity in objectives, degree subjects, financial constraints and labour-market constraints flexible part-time options assist efficient matching.

Equity arguments. Impediments to access include information constraints and – connected – risk aversion. Someone who is uncertain about whether he or she could cope with university and/or would enjoy it, may not take the risk of full-time study. The easier it is to dip one's toe in the water the greater the assistance to participation, through study locally one evening a week and/or through online study. Either option allows the student to stay in his or her home and job. The option of a low-cost experiment has powerful advantages in assisting participation.

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Getting the analysis right is important: participation can fail because of lack of prior attainment, lack of information, lack of aspirations, and risk aversion (often linked to lack of information); policy instruments include improved school education, action to improve information and raise aspirations, financial support while at school, and grants while at university. Policy needs to map instruments onto causes accurately; failure to do so wastes pro-access resources on policies that are not effective, and may end up perpetuating a mainly middle-class subsidy.

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4.5 Why not other directions?

Three haunting refrains – tax finance, flat fees, and a graduate tax – merit discussion.

WHY NOT TAX FINANCE? Despite its intuitive plausibility, the argument for relying on tax finance is mistaken, in that it fails to achieve core objectives, including quality and access.

It was possible to finance a high-quality system when it was small. But with a mass system, higher education will lose in the political battle for funds with more politically salient spending priorities, including nursery and school education, health care, and pensions. Real funding per student has declined sharply over the years in many countries as higher education expanded, with increasing worries about quality. This is no accident

Nor, for the reasons just discussed, is tax-finance a primary instrument for widening participation. Indeed, taxpayer finance is regressive. If higher education is paid largely or wholly from taxation, the taxes of poorer people pay for the degrees of people whose parents tend to be better off, and who will themselves go on to be among the better off.

WHY NOT FLAT FEES? The arguments against flat fees are the mirror-image of the arguments in favour of variable fees, set out in Boxes 2 and 3.

WHY NOT A GRADUATE TAX? The current NUS position is for a graduate tax, where those who have been to university pay a higher rate of income tax. From the viewpoint of the individual graduate an income-contingent loan is just like a graduate tax, except that it does not go on forever, but stops once the loan plus interest has been repaid. But though the two

approaches are similar for the individual, loans have significant advantages relative to a comparable graduate tax.[44]

Loans support variable fees. Variable fees have the three efficiency advantages set out in Box 3: they (*a*) bring in more resources, (*b*) make finance open ended and (*c*) facilitate competition, to the benefit of students and employers. A graduate tax (or a flat fee) achieves (*a*), but not (*b*) or (*c*) With a graduate tax, finance remains closed-ended. The Treasury continues to control the funding envelope, and Oxbridge and Balls Pond Road Tech compete for the same funds in a zero-sum game. The problem arises in any system where fees are set centrally: if fee income rises and government responds by reducing public spending, universities have nowhere to go. In 1989, Australia introduced centrally-set fees covered by an income-contingent loan. As fee income rose so initially did university income; but over time, taxpayer support declined so that by the early 2000s universities in Australia again faced financial problems.

> The same issue arose with the introduction of flat fees of £1,000 in 1998 in England.
>
> 'On the lack of resources, the logic is distressingly compelling. Public spending on higher education will not go up (the budget said so); parental contributions (i.e. private spending) will not go up (the Secretary of State said so); and loans to students (the other potential source of private spending) count in their entirety as public spending. If public spending is unchanged and there is no extra private spending, there is nothing extra for higher education.... [A]s things stand, [the 1998 reforms] do not produce a brass farthing in the short run' (Barr and Crawford, 1998, p. 78).

With variable fees, in sharp contrast, finance becomes open ended; if public spending on higher education declines, universities have a countervailing instrument of their own. The question for academics is whether they would rather trust their fate to the Treasury or to future students, assuming that students have access to a good loan scheme. And with fees, unlike a graduate tax, the money goes directly to universities; and variable fees, unlike centrally-determined budget allocations, strengthen competition. For anyone who believes in responsiveness and university autonomy, open-ended finance and stronger competition are two fundamental advantages.

[44] For fuller discussion, see Barr 2007.

Loans bring in private finance more quickly than a graduate tax. With care, it is possible to design loans that are financed largely from private sources (as in Hungary). A graduate tax, being by definition a tax, rules out that option. The public spending costs of improved quality and wider participation come immediately, while the revenue gains accrue to future governments.

Loans have better incentive effects. With a graduate tax higher income means larger total repayments; thus repayments will be perceived as a tax, with potential adverse effects on work effort and saving. With income-contingent loans, a higher income means that the loan is paid off more quickly, at which point repayments stop, hence are less likely to be perceived as a tax.

Loans make it possible to collect repayments from students from other EU countries. Under present EU law, countries can restrict social security to their own nationals but must charge the same price throughout the EU. Thus it is legal to restrict maintenance loans to UK nationals, but obligatory to offer fees loans on equal terms to all EU students. This is not in principle a problem for a loan system, where each borrower has an individual contract with the Student Loans Company, which can be enforced where a borrower lives abroad after graduation. With a graduate tax, in contrast, a person with no UK tax liability does not repay.

Loans are fairer. With a graduate tax, people make continuing contributions, with no option to pay upfront if they wish. Those contributions are unrelated to the cost of their higher education; and the contributions will be considerable for successful professionals, without having to refer to extreme cases like Mick Jagger or Stelios Haji-Ioannou. Large variations in repayment are likely to be politically contentious. For those (like me) who support redistributive policies there are better instruments for doing so. That said, as discussed in section 4.3, there are sound ways of designing a loan that includes a redistributive element.

The bottom line is that in many ways the 2006 reforms offer the best of both worlds. Graduates face what looks like a graduate tax, but one that does not go on forever. And universities face a system that encourages competition and strengthens university autonomy.

4.6 An important continuing role for government

Earlier discussion favoured competition. That is not an argument for free markets but for regulated markets, nor is it an attack on taxpayer support.

The proposal is that universities set fees, but subject to a maximum established by government. There is continued taxpayer support for teaching (as well as research), probably in the form of block grants to universities; the balance between fees and block grants determines the extent of competition; and the extent of competition can vary by subject.

There is an important and continuing role for government:

- To provide taxpayer support to the sector;
- To regulate the system
    - Through a fees cap;
    - By ensuring that there is effective quality assurance; and
    - In the short run by continuing some control of student numbers by institution.
- To set incentives
    - By offering larger subsidies for subjects the government wishes to favour; and
    - By offering larger subsidies for some students.
- To redistribute within higher education;
- To ensure that there is a good loan scheme; and
- To adopt, encourage and mandate policies to widen participation.

5 Prescription: What reforms in what order?

The preceding argument suggests the following policies in the following order:

EXPLAIN THE SYSTEM OF INCOME-CONTINGENT LOANS. Understanding income contingency is the first and key element in relaxing the politics of reform. Since 'income-contingent loans' is a mouthful, perhaps use the term 'graduate tax'.

Key facts to get across:

- Students get it free; it's graduates who repay;
- It's a payroll deduction, not credit card debt (do you lie awake worrying about your child's future tax bill?);

- A higher interest rate does not lead to higher monthly repayments, only to a longer duration of repayments;
- The outstanding loans of the lowest-earning graduates are forgiven after 25 years; as a result, neither a higher interest rate nor an increase in the fees cap has any effect on this group.

Better understanding of these points is a necessary precursor to the next two policy directions.

EXPAND THE LOAN SYSTEM. Interest subsidies are expensive, regressive and deeply harmful to central objectives of policy. As explained in Box 7, with income contingent repayments an increase in the interest rate has no effect on monthly repayments, instead extending the duration of the loan. The blanket interest subsidy should be replaced by targeted subsidies, with a default interest rate related to the government's cost of borrowing. Of the options discussed in section 4.3, two stand out:

- Extend loan repayments by (say) 2 years (option 3 in Tables 2 and 3): this approach produces larger savings than a real interest rate. Graduates in the lowest quintile retain all their current subsidy, while graduates in the top quintiles repay somewhat more than they borrowed.
- Charge a positive real interest rate, allowing real debt to rise for the first 5 years (option 4 in Tables 2 and 3): this option reclaims over half of the current subsidy; the lowest quintile are fully protected, while the average graduate in the three upper quintiles receives no subsidy but does not overpay.

Reform along these lines makes it possible to expand the loan system to all who want to invest in their human capital. The beneficiaries include:

- Universities, by easing the fiscal cost of increasing loans to cover an increase in the fees cap.
- Full-time undergraduates, if a higher maintenance loan reduces the need for more expensive forms of borrowing, and if, in the medium term, the income test on loan entitlement is removed, giving students the option to be independent of their parents.
- Part-time students, who have a loan entitlement where previously they had none.

- Postgraduate students, who have a loan entitlement where previously they had none.

RAISE BUT RETAIN THE FEES CAP, SIMULTANEOUSLY STRENGTHENING QUALITY ASSURANCE. Section 4.2 sets out arguments relating to the fees cap and to quality assurance. Variable fees bring in more resources and, by strengthening competitive pressures, create incentives to use those resources efficiently; and higher fees reduce the financial incentive for universities to prefer overseas undergraduates. However, as also discussed, none of that is an argument for unrestricted markets. There are good reasons for retaining some sort of fees cap as a permanent feature, whether explicit or in the form of reserve powers. The fees cap should be increased so as to bring in more resources, but mindful of political constraints and of the need to allow institutions with less experience of competition to build the necessary management capacity. As noted earlier, 25-year forgiveness means that the increase in fees has no effect on anybody who qualifies for a write off in the present system.

Given the links between competition and quality an increase in the fees cap might include conditions related to quality.

Some responses to those who oppose fees:

- If it is unfair to ask graduates to pay more of the cost of higher education, it is even more unfair to ask non-graduates to do so.
- Why should the taxes of the truck driver pay for the degree of the Old Etonian?
- 'Free' is just another word for 'someone else is paying'.

Alongside these three sets of policies:

CONTINUE AND STRENGTHEN POLICIES TO WIDEN PARTICIPATION. As discussed in section 4.4, policies to address the attainment constraint include increased emphasis on early child development, action to improve school outcomes, and policies to improve information and raise aspirations. Policies to address credit constraints include income-contingent loans to make higher education free at the point of use and policies to facilitate part-time study.

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