

Issues and ideas on
Higher education:
Who benefits? Who pays?

Rt Hon David Willetts
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About the author

Paper by the Rt Hon David Willetts

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Preface

Issues and Ideas is a series of policy pamphlets published by The Policy Institute at King's to stimulate debate on contemporary, and often controversial, policy issues.

The series acts as a vehicle for leading thinkers and practitioners associated with the Policy Institute to share their insights with a broad community of policymakers, academics, journalists, business leaders and the public.

While all reports reflect the views of their authors alone, they remain true to the ambition of the Policy Institute to champion the application of robust evidence in formulating policy. All reports are peer-reviewed and we are immensely grateful to the reviewers for their insightful and invaluable comments on this paper.

With that in mind, I am delighted to introduce this report by Rt Hon David Willetts, former Minister for Universities and now a Visiting Professor at King's. In this paper, he delves into the dynamics and complexities of the English higher education funding system, focusing in particular on its design, the factors influencing the controversial Resource Accounting and Budgeting (RAB) charge, and the problems arising from the allocation of resources in public finances.

The paper argues that it would be a mistake to abandon the existing system, because it is sufficiently flexible to allow for different balances of private and public benefits and payments. The report finishes by advocating a new package of recommendations:

- to increase total maintenance support so that students have more cash to live on; the cost of this should be supported with a shift from maintenance grant to loans, so that there is also a saving in public spending
- the £9,000 fee cannot be frozen indefinitely but universities need to win public support for an increase. Future fee increases, following the rate of inflation, must therefore be accompanied by universities publishing clearer accounts to demonstrate the value of any increase
- to freeze the £21,000 threshold for this parliament whilst up-rating the original £15,000 threshold
- to establish regular quinquennial reviews of the latest evidence on the costs and benefits of education to set the key figures for the graduate contribution scheme
- To shift to a more sensible discount rate for the RAB charge calculations, linked to the actual cost of borrowing as shown in indexed linked gilts

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Contents

1 Introduction	1
2 The benefits of higher education	5
3 Paying for higher education: the English system	17
4 The mysteries of the Resource Accounting and Budgeting (RAB) charge	23
5 What to do now	33
6 Conclusion	43
Acknowledgements	48
Bibliography	49

1 | Introduction

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Going to university transforms lives. It is worthwhile in its own right. It yields both private and public benefits.

Graduates earn more on average than non-graduates. This brings a public benefit too as the Exchequer obtains more tax revenue from them. There are other types of benefit as well - graduates tend to be healthier, giving them better quality lives and also easing the burden on the NHS. These benefits are set out in section two of this paper.

Higher education also has to be paid for and how we do this is considered in section three of this paper. Students should not pay up front as this might deter them from accessing higher education and then they would lose out, and so would we. All three political parties, faced with the challenge of paying for English higher education, have opted instead for a graduate repayment scheme - with repayments deducted through the income tax system at a rate of nine per cent of earnings above a threshold. This brings a significant element of private payment for higher education. There is also substantial public funding for higher education through funding for higher cost subjects, for disadvantaged students, for capital investment and for student maintenance grants. This continuing public support for higher education is deliberate and significant.

There will also eventually be a public spending cost in 30 years' time or more when some graduates have not fully repaid their loans and the balance has to be written off. This issue has generated a surprising amount

of controversy and so section four of this paper offers a guide to the debate about the Resource Accounting and Budgeting (RAB) charge.

Section five proposes how we can ensure the present system of higher education finance is sustainable and flexible in the future.

2 | The benefits of higher education

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Some purists maintain that to focus on benefits, particularly economic ones, is offensively reductionist. For many academics and students these gains - personal or social - are not what motivates them. Indeed, these calculations are as irrelevant as a utilitarian assessment of the value of Christmas or of marriage. Cardinal Newman put it very well in his great lectures on the 'Idea of a University':

'Knowledge is capable of being its own end. Such is the constitution of the human mind, that any kind of knowledge, if it be really such, is its own reward...That further advantages accrue to us and redound to others by its possession, over and above what it is in itself, I am very far indeed from denying; but independent of these, we are satisfying a direct need of our nature in its very acquisition.'¹

Education is indeed a good thing in itself. However, that should not debar us from assessing its benefits, not least because that affects how much we are willing to fund and how. The Robbins report of 1963 is often cited as a civilised and humane document, so unlike the narrow focus on economic returns, which is all we are supposed to understand nowadays. Robbins put the economic benefits of higher education very clearly, whilst softening the message by getting Confucius to deliver it for him:

'Confucius said in the Analects that it was not easy to find a man who had studied for three years without

¹ Newman, J., *The Idea of a University*, ed. Frank Turner, New Haven, CT: Yale University Press, 1996, pp78-79.

aiming at pay.'²

There is a history of the economic returns from university education being explained in that rather coy manner. Dean Gaisford of Christ Church, Oxford was particularly unctuous:

'the study of ancient tongues...not only refines the intellect and elevates above the common herd, but also leads not infrequently to positions of considerable emolument.'³

Graduate earnings tend to be the benefit on which we focus. They are easier to measure, and they are directly relevant to the political argument about whether graduates should be contributing to the costs of their higher education. While it is important to show how much more graduates earn, it also narrows the assessment of the benefits of higher education. We should step back and take a broad and enlightened view of the benefits of higher education as, for example, Stefan Collini proposes:

'...we need to show that there is a public not merely a private benefit from higher education that can be characterised in various, not merely economic, terms.'⁴

A substantial body of research enables us to rise to that challenge. One strand of work originated with David Blunkett commissioning more rigorous evidence on these effects from the Centre for Research on the Wider Benefits of Learning at the Institute of Education. Excellent books by Walter McMahon and Enrico Moretti set out the evidence from the USA very powerfully.⁵ More recently the Department for Business, Innovation & Skills (BIS) commissioned and published estimates of financial returns to graduates, the returns to the Exchequer and the wider

² Robbins, L., *The Robbins Report*, Cmnd 2154, London: HMSO, 1963, pp6.

³ Anderson, R., *British Universities Past and Present*, London: Hambledon Continuum, 2006, pp40.

⁴ Collini, S., *What are Universities For?* London: Penguin, 2012, p99.

⁵ McMahon, W., *Higher learning, Greater Good: The Private and Social Benefits of Higher Education*, Baltimore: MD, The John Hopkins University Press, 2009 and Moretti, E., *The New Geography of Jobs*, Boston, MA: Houghton Mifflin Harcourt, 2012.

impact on the British economy, and separately published a useful summary of the academic research.⁶

The benefits of higher education can be analysed along two axes. First, there are gains for the individual from going to university as distinct from gains for wider society as a whole. Second, there are economic gains as distinct from non-economic gains. Draw these as two axes and you get four quadrants, each of which shows a real positive benefit.⁷ Too much time and effort is wasted arguing about which quadrant matters most. If you point out that the individual gains financially then you are exposed to the charge that you fail to recognise that higher education is really a social good – just as valuable as an individual’s economic gains. Citing any one type of gain should not exclude the others. Figure 1 gives space to each different type of benefit.

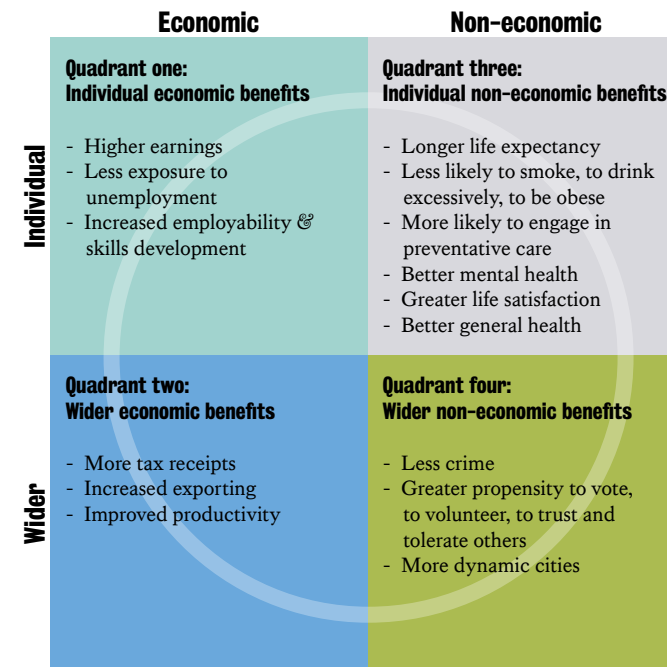
This recognition of the wide range of benefits from higher education – public as well as private and non-economic as well as economic – should satisfy even the sternest critics of economic reductionism. However, it is possible to deploy the tools of economics to measure benefits even when they are not economic in character.

For example, imagine that earning an extra £25,000 a year boosted your life expectancy by two years and imagine that for any given level of earnings, a university graduate also lives on average two years longer than a non-graduate. We can then say that the direct effect of going to university on life expectancy is equivalent to earning £25,000 more per year. This enables us to establish a common currency which makes it possible to compare the scale of these different effects.

⁶ Walker, I. and Zhu, Y., *The impact of university degrees on the lifecycle of earnings: some further analysis*, Research paper No 112, London: Department for Business, Innovation & Skills, August 2013 and Brennan, D., Durazzi, N. and Séné, T., *Things we know and don't know about the Wider Benefits of Higher Education: A Review of the recent literature*, Research Paper No 133, London: Department for Business, Innovation & Skills, October 2013.

⁷ Such a graphic appears in Brennan, J., Durazzi, N., and Séné, T., *Things we know and don't know about the Wider Benefits of Higher Education: A Review of the recent literature*, Research Paper No 133, London: Department for Business, Innovation & Skills, October 2013, pp22. It is also accessible on the BIS website.

Figure 1: Categorisation of the wider benefits of higher education



We start with the direct financial benefits of higher education to the individual, as estimated most recently and authoritatively by Walker and Zhu. The net present value of the lifetime earnings of a non-graduate man with two A-levels is £606,000 and for a woman it is £475,000. On top of that, male graduates are forecast to earn a further £168,000 (a graduate premium of 28 per cent) over their working lives. For women, the return is an even greater £252,000 (an earnings boost of 53 per cent).⁸ This is a big direct financial gain. It is calculated net of tax and of higher student loan repayments. These substantial personal financial gains mean it is reasonable to expect graduates

⁸ Walker, I. and Zhu, Y., *The impact of university degrees on the lifecycle of earnings: some further analysis*, Research paper No 112, London: Department for Business, Innovation & Skills, August 2013, Table 13, pp53. Figures for percentage boost to earnings on p6.

to pay back towards the cost of their higher education, provided of course they are earning enough to afford it.

As graduates earn more, they pay more tax and claim less benefits. So the second quadrant is for wider economic gains from graduates. The latest estimates are that male non-graduates with two A-levels will generate about £406,000 of government revenue with graduates contributing a further £264,000 on top. Female non-graduate government revenue is £287,000 with graduates adding a further £318,000 for the Exchequer. So, going to university and paying on average £300,000 more tax puts into perspective the rows about fees and debt.⁹ There could also be savings in public spending on, for example, unemployment benefits though graduates will receive more state pension as they live longer. There is a rather striking contrast - the amount the Exchequer gains directly from graduates is estimated to be higher than the private financial returns, partly because indirect taxes are included as well as income tax and national insurance.

The wider economic benefits of more graduates goes beyond tax receipts: they are a crucial form of capital investment, investment in human capital and raise the performance of the regions where they are concentrated. Universities change the character of places. Cities like Portsmouth, Winchester, Worcester or Lincoln have been rejuvenated by the creation and growth of universities bringing in younger people and replacing older industries. Even non-graduates are better off in cities with more graduates. One American study by Enrico Moretti shows that a one per cent increase in the proportion of graduates in an area boosts the earnings of high school drop-outs by 1.9 per cent.¹⁰

There are significant non-financial personal benefits

⁹ Ibid, pp53.

¹⁰ Moretti, E., 'Estimating the Social Return to Higher Education: Evidence from Longitudinal and Repeated Cross-Sectional Data', *Journal of Econometrics*, 121, 2004, pp175-212. Also Munro, M., Turok, I. and Livingston, M., *Students as catalysts for city and regional growth*, Glasgow: University of Glasgow, 2010.

from going to university as well. For example, graduates are healthier than non-graduates and live longer. Whatever students might get up to, university does not set them up for a life of high alcohol consumption. Graduates are less likely to drink heavily, to smoke and to be obese.¹¹ Overall, going to university appears to add eight years to your life. A 30-year old graduate is likely to live a further 51 years as against a further 43 years for a non-graduate.¹² If we try to value these non-economic effects in financial terms the results are rather striking: the non-economic gains are actually larger in scale than the conventional economic effects.

These non-economic benefits do not just accrue to individual graduates but to society as a whole. Graduates are, for example, less likely to commit crime and this feeds through into lower rates of incarceration and prison costs.¹³ It looks as if the children of graduates also benefit from their parents' education and this feeds through into better health outcomes for the children too.

The estimates in these four quadrants are, of course, not the final word. They need to be continually updated and reviewed - not least as the structure of the economy and of our tax and benefit system changes. Pessimists say that the graduate premium is going to be eroded as more people go to university. In the past 50 years, the percentage of people going to university has increased 10 fold - from under five per cent to almost 50 per cent. That extraordinary growth has been accompanied at every stage by fears of the erosion of the graduate premium, but it has not happened. It looks as if the growth in the number of graduates has been at least matched by an increase in the demand for them, keeping

¹¹ Bynner, J., Dolton, P., Feinstein, L., Makepeace, G., Malmberg, L. and Woods, L., *Revisiting the benefits of higher education*, London: Bedford Group for Lifecourse and Statistical Studies, Institute of Education, University of London, 2003, pp21-31.

¹² Organisation for Economic Co-operation and Development (OECD), *Education at a glance*, Paris: OECD, 2012, pp202. Measure does not include UK.

¹³ A 16 percentage point increase in those educated to degree level would lead to more than £1 billion of savings in costs of crime. Feinstein, L., Budge, D., Vorhaus, J. and Duckworth, K., *The Social and personal benefits of learning: A summary of key research findings*, London: Centre for Research on the Wider Benefits of Learning, Institute of Education, 2008, pp10.

the graduate premium broadly constant. However, we have to be alert to see if the premium might deteriorate in the future, reducing the average gains. Behind those averages there is also the issue of how heterogeneous gains are: some courses in some universities are not a route to riches, especially if you don't get at least a 2:1.

One objection is that these benefits are not necessarily a direct result of going to university. The sceptics say that going to university does not change people: it is rather that the type of people who go to university are also likely to be the sort of people who will anyway be likely to vote more or smoke less. So, we are observing a selection effect and claiming there is a direct causation. Different studies have different methodologies and not all prove direct causation, but modern social science does try to adjust for other factors to separate out, in this case, the distinctive effect of more education. That stalwart of modern social science, the twin study, does show strong benefits for the twin who goes to university.¹⁴ Whenever possible the researchers are trying to compare what happens if you go to university to people of otherwise similar characteristics who do not go.

A related objection, put forward eloquently by another professor at this university, Alison Wolf, is that going to university signals that you are smart so there is a financial gain to the individual. But, she argues, you don't actually learn much or increase your human capital so there is no overall economic benefit to the country.¹⁵ Several natural experiments have disproved the pessimism of this signalling hypothesis, such as the increase in the English school leaving age from 15 to 16 years. If staying on beyond the compulsory age was just a signal that you had something special then you would expect no gain to earnings from more compulsory education. Instead, there would just be another round in an educational arms race with school

students having to stay on beyond the new compulsory age to get any kind of earnings boost. But that is not what happened. Instead, there was a compression of the range of education received and more was earned by those who stayed on to the new compulsory minimum leaving age.¹⁶

There is clear evidence for both private and public benefits from going to university. We can make apparently precise estimates of some of the direct financial benefits. These show substantial gains to individuals and, if anything, even greater gains to the Exchequer, but the overall assessment should not be distorted by focusing on the gains which are more easily measurable. The non-financial gains to graduates, notably in personal health, appear to be even greater than the direct financial gains. For example, McMahon's figures can be summarised as a private market return of \$31,000, private non-market benefits of \$38,000 and social benefits of \$28,000 - so out of the total return, just over two thirds accrue to the individual and one third is social.¹⁷

This has broad implications for policy. As higher education brings this mix of benefits, it can be funded out of a mix of payment by the individual beneficiaries and the Exchequer, though there can be reasonable disagreement about the balance to strike. One approach would be to go for a mix of public and private payment that roughly matches the balance of private and public benefits. Despite its apparent logic, this approach is not widely used. Many public services such as the NHS are free at the point of use even though there are direct private benefits too. At the other end of the scale, many vocational training qualifications for specific jobs are exclusively privately funded, even though the Exchequer and the wider economy

¹⁴ Bonjour, D., Cherkas, L., Haskel, J., Hawkes, D. and Spector, T., 'Returns to Education: Evidence from UK Twins', *American Economic Review*, 93, 2003, pp1799-1812.

¹⁵ Wolf, A., *Does Education Matter? Myths about education and economic growth*, London: Penguin, 2002.

¹⁶ Chevalier, A., Harmon, C., Walker, I. and Zhu, Y., 'Does Education Raise Productivity, or Just Reflect it?' *Economic Journal*, 114 (499), November 2004, pp499-517., Card, D., 'Education Matters', *The Milken Institute Review*, Fourth Quarter, 2002, pp73-77 and Krueger, A. and Lindahl, M., 'Education for Growth: Why and for Whom?', *Journal of Economic Literature*, 34, December 2001, pp 1101-1136.

¹⁷ Department for Business, Innovation & Skills, *Higher Education: Supporting Analysis for the Higher Education White paper*, Economics Paper No 14, London: Department for Business, Innovation & Skills, June 2011, p55.

gain as well. It appears that actually we are wary of applying this principle to combine public and private payment. Higher education has gone further than many other areas in combining both private and public funding. The Coalition government estimated it was broadly shifting the balance of funding from 60/40 public/private to 40/60 and this is not far from McMahon's heroic estimates of the balance of private and public gains.

There is no single over-riding principle which enables us to fix a correct arithmetical relationship between private and public payment. One reason is that it looks as if the pursuit of that kind of balance is trumped by the principle of fairness. Even though there are public benefits from a graduate going into a very well-paid job, it is not clear that on its own it justifies less affluent tax-payers subsidising it. Repayment by graduates who enjoy earnings above the average as a result of their university education appears fair - otherwise lower income non-graduate tax payers would be meeting the costs of a university education, which propels graduates into much higher incomes than the non-graduates themselves are likely to enjoy.

There is a second reason why it is hard to match the mix of public and private payment to the balance of benefits. Given that public spending is limited, a system which depended on high levels of public spending per student is likely to ration student numbers. Turning away people who wish to go to university, and could benefit from it, is bad for them and bad for the economy. So, there are strong arguments both of economic efficiency and of social mobility for a system which does not ration student numbers and that points to a significant element of graduate repayment.

There are clear public benefits from going to university, but it does not follow that the element of public funding has to match these. Instead, as we shall see, it looks as if we use public funding to ensure fairness between different types of student and different types of subject.

After the reforms to higher education funding in England introduced by the last Labour government and then the Coalition government, there is substantial private payment but it is not direct private payment upfront by students - it is a graduate repayment scheme.

It requires no upfront payment by students for their tuition. In addition, a mixture of maintenance loans and grants help with living costs. There are fees, but students receive loans to pay their fees. Indeed, the money never goes through their hands - it is provided direct to the university by the Student Loans Company. These loans are not like commercial loans. They are a means of setting an amount that they will be expected to pay back as graduates at the rate of nine per cent on earnings above £21,000 per year. This repayment threshold is substantially higher than the previous £15,000 and the repayment threshold was increased in 2012 so as to significantly reduce graduates' fixed monthly outgoings from 2016, when the first cohort who faced higher fees start paying back. (Though of course these graduates are expected to pay back more in total and will do so for longer). If you are earning £25,000, the repayments will be nine per cent of the £4,000 you earn above the threshold - ie £360 per year or £30 per month. On the old formula it was originally set at nine per cent of the £10,000 of earnings above the old threshold - ie £900 per year or £75 per month. One reason for increasing the threshold by so much was to reduce graduates' fixed outgoings when they are young and under most financial pressure.

3 | Paying for higher education: the English system

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The current system of paying for higher education is not a commercial loan scheme. If you just tried to use commercial loans to fund higher education you would face the problem that a bank would lend to Janet, privately educated and on her way to a well-paid career in banking, but not to John, a care leaver who wants to be a social worker.

The bank might also want to know what financial assets a student, and perhaps their family, already had as security for the loan. Indeed, banking regulations require banks to assess the risk of lending to each potential customer and exclude those they think are too risky. This is very different from the approach we should take to funding higher education: it should be available for all citizens with the aptitude to benefit from it. We want a scheme open in principle to all students. We are close to that, though it is more complex for part-time students and those who already have an equivalent level qualification. The original Student Loans Company is called a company because it was originally set up in the late 1980s with the expectation that the clearing banks would co-own it and lend the funds. They backed out because the scheme was so different from their usual commercial lending.

You could just fund universities and students with grants funded through the tax system, but there are intense pressures on public spending and higher education tends not to be a priority. The pressures are even more intense because there is increasing demand from more people wanting to go to university. So, when universities were dependent on public spending the unit of resource for each student fell for decades. This is what led universities to press for a new way of financing them that left them less

dependent on public spending. Since fees and loans have been introduced, the decline in funds for universities has been halted and in the past few years has actually increased. It has increased from 'around £7.9 billion in 2010-11 and 2011-12 (the last year of the old funding arrangements) to £8.9 billion in 2014-15, and a potential £9.8 billion in 2015-16.'¹⁸ It is hard to see any other way of financing universities that would possibly have generated this sort of increase in funding during years of austerity. Reducing the dependence of universities on public spending has secured them a bigger, better and more reliable income. This was one reason for the anxieties amongst universities about Labour's recent proposed change to their funding, which would have increased their dependence on public spending.¹⁹

This system is not commercial bank lending. It is nothing like leaving university with a debt on a credit card or a mortgage, because you pay back through PAYE and only if and when your earnings are above the threshold. However, the loans are not public spending either. It is very carefully designed as a middle way between the options of a fully private or a fully public scheme.

Sometimes people ask why we got ourselves trapped in the misleading language of fees and loans when it is really a graduate contribution scheme. The Australians have done better, calling their programme HELP (Higher Education Loan Programme) and HECS (Higher Education Contribution Scheme). We did look at this in government but the language of fees and loans had already taken hold. It was how the structure we inherited was described. If we had tried to change it, we would have been in danger of having one official name for it and a separate colloquial description. I did not wish to go back to the days of the poll tax, which ministers were supposed to call the community charge: there was a ragged cheer every time a minister forgot and lapsed into talking about poll tax.

¹⁸ Department of Business, Innovation & Skills, Grant letter to the *Higher Education Funding Council for England*, UK, 29 January 2015.

¹⁹ Snowden, C., Letter to *The Times*, UK 2 February 2015.

In some classifications of higher education systems, the English model appears indistinguishable from the American system, which does often require private payment up front by students. The Organisation for Economic Co-operation & Development (OECD), for example, treats our system as private payment like the USA. Treating our system as just another example of private payment fails to capture what is special about the English arrangements. Our system of income contingent repayment by graduates is very different from payment up front by students, even though both may be categorised as private payment. It is different because it enables universal access for full-time students and repayments depend on their earnings. These two key features make it very different from a commercial scheme, even one with Federal guarantees.

One way of thinking of the English system is this. Imagine that you are a student not doing a high-cost subject, coming from a middle-income family. You are eligible for a fee loan to cover the £9,000 annual cost of your university teaching. You are also eligible for a maintenance loan to cover your living costs of up to a maximum of about £7,500 (depending on your family circumstances and in high-cost London). After university you then go into reasonably well-paid work, and you can be expected to repay in full the money that was provided for your higher education by the time you reach prosperous middle age. People may say you left university with almost £50,000 of debt, but it is not a commercial debt: it is paid back through PAYE. The pay back during your working life is modest compared to the £700,000 of income tax you are likely to have paid in the same period. Your total cash payments on an average mortgage could be another £500,000. This version of the model is one where the government basically smoothes your income - providing finance when you are a student and collecting back when you are better off. It is an example of 100 per cent private payment, though with the opening loans a universal entitlement, which can only be delivered if the government funds them initially.

Not every student falls so neatly into the system, however, and there are four important pressure points where a public contribution helps to ensure the system is fair and progressive.

First, there may be extra teaching costs for certain sets of students and, in the interests of equality between different subjects, we can meet these extra costs so as to equalise the graduate repayment. For example, there are some subjects which clearly cost more to teach - Medicine or Engineering compared with Philosophy or English. We make no evaluative judgement about the relative merits of these different disciplines, but do try to provide extra public funding for the higher cost subjects so that the remaining funding via fees is the same for all. There are separate payments for strategically important and vulnerable subjects. There are also some funds to reflect the higher costs of teaching students from disadvantaged backgrounds who may require more teaching support - a modest version of the pupil premium at school. That is why there continue to be grants of just under £2 billion to universities via the Higher Education Funding Council to meet this range of extra teaching costs.

Second, there is direct funding to students from low income backgrounds or who have special needs. The biggest element is maintenance grants, distinct from maintenance loans. In addition, there is help with childcare costs for students who are parents. There is also help with the higher costs facing disabled students. This adds up to about another £2 billion of public spending.

The third category of spending is capital. In the past, universities used to get public grants for their capital investment. One reason for increasing the fees up to £9,000 was to provide a stream of income which enabled universities to borrow more for capital investment. Indeed, the financiers always used to advise that universities' balance sheets were very conservative and they could borrow more. However, universities have very different capital endowments and needs, so there is a good argument

for some continuing public support for teaching capital. The programme was significantly enhanced and now runs at approximately £200 million per year.

These three categories add up to substantial public funding for higher education alongside graduate repayment. They deliver public as well as private funding for benefits which are both public and private.

There is a fourth and final category of spending. There will be some graduates who do not earn above the repayment threshold for long enough to repay the full costs of the loans for their education. Some public spending will eventually arise when these loans are written off. This is the so-called 'Resource Accounting and Budgeting' (RAB) charge. It is a deliberate feature of the system to make it fair and progressive. It has, however, caused much confusion, and needs to be considered in more depth.

4 | The mysteries of the Resource Accounting and Budgeting (RAB) charge

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Graduates have 30 years to repay the costs of their higher education - both maintenance loans and fee loans. At the end of that period the loans they have not repaid will be written off.

Nobody can know now what these write-offs will be. BIS estimates - and re-estimates - this sum and identifies it as part of the departmental accounting process. These speculative calculations, made with assumptions about future earning and future policy, are the RAB charge. It is one of the more esoteric corners of public finance and has become just about the most controversial aspect of the scheme.

The RAB charge is not public spending. Loans to students are not public spending now because the loan outlay is matched with an obligation to pay it back. We can only count as public expenditure that part of the loan which is written off when it actually happens - everything else is speculation. However, it is good practice within government for BIS to estimate future write-offs and include them in its internal departmental accounts, so that they can be monitored by the Treasury. Without this monitoring, departments would blithely make loans without worrying about the chances of getting the money back. These estimates are for internal Whitehall purposes and do not feed through into the national accounts - the overall Treasury arithmetic measuring actual public spending. It is common sense to treat as public spending the write off when it actually happens and not before. It would be very peculiar if, for example, the government actually cut spending on a real programme now because of a speculative estimate of possible public spending in 30 years' time. Crucially, this also means the RAB charge is not money available to be

somehow reallocated today to spend on something else.

However, the government does have to borrow money now to make the loans to students. This is not regarded as adding to net borrowing as it is matched by an obligation to repay the loan - but it does add to net government debt because the asset which the government acquires, the loan, is not regarded as sufficiently liquid to count as a financial asset according to rigorous financial rules. That is why selling student loans reduces net government debt. If this leaves you hungry for more detail, the July 2014 Office for Budget Responsibility (OBR) Fiscal Sustainability Report has a fuller discussion.²⁰

These definitions of public spending are not fixed by government, nor are the decisions on the treatment of individual items such as student loans. They are not a political decision: the government has to comply with international conventions on public accounting and their application to specific cases has to be cleared by the independent OBR.

The Institute for Fiscal Studies (IFS) and others have added together actual public spending on higher education and these speculative estimates of the RAB charge to create a concept called the taxpayer contribution. This is combining two very different types of figure - it is adding together apples and oranges. It occupies a kind of financial no man's land where it is not just public spending, but neither is it a full estimate of the effects on the Exchequer. It does not include, for example, the extra income tax receipts from graduates. It is not, therefore, an assessment of the net Exchequer gain or loss from having more graduates. However, the RAB charge is like these kind of estimates of future tax revenues in that it also depends on taking a view on future earnings, the structure of the British economy and the jobs market many years into the future.

We can trace these possible loan write-offs to the origins

²⁰ Office for Budget Responsibility, *Fiscal Sustainability Report*, London: Office for Budget Responsibility, July 2014, pp169 -174.

of the modern graduate repayment scheme in human capital theory - the idea that we can consider education as investment in our human capital and that this capital is increasingly important both for individuals and economies. However, a toddler cannot wander into a bank and get a loan for £250,000 or whatever is needed to pay for his or her education. An ingenious solution to the challenge of funding university studies was therefore developed by Milton Friedman and Gary Becker and most ambitiously applied at Yale Law School in the 1970s. This was the first modern graduate repayment scheme. Students pledged that for every \$1,000 they borrowed from the university, they would repay four per cent of earnings for 35 years or until the whole cohort paid off its debt.

This scheme had good intentions – Yale wanted to increase their numbers of public school students. The Yale programme had no external subsidies built in, so all the costs were met within the cohort, and some paid more when others could not pay back. There was increasing anger from affluent graduates who ended up paying for far more than the actual cost of their education to cover the cost of their contemporaries with lower earnings. Yale had to abandon the scheme and write off the debts of their low earning graduates. One participant in the Yale scheme was Bill Clinton. He learnt the lesson from this experiment and put a federal graduate repayment scheme to fund access to university in his 1992 Presidential platform.

Every subsequent version of a graduate repayment scheme has had to confront this question: to what extent are low earners in a cohort to be paid for by high earners in the same cohort, or should they instead be financed by the whole of society? There are deep questions about the social contract here. There is an argument that it is equitable for those who have gained the most to pay back more and subsidise those who have done least well. However, my view is that it is not fair to expect all the burdens of sustaining the less advantaged members of one generation to be born solely

by their more affluent contemporaries.²¹ We do not expect healthy 70 year olds to be the only ones paying for the health care of their more frail contemporaries. Governments spread risks and costs across different generations, and so the generality of tax-payers can, and should, meet the costs of those graduates who it turns out cannot afford their full repayments. Moreover, the scheme is voluntary and if it demands too much of highly paid graduates, those students who expect to earn a lot might not join the scheme at all. The English graduate repayment scheme is based on a loan for the actual cost of a student's education, so that each graduate can see they pay back for the cost of their own education. Wider society picks up the bill for those who end up with lower earnings. That is why it is right for taxpayers eventually to pay to write off the loans that are not repaid.

So far, we have seen that we want a universal scheme and we have to accept not all will be repaid by individuals - parts of some loans will eventually be written off. These are deliberate features of the scheme, but the scale of the write-off and how much we can expect graduates to pay back is to be decided as part of setting the private/public balance discussed earlier. It is a genuine and important democratic decision what this balance should be and is clouded by the way the RAB charge is calculated, which confuses rather than illuminates the issues.

We calculate the RAB charge with a peculiar mix of fixed assumptions and other figures, which are highly sensitive to new data. A key part of the overall cost of the scheme is how much it costs the government to raise the funds in the first place – this is the interest rate the government pays on its borrowing. The actual real cost to the government of borrowing money now for 30 years is currently around one per cent, but the calculation of the RAB charge does not use that figure. Instead, it is assumed to be much higher, Retail Price Index (RPI) plus 2.2 per cent. This makes money appear more expensive than it

²¹ Willetts, D., 'The Pinch: How the baby boomers took their children's future - and why they should give it back', Chapter 8, *What Governments Do*, London: Atlantic Books, 2010.

really is and pushes up the apparent cost of writing off loans in the future. The previous Labour government reduced the estimated RAB charge on their loans from 42 per cent to 33 per cent by reducing their assumption for the cost of government borrowing from 3.5 per cent to 2.2 per cent. The OBR estimate that a further one percentage point reduction would reduce the estimated RAB charge by 10 percentage points.²² A discussion of public sector discount rates in the OBR Fiscal Sustainability Report shows that there are different assumptions for different departments to match their different circumstances.²³ Indeed, student loans are identified as a separate category in their own right. Changing the discount rate for borrowing for student loans need not therefore affect the rate used elsewhere. In the case of student debt there is a case for a discount rate close to the cost of indexed gilts, which might be seen as an asset rather like student loans. Of course, interest rates will rise at some point, but an interest rate assumption which slowly adjusts down or up to match actual rates on indexed gilts would make more sense. This would reduce the estimates of the RAB charge substantially by bringing it closer to the actual cost of government borrowing.

To make a forecast, you also have to make assumptions about the distribution of graduate earnings over 30 years, after someone entered university. The first students under the Coalition government's scheme entered university in 2012: some will start their graduate repayments in 2016 and could be repaying up until 2046. A crucial issue in forecasting their repayments is what will happen to women's earnings. At the moment the government expects to write off a higher proportion of female graduate loans because women's earnings are forecast to be lower than men's. One of the big challenges for our society is tackling this injustice of lower female earnings - forecasting the RAB charge involves reaching a judgement on where we will have got to by 2050. The pattern of earnings also matters in another way. If you have parts of your career when you earn a little,

and others when you earn a lot, then you are likely to be paying back at least some of your student loans. However, the same overall averages for graduate earnings could involve a different pattern in which graduates are more likely to get stuck in either high or low earning patterns – this reduces total repayments. These are the sort of issues which also affect the long-term prospects for the graduate premium. They are inherently uncertain and debateable: they are not the same as the facts of public spending this year.

The RAB calculation also assumes that the details of the scheme are fixed until 2050. However, the guide to terms and conditions which students receive when they take out the loan states: 'the regulations may change from time to time and this means the terms of your loan may also change.'²⁴ In order to make a forecast, some very specific assumptions have to be made. The assumption that its parameters are unchanged for 30 years in turn makes the estimate of the RAB charge very sensitive to one particular set of data - namely for earnings. The value of the £21,000 repayment threshold is assumed to be indefinitely fixed relative to earnings at whatever level it is at in 2016.

This is a crucial assumption and it is worth explaining how it works. When the Coalition government brought in new fees and loans, we wanted to reduce graduates' monthly repayments and so increased the repayment threshold from £15,000. It was announced that the first graduates under the scheme would start repaying when their earnings were above a threshold of £21,000 in 2016. When fixed in November 2010, the proposed £21,000 threshold represented about 75 per cent of projected average earnings of £28,000 in 2016. Since then, earnings have not grown as rapidly as the OBR forecast and are now expected to be more like £26,000, which means that the £21,000 threshold has in effect risen to about 80 per cent of projected earnings. It is then assumed, for the purposes of estimating the RAB,

²² Office for Budget Responsibility, *Fiscal Sustainability Report*, London: Office for Budget Responsibility, July 2014, pp174.

²³ Ibid, pp38.

²⁴ Student Finance England, 'Student loans - A guide to terms and conditions 2013/2014', 2012, pp2, http://www.sfengland.slc.co.uk/media/561743/sfe_sltc_1314_pf.pdf

to stay at this higher level relative to earnings for the next 30 years.

The repayment threshold would have to be about £19,500 to have the same value relative to average earnings as was expected in 2010 when it was set. So the way the RAB calculation is done means that the path of earnings and pay inflation up to 2016 is supposed to determine the repayment profile of our higher education system until the middle of the century. If we have a burst of pay inflation over the next year then the £21,000 threshold will fall a bit relative to earnings and that lower level will be assumed to last for 30 years. It is as if today's income tax rate and threshold had been fixed by Geoffrey Howe in his 1980 Budget. The forecasts are in effect assuming income tax rates and allowances have been determined for the next 30 years and every six months we feed in new information on what has actually happened to earnings, to give a new forecast of the state of the public accounts in the middle of the century. Even more peculiar, the baseline against which they are permanently fixed is itself increased by the unanticipated performance of earnings between 2010 and 2016.

So, the RAB charge is very sensitive to the lower growth of earnings in the past few years, whilst it is completely insensitive to the fall in interest rates which has accompanied this. It is very peculiar because in the real economy a slow-down tends to mean lower wages and lower interest rates go together, but the RAB model ignores lower interest rates and is hyper-sensitive to lower wages. Ironically, when it comes to selling student loans, the Treasury's value for money case depends very much on financial circumstances, notably the cost of borrowing being low and the market being hungry for earnings denominated securities, ie changes in the very variable which is fixed for the purpose of calculating the RAB charge.

Now we can see how the RAB charge could rise from 28 per cent to 46 per cent during 2013 and 2014, a total increase of 18 percentage points. There were three main reasons. First, the 2016 repayment baseline is expected to

be higher relative to earnings than expected, and is assumed to be permanently fixed at this high level adding five per cent to the amount written off by 2050, on top of driving earlier increases in the estimate. Second, nine per cent was due to changes in the model for the expected pattern of graduate earnings. Previously, the model had assumed that earnings bounced around more, but better information on graduate earnings suggested they were more likely to be stuck on low or high earnings paths. Third, it was originally assumed that the repayment threshold would be up-rated every five years, but that assumption was then changed to annual up-rating and this put it up by four per cent.

BIS assiduously calculate and recalculate this figure frequently. Every time there is new economic data, the model uses the framework described earlier to generate a new figure, which is then announced to a shocked world. Australia is one of the few countries with a graduate repayment system like ours and they do not go through anything like this. When I asked their experts about the RAB charge on their loans they said basically: 'We calculated it a few years ago at about 25 per cent and we ought to get round to an update sometime.' They were amazed we recalculated it every six months and on such a peculiar set of assumptions.

This issue does not just arise with this system of financing higher education. Conceptually, exactly the same issue arises with a graduate tax. You could ask the advocate of a graduate tax to specify the rate and the graduate tax threshold. You could then use those assumptions to estimate the revenues from a graduate tax relative to the long term cost of higher education, and then announce every few months whether or not by 2050 your graduate tax had swung into a massive accumulated deficit or not - depending on your latest guess at wages in 2050. If the advocate of the graduate tax comes back and says it is not supposed to be as rigid as that, then you can reply that no system of funding any public service is supposed to be that rigid, and that is why we should stop being preoccupied with such peculiar calculations for the graduate contribution

scheme. Sometimes, the same people both advocate a graduate tax and also argue that the detailed terms of the graduate repayments in the current scheme should be fixed in legislation. Income tax rates and allowances change, so it is hard to see how the details of a graduate tax would be fixed. This still leaves a host of other problems with a graduate tax, such as how to fund universities whilst we wait a decade or more for the proceeds of a graduate tax to start flowing through.

5 | What to do now

5 | What to do now

We can now look behind the day to day arguments about student finance to see the structure and the principles underpinning it. In particular, we do not have to be misled by forecasts of its costs way out into the future when these have not yet been determined.

One underlying principle lies behind the different items of public spending: they are all essentially equalising measures. They are to ensure that no graduate ends up with more to repay because of extraneous differences in their circumstances. The aim is to ensure broadly equal amounts for graduate repayment for students in broadly similar circumstances.

There is a second principle here which is linked to the first. We do not in general expect graduates to cover the costs of other members of their cohort. There are only limited subsidies between different members of the same cohort. Access spending out of fees is one example. There is also the interest rate of the Retail Price Index (RPI) plus three per cent for the most affluent graduates, but even this is no more, and quite possibly less, than the cost of an unsecured commercial loan. In general, we are expecting the graduate to pay back for their own education and then the wider aims of equalisation are met by contributions from the generality of taxpayers of different ages. This is an important difference from the graduate tax, which expects graduates to pay for other graduates as well - with some graduates paying multiples of their own education costs.

I think this is the right structure and we should stick with it. It is the structure which has been endorsed by all three main political parties in government when facing the dilemma of how to finance English higher education when

public spending is being reduced.

One of the advantages of this structure is that it is flexible. This system of financing higher education in England is sufficiently flexible to reflect different balances of private and public benefits. It can do this without compromising its key principles. That is why the way the debate has gone on the RAB charge is so misleading – to make a forecast it is necessary to assume the parameters are fixed out to 2046 even though no policymaker would make such a commitment in this or any other area of public policy. That can appear to make the structure far more inflexible than it really is, and far beyond what any policymaker has ever said. When the critics say that the scheme is ‘unsustainable’, they are taking those rather peculiar forecasts of the RAB charge and assuming that the next 35 years are fixed now and will comply with today’s forecast - but life is not like that.

There could be different views of the balance of funding between tax-payers and graduates. The structure can be calibrated in many different ways to give a different balance of payment. We do not need to abolish it and put in a new structure if we want a different balance. Governments can respond to fiscal pressures and changes in political opinion about, for example, the mix of public and graduate payment within this overall structure. It also enables the system to respond to changes in the real world - for example, if there were to be a fall in returns to graduates.

Many ideas for changes have already been floated. John Denham, the former Labour Secretary of State responsible for universities, suggested shifting more personal maintenance support to loans. You could break the principle of equalising costs for graduates by expecting them to pay more for higher cost subjects, as happens in Australia. Labour proposed reducing fees to £6,000 and increasing public spending by up to £3 billion a year to plug the gap in university finances - though universities doubted that they really could rely on extra funding from taxpayers, and rightly feared it really meant cuts to universities. You could

extend the repayment period beyond 30 years. You could freeze the repayment threshold to bring it closer to the real value assumed in 2010, so graduates were more likely to pay back the costs of their own university education. All of these options are possible within the same broad structure. The system is supple enough to take these options without tearing it up and starting again.

It is wrong to assume the graduate contribution scheme is fixed so rigidly that it becomes so brittle that it has to break. It would be a tragedy if this misunderstanding ever led to the abandonment of a fundamentally sound model. What we need is a framework to explicitly adjust the parameters to keep it flexible and sustainable, whilst keeping the basic structure. Such a framework should also avoid endless ad hoc adjustments. Therefore, I suggest that at the start of each parliament the government should assess the latest evidence on the costs and benefits of education, and set the key figures for the graduate contribution scheme. This could be done within government or by an outside panel of experts and interested parties - or some combination. It is emphatically not a review of the whole system. It is not a Robbins or a Dearing or a Browne. Its purpose is not to change the structure of higher education funding. All three political parties, when in office, have recognised its strengths, and structural changes can distract us from uncomfortable tradeoffs. Instead, the aim is to calibrate the structure in the light of new evidence and any change in political views on the right balance to strike.

This exercise could happen alongside the government's public expenditure decisions or follow on from them after a spending envelope has been fixed. An outside advisory panel could include representatives of the universities, the National Union of Students (NUS) and other key players. Its framework would be set by the government, which also has to have ultimate power of decision. The aim would be to operate the graduate contribution scheme on a stable basis five years at a time. Both universities and the NUS say they want stability in the system and this gives substantial stability for five years within a framework that lasts much

longer. If you tried to fix every variable for longer than five years you would actually get a brittle and unsustainable system.

There are several good reasons for the five year review. It matches the life of a parliament and increasingly, in turn, that matches the main public spending reviews. It is very similar to the system of setting national insurance contribution rates for five years to match expected spending on contributory benefits over the same period. It also resembles the quinquennial review of the pension age which the Coalition government introduced with little controversy. Another consideration is that there are limits to how much change and complexity the Students Loan Company can handle, even with the new IT system currently under development. Universities themselves used to be funded with a five year allocation of funding, as this was thought to be the right way to finance autonomous institutions that needed to plan for the long term. That collapsed in the 1970s under the combined weight of high inflation and public spending crises. It would be great to bring it back.

Some will say that the danger is we constrain what ministers can decide, but any expert advice could provide ministers with a range of options for them to consider. One reason the debate on higher education is heading in the wrong direction with misplaced fears about the sustainability of the current system, is the belief that ministers cannot change the repayment arrangements and the details are fixed until 2050. This is a misunderstanding, and we would benefit from open and legitimate structure for exercising the scope for flexibility which is clearly inherent in the system.

A public consideration of the balance of benefits and contributions would help to tackle one of the problems with the system at present - there is a substantial element of public financial support, but because it goes through several distinct and sometimes obscure routes, it is not recognised. This makes it possible for critics to claim, however

incorrectly, that the costs of higher education have all been privatised. Authoritative estimates of the scale of this public support would help tackle this misconception.

There could be an up to date assessment of the costs of higher education - both for universities and for students. This would be the basis of deciding whether the £9,000 fee should be up-rated by inflation, for example. Universities could argue that they needed more than this to invest in improving the quality of the student experience. To do this they would have to provide clear evidence of exactly how their current fee income is being spent.

It would also be possible to look at the living costs facing students. In my experience they are far more worried about the cash they need to live on now than about repaying through PAYE at a rate of nine per cent of their earnings above a high threshold.²⁵ That is one reason why the Coalition government increased the total cash for maintenance by more than inflation as part of the big reform package. The NUS would doubtless wish to press for more support for students with their accommodation and living costs. They would then have to suggest how it should be financed - perhaps with an increase in repayable maintenance loans. Given the continuing need to save public money, some maintenance grant could be converted to loans, with perhaps an increase in the total amount of cash available for student maintenance.

There should also be an assessment of what would be a reasonable amount to expect graduates to repay. The terms for repayment of the loans are flexible to make this possible. The calculation of the likely proportions of loans to be paid back could be set out in a much more open, flexible and realistic way than with the current RAB charge calculation - which essentially emerges from the conventions of departmental accounts. Some experts, such as Nick Barr, Professor of Public Economics at the London

²⁵ The NUS in their representations to government increasingly focussed far more on the need of students for help with their living costs than with fee waivers or repayment terms. That was a correct assessment of their members' interests.

School of Economics, might say that it is reasonable to expect most graduates to repay all of their loans - so aiming for a RAB charge closer to zero. Achieving this is hard when some graduates will not earn much during their lives (post-graduates have better earning prospects, so this goal is more achievable for them). They could be cross-subsidised by expecting the well-paid graduates to pay back more, but as we saw from the Yale experiment, there are limits to how far you could push this and we do want to keep them in the system.

I would prefer it if the government would continue to ensure that by and large you only pay back the cost of your own education, and so promise that graduates will not be used as hidden taxpayers to fund the education of their contemporaries. That is very different from the graduate tax model. If you also stick with the current principle that repayment will take account of a graduate's ability to pay, that means there will be some loan write-offs, though they do not have to be on the scale currently forecast.

The high repayment threshold was seen as a generous and attractive feature of the Coalition government's arrangements, whereas we have learned that slow payback is not particularly popular. 'By a margin of almost two to one, undergraduates and parents would rather a student loan is paid back quicker, with higher monthly repayment, than longer, with smaller monthly repayments.'²⁶ On the specific question of whether they preferred the £15,000 threshold or the £21,000 threshold, there was an even 44 per cent balance for each option. Parents were more concerned about the size of the loan (64 per cent) than terms of repayment (29 per cent) and so strongly preferred the lower repayment threshold (44 per cent versus 36 per cent). This issue could be looked at alongside other decisions on funding higher education every five years.

Such a pattern of quinquennial reviews provides a good long-term structure for higher education. As soon as it is

²⁶ HELP UK, *A new higher education loan programme: adding to the debate on funding*, London: University Alliance, June 2014.

clear the system will be regularly reviewed around some broad principles, the forecasters no longer have to assume everything is fixed for the purposes of their financial estimates. It enables us to break free from the absurdities of the RAB charge debate as it has been conducted so far. However, we have a new government with a tight timetable for public spending decisions. It could set a financial envelope in the July Budget and set out the final decisions in the Autumn Statement having conducted such a review. Alternatively, it could set out its decisions now for the next five years and say that it would set up a new quinquennial review towards the end of this parliament. Whatever the approach, what are the options? Here is a possible package:

First, the greatest pressure facing students is their living costs. There is a case for an increase in their total maintenance support so they have more cash to live on. Within this there should be a substantial shift from maintenance grant to loans, so that there is also a saving in public spending.

Second the £9,000 fee cannot be frozen indefinitely. However, universities have not won public support for an increase because it is still far too difficult to get a clear picture of how the money is spent. So, one can see the outlines of a deal in which it is agreed that the fee increases with the rate of inflation in return for universities agreeing to publish clearer accounts of where the money goes - along the lines of the reports which local authorities now produce.

Then third, the new repayment threshold has ended up much higher relative to actual earnings than was ever intended. Moreover, this long, slow, small repayment model does not even seem to be particularly popular. The government could freeze the £21,000 threshold for this parliament. It could say that it would, however, continue to up-rate the £15,000 threshold, which some forecasts suggest would then reach £21,000 in perhaps six years. What to do then would be an obvious question for a quinquennial review launched towards the end of this parliament. One possibility would be then to up-rate the new single

threshold.

Finally, the government should shift to a more sensible discount rate for the RAB charge calculations, linked to the actual cost of borrowing as shown in indexed linked gilts.

This package would save public spending by a further shift from maintenance grant to loans. It would put more cash in the hands of students and protect the resources for universities. The IFS estimate that freezing the repayment threshold, together with correcting the discount rate would reduce the RAB charge to about 15 per cent.²⁷ Together with the structure of future quinquennial reviews, it would put an end to a sterile and confused debate about the RAB charge by showing that this new structure is flexible and sustainable.

²⁷ Britton, J. and Crawford, C., *Estimating the Cost to Government of Providing Undergraduate and Postgraduate Education*, IFS Report R105, March 2015, Table 5, pp42.

6 | Conclusion

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The current structure for funding higher education has increased cash for university teaching, whilst clearly saving public money.

It has ensured that graduates who have benefited from higher education pay back, but no upfront payment is expected from students for tuition. It has made it possible for the government to remove the cap on student numbers - a great social reform. There has also been a surge in applications for university, especially from young people from lower income households.

The main threat to the system now is a mistaken belief that somehow it is unsustainable because of low forecast graduate repayments when these estimates are dependent on some very specific assumptions. The system has to be flexible. This needs to be explicit in a way that commands consent and support. Getting back to the principles behind the system, and then calibrating it every five years in accordance with those principles, is the best way to ensure it is sustained as a robust and respected way of financing higher education

Acknowledgements and bibliography

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