Student Loans: A Hungarian Proposal

Part 1: Design

Nicholas Barr and Iain Crawford

Department of Economics and European Institute,
London School of Economics and Political Science,
Houghton Street,
London WC2A 2AE
Tel: +44-20-7955-7482; Fax: +44-20-7831-1840; Email: N.Barr@lse.ac.uk

Salen House, Acharacle, Argyle PH36 4JN
Tel: +44-1967-431746; Fax: +44-1967-431409; Email: Iain.Crawford@btinternet.com

May 2000

Paper for
Republic of Hungary: Higher Education Reform Project:
Consulting Services for Student Loan Programme

Contents

Executive summary

1. This paper discusses a student loan strategy proposed by the Hungarian Government. Section 1 describes the scheme. Section 2 sets out the principles of loan design, drawing on economic theory. Section 3 gives an optimistic assessment of the proposal in terms of those principles and rebuts a number of criticisms.

2. A well-designed loan scheme should have three central characteristics:

- Income-contingent repayments – i.e. repayments in the form of *x*% of a student's subsequent earnings – collected as a payroll deduction;
- A market interest rate;
- The capacity to bring in private money.

The Government strategy incorporates all three. To the best of our knowledge Hungary would be unique in achieving this.

3. *Income-contingent repayments.* The scheme proposes repayments in the form of around 6 per cent of a student's subsequent earnings, collected alongside his or her income tax payments, until the loan has been repaid. Repayments therefore track a student's earnings week by week or month by month. This approach has major advantages. It is efficient, in that it addresses the major capital market imperfection discussed in Box 2. It is fair, because people with low earnings make low repayments and people with low lifetime earnings do not repay their loan in full. This assists access; and the obvious equity advantages of the scheme increase its political appeal. The key issue is less of policy design than of implementation, discussed in a companion paper. Specifically, it is necessary to ensure that the tax authorities have the capacity to collect repayments effectively. To that extent (an additional advantage) there is synergy between organising loan repayments and strengthening the system of income tax – itself a necessary component of EU accession.

4. *Market interest rates*. It is desirable if students pay an interest rate on their loans based on the government's borrowing rate. Subsidised loan are inefficient, in that they give students an incentive to borrow as much as possible and to delay repayment as long as possible. They are expensive, crowding out other beneficial educational activities. They are also inequitable: an interest subsidy disproportionately benefits the middle class, the predominant consumers of higher education. A market interest rate, in contrast, avoids perverse distributional effects: instead of spreading interest subsidies thinly across *all* students, it charges a market interest rate and uses the resulting savings for *targeted* interventions to improve access: scholarships for students from poor backgrounds; information and mentoring schemes for students with no family experience of higher education; and more resources earlier in the system, which is where the real barriers to access occur.

5. *Private funds*. Hungarian higher education needs more resources now, to improve quality, for expansion, and to enhance access. A high-quality mass higher education system cannot wholly rely on tax funding even in the West, still less in the context of Hungary's fiscal constraints. Public funding must therefore be supplemented on a significant scale by private funding. Student loans bring in private funds in the form of students' loan repayments. If students borrow from the taxpayer, however, there is no saving in public expenditure until the loan scheme is mature, i.e. until the cumulative repayments of past cohorts students are large enough to outweigh the cumulative outgoings of the loan scheme. On plausible estimates, this process will take about 20 years. In contrast, if students can borrow – directly or indirectly – from private sources, private funding becomes available for immediate use to improve access and quality.

Student Loans: A Hungarian Proposal

Part 1: Design

Nicholas Barr and Iain Crawford

1. The Hungarian government intends to introduce a system of student loans as part of a wider reform of higher education. This paper analyses the Government's strategy for the design and operation of student loans. A companion paper discusses key issues of implementation.

2. The paper is organised as follows. Section 1 sets out the Government's proposal. Section 2 discusses the principles of student loan design, drawing on economic theory. Section 3 discusses the proposal in the context of those principles, concludes that the loan scheme is strategically coherent and well-designed to achieve the purposes for which it is intended, and rebuts a number of criticisms. The remaining set of issues, discussed in the companion paper, is how the proposal can be implemented cost-effectively.

1 A Hungarian proposal

3. The objective is to provide an opportunity for every talented young Hungarian – whatever his or her family's financial background – to participate in higher education by introducing a student loan system which is universal, protects the individual from undue risk and minimises the burden on the state budget. The existing system provides grants only for state-financed students who are already in higher education. The introduction of student loans will improve access: the proposed arrangements decrease the financial burden on students and their families of participating in higher education; they also allow opportunities to those who would otherwise not even apply.

4. The following points summarise the strategy for student loans proposed by the Hungarian government. Its ten elements are designed as a strategic package. The exclusion of any element can distort the system or, at worst, result in its entire failure.

(1) *Income contingent loan repayments*. Loan repayments take the form of a small percentage (around 6 per cent) of a student's income after graduation, with an option for voluntary early repayments. This approach has major advantages, both educational and fiscal:

- Income-contingent loans minimise deterrents to access since the individual is automatically protected if he/she has a low income. In sharp contrast, mortgage-type loans, which have a fixed repayment period, bear no relation to the individual's income.
- Because repayments are exactly related to a person's income, it is possible to have a low starting point for repayments, thus strengthening the flow of repayments, with major fiscal advantages.

(2) *The maximum loan* will be HUF 21,000/month for state-financed students and somewhat higher for self-financed students, both figures to be indexed to the rate of inflation.

(3) *Phasing*. The system will be introduced for first year students thus automatically phasing in the system. First-year students will have access to the existing grant and also to the loan.

(4) *Real interest rate.* The loan will have a market interest rate based on three elements: (a) the one-year government bond rate, (b) a risk premium to cover non-repayments and (c) administrative costs. This real interest rate is considerably lower than students would pay for a commercial loan. Nevertheless, it creates a genuine incentive to repay. In contrast, a general interest subsidy is expensive, distortionary and inequitable, since it subsidises all students including those from well-off backgrounds.

(5) *Targeted assistance.* The system would include a targeted interest subsidy where a person's income is temporarily low; and it would write off the debt of someone who dies young or who retires with outstanding debt. The costs of those targeted subsidies and write-offs will be built into the interest rate. Separately, the scheme could accommodate options for active family policy, for example more advantageous repayment arrangements for large families, financed from general taxation.

(6) *Sharing risk.* The cost of non-repayment built into the interest rate means that risk is shared among the cohort of students. In the proposed system (income contingency, collection through the tax authorities) the risk premium is considerably lower than with mortgage-type loans.

(7) *The role of the income tax authorities*. Collection should be organised through the income tax system. The tax authorities are uniquely placed for this task. (a) They can exploit large administrative economies of scale. (b) Only the tax authorities can can cost-effectively collect repayments on the basis of a person's *current* income (an essential

element of income contingency). (c) They have enforcement powers which would be unconstitutional for a private collection agency. As a result, (d) collection via the tax authorities is cheaper and has a stronger repayment flow than any private collection mechanism and, for those reasons, opens up opportunities for private finance on the most advantageous terms, with benefits both for students and the taxpayer.

(8) *A non-profit, state-owned Student Loans Institution* will administer the system. It will disburse loans, keep records of individual accounts, and organise debt sales or other forms of private finance.

(9) *Private finance*. Until the system is mature (which will take 15 years or so), it will be necessary to include private finance to minimise the scheme's budgetary impact. Possible techniques include (a) issuing government bonds, (b) securitisation, (c) upfront lending. Thus the state budget has to cover only the difference between the total lent to students and the amount which can be covered from private sources.

(10) *When the system is mature it will be self-financing,* and so does not require a 'programmed' budgetary cost increase. In contrast, a mortgage-type loan system requires substantial and continuing budgetary resources to pay for guarantees, and often also for interest subsidies.

2 Designing student loans: lessons from economic theory

5. This section discusses in turn the objectives of higher education policy, why loans are necessary at all, and design issues. For fuller discussion of the underlying economic theory, see Barr (1998, Ch. 13).

2.1 Objectives

6. In the Hungarian context, the following are major objectives.

7. *Improved access*, for both efficiency reasons (Hungary cannot afford to waste talent) and equity reasons. There is much confused thinking about equity B particularly in the higher education context B between social elitism and intellectual elitism. As a value judgement, the first is to be minimised, but the second is beneficial. The equity objective is that access for a gifted young Hungarian to an intellectually elite institution should not be diminished by the fact that he/she comes from a poor family.

8. *Improved efficiency*.

- External efficiency is concerned with *outcomes*, i.e. with producing the types of educational activities which equip individuals B economically, socially, politically and culturally B for the societies in which they live. In the Hungarian context, the objective is to provide a subject mix appropriate for a pluralist market economy. *Improved quality* is another dimension of external efficiency.

- Internal efficiency is concerned with *process*, i.e. with ensuring that institutions are run efficiently. In the Hungarian context part of this objective is to have broadly the efficient number of institutions (the integration issue).

9. *Improved capacity to expand*. A recent British inquiry (UK National Committee of Inquiry into Higher Education, 1997*a*, para. 6.8) endorsed the >international consensus that higher level skills are crucial to future economic competitiveness=, and went on to quote an OECD (1997) study:

> >The direction is universal participation: 100 per cent participation with fair and equal opportunities to study; in some form of tertiary education; at some stage in the life cycle and not necessarily end on to secondary education; in a wide variety of

structures, forms and types of delivery; undertaken on equal terms either part-time or full-time; publicly-subsidised but with shared client contributions; closely involving partners in the community; serving multiple purposes B educational, social, cultural and economic=.

9. Alongside these general arguments for mass tertiary education are at least three reasons why the case for expansion is perhaps even stronger in Hungary than in the richer countries of western Europe, notwithstanding the declining number of 18-21 year olds.

- Expansion is necessary, first, to deal with a backlog of young people who were not able to attend university over the past ten years because of the output decline and fiscal stringency which accompanied the early transition, and given the fact that only now is Hungary returning to its pre-transition level of income.

- Expansion is necessary also to assist in the adjustment of the skills mix in the Hungarian labour force, given the dramatic change in the country=s output mix resulting from transition. Hungarians do not need reminding of the scale of this change: from goods towards services; from CMEA countries towards western Europe; from goods and services demanded by the central planner towards those demanded by the market.

- The trend to lifelong learning accentuates the previous point. Even if Hungary had not inherited a distorted output mix, there would still be a case for expansion of higher education.

10. *Political sustainability* is essential. Much subsequent discussion is concerned with political aspects of reform. The central point is to convince the electorate that reformed funding, if properly implemented, assists both growth and access.

11. *Administrative sustainability* is equally critical. Giving out student loans is relatively easy. Collecting repayments is much harder. Any loan scheme needs to be capable (a) of collecting repayments and (b) of doing so in a way which does not crowd out scarce administrative resources from other uses. Much of the companion paper addresses this topic.

2.2 Why have student loans at all?

12. The first question is why Hungary should introduce loans now, when there are so many poor Hungarians? There are at least three reasons why loans are a progressive way forward.

13. *Mass higher education is unaffordable*. The need to expand tertiary education was discussed above. But mass tertiary education cannot be entirely tax funded, not least because the resulting high tax rates create incentives inimical to economic growth. One possible solution B returning to a small, elite university system B is no longer on offer for both economic and social reasons. Thus public funding has to be supplemented by private funding and, as discussed earlier, student loans are the only method of doing so which is (a) equitable and (b) capable of generating resources on a significant scale.

14. *Tax funding is unfair*. Tax funding is not only inefficient in terms of its potential incentive effects, but also inequitable because B in the case of higher education B it is regressive. Equity includes the question: who would pay if the student did not? If the people who predominantly go to university are students from backgrounds with higher-than-average income, the people who pay if the students do not are, by definition, less well-off than the students= families.

15. *Income-contingent loans are equitable*. Alongside the case against tax funding is the positive case in favour of income-contingent loans, discussed in more detail below. Income-contingent loans, by their very nature, automatically protect low earners. Nurses, with low earnings, will make low repayments, or no repayments. Unemployed people will make no repayments while unemployed. A woman who leaves the labour force to have a baby will make no repayments unless and until she returns to paid employment.

16. Income-contingent loans are fair also in another way. By basing repayment on a students= subsequent earnings, they base student support not on where a person starts, but on where he/she ends up. This, it can be argued, is fair. If a person from a poor background gets a degree and subsequently does very well (which, after all, is one of the whole purposes of encouraging access to higher education) it is fair that he/she makes repayments.

17. *The way forward*. It is true that many Hungarians are poor. But one of the central purposes of the transition is to make them less poor, and to restore Hungary to its historical situation of living standards comparable with those in Western Europe. Thus Hungarians will not remain poor. This has two implications. First, with income-contingency, repayments automatically track success (or failure). Second, low incomes now are not per se a case

against loans; more plausibly, they are an argument against excessively large loans. For these reasons, the introduction of loans can be argued to be a progressive move, putting into place now a system of (possibly small) loans, which will mature and grow, and contribute to private funding in the future.

2.3 How should student loan repayments be organised?

18. It is useful to distinguish three ways of organising loans:

- *Mortgage-type loans* have repayments organised like a mortgage or bank overdraft. Thus the student faces repayments of (say) $100 per month for (say) 5 years. Repayments and the duration of the loan are predetermined; the endogenous variable is the fraction of the student=s income absorbed by loan repayments.

- *Income-contingent loans* have repayments calculated as (say) 5 per cent of the student=s subsequent earnings until such time as she has repaid the loan. Thus the fraction of the student=s income absorbed by repayments is predetermined; the endogenous variable is the length of time it takes the student to repay. It is desirable if repayments are collected by the tax or social security authorities.

- *A graduate tax* is similar to an income-contingent loan in that repayments are (say) 5 per cent of the student=s subsequent earnings, but fundamentally different in that repayment continues for life (or till retirement). Unlike the previous two cases, therefore, repayments do not cease when the student has fully repaid the loan.

19. The rest of this section argues that a well-designed loan system has three characteristics.

- *Provided that they can be implemented effectively, loans should have income-contingent repayments collected as a payroll deduction*, i.e. alongside income tax or social security contributions.

- *Loans should attract a market or near-market interest rate*.

- *The loan scheme should have the capacity to bring in private money*.

The first of these topics occupies the rest of section 2.3. The latter two are taken up in section 2.4.

2.3.1 MORTGAGE LOANS

20. The major advantages of mortgage loans are:

- The cost of the loan is transparent to the student
- Mortgage repayments do not depend on a good tax collection mechanism.
- Mortgage repayments might discourage work effort less than income-contingent loans.

21. Mortgage-type repayments, however, face significant problems.

- They put access at risk, particularly for disadvantaged groups. This point is explained in the discussion of income-contingent loans in section 2.3.2.

- They do not solve the need for sophisticated administration. The following discussion amplifies this point.

22. *Mortgage repayments require a fairly sophisticated collection mechanism.* Mortgage repayments are not collected by the tax authorities, but they still have to be collected by someone. Banks have expertise in collecting repayments for loans which are (a) short term and (b) secured on some tangible asset. On (a), however, there are good reasons for wanting student loans to have a fairly long duration: it is efficient if the duration of a loan bears a rational relationship to the lifetime of the asset being financed by the loans B hence we have 3-year car loans but 25-year home loans; in addition, a longer repayment period makes possible smaller repayments and/or larger loans. Turning to (b), there is no security for borrowing to finance human capital. For both reasons, collection by banks is likely to be administratively demanding and hence to require some sort of government guarantee. However:

23. *Government guarantees to private lenders create problems.*

- Incentives. If the guarantee the government offers is not generous enough, banks will decline to get involved. But if the guarantee is generous, banks have no incentive to pursue repayments vigorously (not least because they have no desire to alienate their potential best customers), leading to ineffective collection, and hence to high default rates.

- The classification problem. A second problem with government guarantees is the classification problem (Box 1). If government guarantees are too generous, there is no genuine risk-transfer and, under international statistical guidelines, the resulting loans, *in their entirety*, count as public spending.

24. *A public collection agency?* One way to get round these problems is to abandon the idea of private collection of loan repayments and instead to have a public collection mechanism. To be effective, however, any such agency will need investigative and enforcement powers which match those of the tax authorities. A further prerequisite is a legal structure capable of enforcing compliance, a process which is helped if each person has a unique identification number. Even where those prerequisites are met, the public sector ends up running a student loan collection agency *and* a tax collection system, raising the question of whether resources devoted to collection of mortgage-type student loan repayments would not be used better to bolster the effectiveness of the tax system.

Box 1: The expenditure classification problem

Box 1: The expenditure classification problem

Guidelines on national income accounting include detailed discussion of the dividing line between public and private spending. To simplify a complex issue, three factors are relevant when deciding whether a loan scheme is public or private:

- Who designs the scheme, e.g. who decides on interest rates or whether a particular student is eligible?
- Who bears the risk of default?
- Where does the money come from?

If a student takes out a conventional loan from a bank, it is the bank=s scheme, e.g. the bank can decide what interest rate to charge and whether or not it wishes to lend to the student; the bank bears the risk that he/she will fail to repay; and the money he/she borrows comes from the bank. Clearly this is a private scheme.

In contrast, if the government designs a loan scheme, decrees that all students are eligible (even those with a criminal conviction for fraud), bears the risk of default itself, and provides the money the students borrow, the scheme is public.

The problem arises where a scheme meets some of the criteria to be classified as private, but not all. Specifically, if a student borrows from a bank but the government gives the bank a full guarantee, then, under IMF rules, lending to the student counts as *public* spending, the logic being that since the government guarantees repayment, the student is acting as an agent of government, and hence the loan is government borrowing. Thus, even though students nominally borrow from a private bank, the scheme is classified as public. For a good, non-technical summary of the issues see UK Department for Education and Employment (1998), and for an attempt to grapple with them in a UK context, Barr, 1997).

The issue is important. The skills to address it lie in the Ministry of Finance, the Office of National Statistics and/or the National Bank of Hungary, perhaps in consultation with the Fiscal Affairs Department at the IMF.

25. *Mortgage repayments require a capacity to implement an income test.* Whether repayments are collected by a public or a private agency, a system of mortgage repayments requires an income test. The argument is simple. If repayments (say $100 per month) bear no relation to a person=s income, a mechanism is needed to protect people with low or no earnings. Under the 1990 UK loan scheme, for example, loan repayments are deferred for anyone whose earnings are below a threshold. This is necessary both for equity reasons and to ensure that the scheme is politically sustainable. But the corollary is that the agency organising repayments has to administer an income test. This is a difficult task of measurement and enforcement even in a country like the UK. In Hungary it is considerably

more difficult B for precisely the reasons that implementing an effective income tax is difficult B stretched administrative capacity and a large grey economy. An income test, in short, will be administratively demanding and costly. With a mortgage scheme, these costs will be *in addition* to those of the tax system.

26. In conclusion, mortgage-type schemes do not get round the need for effective administration.

2.3.2 THE PRINCIPLE OF INCOME-CONTINGENT LOANS

27. There are two strategic sets of arguments for income-contingent loans: they address important capital market imperfections; and they have philosophical advantages.

Addressing capital market imperfections

28. Conventional (i.e. mortgage-type) loans, when used as an instrument to finance investment in human capital, face the capital market imperfections described in Box 2. As a result of those problems, risk for both borrower and lender is inefficiently high and, in consequence, borrowing and lending for human capital formation inefficiently low.

29. Income-contingent loans directly address these capital market imperfections.

- They protect the student from excessive risk. Students with low current earnings make low (or no) repayments. From a lifetime perspective, students who do well repay in full, and students with low lifetime earnings do not.

- By thus protecting borrowers, income-contingent loans help to bring about a level of lending which supports the efficient amount of higher education; and by making it easier for students from poorer backgrounds to participate, they also contribute to equity.

- Income-contingent loans, if properly designed, also protect lenders, and thus enhance the long-run possibility of private finance.

Box 2: Capital market imperfections for student loans
Consider conventional, voluntary, private loans with mortgage-type repayments, for example

Box 2: Capital market imperfections for student loans

for buying a house. For house purchase, the following is generally true:

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

Contrast the case of lending to buy a degree:

(a) Applicants to university may not know the benefits of getting a degree. This potential problem is particularly relevant for students from poor backgrounds B the very people for whom access is the most fragile, and the very people whose participation the Hungarian government wants actively to foster.

(b) A degree can >fall down=, in the sense that there is a high risk (or at least a perceived high risk) of failing exams.

(c) Though the *average* private return to a degree is positive (UK National Committee of Inquiry into Higher Education, 1997*b*), there is considerable variance around it. Thus there is uncertainty to the individual student about the benefits of a degree.

(d) If a student who has borrowed to pay for a degree subsequently has low earnings and high loan repayments, he or she does not have the option to sell the degree (because slavery is illegal).

(e) Because of (d), there is no security for the loan. Thus mortgage-type loans for human capital formation, as well as being risky for the student are also risky for the lender. As a result, loans will have a substantial risk premium, further discouraging student borrowing.

For all five reasons, borrowing to finance human capital is more risky than borrowing to buy a house. Conventional loans therefore lead to an inefficiently low level of borrowing. Separately, the risks are likely to be greater for people from poorer backgrounds and for women. Thus conventional loans are inefficient because they waste talent and inequitable because they bear most heavily on the least well-off.

Philosophical arguments

30. Another approach to demonstrating that income-contingent loans are both efficient and equitable is through a realisation, during earlier research (Barr, 1991), that income-contingent loans are compatible with the benefit principle (he who benefits should pay), with the ability-to-pay principle, *and* with the social insurance principle.

31. *The benefit principle*. In his classic book, *Capitalism and Freedom* (1962), Milton Friedman considered the government=s role in postcompulsory education and training. He accepted the capital market imperfections just discussed, especially the riskiness of student loans, for example the lack of any security. He pointed out that

> >[t]he device adopted to meet the corresponding problem for other risky investments is equity investment plus limited liability on the part of shareholders. The counter-part for education would be to Abuy@ a share in an individual=s earning prospects; to advance him the funds needed to finance his training on condition that he agree to pay the lender a specified fraction of his future earnings= (1962, p. 103).

32. On that basis he advocated loans from government, in return for which,

> >[t]he individual ... would agree to pay to the government in each future year a specified percentage of his earnings in excess of a specified sum for each $1000 that he received .... The payment could easily be combined with payment of income tax and so involve a minimum of additional administrative expense= (p. 105).

33. *The ability-to-pay principle*. A different approach starts from a predisposition towards free, tax-financed education, abandoning that model only because of its regressiveness when applied to higher education. Writing over 30 years ago, our colleague at the London School of Economics, Howard Glennerster, pointed out that:

> >in the United Kingdom, higher education is now financed as a social service. Nearly all the costs are borne out of general taxation.... But it differs radically from other social services. It is reserved for a small and highly selected group.... It is exceptionally expensive.... [And] education confers benefits which reveal themselves in the form of higher earnings. A graduate tax would enable the community to recover the value of the resources devoted to higher education from those who have themselves derived such substantial benefit from it= (Glennerster, Merrett and Wilson, 1968, p. 26).

34. *The social insurance principle*. An important function of social insurance is to give people a mechanism for redistributing to themselves over their life cycle. Pensions are a device for redistributing from one=s middle years to one=s post-retirement years. Student

loans are *precisely* the same thing B a device for redistributing from one=s middle years to one=s early years. In addition, as discussed in section 3.1 (point 10), it is possible to design loans so that repayments continue for an extra year or two after the loan has been repaid; thus higher-earning graduates repay somewhat more than they have borrowed, making good any shortfall from lower-earning graduates. Thus the cohort as whole insures itself – a pure social insurance arrangement.

35. A final point in thinking about repayment models is to note that conventional loans (on which mortgage-type student loans are modelled) and student loans are intended to operate in very different circumstances. Loans for house purchase are normally made to people *after* they know their income and assets. Student loans, in contrast, are given *before* people know their income and assets; indeed, it is one of their central purposes to increase borrowers' income and assets. Of necessity the latter situation is much more uncertain than the former, hence the usefulness income-contingent arrangements.

2.3.3 DESIGN ASPECTS OF INCOME-CONTINGENT LOANS

36. The previous paragraphs discussed the *why* of income-contingent loans. This section briefly discusses some issues of *how*.

37. *The starting threshold*. At what level of income should a student start to make repayments? The case for a relatively high threshold (e.g. average earnings) is mainly political; people think that such a system is fairer. That argument, though widely believed, is false. Income-contingency is *automatically* fair. If the repayment rate is 5 per cent of earnings and the starting threshold is low, then repayments will be low. If a beginner kindergarten teacher earns 30,000 Ft. per month, her monthly repayment would be 1500 Ft. The case for a low threshold is that it makes for a much stronger repayment flow, i.e. it makes the loan scheme more effective. A key issue for policy makers is to assess the balance between these economic and political advantages which pull in different directions.

38. *Implementation*. To have their desired effect, it is important that loan repayments track a person=s earnings on a *current* basis, i.e. week by week or month by month, rather than being assessed retrospectively on the basis of income in a previous year. The only cost-effective method of implementing repayments on a current basis is as a payroll deduction alongside income tax or social security contributions.

39. Earlier discussion of mortgage-type loans stressed the practical problems of collecting repayments. Analogous problems arise with income-contingent loans, whose effectiveness is

heavily dependent on the effectiveness of the tax system. This raises problems in countries where income tax collection is leaky and where a large fraction of the population is outside the formal income tax net. A central issue for Hungarian policy makers is the need to ensure that income tax collection is sufficiently robust to support a student loan system if this line of policy development is to be pursued. Note that an effective tax system is a significant component of EU accession.

40. To sum up, the major advantages of income-contingent loans are:

- They address important capital market imperfections;
- They assist access;
- They have philosophical advantages, being compatible with the benefit principle, the ability-to-pay principle *and* the social insurance principle;
- They offer synergy with strengthening the tax system.

41. The disadvantages of income-contingent loans are:

- They require robust tax collection;
- They may be perceived as a tax, with potential disincentive effects.

2.4 Other design features of student loans

2.4.1 MARKET INTEREST RATES

42. This section sketches out briefly why it is desirable if students pay an interest rate on their loans broadly equal to the government's borrowing rate. Market B or near-market B interest rates have efficiency advantages. The interest rate is a price which, like other prices, gives signals which induce people to act efficiently. In this case, the signals concern the efficient allocation of income over a person=s lifetime. That efficiency function depends on a number of conditions, well-informed consumers being one of the most important. To justify an interest subsidy for efficiency reasons requires a demonstration that information problems would lead systematically to underinvestment in education.

43. In practice, interest subsidies create incentives to inefficient behaviour: they give students the incentive to borrow as much as possible and to repay as slowly as possible. Even if a student does not need to borrow the money she would, if rational, borrow her entire loan entitlement, put the money into a bank (or government bonds) and profit from the interest rate differential.

44. Market or near-market interest rates also have equity advantages. An interest subsidy is untargeted. It benefits most those who borrow most. Since it is the middle-class who disproportionately go to university, the interest subsidy benefits the middle-class most. Instead of spreading interest subsidies thinly across *all* students, a more equitable approach is to charge a market or near-market interest rate and to use the savings for *some* students, specifically those for whom access is most fragile, and those whose subsequent earnings are low. In short, market interest rates make it possible to replace an untargeted subsidy by a targeted one.

2.4.2 PRIVATE MONEY

45. As argued earlier, the logic of expansion of higher education makes it inevitable that public funding will need to be supplemented on a significant scale by private funding, an imperative which is all the more acute if higher education is to maintain its quality.

46. As also argued earlier, the only large-scale and equitable source of private funds is through student loans. However, if students borrow from the taxpayer, there is a net saving in public spending only when the loan scheme is mature, i.e. only when the flow of repayments from former graduates exceeds this year=s disbursement to current students *and* has done so for enough years for the loan scheme to be in steady state. Since one of the key objectives of a well-designed loan scheme is to allow the student to spread repayment of borrowing for a long-lived asset over an extended period, it follows that the loan scheme, even if well-designed, will not reach maturity for at least 20 years.

47. If a way can be found to allow students to borrow from private sources, the upfront costs of the loan scheme no longer fall on the public budget. This may not be a major advantage in a country like New Zealand (where students borrow taxpayer money) but is an issue of obvious and acute relevance to Hungary.

48. At this stage, however, the classification problem, discussed in Box 1, comes into play. If students borrow from banks, but the banks receive what, in practice, is a complete guarantee from government (so that there is little or no risk-transfer), the scheme will be classed under IMF rules as being publicly funded. Careful design is necessary to avoid the problem.

2.5 Loan schemes in practice

49. An earlier paper (Barr, 1999) discussed student loans in the USA, the UK, the Netherlands, Sweden, Australia and New Zealand (see also Woodhall 1990 for discussion of loans throughout the OECD).

50. Table 1 summarises institutions in terms of 5 core design features:

(a) Tuition fees: are there fees; and if so, are they set by government or by universities?
(b) Grants: do students receive a tax-funded grant towards their living expenses?
(c) Are loans intended to cover tuition fees, living costs or both?
(d) Do loans have mortgage or income-contingent repayments?
(e) Is the interest rate on student loans subsidised?

The following discussion focusses on (d) and (e).

50. *The USA*. There is a wide array of different loan schemes, which typically have mortgage repayments and an interest subsidy. These arrangements can be strongly criticised.

- Complexity. There is no real *system*, but lots of disparate bits, making it difficult for students to understand what is on offer (to study the complexity close up, see http://www.finaid.org).

- Mortgage-type repayments. Loans have mortgage-type repayments, notwithstanding that the US has ample capacity to administer an income-contingent system effectively.

- Subsidised interest rates. Loans attract an interest subsidy. This tends to benefit the better off, and is also inefficient.

- The default rate is uncomfortably high, particularly for students at vocational institutions. This >leakiness= has two causes: a high default rate, and the fact that students borrow at subsidised interest rates. As a joint result, a significant fraction of lending to students is not repaid, the shortfall being a cost to the taxpayer. This outcome is predictable, and offers an important lesson in policy design. Students till recently got their money from banks; and banks were supposed to collect repayments. However, the loan was guaranteed by the federal government, and banks therefore had little incentive to enforce repayment. Thus loans in the US bring in much less private money than is at first sight apparent B a problem in which the USA is far from unique.

- Technical violation of IMF rules. The classification problem was discussed in Box 1. Under IMF guidelines, if students borrow from banks, but banks receive a generous guarantee from government, loans count as *public* spending, since the public sector bears the risk of default. The US system of government guarantees to private lenders may or may not violate these rules.

51. There are a number of reasons why mortgage-type loans are likely to have less of a disincentive effect in the USA than elsewhere.

- Income is different, the US being a rich country.
- History is different, the US having no tradition of free higher education.
- Attitudes are different: people in the USA are less risk-averse and hence less debt-averse than is typical in Europe; and there is less of an elitist attitude towards higher education in the USA, blue-collar workers commonly aspiring to send their children to college.
- Social values are different: arguably, the Americas (North and South) have a more individualistic culture than is typical in Europe, giving equity a somewhat lower weight.

52. Though many of these points are debatable, they suggest, at a minimum, that the US experience cannot automatically be transferred to countries with lower incomes and different attitudes. They also illustrate, more generally, the importance of designing policy with due regard for differences in initial conditions.

53. *The UK.* Since 1998, students' living costs are covered, wholly or in part, by a loan with income-contingent repayments collected by the tax authorities. The loan is income-tested, so that students from better-off backgrounds have a smaller loan entitlement. Loans pay a zero real interest rate, i.e. are subsidised.

54. The great advantage of the post-1988 arrangements is that they incorporate income-contingent loans. Beyond that, however, arrangements can be heavily criticised.

- Complexity. The arrangements are complex (see Barr and Crawford 1997), with two ill-effects: students, prospective students and their parents cannot understand the system; and it is a nightmare to administer.

- No more resources. Since loans continue to be funded from public revenues, they bring in no more resources in the short run. It is true that loans *will* bring in private funds on a significant scale once the system is mature, i.e. once enough repayments by multiple

cohorts of former students exceeds outgoings on loans for new students. That, however, will take at least 20 years.

- Inequity. The arrangements put access at risk and are also unfair in other ways (see Barr and Crawford 1997).

55. *The Netherlands*. Student loans pay a near-market interest rate. On the face of it, the system has mortgage-style repayments but, if students provide evidence of low earnings, they are assessed at a lower rate directly related to their income. The process has to be repeated each year. Any debt not repaid after 15 years is forgiven.

56. Student loans in the Netherlands can therefore be thought of in either of two ways: as a mortgage-type system, with abatement of repayment for low earners; or as a system with income-contingent repayments, subject to a ceiling on annual repayments. Viewed from the latter perspective, a number of criticisms can be made:

- the means test is administratively cumbersome;
- there is no obvious rationale for the ceiling on repayment;
- 15 years is rather short for loan forgiveness (at the other extreme, there could be no forgiveness, with any unpaid student debt being a charge on a person=s estate at death).

57. *Sweden*. Loans pay a near-market interest rate. Repayments are income-contingent, but based on income two years earlier, and thus do not track a borrower's earnings week by week.

58. *Australia* introduced it Higher Education Contributions Scheme (HECS) in 1989. The scheme introduced a tuition charge which students could either pay upfront (at a discount), or could pay via a loan. The HECS loan scheme had income-contingent repayments collected by the tax authorities, the first large-scale example of this approach. The only criticism of the loan scheme per se is that it charges a zero real interest rate. In other respects the loan scheme has been a success.

- Revenue. Chapman (1997) reports that the revenue potential of income-contingent loans is considerable. In 1995, when the scheme had been running for 6 years, HECS revenues amounted to 10 per cent of total spending on higher education, a percentage that was rising rapidly. If 80 per cent of all lending is repaid, the additional revenue from a charge of 25 per cent of teaching costs could eventually add some 20 per cent to university income.

- Administration. The >cacophony of complaints ... related to the alleged administrative burden ... in retrospect ... were seriously exaggerated= (*ibid*. p. 746). In the mid-1990s the Australian Tax Office estimated that collection costs were 1 per cent of HECS revenues.

- Access. Here Chapman is unequivocal. >[T]he introduction of HECS does not seem to have had any discernible effects on the socio-economic composition of the student body= so that >there is no evidence of HECS diminishing access to higher education of the disadvantaged ...= (*ibid*. p. 749) This outcome, he concludes, illustrates that >even a radical movement away from a no-charge system can be instituted without jeopardising the participation of disadvantaged potential students= (*ibid*. pp. 749-50).

- Political effects. Largely consequential on the previous point, the political disquiet (including student demonstrations) which accompanied the introduction of HECS in 1989 has completely faded away, the system (at least in its 1989 variant) being generally regarded as fair. Student loans in Australia, as in the UK, have largely become part of the political landscape.

59. *New Zealand* has income-contingent repayments collected by the tax authorities. It was argued earlier that a well-designed loan system should have (a) income-contingent repayments collected by the tax authorities and (b) near-market interest rates under. The New Zealand system of the 1990s was alone in having both features. Interestingly, though, New Zealand has a *targeted* interest subsidy. Specifically, where a person's income is so low that loan repayments do not cover even the interest charge – for example someone who is unemployed or bringing up children – he/she is charged a zero real interest rate in place of the near-market rate paid by the generality of borrowers. Thus the New Zealand system is designed explicitly with both efficiency and equity in mind.

3 The proposal in detail

60. Section 3.1 explains and comments on the Hungarian Government's proposal. Section 3.2 offers an enthusiastic overall assessment and rebuts a number of criticisms.

3.1 The proposal

1 INCOME CONTINGENT LOAN REPAYMENTS. LOAN REPAYMENTS TAKE THE FORM OF A SMALL PERCENTAGE (AROUND 6 PER CENT) OF A STUDENT'S INCOME AFTER GRADUATION, WITH AN OPTION FOR VOLUNTARY EARLY REPAYMENTS.

61. Why have a student loan scheme at all? The topic was discussed in section 2.2. Officials are clear that they consider the primary objective of the loan scheme is to release resources for higher education institutions in order to improve quality and access. Given this objective, the Minister stressed the importance of analysing the budgetary implications of the proposed scheme, and emphasised the need to ensure that the cost to the Education Ministry's recurrent budget is kept to a minimum. This implies that the scheme must be efficient (points 7 and 8 below), largely free of subsidy (points 4 and 6) and largely privately financed (points 9 and 10). The scheme is also equitable (points 1 and 5).

62. Why income-contingent repayments? This part of the strategy is based on the arguments in section 2, namely that income-contingent repayments are more efficient, more equitable and, in the Hungarian context, more politically sustainable than mortgage-type loans.

- Income-contingent loans minimise deterrents to access since the individual is automatically protected if he/she has a low income. In sharp contrast, mortgage-type loans, which have a fixed repayment period, bear no relation to the individual's income.
- Because repayments are exactly related to a person's income, it is possible to have a low starting point for repayments, thus strengthening the flow of repayments, with major fiscal advantages.

63. Why a flat-rate of around 6%? In Australia, the student loan repayment rate rises with income, i.e. borrowers with higher earnings make higher percentage repayments. Such an arrangement might be worth considering at some future time. In the short run, however, the imperative for administrative simplicity points strongly towards a single repayment rate for all borrowers.

64. While income-contingency is in many ways a dominant policy, the issue of effective implementation is central, and is therefore discussed in detail in the companion paper.

2 THE MAXIMUM LOAN WILL BE HUF 21,000/MONTH FOR STATE-FINANCED STUDENTS AND SOMEWHAT HIGHER FOR SELF-FINANCED STUDENTS, BOTH FIGURES TO BE INDEXED TO THE RATE OF INFLATION.

65. This figure is broadly equal to the national minimum wage and so, in principle, is enough to provide a parsimonious living for a single person.

66. The loan entitlement for self-financed students is deliberately higher, to enhance their ability to pay tuition fees.

3 PHASING. THE SYSTEM WILL BE INTRODUCED FOR FIRST YEAR STUDENTS THUS AUTOMATICALLY PHASING IN THE SYSTEM. FIRST-YEAR STUDENTS WILL HAVE ACCESS TO THE EXISTING GRANT AND ALSO TO THE LOAN

67. The phasing is helpful administratively. A 50% take-up by first year students in year 1 would involve 22,500 new student accounts. Annual intake and growth in the fraction of students taking out a loan could well lead to over 100,000 active accounts in four years. The repayment mechanism would become operational by year four when the first cohort of graduates start to repay.

68. An interesting test of the success of explaining the benefits of the loan system is whether second/third year students start lobbying to be allowed to join the new scheme.

69. Though there are clear advantages to phasing, the choice of method requires careful thought, not least because policymakers ignore behavioural responses at their peril. When the UK authorities announced the introduction of fees for new students one year in advance, some students responded by starting a year earlier than would otherwise have been the case. In the Hungarian context, announcing in advance that first-year students will be entitled to a loan could lead to students delaying entry by a year, at its worst leading to a small intake in year one and a large one in year two, with predictable pressures on class size, university facilities, university administration and the administration of loans. Separately, about 85 per cent of students who drop out of university do so at the end of their first year. It is therefore worth considering whether loans might initially be extended as an option to second-year

students rather than to first-year students, though at a cost of bringing one year closer the starting date for the collection of repayments.

4 REAL INTEREST RATE. THE LOAN WILL HAVE A MARKET INTEREST RATE BASED ON THREE ELEMENTS: (a) THE ONE-YEAR GOVERNMENT BOND RATE, (b) A RISK PREMIUM TO COVER NON-REPAYMENTS AND (c) ADMINISTRATIVE COSTS. THIS REAL INTEREST RATE IS CONSIDERABLY LOWER THAN STUDENTS WOULD PAY FOR A COMMERCIAL LOAN. NEVERTHELESS, IT CREATES A GENUINE INCENTIVE TO REPAY. IN CONTRAST, A GENERAL INTEREST SUBSIDY IS EXPENSIVE, DISTORTIONARY AND INEQUITABLE, SINCE IT SUBSIDISES ALL STUDENTS INCLUDING THOSE FROM WELL-OFF BACKGROUNDS.

70. Interest subsidies, as discussed in section 2.4, have major flaws.

- A central objective of the loan scheme is to release resources to improve quality and access. This this objective is compromised – potentially fatally – if the cost of interest subsidies falls on the higher education budget.

- The cost of an interest subsidy would make it difficult to expand the system in future, for example to postgraduate and part-time students or for vocational training.

- A general interest subsidy is not only costly but also regressive, since it disproportionately benefits middle-class students.

71. For these reasons, the Government has rightly rejected the idea of a *general* interest subsidy. However, there is a strong case for *targeted* interest subsidies.

5 TARGETED ASSISTANCE. THE SYSTEM WOULD INCLUDE A TARGETED INTEREST SUBSIDY WHERE A PERSON'S INCOME IS TEMPORARILY LOW; AND IT WOULD WRITE OFF THE DEBT OF SOMEONE WHO DIES YOUNG OR WHO RETIRES WITH OUTSTANDING DEBT. THE COSTS OF THOSE TARGETED SUBSIDIES AND WRITE-OFFS WILL BE BUILT INTO THE INTEREST RATE. SEPARATELY, THE SCHEME COULD ACCOMMODATE OPTIONS FOR ACTIVE FAMILY POLICY, FOR EXAMPLE MORE ADVANTAGEOUS REPAYMENT ARRANGEMENTS FOR LARGE FAMILIES, FINANCED FROM GENERAL TAXATION.

72. Income contingency ensures that repayment is linked to ability to pay. High earners will make larger monthly repayments than low earners; and those with little or no income will not pay at all as long as they remain in that position. Thus there is no case for a general interest subsidy.

73. *Targeted* interest subsidies are an entirely different matter. As discussed in section 2.5, the generality of borrowers in New Zealand pay a market interest rate (i.e. broadly, the government's borrowing rate), but specific categories of people with low or zero earnings (e.g. people who are unemployed, bringing up young children, etc.) pay a zero real interest rate.

74. Targeted subsidies of this sort can have considerable advantages when applied to specific groups such as people who are unemployed, or caring for young children, or elderly or disabled people. The issue in the Hungarian context is how they could be administered cost-effectively.

75. There may be other specific policy objectives in Hungary, such as family policy, which might suggest including other groups. Each exemption should be carefully costed, since the subsidies will have to paid for from the state budget.

6 SHARING RISK. THE COST OF NON-REPAYMENT BUILT INTO THE INTEREST RATE MEANS THAT RISK IS SHARED AMONG THE COHORT OF STUDENTS.

76. In the proposed system (income contingency, collection through the tax authorities) the risk premium is considerably lower than with mortgage-type loans.

7 THE ROLE OF THE INCOME TAX AUTHORITIES. COLLECTION SHOULD BE ORGANISED THROUGH THE INCOME TAX SYSTEM.

77. The tax authorities are uniquely placed to carry out this task for at least four sets of reasons.

78. *They can exploit large administrative economies of scale.* First, numbers are large. It is sometimes overlooked that the number of live accounts is not the number of current students but, once the loan scheme is mature, current borrowers plus all previous cohorts of students except for those who have repaid their loan in full. For that reason, the number of live accounts once the scheme is mature will be a substantial proportion of the working population.

79. Second, what is involved is a standardised task. The parameters of the loan scheme are nationwide, i.e. the terms of the loan are the same throughout Hungary, with no scope – so far as *loans* are concerned – for local discretion. In addition, the scheme will be designed

to use the same parameters as the income tax system, for example the same definition of income.

80. *Only the tax authorities can can cost-effectively collect repayments on the basis of a person's **current** income.* The efficiency and equity gains of income-contingency depend on repayments tracking a borrower's *current* income on a weekly/monthly basis. Given (a) large numbers and (b) a standardised task, there are clear administrative economies of scale if one entity administers student loans. Given (c), the imperative for repayments to track earnings week by week – precisely the task which the tax authorities already carry out – there are overwhelming advantages in terms both of cost and of minimising the drain on scarce administrative resources if loan repayments are piggy-backed onto an existing administrative operation. Since the income-tax authorities by definition are collecting income-contingent tax payments, it is only a marginal additional task to collect income-contingent loan repayments.

81. *The tax authorities have enforcement powers which would be unconstitutional for a private collection agency.* As a result:

82. *Collection via the tax authorities is cheaper and has a stronger repayment flow than any private collection mechanism* and, for those reasons, opens up opportunities for private finance on the most advantageous terms, with benefits both for students and the taxpayer.

83. For precisely these reasons, the use of a state collection mechanism minimises default, giving confidence to the financial institutions which, it is intended, should provide the loan capital (see point 9, below).

84. For precisely these reasons, commercial banks in the UK refused to organise the collection of student loan repayments; commercial banks in Hungary are likely to take a similar view. Banks cannot, in general, collect repayments as cost-effectively as the tax authorities. In addition, as discussed in Box 2, there are major imperfections in the market for student loans, the most important from the banks' perspective being the lack of any security. And, as discussed in Box 1 and the surrounding text, any attempt to give private lenders a government guarantee rapidly runs into the expenditure classification problem. Finally, and specific to Hungary, the banking sector is not without problems at the moment (see the paragraph in Appendix 1 from *Magyar Hirlap*, reported by Reuters, on losses in the financial sector).

85. All these arguments presuppose an effective income tax system. The Hungarian authorities are well aware of the need for efficient tax collection – to ensure fiscal stability, in the interests of the rule of law and, perhaps as important an imperative as any, as part of EU accession (see the paragraph in Appendix 1 from *Vilaggazdasag*, reported by Reuters, on conformity of Hungarian taxation practices with EU requirements).

86. Further aspects of the links between the student loan system and the tax system are discussed in the companion paper on implementation.

8 A NON-PROFIT, STATE-OWNED STUDENT LOANS INSTITUTION WILL ADMINISTER THE SYSTEM. IT WILL DISBURSE LOANS, KEEP RECORDS OF INDIVIDUAL ACCOUNTS, AND ORGANISE DEBT SALES OR OTHER FORMS OF PRIVATE FINANCE.

87. The Hungarian Government is considering the creation of a Student Loans Institution to manage the student loan scheme. However, the Minister expressed concern that it should not be a large, high cost, monolithic institution with palatial offices, multiple branch offices and hundreds of employees.

88. Given the intention to use the income-tax authorities to manage the collection of repayments, it should be possible to design the Institution as a slim, efficient organisation (what has been called a 'loans factory'). If disbursement is by electronic transfer to individual student bank accounts, costs can be further reduced.

89. Why is a Student Loans Institution necessary? There are advantages if student loans are administered by a separate entity, rather than delegated to the tax authorities.

- Data gathering. A Student Loans Institution will be more motivated to collect educational data (one of the few regrets the New Zealand Education Department have about their system is that the entire loan operation is administered by their tax authorities, who are reluctant to gather educational statistics, an activity which they regard as outside their core purpose). Such a high-quality educational database is potentially very valuable. Judicious use of the information by the Students Loans Company, not only to improve educational outcomes but also, for example, to put students in touch with financial institutions, could make a substantial contribution to covering the costs of administering the loan scheme.

- A broader remit? In the future, as discussed in the companion paper, the remit of the Student Loans Agency might be broadened so that it becomes the Student Support

Agency. This would improve the political acceptability of loans in comparison with a situation where repayments are seen as part of the tax-gathering exercise.

- Private finance. If the Institution is separate, it could be semi-private or private, with major potential advantages in terms of of private funding through more sophisticated mechanisms than debt sales. A privatised Student Loans Agency would a valuable component of such an operation.

- Taxes have incentive effects. It is therefore helpful if loan repayments are clearly seen as being the repayment of a loan rather than the imposition of a tax.

90. A range of additional issues in designing the Student Loan Institution is discussed in the companion paper.

9 PRIVATE FINANCE. UNTIL THE SYSTEM IS MATURE (WHICH WILL TAKE 15 YEARS OR SO), IT WILL BE NECESSARY TO INCLUDE PRIVATE FINANCE TO MINIMISE THE SCHEME'S BUDGETARY IMPACT. POSSIBLE TECHNIQUES INCLUDE (a) ISSUING GOVERNMENT BONDS, (b) SECURITISATION, OR (c) UPFRONT LENDING. THUS THE STATE BUDGET HAS TO COVER ONLY THE DIFFERENCE BETWEEN THE TOTAL LENT TO STUDENTS AND THE AMOUNT WHICH CAN BE COVERED FROM PRIVATE SOURCES.

91. The essence of a loan scheme is to lend money now and collect repayments later. However, if the money students borrow comes from the taxpayer, there is no saving in public expenditure (and hence no additional resources to improve quality and expansion) until the loan scheme is mature, i.e. until the cumulative repayments of past cohorts students are large enough to outweigh the cumulative outgoings of the loan scheme. The only way in which loans can save public spending in the short run is if the upfront costs of the scheme come from the private sector.

92. There are a number of ways in which students can borrow private money.

93. *Bond sales*. The state could sells bonds to cover the costs of loans. This approach, however, would almost certainly not count as private money (see Box 1).

94. *Securitisation*. The government could sell student debt to private financial institutions. This is the least complex way to resolve these problems. In essence, students borrow public money, but the right to the stream of students' repayments is sold by the government to private lenders. Suppose that if the government lends HUF100 million to

students, an estimated HUF 80 million will be repaid, the unpaid fraction resulting from such factors as low earnings, early death, migration and default (the first being much the largest). In that case, the government could sell the debt to the private sector for around HUF 80 million in the same tax year as the government lends the money: public spending increases by HUF 20 million, bringing in HUF 80 million of private resources to improve quality and access. The potential disadvantage with this arrangement is that, without a track record of student repayments, student debt could be sold only at a heavy discount.

95. *Upfront lending*. Under this approach, students borrow directly from private lenders such as banks. The technical issue is how to persuade banks to make such loans with less than a 100 per cent guarantee from government – as discussed in Box 1, with a 100 per cent guarantee, such lending, even if from a private bank, would count as public spending.

96. Any of these approaches require immensely careful design. The problem was discussed in section 2.3: given the capital market imperfections discussed in Box 2, the private sector, left to its own devices, will offer loans only to the best risks and, even then, only on the basis of a substantial risk premium. As a result students do not get a good deal. Thus the state steps in to ensure that students get a better deal, for example by offering private lenders a guarantee. As discussed in Box 1, however, this easily falls foul of the expenditure classification problem, i.e. though students borrow from private sources, they are deemed to be doing so as agents of the state, and hence the lending counts as *public* spending.

97. A further issue, discussed in section 2.4.1, is the interest rate which students pay – an issue with immense ramifications for the ability to bring in private money. Simulations in a UK context (Barr and Falkingham, 1993; 1996) suggest that if income-contingent repayments are based on a zero real interest rate only about 50 per cent of student borrowing will be repaid; this estimate is confirmed by the fact that sales of student debt in the UK (which charges a zero real interest rate) fetch about half of the face value of the debt. In contrast, the same simulations suggest that if loans pay a near-market interest rate, students will repay about 80 per cent of their total borrowing. If (see point 6), students pay a risk premium incorporated in the interest rate they pay on their loans, lost repayments could be reduced to a very small figure.

98. Government faces a major dilemma when introducing private funding. A less generous guarantee to private lenders makes it more likely that the arrangements will comply with IMF expenditure classification rules, a more generous guarantee, by giving additional comfort to private lenders, means that government can sell student debt at a higher price. The aim, presumably, is to offer the most generous guarantee compatible with IMF rules.

99. Further aspects of debt sales are discussed in the companion paper.

10 WHEN THE SYSTEM IS MATURE IT WILL BE SELF-FINANCING, AND SO DOES NOT REQUIRE A 'PROGRAMMED' BUDGETARY COST INCREASE. IN CONTRAST, A MORTGAGE-TYPE LOAN SYSTEM REQUIRES SUBSTANTIAL AND CONTINUING BUDGETARY RESOURCES FOR GUARANTEES, AND OFTEN ALSO TO PAY FOR INTEREST SUBSIDIES.

100. The key point is that the design of the scheme offers not only short-run but also long-run fiscal gains.

3.2 Assessment

3.2.1 Overall assessment

101. Section 2.3 argued that a good loan scheme should have three central characteristics:

- Income-contingent repayments collected as a payroll deduction (points 1 and 7);
- A market interest rate (point 4);
- The capacity to bring in private money (point 9).

The Government proposal incorporates all three. To the best of our knowledge Hungary would be unique in achieving this.

102. The proposal also achieves – or has the potential to achieve – two further objectives.

- Political acceptability. The package eases the politics of reform in several ways. First, the loan scheme, far from removing a privilege, increases students' choices. Targeted assistance (point 5) adds to the equity of the scheme and hence to its political appeal. The fact that income-contingent loans are so demonstrably equitable has further political advantages.

- Administrability. Much of the companion paper discusses how to implement the scheme. We are convinced that if a country has the institutional capacity to administer private pensions, it most certainly is capable of effectively administering student loans.

103. Connected to – but separate from – these specific advantages, the proposal is a coherent strategic whole. As the previous paragraphs illustrate, its various components are mutually reinforcing so that – like the stones in an archway – none can be removed without fatally damaging the overall structure. Though some elements can be implemented in different ways, for example the precise way in which private funds are brought in, each is an essential component.

104. These reasons explain our considerable enthusiasm for the scheme.

3.2.2 CRITICISMS

105. A number of potential criticisms have been put to the Government which, in our opinion, do not hold water.

106. *An income-contingent scheme would have a high default rate.* This is true if income tax administration is weak. Thus income-contingent loans are not implementable in countries with weak administrative capacity. However, as discussed above, mortgage-type loans also require major administrative capacity. The truth is that collecting loan repayments is not easy and requires nontrivial administration; this is true whether repayments are mortgage or income-contingent, and whether they are collected by the state or by private institutions. For all these reasons, the companion paper discusses implementation in detail.

107. *Income-contingent schemes hide interest subsidies.* As emerges clearly from Table 1 and the discussion in section 2.5, there are four cases:

- Mortgage repayments + interest subsidy (e.g. the USA);
- Mortgage repayments + market interest rate (the Netherlands for well-off graduates);
- Income-contingent repayments + interest subsidy (Australia, the UK);
- Income-contingent repayments + market interest rate (New Zealand, the Hungarian proposal).

108. The Government proposal, as discussed above, explicitly adopts a market interest rate, and thus cannot be accused of hiding interest subsidies. More generally, there is nothing in income-contingency which inherently encourages interest subsidies. It can, indeed, be argued that the reverse is the case: if repayments are exactly related to a person's income there is less need than with mortgage loans to make repayments as small as possible, hence less pressure towards interest subsidies.

109. *Giving out loans to everyone is risky* – the scheme would be more secure if loans were offered selectively. Risk rating is efficient where there is only a *private* interest in a person's access to credit. It is right, for example, that banks should be free to decide to whom to make loans to buy a car or a hi fi. In this case, risk rating is beneficial. Higher education is different. It has external benefits (economic growth, national economic competitiveness) and one of its main purposes is to improve a person's chances of not being low paid. For both reasons, it is efficient to make sure that access is not diminished by lack of current income. Risk rating in this context is thus inefficient as well as inequitable.

110. *There is not much experience with income-contingent loans*. As discussed in section 2.5, the Australian scheme began in 1989. Repayment rates are good, the repayment stream is strong, administrative costs are low, and the scheme is politically acceptable (see Chapman 1997). Furthermore, annual monitoring of the effects on access (mandated by Parliament when the scheme was introduced) has identified no adverse effects. There is major controversy in Australia about higher education finance in the wake of the West Committee Report (Commonwealth of Australia, 1997, 1998); but the one thing about which there is *no* controversy is the income-contingent loan. New Zealand (a spectacularly well-run country which has dramatically modernised itself over the past 10 years) is also happy with the administrative performance of its loan scheme. Separately, mortgage loans do not always work well (the US scheme is hardly a good example).

111. *The Yale scheme was a disaster*. Yale University attempted to implement a non-state income-contingent scheme. It failed because it had a major design flaw – specifically, the rules of the scheme were changed in such a way that high-earners were allowed to opt out. Separately, it is not clear that the income-contingent mechanism is well suited to a private collection mechanism along the lines of the Yale scheme. Since the Government proposal involves a public collection mechanism, it is not clear that the Yale experience is a relevant precedent.

112. *Income-contingent loans are monolithic*. The issue is whether there should be multiple loan schemes – and in particular private schemes – to give students choice.

113. The first response is that income-contingent loans have significant choice built in; repayments automatically vary with income; and a well-designed scheme will contain provisions to allow, or actively encourage, accelerated repayment if the graduate so wishes.

114. Administrative capacity is a scarce resource, making it important that the loan scheme is administered cost-effectively. Thus it is necessary to keep the loan scheme as administratively simple as possible. Having multiple schemes is logically incompatible with worries about administrative capacity.

115. As discussed earlier, risk-rating, though useful for many types of financial instrument, is inefficient in the context of student loans.

116. Separately, there are strong equity arguments for designing loans to promote access. These equity concerns do not apply to the same extent for car loans, etc.

117. *Use of the tax system is politically dangerous.* The argument here is that the state has uncomfortably large powers over individuals. The first response is that those powers derive from the need effectively to administer a personal income tax. Since abolishing personal income tax is not on the agenda, there are strong administrative arguments for piggy-backing loan repayments onto an existing administrative mechanism. A second response is that the problem does not arise where tax systems have democratic legitimacy.

References

Barr, Nicholas (1991), 'Income-Contingent Student Loans: An Idea Whose Time has Come', in Shaw, G. K. (ed.), *Economics, Culture and Education: Essays in Honour of Mark Blaug*, Cheltenham: Edward Elgar.

Barr, Nicholas (1997), 'Student Loans: Towards a New Public/Private Mix', *Public Money and Management*, Vol. 17, No. 3, July-September 1997, pp. 31-40.

Barr, Nicholas (1998*a*), *The Economics of the Welfare State*, 3rd edn, Oxford University Press.

Barr, Nicholas (1999), *Higher Education Finance: Lessons from International Experience*, paper for Republic of Hungary: Higher Education Reform Project.

Barr, Nicholas, and Crawford, Iain (1998), 'The Dearing Report and the Government's Response: A Critique', *Political Quarterly*, Vol. 69, No. 1, January - March 1998, pp. 72-84.

Barr, Nicholas and Jane Falkingham (1993), *Paying for Learning*, London School of Economics, Welfare State Programme, Discussion Paper WSP/94.

Barr, Nicholas, and Falkingham, Jane (1996), *Repayment Rates for Student Loans: Some Sensitivity Tests*, London School of Economics, Welfare State Programme, Discussion Paper WSP/127.

Chapman, Bruce (1997), 'Conceptual Issues and the Australian Experience with Income-Contingent Charges for Higher Education', *Economic Journal*, Vol. 107, No. 442, pp. 738-751.

Commonwealth of Australia (1997), *Learning for Life: Review of Higher Education Financing and Policy: A Policy Discussion Paper*, Canberra: AGPS.

Commonwealth of Australia (1998), *Learning for Life: Review of Higher Education Financing and Policy: Final Report*, Canberra: AGPS.

Friedman, Milton (1962), *Capitalism and Freedom*, Chicago: University of Chicago Press.

Glennerster, Howard, Merrett, Stephen, and Wilson, Gail (1968), 'A Graduate Tax', *Higher Education Review*, Vol. 1, No. 1.

OECD (1997), *Thematic Review of Higher Education*, Paris: OECD.

UK Department for Education and Employment (1998), 'Letter and Memorandum by the Department for Education and Employment', in *The Funding of Student Loans*, Minutes of Evidence and Appendices, House of Commons Education and Employment Committee, Session 1997-98, HC497-i, (TSO, 1998), pp. 10-12.

UK National Committee of Inquiry into Higher Education (the Dearing Committee) (1997*a*), *Higher Education in the Learning Society: Main Report*, London: HMSO, also available at http://www.leeds.ac.uk/educol/ncihe.

UK National Committee of Inquiry into Higher Education (the Dearing Committee) (1997*b*), *Higher Education in the Learning Society: Report 7: Rates of Return to Higher Education*, London: HMSO, also available at
http://www.leeds.ac.uk/educol/ncihe.

Woodhall, Maureen (1990), *Student loans in higher education: 1 Western Europe and the USA*, Educational Forum Series No. 1, Paris: International Institute for Educational Planning.

Appendix 1: Reuters reports on the Hungarian banking sector

Magyar Nemzet, 21 October 1999

The government will issue new, digital identity cards from January that will meet Schengen agreement standards.

Magyar Hirlap, 22 October 1999

Financial institutions paid only a fraction of taxes targeted for the year in the 1999 state budget, due to significant losses at several major banks and poor first-half results of many brokerages.

Vilaggazdasag, 25 October 1999

Hungarian taxation practices meet the requirements of the European Union almost in their entirety, according to a report by the tax office APEH, which had to be completed by mid October under a ruling by the customs and excise division of the European Commission.

Table 1: Higher education funding in different countries

	USA	UK (1990)	UK (1998+)	Netherlands	Sweden	Australia	New Zealand (1992-99)
Fees set by							
Government		Zero	Flat rate[b]	Flat rate	Zero	Multiple flat rate[c]	
Universities	T[a]						T
Grants	No	Partial	No	Partial	Partial	Partial, on basis of income test	Partial, on basis of income test
Loans cover							
Tuition fees	Partly or fully	n/a		Yes	n/a	Yes	Yes
Living costs	Partly or fully	50%	Partly or fully	Yes	Yes		Yes
Loan repayments							
Mortgage	T	T		T with income-contingent safeguard			
Income contingent			T		T	T	T
Interest rate	Subsidised	Zero real	Zero real	Approx. market	Approx. market	Zero real	Approx. market

Notes: [a] Private universities set their own fees; so do public state universities for out-of-state students.
[b] Fees are flat rate across universities and subject, but are assessed through an income test; thus students from poor backgrounds pay no fee.
[c] Fees vary by subject, but not across universities.