

FUNDING HIGHER EDUCATION:
THE CONTRIBUTION OF ECONOMIC THINKING
TO DEBATE AND POLICY DEVELOPMENT

by
MAUREEN WOODHALL

December 2007



Funding Higher Education:
The Contribution of Economic Thinking
to Debate and Policy Development

by
Maureen Woodhall

Maureen Woodhall, Emeritus Reader in Education Finance at the Institute of Education at the University of London, prepared this paper for presentation at the international conference “Economics of Education: Major Contributions and Future Directions” in Dijon, France, June 20 to 23, 2006. The conference was sponsored by the Institute for Research in the Sociology and Economics of Education (IREDU), and dedicated to the memory of Jean-Claude Eicher, the organization’s founder. The conference was supported in part by the World Bank’s Education Group of the Human Development Network (HDNED) and the World Bank Institute (WBI).

The Education Working Paper Series is produced by the Education Unit at the World Bank (HDNED). This series provides an avenue for World Bank staff to publish and disseminate preliminary education findings to encourage discussion and exchange ideas within the World Bank and among the broader development community. Papers in this series are not formal World Bank publications. The findings, interpretations, and conclusions expressed in these papers are entirely those of the authors and should not be attributed in any manner to the World Bank, its affiliated organizations or to the members of its board of executive directors or the countries they represent.

Copies of this publication may be obtained in hard copy through the Education Advisory Service (eservice@worldbank.org), and electronically through the World Bank Education website (www.worldbank.org/education).

Copyright © The World Bank

December 2007

Washington, D.C. – U.S.A.

Contents

Abstract.....	3
Foreword.....	4
1. Introduction.....	6
2. Higher Education Finance in the 1960s and 1970s.....	10
3. The Influence of Rates of Return on Higher Education Financing Policy	15
4. The Concept of Cost-Sharing in Higher Education	22
5. The Concept of Income-contingent Student Loans	28
6. The Influence of Politics, Legal, and Social Policy Issues	38
7. Conclusion	46
Annex 1 -- Matrix of Voucher Systems.....	49
References.....	50

Abstract

A major challenge faced by governments everywhere is the reform of finance of higher education (HE) in response to pressures of rising private demand for HE and heavily constrained public budgets. Recent experience in industrialized, transition and developing economies shows a world-wide trend towards greater reliance on tuition fees and student loans to finance the expansion of HE. After a brief summary of debates on HE finance in the 1960s and 1970s, this paper examines the influence of economic thinking in the last 20 years on debate and policy on HE finance in selected OECD countries (including Australia, Sweden, the U.K. and U.S.), transition economies (Hungary) and developing countries (Ethiopia and South Africa). The influence of three economic concepts is discussed in detail: (i) education as a social and private investment (including estimates of rates of return), (ii) cost sharing, and (iii) income-contingent student loans. Economic reasoning, using these three concepts, has had a significant impact on debate and policy on HE finance, but other influences, including politics, administrative and legal issues have also been important in determining outcomes. The recent U.K. experience, particularly in the recently devolved governments of Scotland and Wales, shows that politics has been as influential as economic thinking in shaping new policies on funding HE and financial support for students. The paper concludes that economic thinking has made a significant contribution to the formulation and implementation of policy on HE finance, but the influence of politics, administrative, legal, and social policy issues should not be underestimated.

Foreword

It is not necessary to introduce Maureen Woodhall; most people choosing to read this paper will do so just because of its author. It may be useful, however, to say a few words about the genesis of the paper itself.

Coming more than 35 years after Maureen's first published book on student loans, the paper presented here is a rich retrospective of the financing of higher education. More than this, it is a detailed and well-documented response to the question asked to the participants of the International Conference on Economics of Education held in Dijon in June 2006: "Does economic thinking contribute to address the major challenges posed by education?" The response given by this paper is entirely organized around the theme of higher education financing. Unfortunately, Maureen could not physically attend the conference, and sadly, difficult personal circumstances prevented her from fine-tuning her rich paper and from taking into account some suggestions to make it even more canonic. Yet, it was decided that the document should be published "as is," because of its wealth of information and breadth of analysis.¹

This piece, by a scholar who has been intimately involved in the debate on higher education financing and who has contributed to bring rationality to it, is first and foremost a lesson of political economy. To do that, she sets the stage somehow narrowly – England, Wales, Scotland, selected countries from the Commonwealth, and a few examples from Scandinavia and elsewhere; we are not all necessarily familiar with these specific countries. . The demonstration, though, does not suffer from this geographic bias, and the lesson remains the same: higher education financing schemes at any point in time are the outcome of the interplay among economic theory, political interests and tactics, and public opinion/awareness. The balance among these three ingredients is unstable; there is no such a thing as a point of no return, and any equilibrium is reversible. Indeed, economic theory is the most predictable element of the three, whether through the use of rate of return analysis, or

¹ For more information and to access to all conference papers, see the conference web site: <http://www.u-bourgogne.fr/colloque-iredu/englishpage.html>.

A shortened version of the paper was presented at a conference on Funding, Equity and Efficiency of Higher Education in Portorož, Slovenia, November 21-24, 2007. For further details see the conference website: <http://www.fhe.fm-kp.si>.

through equity considerations. Even within the profession, though, there is no unanimity regarding student loans, which continue to feed intense academic debates. Maureen clearly answers “Yes” to the question of the Dijon conference, but she also depicts how the influence of economic theory and of its most prominent advocates varies – depending on the strength of the resistance of other stakeholders (mainly students, taxpayers, voters, and elected politicians).

One could regret that the discussion about student loans is not embedded in the demand-side / supply-side framework, but again, it is not difficult to reposition Maureen’s arguments in these more familiar terms.² The role of the World Bank and other international donor agencies is discussed briefly in this paper, and George Psacharopoulos’s influence is emphasized, and, as is well known, the peak of George’s influence was when he was working with the World Bank. What Maureen’s paper also suggests is the power of comparative studies; looking at other countries’ experience does impact decisions regarding how to share the burden of higher education financing amongst the various stakeholders.

A final note to say that this retrospective is also teaching us a lesson of patience and humility: it may take 30 years for a simple idea to eventually take root. Ideology is powerful; rationality and pragmatism are often beaten, or prevail only by opportunism. Thus, we must be resilient, and insist on bringing more clarity into the higher education financing debate – which will be around for another long, long while. Keeping in mind Maureen’s lessons should help us.

Benoît Millot
South Asia Region
The World Bank

² Jamil Salmi’s synthesis table presenting the existing voucher systems is a useful complement (see Annex 1).

1. Introduction

A major challenge faced by governments throughout the world, in both industrialized and developing countries, is how to reform the finance of higher education (HE) in response to the twin pressures of rising private demand for admission to HE and heavily constrained public budgets. The last twenty years have seen major changes in the way HE is financed in many countries, as governments have grappled with the problem of financing rapidly expanding systems of HE while public expenditure for education has failed to keep pace, or in some cases declined. Patterns of subsidy that were introduced when HE admissions were extremely limited proved unsustainable as enrolments expanded and HE systems in more and more countries moved from what Trow (1974) called an elite system of higher education (less than 15 percent of the relevant age group enrolled in HE) to mass (15-50 percent), or even universal (more than 50 percent) access.

Changes in the finance of HE introduced in the past twenty years include introduction of tuition fees or other charges in countries where HE tuition was previously free, substantial increases in tuition fees in several countries where they did previously exist, and changes in student aid systems, including in many countries a shift towards student loans to supplement or replace grants. Such changes have been the subject of controversy and debate. Many economists have contributed to this through individual research and publications, submissions to government committees considering changes in policy, or in work for international agencies such as the Organization for Economic Cooperation and Development (OECD) or the World Bank. The finance of HE was a subject on which Jean-Claude Eicher frequently wrote and spoke. It therefore seems appropriate to present, at a conference organized in his memory, a paper on the contribution of economic thinking to debate and policy development on HE finance. This paper discusses the way in which economic thinking has contributed to debate and policy on HE finance in various countries, focussing particularly on the influence of three economic concepts: (i) the rate of

return to social and private investment in education, (ii) cost-sharing in higher education, and (iii) the idea of income-contingent repayment of student loans.

The contribution of economic thinking to questions of education finance was an explicit theme of papers by Jean-Claude Eicher, and particularly in his article “The Financing of Education: An Economic Issue?” (2000), which was rather pessimistic about the contribution of economists. Observing that changes in the sources of funding for education were, in most cases, the result of the financial squeeze on public budgets, rather than “a coherent and systematic reflection on optimal financing,” Eicher (2000) suggested this was partly due to “shortcomings of the analytical approach of this problem by economists” (Eicher 2000, 34). After comparing approaches to student fees adopted by different countries he asked, “Why have countries with comparable political institutions made very different choices? Part of the answer lies in the incapacity of economists to offer a clear ‘optimal’ solution” (Eicher 2000, 37).

In fact, Eicher attempted to offer such an “optimal” solution in two articles with Thierry Chevaillier on “Rethinking the Financing of Post-Compulsory Education” (Eicher and Chevaillier 1992, reprinted 2002, and a more extended version, 1993). Recognizing that “throughout the world the financing of education is in serious crisis” (Eicher and Chevaillier 2002, 69), they argue that “one must therefore try to build upon what economics can tell us about the optimum financing of education” and conclude that “mixed financing is better than either exclusively public or exclusively private financing” (ibid.,72). The concept of cost-sharing is, therefore, central to their paper, and the concepts of investment in education and income-contingent repayment of loans also play a crucial role in their argument. Examining the case for both public and private financing, they identify the private benefits of post-compulsory education, including “higher income and social status, greater efficiency in consumption, better health, increased political efficacy, and greater access to and understanding of culture, science, and technology” (ibid., 74). Eicher and Chevaillier (2002, 74) also identify the benefits to society at large (externalities), ranging from “the contribution of advances in knowledge to economic growth and increases in the flexibility of labor markets to the transmission of literacy, aesthetic and cultural values and more efficient political participation,” and conclude “these positive externalities justify substantial government intervention.” On the crucial question of the relative balance between public and private funding, however, they

believe “the choice of the precise mix depends more on the practical and social constraints of a given society and on the political process than on the rational views of researchers and evaluators” (ibid., 75).

The concept of income-contingent repayment of student loans also features explicitly in their recommendations: “There is a strong case to be made in favor of student loans. When the local circumstances make them feasible, these loans should be of the income-related repayment type in order to provide mutual insurance” (Eicher and Chevaillier 2002, 87). Drawing on economic thinking they conclude that the optimal pattern of financing higher education would include (i) public financing through grants to HE institutions, income-related grants to students to help cover both tuition fees and maintenance, and guarantees for student loans, and (ii) private financing through tuition fees, repayment of student loans, preferably with income-related repayments, but with a positive rate of interest and contributions from business, gifts, and endowments. Eicher and Chevaillier (2002, 88) acknowledge that for most Western European countries, and for other countries with a similar HE funding system, this would mean “a drastic rethinking of the relationship between public authorities and institutions...substantial increases in tuition fees...the setting up of a guaranteed student loan system and the increased participation of business...Each country will have to make its own choices according to its own constraints and political stances, but the logic of the present system should lead them all to broadly similar choices.” This conclusion was first written in 1992. Ten years later, the authors examined the experience of a decade “rich in experiments, innovations and debates” (Chevaillier and Eicher 2002, 89), and concluded that convergence toward a mixed funding system combining public and private resources was emerging, but they pointed out that “in Europe, the debate on the funding of higher education is far from being exhausted” (ibid., 8).

Indeed, the debate on HE finance has become a world-wide debate, and is not confined to Europe. The present paper examines the contribution of economic thinking to recent debates and policy developments in various OECD countries, including Australia, U.K., and U.S.; in transition economies including Hungary; and developing countries, including Ethiopia and South Africa. The paper is divided into six parts. Part 1 looks briefly at the influence of economic concepts and reasoning in earlier debates on HE finance in the U.K. and U.S. in the 1960s and 1970s. Parts 2 to 4 examine in more detail the way in which the three economic concepts identified

above -- rates of return, cost sharing and income-contingent student loans -- have influenced policy development in specific countries. Part 5 reviews the influence of other concepts and ways of thinking that have helped determine the outcomes of policy debates on HE finance in the U.K. and elsewhere; these include politics, sociology, and administrative issues. To conclude, Part 6 argues that although economic concepts and analysis have made a significant contribution, political and social policy issues have often been just as influential as economic thinking in shaping new policies on the finance of HE.

2. Higher Education Finance in the 1960s and 1970s

In the 1960s the economics of education was in its infancy as a branch of economics, and the concepts of human capital and the contribution of education to economic growth were only just beginning to feature in education policy debates. One of the earliest topics to be influenced by economic thinking in the U.K. was the finance of HE. A Committee on Higher Education, chaired by the eminent economist, Lionel Robbins, was set up in 1961 and reported two years later (Robbins Committee 1963). Its remit was to give recommendations on the future development of HE “in the light of national needs and resources.” Demographic forces had led to a considerable increase in demand for HE places in the early 1960s and the Robbins Committee assessed the case for expansion of HE, drawing on economic concepts of demand and supply, and backed by a formidable range of specially commissioned statistical research. The commissioned research did not include research on the economics of education, but several economists, from the U.S. as well as the U.K., submitted papers to the Committee, including a review of alternative approaches to measuring the economic contribution of education by W. G. Bowen (Robbins Committee 1963, Appendix 4, 73-6). This report contains frequent references to economic concepts and thinking, which was an innovation at that time in reports on education policy in the U.K.. The concept of human capital was regarded as useful: “Provided we always remember that the goal is not productivity as such but the good life that productivity makes possible, this mode of approach is very helpful” (Robbins Committee 1963, 204). The Committee was skeptical about attempts to measure the rate of return to education, and about the reliability of manpower forecasting, but argued, “Considered...as an investment, there seems a strong presumption in favor of a substantially increased expenditure on higher education” (ibid., 207).

By “increased expenditure” the Robbins Report meant *public* expenditure. The Committee considered financing HE through tuition fees and student loans, a policy recommended by economists such as Prest, Peacock, and Wiseman (Robbins

Committee Evidence – Part 2), and it set out, at some length, the arguments in favor and against student loans, concluding:

We find these opposing arguments very evenly balanced, and there were differences of view amongst us on their relative importance...On balance we do not recommend immediate recourse to a system of financing students by loans. At a time when many parents are only just beginning to acquire the habit of contemplating higher education for such of their children, especially girls, as are capable of benefiting by it, we think it probable that it would have undesirable disincentive effects. But if, as time goes on, the habit is more firmly established, the arguments of justice in distribution and of the advantage of increasing individual responsibility may come to weigh more heavily and lead to some experiment in this direction. (Robbins Committee Evidence Part 2 1963, 212)

This shows that as early as 1963 the subject of student loans aroused conflicting views. Even if economic thinking favored the idea of repayable loans as a way of enabling individuals to invest in their own future earning power, there were strong objections, such as debt aversion and the disincentive of a “negative dowry” that the Committee feared might mean that “British parents would be strengthened in their age-long disinclination to consider their daughters to be as deserving of higher education as their sons” (Robbins Committee 1963, 211).

So the idea of student loans was shelved, for the moment, and it was 25 years before it was again seriously considered by the U.K. government. During this period, many economists, notably Peacock and Wiseman (1964), Prest (1966), and Blaug (1965 and 1970), advocated student loans in the U.K.. This author published a review of international experience of student loans that demonstrated that loan schemes had operated successfully in a number of countries, and that the “negative dowry” argument did not deter women in Scandinavia. In several countries, particularly Finland, the proportion of women in HE was higher than in the U.K. at that time, despite reliance on loans to support students (Woodhall 1970). Robbins himself later admitted that student loans with income-contingent repayment, as proposed to the Robbins Committee by Prest (1966), would overcome many of the problems and disincentive effects that had worried the Committee:

It is a matter of regret to me, personally, that I did not at the time sufficiently appreciate the advantages of the Prest scheme, in spite of the fact that it had already been promulgated. My own inclination tended definitely against the policy of subsidy...I was prepared to tolerate it for the time being as encouraging sections of the population which might have been deterred by loans, to contemplate higher education. But I felt that eventually considerations of equity in finance would cause a shift in public opinion. I think some shift has occurred: mention of loans no longer encounters the almost universal resistance that was the case in the past. But the Prest modification has not received sufficient publicity; and the grounds on which it removes perfectly legitimate objections to the loan policy, while logically highly cogent, are not such as to be easily grasped in the give and take of discussions which normally take place on this plane. (Robbins 1980, 36)

Part 5 of this paper asserts that these arguments are still not easily grasped by many in the U.K., as the political debates on the 2004 Higher Education Act demonstrated. It is fascinating to speculate on what would have happened if Robbins himself had been convinced of the advantages of income-contingent repayment of student loans in 1963, 25 years before such a scheme was introduced in Australia and 35 years before it was actually introduced in the U.K..

About the same time as the Robbins Committee was, for the first time, applying economic thinking to questions of HE policy in the U.K., American economists were writing on the subject (Harris 1960, Mushkin 1962, Danière 1964) and a Study Group in the Economics of Education, set up by the OECD in 1960, published *Economic Aspects of Higher Education*, which discussed early attempts to calculate rates of return and the role of tuition fees and student loans in HE. There were differences of opinion between the American and European economists on the question of fees, largely because in 1960 European HE was still an elite system, while the American system was already a mass system with a substantial private sector. The concept of “cost-sharing,” though not the term, was used by Harris (1964) who predicted that in the U.S. the private share of the total costs of HE would exceed the public share by 1970. He argued that “It would be a mistake not to ‘squeeze’ to some extent those families with incomes in the upper third....otherwise the low-income groups through the payment of state and local taxes would be paying a substantial part

of the bill of the high-income groups. There are techniques for reducing the sting and inequities of higher tuition” (Harris 1964, 109).

These arguments were taken up in more detail by the Carnegie Commission on Higher Education (1973), in its report *Higher Education: Who Pays? Who Benefits? Who Should Pay?* This report included an extended discussion of the costs and benefits of HE, including private benefits versus social benefits, the distribution of tax burdens, and implications for equity. The report concluded the following:

We believe that the first priority in higher education today is to move as rapidly as possible toward the equalization of opportunity to attend college. The achievement of universal access, in the first instance, will require some shift in the share of direct costs borne by the family to the taxpayers as more low-income students enter higher education dependent more on public aid and less on parental support...In the longer run, however, particularly as family incomes keep rising and as college attendance becomes more widespread at all income levels, we anticipate that somewhat greater reliance will again be placed upon personal resources and somewhat less reliance on government sources...as disposable incomes and ability to pay improve. (Carnegie Commission 1973, 103-4)

It is interesting that the Carnegie Commission, like the Robbins Committee ten years earlier, believed that the financing of HE should change, and a higher share of costs shifted to students and their families, as public attitudes changed and understanding of education as an investment increased.

The Carnegie Commission report quoted rate of return estimates (Becker 1964, Taubman and Wales 1973), but concluded “No precise – or even imprecise – methods exist to assess the individual and societal benefits as against the private and the public costs” (Carnegie Commission 1973, 3). The report acknowledged, but did not share Friedman’s skeptical views on social benefits:

When I first started writing on this subject I had a good deal of sympathy with this argument [that HE yields ‘social benefits’]. I no longer do. In the interim I have tried time and again to get those who make this argument to be specific about alleged social benefits. Almost always the answer is simply bad economics...In my experience these (social benefits) are always vague and

general, and always selective in that negative external effects are never mentioned. (Friedman 1968, 110-111)

Despite attempts to counter this argument, by identifying social benefits of HE, the Carnegie Commission report was later criticized by Friedman:

Occasionally the answer is good economics but is supported more by assertion than by evidence...[Carnegie Commission 1973] summarizes the supposed 'social benefits' ...[but] it did not undertake any serious attempt to identify the alleged social effects in such a way as to permit even a rough quantitative estimate of their importance or of the extent to which they could be achieved without public subsidy...In our judgment this is special pleading pure and simple. (Friedman 1980, 179-80)

In fact, the Carnegie Commission's recommendation to increase subsidies for higher education was largely based on considerations of equity and equality of opportunity, rather than the magnitude of social benefits. It argued, "The benefits are neither all personal nor all societal, but some blend of the two, which supports the viewpoint that a mixed system of individual and governmental financing of higher education is appropriate" (Carnegie Commission 1973, 86).

This section has illustrated how a British and an American advisory committee used economic concepts and reasoning in framing their recommendations on HE finance in the 1960s and 1970s. In both cases the main arguments presented by the committee to justify their recommendations were not economic, but were based on wider considerations of social interest and equity. The idea of education as investment was a significant background influence, but neither committee had enough confidence in the measurement of rates of return to base their recommendations on them. The Carnegie Commission believed that "Comparisons of changes in rates of return over time, and comparisons among nations are instructive, but the use of such findings to make current decisions on investment in education either on the part of an individual or a society is subject to pitfalls" (Carnegie Commission 1973, 73). The next Part of this paper shows how the influence of rate of return estimates gradually increased in the 1980s and 1990s, when they were used explicitly in several cases to justify or recommend changes in the finance of HE.

3. The Influence of Rates of Return on Higher Education Financing Policy

When the Robbins Committee reported, there were no British estimates of rates of return to higher education, but two years later Blaug published the first estimates for the U.K. (Blaug 1965), which showed that the private rate of return to HE in Britain was more than twice the social rate because of the generous system of maintenance grants to cover students' living expenses. Blaug concluded, "These private rates create a prima facie case for charging more of the cost of higher education to the beneficiaries...[or] justify renewed consideration of the case for government-guaranteed loans to students" (43).

Such arguments were often repeated in the U.K. over the next 20 years, but it was not until 1988 that the government published a White Paper proposing student loans (DES 1988). By that time, the cost of maintenance grants for students had risen from about £250 million in 1962–1963, when the Robbins Committee was debating student loans, to £830 million in constant prices, and participation in HE had doubled. The government argued that the contribution of taxpayers to students' living expenses "could not be sustained at the 1962 level in view of other pressures on public expenditure" (DES 1988, 6). It was not only pressure on public budgets that had persuaded the government to change its policy on student grants. The White Paper argued that "economic analysis suggests that, in financial terms alone, higher education would be worthwhile to the student even if no maintenance grant were available" (10). Quoting estimates of the private rate of return to HE in the U.K. in 1985 of about 25 percent, compared with a social rate of 7 percent, the White Paper concluded, "The individual graduate benefits more than the community as a whole" (10). This was the first time that rate of return estimates had been used explicitly in a British government report to justify a change of policy on HE finance. The government did not rely only on rates of return to justify the introduction of loans. It drew on comparative research on cost-sharing (discussed in Part 3 of this paper), and also made the case in terms of equity: "Under the present system taxpayers in general

– poor and middling as well as rich – are contributing to the living costs of students who in many cases come from, and as graduates are likely to occupy, the more advantageous positions in society” (11). The proposals, put into effect in 1989, were not to replace grants with loans, but simply to provide “top-up loans” to supplement maintenance grants, which were frozen at the 1988 level. Compared with later changes in the U.K. (the introduction of tuition fees and abolition of maintenance grants in 1998, and the introduction of “top-up” fees in 2006), the changes were modest, but they aroused huge controversy, which showed that the “shift in public opinion” predicted by Robbins (1980, 36) had not really taken place by the late 1980s.

At the same time as the British government was using economic arguments to justify the introduction of student loans, the Australian government was considering a more radical scheme: the introduction of a Higher Education Contribution Scheme (HECS) under which students would be expected to contribute about 20 percent of the average costs of HE, but payment could be deferred until after graduation when it would be collected through the income tax system as a percentage of a graduate’s earnings. The committee that recommended the introduction of HECS, which was chaired by Neville Wran and received advice from economist Bruce Chapman, did not refer explicitly to rates of return, but used general economic arguments of cost-benefit analysis and equity to justify a student/graduate contribution:

Higher education in Australia provides its users with an opportunity to improve their economic and social circumstances. Graduates can expect higher lifetime incomes, on average, than the rest of the population...but since the abolition of fees in 1974, students have not contributed directly to the costs of their tuition...The fundamental inequity in our present system of financing higher education is that the small and privileged section of the community who benefit directly make no direct contributions to their tuition costs. (Wran Committee 1988, 12, 14-5)

Chapman, who was a consultant to the Wran Committee, had a considerable influence on the design of HECS and has since been a strong advocate of HECS as a model for other countries to copy in reforming the finance of HE (Chapman and Ryan 2002, Chapman 2006a, 2006b). He has been particularly strong in advocating the use of income-contingent repayment of student loans and deferred fees, as discussed in Part 4 of this paper.

The British government used similar economic reasoning to justify the introduction of variable (generally known as “top-up”) fees of up to £3,000 per year in English universities from 2006, but with payment deferred until after graduation, and then collected on an income-contingent basis through the tax system. Unlike the 1988 White Paper on student loans (DES 1988), the 2003 White Paper (DfES 2003), outlining the reforms later embodied in the Higher Education Act 2004 did not present detailed rate of return estimates, but it quoted a review of evidence on the returns to education in the U.K. (Sianesi and Van Reenen 2002) and a study by OECD (2002). The White Paper concluded,

“graduates...earn, on average, around 50 percent more than non-graduates...Even though the number of graduates has risen significantly over the last twenty years, the gap between graduate and average earnings hasn’t narrowed at all. If anything, it has increased. And the returns to HE are higher in the U.K. than in any other OECD country.” (DfES 2003, 59)

Critics were not persuaded by these arguments. There was fierce opposition to the introduction of variable fees, and bitter debates continued throughout 2003 and 2004. Economists, particularly Nicholas Barr, were active in the debate, writing both in academic journals and in the press to explain the economic reasoning behind variable fees: “Seen through the eyes of lurid press coverage, the proposals look horrible – high fees, large debts. That view is thoroughly misleading...Economic theory is particularly useful to explain what is going on” (Barr 2003).³

Following devolution in 1999, Scotland and Wales adopted slightly different fee regimes. In Scotland up-front fees were abolished from 2001 for Scottish and non-U.K. EU students, and deferred payment was introduced by means of a compulsory contribution to a Scottish Graduate Endowment Fund (Woodhall and Richards 2006). When the White Paper proposed variable fees in England, the National Assembly for Wales announced there would be no top-up fees in Wales in 2006 and set up a review group to advise on tuition fees and student support in Wales from 2007.⁴ Its report (Rees Review 2005) did not draw explicitly on rate of return studies, but the concept of education as a social and private investment pervades the report, which stated firmly, “HE is an investment for both individuals and society”(2). The report summarized evidence from commissioned research on the changing graduate labor

³ This and many of Barr’s articles on reform of HE finance are reprinted in Barr and Crawford (2005).

⁴ The author was a member of the Rees Review Group, which reported in May, 2005.

market in Wales, including graduate employment and earnings, social and private benefits of HE, and concluded the following:

- *Returns to graduates continue to be relatively high in the U.K. and Wales.*
- *HE remains a good investment relative to other kinds of spending for both individuals and the government.*
- *There is no sign so far that the considerable expansion in HE has resulted in a large drop in returns to investment in HE.*
- *Taken as a whole, the evidence supports the case for cautious further expansion of HE. Since it is both a social and a private investment, the majority view of the Review Group is that the costs of this expansion should be shared between taxpayers, graduates, students and their families, employers and other stakeholders, since both individuals and the wider society will derive benefits from the investment. (Rees Review 2005, 11)*

On the issue of HE as a social investment, the report includes several references to the “wider benefits” of HE, including benefits from research and technological innovation, and externalities such as improved health, welfare, community regeneration, social cohesion, and culture. Similarly, the 2003 White Paper refers to social, as well as economic benefits: “There is strong evidence that suggests that graduates are likely to be more engaged citizens...one Home Office report found a strong positive correlation between the cohesiveness of local communities and participation in higher education” (DfES 2003, 59). Such statements reflect a growing interest in identifying, and if possible measuring, non-economic benefits of education. Part 1 of this paper discussed the Carnegie Commission’s attempt to identify social benefits of HE in 1973, but the Commission did not believe these benefits could be measured. There have since been several attempts to measure externalities or “spill-over” benefits of HE (Haveman and Wolf, 1984; McMahon 1998 and 1999; OECD 2001; Bynner and Egerton 2001; and Bynner et. al. 2003). This has had the effect of increasing confidence in the magnitude of indirect social benefits, even if there are still many questions about precise measurement.

The examples discussed so far have all been developed countries, but the concepts of education as a social and private investment, and the rate of return to that investment, have also had considerable influence on governments in developing

countries and transition economies. This influence has been exerted not so much by individual economists arguing for reforms of HE finance (as in Australia or the U.K.), but by reports and advice by the World Bank. Economists within the Bank were active throughout the 1980s and 1990s, publishing and publicizing rate of return estimates and their implications for education finance. The work of George Psacharopoulos, who published the first comparative study of rates of return in 1973, followed by regular updates (Psacharopoulos 1981, 1985, 1994, and Psacharopoulos and Patrinos 2004) was particularly influential despite criticism (for example, Bennell 1995 and 1996). Psacharopoulos's studies all emphasized that the social rate of return to primary education was considerably higher in most countries than the rate of return to higher education, and that the private returns to HE were much higher than the social returns. The implications of this for the financing of education were spelled out in detail in a World Bank report:

Education is an economically and socially productive investment...The current financing arrangements...result in the misallocation of public spending on education...There is evidence, deriving from the effect of schooling on earnings and productivity, that in many countries the average dollar invested in primary education returns twice as much as the one invested in higher education. Yet governments in these countries heavily subsidize higher education at the expense of primary education. (World Bank 1986, 1)

The policy recommendations in this report—the introduction of cost-recovery in HE, including tuition fees and student loans, together with a reallocation of public expenditure to primary education—were repeated in other World Bank reports: *Education in Sub-Saharan Africa* (1988), *Higher Education: The Lessons from Experience* (1994), and *Priorities and Strategies for Education* (1995). In all these reports the policy recommendations were backed up by references to rates of return:

In low- and middle-income countries the rates of return to investments in basic (primary and lower secondary) education are generally greater than those to higher education. Therefore basic education should usually be the priority for public spending on education in those countries that have yet to achieve near universal enrollment in basic education. (World Bank 1995, 56)

The influence of such advice from the World Bank, together with the influence of the Jomtien Conference on Education for All in 1990 (attended by delegates from 155 governments, 20 intergovernmental bodies, and 150 non-governmental organizations), resulted in a reassessment of priorities and policies, not only by governments, but also by donor agencies. As a result, there was a marked decline in donor funding for HE in the 1990s, and in response many developing country governments introduced university tuition fees, including Chile, China, Kenya, and Uganda; others introduced, or tried to improve student loan programs, including Colombia, Ghana, Kenya, Mexico, and South Africa. The World Bank supported some of these initiatives, for example, in Colombia, Ghana, Kenya, and Mexico. The World Bank also supported reform of HE in transition countries in Europe. For example, a HE Reform Project in Hungary was intended to support the introduction of tuition fees and student loans, although a change of government meant that tuition fees were abandoned. Eventually, the project was cancelled by the Hungarian government, although a student loan scheme was introduced in 2001.

The World Bank's emphasis on the need for greater cost recovery in HE and a reallocation of public funding to lower levels of education led to a perception in many countries that the Bank was "against" investment in HE. The Bank tried to correct this perception in *Constructing Knowledge Societies: New Challenges for Tertiary Education* (2002), which argued that "Investments in tertiary education generate major external benefits that are crucial for knowledge-driven economic and social development" (World Bank 2002, xxi). This indicates a considerable change in emphasis in economic thinking. Instead of quoting rate of return estimates as in 1994, the 2002 report gives many examples of externalities of HE, and states; "These benefits, including long-term returns from basic research and technology development and the social gains accruing from the construction of more cohesive societies, transcend the private benefits captured by individuals" (ibid.,76). This change of emphasis, away from simple comparisons of private and social rates of return as conventionally measured, to a greater recognition of the magnitude of externalities, reflects the work of a Task Force on Higher Education and Society convened by the World Bank and UNESCO (Task Force 2000). The Task Force looked at the influence of rate of return analysis, particularly the conclusions that private returns were higher than social returns, and that the highest social rate of return was for primary education. The report pointed out that:

Taken together, these results provided a powerful justification – especially for international donors and lenders – for focusing investments at the primary level...The World Bank drew the conclusion that its lending strategy should emphasize primary education, relegating higher education to a relatively minor place on its development agenda....the Task Force believes that traditional economic arguments are based on a limited understanding of what higher education institutions contribute. (Task Force 2000, 39)

In fact, as this Part of the paper has shown, there had already been a shift in economic thinking in the 1990s, away from the idea that the externalities of education were relatively small and could be ignored. McMahon (1999) concluded that the social benefits of education, including contributions to political stability, improvements in democracy, and the role of HE in creating and transmitting new knowledge, were extremely significant, and were likely to raise social rates of return by several percentage points. Such findings, as well as a belief that “as knowledge becomes more important, so does higher education” (Task Force 2000, 9), explain the greater emphasis on “wider benefits” in the World Bank’s 2002 report on HE and the U.K. government’s White Paper on HE reform (DfES 2003).

Recognition that the social benefits of HE had been underestimated in most rate of return studies did not, however, diminish the force of the argument in favor of a mixed system of financing for HE, for this rests on the concept of cost-sharing (the subject of the next section), as well as the concept of education as investment.

4. The Concept of Cost-Sharing in Higher Education

The idea that since the benefits of HE accrue to both individuals and society as a whole the costs should also be shared is hardly new, but Bruce Johnstone's 1986 study, *Sharing the Costs of Higher Education*, comparing HE finance and student aid in the U.K., France, Germany, Sweden, and U.S., was extremely influential because it appeared at a time when demand for HE expansion was increasing in Europe and the question of affordability of the current patterns of finance was becoming urgent. Johnstone (1986, 6) started from the premise that regardless of the size or characteristics of the HE system, and regardless of a country's wealth or politics, *all* costs of HE are borne by a combination of four sources of finance: (i) taxpayers (ii) parents (iii) students, and (iv) institutions/philanthropists, and that "any cost shifted *from* one source must per force be shifted *to* another." He believed that despite political differences, countries were trying to balance very similar public policy goals in apportioning these costs, and that a comparative approach would be useful. This proved to be true, and his study was timely. It was innovative in providing detailed comparisons of the distribution of cost burdens in the five countries, using comparable data on fee levels, student support, student and family income and expenditure, which he used to analyze parental contributions to HE costs by level of family income. This showed that "students in the U.K., France, Germany and Sweden pay almost no part of the costs of instruction...whereas US students pay a small but noticeable portion of these costs in the public sector and a very large portion in the private...sector" (ibid., 144). The student's share of costs had been increasing over the previous decade in the U.S., Sweden, and Germany, because of an increasing reliance on student loans, but Johnstone noted that this shift of costs from parents and taxpayers to students had taken place "seemingly without public awareness and thus perhaps with neither rationale nor intent" (ibid., 53).

Another example of a lack of public awareness was Johnstone's (1986) demonstration that even where student loans were the main form of student aid, as in the U.S., Germany, and Sweden, interest rate subsidies from government meant that

students received a substantial *effective grant*, which ranged from 15 to 33 percent of the value of the loan in the U.S., 40 to 60 percent in Sweden, and 70 to 82 percent in Germany (depending on assumptions about the appropriate discount rate to use for calculations of the present value of graduates' loan repayments). This substantial subsidy, however, was "too often unappreciated" (ibid., 170), since few students or graduates would be able to compare the interest rate on student loans with alternative interest rates such as the government's cost of borrowing, and then to calculate the net present value of future loan repayments. Thus, the subsidy remained "hidden" and unappreciated by most students or their parents.

Within a few years, Johnstone's study had a significant impact on policy decisions in three of the five countries. In the U.K., where Johnstone (1986, 151) showed that "the student's share is by far the lowest among these five nations," since in the 1980s students paid virtually no fees and received maintenance grants, not loans, to help meet living expenses, the government used Johnstone's research to bolster the case for introducing student loans. The White Paper setting out the proposals (DES 1988) included an appendix on International Comparisons, which quoted Johnstone's findings, and reproduced three of his charts comparing the students', parents' and taxpayers' shares of costs, in low income, middle income, and high income families in each country. On the basis of these figures the government concluded that "Britain is unique in attempting to support a large proportion of students with a grant...this apparent generosity is a mixed blessing" (DES 1988, 10). Drawing also on evidence of the private and social rate of return (discussed in the previous section) and the need for expansion and social equity, the government announced that it "intends to ensure a fairer distribution of the costs" by introducing student loans that "will over a period of years partially replace the existing grant" (DES 1988, 11). This was the first, but not the only, example of a direct influence on government policy of Johnstone's research on cost-sharing.

In Sweden, where students already received loans, combined with a small grant and with a substantial interest subsidy, there was concern that the total financial aid available was insufficient to cover students' living expenses, and a 1988 review by the government agency that administers student aid concluded that "the socially equalizing effect of study assistance appears to have come to a standstill in recent years" (quoted in Morris 1989, 96). There was, therefore, pressure, particularly from the Swedish Students' Union, for an increase in student aid, and the government

announced changes from 1989, both in the level of assistance and in the repayment terms for loans. The grant element of student aid, which had fallen to just under 6 percent of total aid in 1988, was increased to 30 percent, and was index-linked so that inflation would no longer reduce the proportion of aid given as a grant. At the same time, repayment terms for the 70 percent loan were tightened, and the interest rate increased. Morris (1989) cited Johnstone's 1986 calculation that interest subsidies in Sweden represented around 50 percent of the value of the loan (assuming a 10 percent discount rate and a 20 year repayment period), and observed: "a particularly noteworthy change in the system is the shift in subsidy, from the interest payable on the loan, to the grant. Thus the 'hidden grant' element has been reduced, while the increase in [explicit] grants mean that students benefit when their needs are greatest" (105).

Similarly, in Germany where student loans were interest free, Johnstone had showed that graduates repaid only about 20 percent of the present value of their loans (assuming a 10 percent discount rate, as above). A government committee set up to review student aid in 1988 recommended a change to a system of 50 percent grant, 50 percent loan. The report of a seminar on student loans organized by the International Institute for Educational Planning (IIEP) in Paris in 1989 noted, on the basis of the discussions: "One reason for this proposal was that the system of interest free loans, set up in 1984, in fact provided a very substantial 'hidden subsidy,' and it was felt that it would be more effective to make this an explicit subsidy, in the form of a grant...there was a strong feeling in the Federal Republic of Germany that a combined grant and loan was a fairer system than one that provided only loans" (Woodhall 1990, 13). Both the German and Swedish representatives at the seminar confirmed that Johnstone's 1986 comparative study of cost-sharing had been influential in the decision to increase grants. Considering that his calculation of the "hidden grant" in American, Swedish, and German loan programs was tucked away in an appendix, the impact of Johnstone's research on cost sharing, as measured by policy changes in three of his five countries, was probably greater than he might have expected when embarking on his study in 1985.

The concept of cost-sharing has had a far wider impact than in these countries, however. Although the term 'cost-sharing' had been used before (for example, recommendations in the Carnegie Commission report (1973) were headed "Sharing the Cost Burden"), the term was much more widely used after publication of

Johnstone's study in 1986. The World Bank report, *Financing Education in Developing Countries*, published in the same year, recommends "Recovering the public cost of higher education" (World Bank 1986, 2, 17). The terms 'cost recovery' and 'user charges' are used quite extensively in this document, whereas the 1994 report on *Higher Education: The Lessons of Experience*, published eight years later recommends "mobilizing greater private financing, including cost-sharing with students" (World Bank 1994, 40). The term "cost-sharing" quickly gained currency in policy debates, particularly in developing countries. Recent papers on HE finance in Ethiopia, Kenya, Tanzania, and Uganda, for example, all include "cost-sharing" in the title or abstract (Tekleselassie, 2002; Kiamba, 2004; Ishengoma, 2004; Mayanja, 1998).

The change of language in World Bank reports may appear slight – all it is the concept that matters, not the words – but on a subject as politically sensitive as university tuition fees, the choice of terminology can be crucial. The Australian government was astute to call its new financing system in 1989 the "Higher Education Contribution Scheme (HECS)." Not only is the term "contribution" more politically acceptable than "tuition fees," but the title of HECS also emphasizes that in Australia the cost burden is shared – both students (or graduates) and taxpayers make contributions. In the U.K., on the other hand, the government aroused great hostility by using the term "fees," both in 1998 when university tuition fees were first introduced, and in 2003 when variable, or "top-up," fees were proposed. The Scottish Parliament, by contrast, won popular support when it announced it was abolishing fees in Scotland in 2001, and instead requiring a compulsory *contribution* to a Scottish Graduate Endowment Fund. Johnstone himself is skeptical about whether a change of name makes any difference, arguing in a conference on cost-sharing in Africa in 2001 that "if it looks like a duck, and quacks like a duck, then it is a duck – whatever it is called." But in fact, in many countries the concept of cost-sharing seems to attract greater support than other economic concepts such as "cost recovery" or "user charges," and certainly than "tuition fees."

This was certainly the case in Wales when the Rees Review was considering alternative ways of financing HE from 2007. The report makes no secret of sharp differences between members:

We started from very different positions on some of the issues, and some members were of a clear view that HE should be freely available to all eligible

students. We were mindful too of the vote in the National Assembly for Wales that variable fees are in principle wrong – a perspective some of us share, while others do not. However...we sought to come to a unanimous set of recommendations...and despite differences within the Group there was willingness to compromise in order to reach a common understanding of the issues and a consensus on the recommendations. (Rees Review 2005, xii, 6)

Before this consensus was achieved there was often heated debate about appropriate language for the final report; some economic terminology was accepted (the idea of education as investment), but some aroused opposition (private rates of return). In the end, agreement was reached on the following statements:

The Group is strongly of the view that adequate and sustained funding for Welsh HEIs is essential...Because of past underinvestment, this requires substantial additional resources. We believe that student fees should not be seen as a way of substituting for public funding of HE. Yet, at the same time, we also recognize the constraints and the need for funding from students themselves as part of a sustainable strategy of cost-sharing. (Rees Review 2005, 2)

This example of how the concept of cost sharing has influenced the policy debate in the U.K. could be replicated for many other countries. Johnstone has continued to make international comparisons and to document cost-sharing in a wide range of countries, particularly through the International Comparative Higher Education Finance and Accessibility Project (ICHEFAP) at the State University of New York at Buffalo. The project's website⁵ contains a database of HE costs borne by students and parents in more than 35 countries, including Australia and New Zealand, Canada, and U.S.; 15 European countries, including Russia, Romania and Turkey; 11 members of the European Union; Brazil, Chile, and Mexico; Egypt; 5 countries in Sub-Saharan Africa; and 7 countries in Asia, including China, India, Japan, and Korea. The project has established formal partnerships with universities in China, Russia, and South Africa. Johnstone has disseminated the project's findings, as well as extensive discussions of the concept of cost sharing, in conferences and

⁵ ICHEFAP website: <http://www.gse.buffalo.edu/org/IntHigherEdFinance/>

publications in many countries. For example, Johnstone presented and published his work in the Czech Republic (2003a), and in China and India (2003b), presented in China (2004a), and Ghana (2004b); and also published in Russia (2004c).

In one of his most recent updates Johnstone shows that cost-sharing is generally increasing throughout the world, giving as examples Australia, China, Russia, U.K., and U.S., as well as various countries in Europe, East Asia, and Latin America: “Governments throughout the world are embracing – however tentatively and frequently with euphemisms and political ‘spin’ – some version of cost-sharing.” (Johnstone 2004a). Many different rationales have been put forward. Part 2 of this paper showed how the concept of HE as both a public and a private investment has been used to argue that costs should be shared, as are the benefits. There are also strong equity and efficiency arguments, frequently put forward by economists and used by governments to justify tuition fees or a shift from grants to loans. But Johnstone observes that “the most compelling – or the least ideologically contestable – case for cost-sharing is simply the sheer need for additional higher educational revenue” in the face of dramatic increases in public and private demand for HE, combined with financial austerity, particularly in developing and transition economies. He concludes: “cost sharing may be better viewed as a concept and a general policy direction than a specific policy prescription or agenda...But the extraordinary need for, and general popularity of, higher education, plus the apparent limitation of public revenues and the ever more fierce competition for these scarce public revenues means that the goal of cost-sharing will continue to intrigue politicians and policy analysts, even in the face of inevitable political opposition” (Johnstone 2004a, 410).

An essential element in any strategy of cost-sharing must be an adequate system of financial assistance to ensure access for able but needy students (Woodhall 2006). Economic logic suggests that loans are the preferred form of student support, since HE is a profitable private investment, and economists have advocated student loans for over fifty years, as discussed in Part 1 of this paper. Many loan programs have failed dismally, however. Ziderman and Albrecht (1995) identified loan schemes where default rates, interest subsidies, and administrative costs were so high in the 1980s that it would have been cheaper for governments in such countries, which included Kenya and Venezuela, to give the money away as grants. Can economic thinking contribute to improvements in loan programs?

5. The Concept of Income-contingent Student Loans

Some of the earliest proponents of student loans, both in the U.S. and U.K., advocated a system of repayments related to income. Milton Friedman believed that

It is eminently desirable that every young man and woman, regardless of his or her parents' income, social position, residence or race, have the opportunity to get higher education – provided that he or she is willing to pay for it either currently or out of the higher income the schooling will enable him or her to earn. There is a strong case for providing loan funds sufficient to assure opportunity for all...There is no case for subsidizing persons who get higher education at the expense of those who do not. (Friedman M. and Friedman R. 1980, 183)

As early as 1955 he suggested a system of government loans, under which

*The individual in return 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 \$1,000 that he received from the government. This payment could easily be combined with the payment of income tax and so involve a minimum of additional administrative expense. (Friedman, M., *The Role of Government in Public Education* (1955), quoted in Friedman M. and Friedman R. 1980, 184)*

Another early proposal for student loans in the US was Danière, who suggested,

An attractive possibility is to link repayments to annual income, the rate, for instance, being calculated so as to complete reimbursement in twenty-five years when average income after tax over that period is an annual \$10,000. (Danière, 1964, 109)

As already discussed in Part 1 of this paper, the Robbins Committee in Britain considered a proposal from Prest for loans:

made available to all potential university students...on condition that they enter into a contract to repay a specified proportion of their lifetime earnings to the government....As for the system of repayment, the obvious mechanism is to gear this in with an individual's income tax payment. (Prest 1963, 147-8)

The time was not ripe in the 1960s for such proposals in the U.K.. Prest (1963, 147) stated, “to go into the full operational details of any scheme on these lines would be beyond the scope of this paper.” Prest was not asked to develop operational details because, as explained in Part 1 of this paper, the Robbins Committee report (1963, 211-2) was not in favor of “*immediate recourse* to a system of financing students by loans” (italics added), although it recognized that “The argument from distributive justice has a strong appeal, which might well grow stronger as the educational budget increases.” In the event, it was twenty-five years before the operational details of income-contingent repayment of student loans, or deferred payment of HECS, were worked out in Australia, and although Nicholas Barr (1991) believed that income-contingent loans (ICLs) were “an idea whose time has come,” it was not until 1998 – 35 years after the Robbins Committee report – that they were introduced in the U.K.. From 1989 to 1998 loans in the U.K. were “mortgage type” loans, repayable over a fixed period of time, rather than income-contingent, repayable as a fixed proportion of a graduate's income. Chapman, one of the main advocates of ICLs explains the crucial difference: “The critical and defining characteristic of an ICL is that the collection of the debt depends on the borrowers' future levels of income. Capacity to pay, and not time, defines the repayment obligation” (Chapman 2005, 1). When mortgage type loans were first introduced in the U.K., there were many critics of the design of loan program. Blaug, who had been one of the first advocates of student loans, declared,

The British Government, after years of resisting any student loan scheme whatsoever is now about to introduce the wrong kind of scheme – repayable in a limited number of years – against the advice of absolutely every British economist who has ever written in the subject. (Blaug 1990, quoted in West 1994, 17)

During the 1960s and 1970s there had been further proposals in both the U.S. and the U.K., and small scale experiments in three private American universities

(Duke, Harvard and Yale) in the 1970s. Johnstone (1972) considered the case for ICLs and reviewed the early American experience. He concluded that “income contingency is an exciting and potentially valuable type of loan contract which, for many borrowers, can make debt more manageable and less risky” (Johnstone 1972, 164), but he envisaged a limited role for ICLs, as simply one part of a range of student loan options, including fixed graduated payment schedules (where the total repayment period is fixed, but repayments are smaller at the beginning, and larger at the end of the period, to reflect rising earnings). He believed that “Decisions on pricing policy and the allocation of financial responsibility among parents, students and the government are vastly more important and fundamental than decisions with respect to a particular credit instrument” (Johnstone 1972, 151). This observation foreshadowed Johnstone’s later (1986) study of cost-sharing, discussed in Part 2 of this paper.

The Yale Plan (Tuition Postponement Option), introduced in 1972, provided students with a loan to help finance tuition fees in return for which they promised to pay the university a fixed proportion of their income. For a number of reasons this proved to be a disastrous experiment and was abandoned after a few years. A crucial feature of the Yale Plan, which was one of the reasons for its failure, was that it was meant to be self financing, through “risk pooling”: each cohort of borrowers was mutually responsible for repayment of the cohort’s total debt; the idea was that high earners would pay more than they borrowed, thus subsidizing low earners. The maximum that an individual borrower was expected to repay was 150 percent of the amount borrowed, plus interest, but high interest rates in the 1970s, combined with a default rate of 15 percent – higher than expected – meant that in 1999 those who borrowed in 1974 were still paying a proportion of their income because the entire cohort had not yet repaid its debt. Adverse publicity, for example in the *Yale Daily News* (March 25, 1999) and the *Wall Street Journal* (quoted in Palacios 2004, 125) eventually resulted in Yale cancelling the remaining debts in 2001.

Writing in 1972, when the Yale Plan had only just been introduced, Johnstone identified risk as one of the main problems with this type of income-contingent loan scheme: “It should not be surprising that income-contingent lending is viewed as prohibitively risky by the private capital market” (Johnstone 1972, 153). Other economists, including Nerlove (1975) and Eicher and Chevaillier (1993, 493), identified problems of “moral hazard” and “adverse selection,” which threaten the viability of this sort of ICL. The fact that graduates could choose to “opt out” of the

Yale Plan almost certainly meant that those who expected to become high earners would choose *not* to subsidize their poorer classmates. Finally, the problems of collection proved too great for a single university. Chapman's recent review of the Yale experiment observed: "an educational institution is poorly equipped to efficiently enforce the payment of income-contingent loans, and this lack of expertise effectively encouraged and reinforced the sense of inequity of those Yale debtors remaining in the scheme." The Yale Plan experience and other failures by individual universities, for example in Chile, lead him to the conclusion that "for an ICL scheme to work it is critical that repayment collections use a national tax or social security agency (Chapman 2005, 32, 41).

Despite the failure of the Yale Plan in the 1970s, the concept of ICLs remained popular among economists, but proposals failed to impress government policy makers until 1989, when Australia introduced HECS. One reason why the concept of income-contingent repayment was not taken up before this may have been that economists were in fact putting forward a variety of concepts, rather than one. Some, including Friedman (1955, quoted in 1980, 184) and the Zacharias Plan (1967), which proposed an "Educational Opportunity Bank" in the U.S., envisaged a form of equity financing, under which students could "sell participation shares in their future incomes" (Zacharias Plan, quoted in Johnstone 1972, 73). Others preferred the concept of a graduate tax⁶ (Glennerster, Merrett and Wilson 1968). The most comprehensive review of research, literature, and experience of ICLs by Chapman (2005, 2006a) distinguishes between four different concepts: two sorts of income-contingent repayment of loans, one based on risk-pooling (as in the Yale Plan), and the other on risk sharing (as in HECS in Australia); a graduate tax (not yet implemented in any country); and human capital contracts or human capital options, under which a student would promise to pay a specified proportion of his/her future income in return for financial support, as recommended for the U.S. in the Zacharias Plan (1967, cited in Johnstone 1972) and on a global scale by Palacios (2003 and 2004). So far, there is no

⁶ The difference between a graduate tax and an income contingent loan, with repayments collected through the income tax system, is that the obligation to pay a graduate tax would be a lifelong obligation, whereas income contingent loan repayments will be collected only until the graduate has repaid the total amount borrowed, plus interest. Barr has argued that a graduate tax is inherently unfair and illustrates this by what he calls the "Mick Jagger problem": Mick Jagger spent a year as a student in the UK; if he was required to pay a proportion of his income, on top of his normal income tax, for life, his contribution would be quite disproportionate to the costs of his higher education. (Barr and Crawford, 2005, pp. 57 and 257).

experience of human capital contracts apart from a small scale private scheme called MyRichUncle™, introduced in the U.S. in 2001 and discussed in Chapman (2005, 30) and Palacios (2004, 49-50), but Palacios believes that human capital contracts (HCCs) are a feasible development for the future: “the path for implementing HCCs seems to be clear. HCCs are at the heart of the knowledge society” (Palacios 2004,165).

In the 1980s, it was the idea of linking student loan repayments with income tax collection that made the concept feasible. Before HECS was introduced in 1989, the income tax authorities in the U.S., the U.K., and even in Australia, were firmly opposed to the idea on the grounds that they were tax collectors, not debt collectors, and to combine the two roles might diminish their effectiveness in collecting taxes. Eventually it was strong political will, both in Australia and the U.K. that overcame these objections. Chapman observes,

Political commitment to change is a necessary, albeit not sufficient, condition for change. In Australia, New Zealand, the U.K.... it was clear, or became clear over time, that the higher education systems would inexorably deteriorate without funding reform, and that the main players were prepared to live with short-term political costs to achieve longer-term social and economic benefits. (Chapman 2005, 56)

Once HECS had been introduced in Australia, other countries quickly became interested in the concept of ICLs. A system of loans for tuition fees and living expenses, with repayments collected through the tax system, was introduced in New Zealand in 1992. Chapman believes,

It is possible that the apparent successful implementation of the Australian ICL helped motivate administrative change in these directions in some of the other countries. That is, New Zealand policy advisers were aware of developments in Australia, and there is little doubt that direct contact between analysts from Australia and the U.K. influenced the nature and form of debate in the latter country. Perhaps the policy point is, as Kenneth Boulding once observed: ‘If it exists, then it is possible’. (Chapman 2005, 42)

In the U.S., the Clinton Administration introduced various changes to student loan programs, including an option for graduates to adopt income-contingent repayment of loans, instead of a conventional repayment schedule. Very few

graduates chose to convert their loans to an ICL, and Johnstone (2005) argues that this casts doubt on the supposed superiority of ICLs, whereas Chapman (2005) blames “Poor design characteristics of the scheme and the government’s ineptitude in explaining and publicizing accurately the scheme’s implications for student debt and repayment obligations. It is possible that both weaknesses reflect a lack of ICL policy commitment, on the part of those with US policy influence” (39).

Today, the two most enthusiastic advocates of ICLs are the two economists – Bruce Chapman in Australia and Nicholas Barr in the U.K. – who were most influential in convincing governments in these countries that income-contingent repayment of student loans could work. Chapman and Barr have become champions, rather than simply advocates, of the concept. Economic arguments in favor of ICLs, together with very positive assessment of the HECS experience, have been presented by Chapman (1997, 2005, 2006a, 2006b; Chapman and Ryan 2002), while Barr has been equally persuasive and prolific in the U.K. (1989, 1991, 1993, 2001, 2003a, 2003b; Barr and Crawford 2005). Together, these two economists have had considerable impact, not only in their own respective countries, but also in transition and developing countries through their work as consultants for the World Bank and other agencies, or for governments considering setting up ICLs. Chapman produced proposals for ICLs in Ethiopia (Chapman 1999) and Rwanda (discussed in Chapman 2005), while Barr helped to design a student loan program for Hungary (implemented in 2001) and helped organize a recent (2006) conference on student loans in Russia. Chapman (2005) lists twelve countries where national governments or international aid agencies were or are examining the feasibility of ICLs, but observes “A major problem seems to be that of implementation and administration” (43).

There is disagreement among economists about whether ICLs are an appropriate mechanism for transition and developing countries. Chapman and Ryan (2002) assessed the Australian experience of HECS and concluded,

HECS has raised, and continues to raise considerable revenue. This has been used to help finance a large expansion in Australian higher education... there have apparently been no adverse consequences for the participation of relatively disadvantaged prospective students... These findings strongly promote the case for other countries to adopt similar arrangements...Income contingency seems to be here to stay. (Chapman and Ryan 2002, 78)

But they added a crucial qualification:

An income-contingent loan approach requires that a government is able to do at least two things efficiently. First, individual students' incomes need to be recorded accurately over time...Second, there has to be an efficient collection system... if there are simple ways for former students to avoid repayment obligations, income-contingent approaches will not work. The advantages of income contingency for policy are such as to suggest that major energies need to be directed to overcoming these critical administrative challenges. (Chapman and Ryan 2002, 79)

In the light of these “critical administrative challenges,” Johnstone (2003b) doubts whether income-contingent loans are feasible in most transitional and developing countries “for the simple reason that most do not...have effective and reliable systems for collection at the point of wage and salary payments” (Johnstone 2003b, 17). Turning to a specific developing country – Ethiopia – Johnstone and Aemero (2001) are critical of the idea of a HECS type system of fee deferral through ICLs, in a country like Ethiopia, for two reasons. First, there is the “simple reason that Ethiopia does not at present have a workable income tax system and is not likely soon to have one” (Johnstone and Aemero 2001, 14). Secondly, and just as fundamentally, they are critical of the fact that because income-contingent loans are collected from the graduate, the government would forgo parental contributions from families who could afford to pay up-front tuition fees: [the] “supposedly painless alternative (i.e. the income-contingent loan) would seem to exclude, or at least to minimize, the participation of parents in the badly needed cost-sharing.” (ibid. 15). Nevertheless, a form of graduate tax, a modified version of the Australian HECS, has now been introduced in Ethiopia. Although it is too early to judge its success, Yizengaw (2005) believes that:

The graduate tax can contribute to revenue diversification, making cost sharing politically smart, socially acceptable and economically feasible...more importantly, the graduate tax scheme, as implemented in Ethiopia, ensures equitable access to students of any background, as there is no need to stipulate income of parents to arrive at the repayment amounts. (Yizengaw 2005, 17)

Ziderman (2004) reviewed student loan schemes (both “mortgage type” and ICLs) in five developing countries in Asia (China, Hong Kong (China), Korea, Philippines, and Thailand) and identifies a number of administrative weaknesses, including lack of adequate financial appraisal, forward planning, monitoring and evaluation, as well as inadequate targeting and failures of collection. He cautions,

Policy reform in the field of student finance, as in other areas, should be guided by international experience of good practice (on what has worked well) and of mistakes to be avoided). However, ‘instant’ institutional borrowing, based on a particular country’s practice should be avoided. (Ziderman 2004, 104)

One of the few developing countries with a successful student loan scheme is the National Student Financial Aid Scheme of South Africa (NSFAS). Jackson (2002) acknowledged the influence of international experience and literature on its design:

The international higher education landscape is littered with the wrecks of failed student loan schemes. When South Africa’s National Student Financial Aid Scheme (NSFAS) was established in 1991, policy-makers were acutely aware of this fact....[NSFAS] is a very young scheme, having come into being very recently. This means that a huge body of literature already existed from which policy makers could learn and record successes and failures (See for example, Johnstone, 1986; Ziderman and Albrecht, 1991; Woodhall, 1989 and 1991). NSFAS has always sought to ensure that it does not operate in an environment devoid of theory, and that it is always informed by good practice. (Jackson 2002, 82, 88)

One of the factors that Jackson (who was the first Chief Executive of NSFAS) cites as contributing to its success was “the decision to make repayment schedules income-contingent...It is always politically sensitive to give loans to poor people. The non-punitive nature of NSFAS income-contingent repayment terms has made the receipt of a loan – rather than a grant – somewhat more palatable to students and the public” (Jackson 2002, 90).

Johnstone’s criticism of the idea of ICLs or a graduate tax in Ethiopia is based not only on the administrative problems (which Chapman now recognizes, see Chapman 2005, 43, 47) but also on his conviction (Johnstone 1986, discussed in Part

3 of this paper) that the costs of HE should, wherever possible, be shared between four partners – including parents. This is the underlying assumption of the American system of financing HE (Hanson, 1989), the Canadian system (Finnie and Usher 2006), and the assumption is shared by governments in many, but by no means all, other countries. In Scandinavia, university students are regarded as financially independent of their parents from the age of 18. In Britain, until this year, a parental contribution to their child’s HE costs was expected from all parents whose income exceeded a specified minimum, but the abolition of up-front fees and their replacement by deferred payment through income-contingent loans means that a parental contribution has been converted to a graduate debt, thus shifting the burden of costs. There have, in fact, been several shifts in the U.K.. The introduction of means-tested tuition fees in 1998 represented a shift from taxpayers to parents, although a survey in 2002 (Callender and Wilkinson 2003) showed that a quarter of parents did not contribute their full assessed tuition fee payment, and the burden therefore fell on the student. The abolition of maintenance grants and replacement by student loans, also in 1998, represented a shift from taxpayers to students/graduates, while the introduction in 2006 of deferred payment of fees through ICLs represents a third shift – away from parents to graduates. Whether this is regarded as desirable is not really an economic question. There are clearly differences between countries in attitudes towards independence – should adult students be regarded as financially dependent on their parents (as in the U.S. or Germany), or independent (as in Australia, Scandinavia and now in Britain)? These differences in policy reflect, to some extent, cultural differences; Barr asks “as a philosophical matter, is it right to force young adults to depend on their parents?” (Barr and Crawford 2005, 237). Whether this is primarily a cultural, philosophical or an administrative question, it raises issues that are entirely outside the realm of economics.

Barr and Crawford (2005), drawing on their experience of the long and painful process of reforming HE finance in Britain (including introducing ICLs and raising tuition fees) emphasize the importance of non-economic issues. They argue that the *design* of HE financing policy in the U.K. has been influenced by economic concepts and analysis, but conclude,

Strategic policy design...is only part of the story. Successful reform depends on a tripod of skills:

- *policy design;*

- *political implementation,;*
- *administrative/technical implementation.*

A tripod, by its construction is stable, but loses stability if any of the legs is weak or missing. (Barr and Crawford 2005, 298)

The importance of good administration for the feasibility and successful implementation of ICLs has been emphasized by many writers (Woodhall 1992, Ziderman and Albrecht 1995, Ziderman 2004, Chapman and Ryan 2002, and Johnstone 2003b). Barr and Crawford argue that this is not simply a technical matter; reforming HE finance needs effective political, as well as administrative implementation:

Implementation skills are an integral part of reform, not an add-on. They must be involved at the stage of policy design, not bolted on after policy is set. There is a deeply flawed view that policy involves 'higher' skills: higher level people design policy, which is then handed over to the peons to implement. This is quite simply, wrong: the three sets of skills are hierarchical neither in level nor chronologically. (Barr and Crawford 2005, 299)

Barr and Crawford (2005) illustrate how all three sets of skills were needed in the design of a student loan program for Hungary. Experience in many countries shows that administrative and implementation issues may be as important as economic concepts in determining the success or failure of a student loan program or other policy reforms. Other non-economic issues that may impact upon the process of HE reform, both by influencing what policies are actually adopted from among a range of options, and by affecting the success or failure of implementation, include politics, legal, and social policy issues. These are the subject of the next section.

6. The Influence of Politics, Legal, and Social Policy Issues

The financing of HE is frequently a highly contentious issue. The introduction of a small student loan scheme in Ghana in 1971, “partly to reduce the burden of educational costs on the tax paying community, and partly to achieve greater social justice,” (Republic of Ghana, quoted in Woodhall 1992, 353) met with such strong opposition, particularly from the politically vocal student body, that it led to the defeat of the government, and to the abandonment of the loan scheme after less than a year. Williams (1974) suggested that failure to mobilize public opinion on the case for loans, and a feeling among students that they were being made “scapegoats of the country’s failure to control higher education costs” (quoted in Woodhall 1992, 354) were to blame. Thirty-five years later, cost-sharing and student loans remain deeply unpopular in many countries, with the result that politicians are often reluctant to tackle such a thorny issue, particularly where student opposition to fees and loans is strong and well organized.

In the U.K., the introduction of tuition fees and abolition of grants for students’ living expenses in 1998 faced strong opposition, and after devolution of powers to the Scottish Parliament and National Assembly for Wales, in 1999, HE finance was one of the first topics chosen for development of separate policies (see Woodhall and Richards 2006). In Scotland, university tuition fees featured prominently in the first election campaign for the Scottish Parliament, and one of the first actions of the new executive was to abolish “up-front” fees for Scottish students in 2001, and replace them with contributions to a Scottish Graduate Endowment Fund (discussed in Part 3 above). At the same time, the Welsh Assembly re-introduced means-tested grants for students in Welsh universities and for Welsh students in English universities in 2002. In both cases a committee was appointed to examine the question of fees and student support, and their reports set out economic arguments for and against cost-sharing, but the main impetus for action in both countries was not economics, but politics. In Scotland there was a coalition between the Labor Party, which had been responsible for introducing tuition fees and abolishing maintenance

grants in 1998, and the Liberal Democrats, who strongly opposed tuition fees in all their election campaigns; action on HE finance was one of the conditions for the survival of the coalition. In Wales, Labor had a very slender majority, and politicians recognized that tuition fees and student support was an issue about which voters felt very strongly.

Political opposition became even stronger during the debates on the Higher Education Act 2004, which introduced “top-up” fees in England. The majority at the Second Reading of the Bill in the House of Commons in January 2004 was only five votes, with more than 70 Labor backbenchers voting with Conservatives and Liberal Democrats against the bill. This forced the government to make concessions, including increasing grants for students’ living expenses.

Johnstone (2005) analyzed what he calls “fear and loathing of tuition fees” in the U.K., among politicians and academics, as well as students, and concluded that much of it is irrational, reflecting misunderstanding of economic arguments and confusion about the effects of means testing of tuition fees and ICLs. For example, in Scotland the decision to abolish up-front fees and replace them by compulsory income-contingent payments to a Graduate Endowment Fund, is widely perceived by non-economists as being “fairer” than the system in England, but Richards (2002) showed that since tuition fees were means-tested, and about half of all students were either exempt or paid reduced fees on grounds of parental income, the abolition of fees, combined with payment of a compulsory contribution after graduation, meant that richer students were better off (the Graduate Endowment contribution is less than the previous total tuition fees). However, poor students and their families are substantially worse off since they now pay a deferred contribution, but were previously exempt from fees. The introduction of means-tested bursaries mitigates this for the poorest, but some students from low income families in Scotland remain worse off as a result of the new policy. This is one of a number of “unintended consequences” that can arise when political, rather than economic, thinking determines HE finance policy.

Misunderstanding and confusion about HE finance were evident in debates in the National Assembly for Wales (NAfW) in 2004. The Higher Education Act included devolution of power to determine tuition fees and student support in Wales to the NAfW. The Welsh Assembly Government pledged in 2003 that variable fees will not be introduced in Wales during the life of this Assembly, which meant that

they could not be introduced before 2007/8. In a debate in November 2004, one Assembly Member declared “the taxation system is the best and fairest way of funding higher education,” (National Assembly for Wales 2004, 38), while another believed “regardless of whether you are talking about up-front tuition fees or deferred fees, if people think they have to repay the fees in the end, it will be an equal deterrent” (ibid., 48). Because of their strong opposition to variable fees, the Liberal Democrats proposed an amendment: “The National Assembly believes that variable tuition fees are, in principle, wrong.” This was described by one Assembly Member as “mischief-making” (ibid., 40), but the amendment was narrowly passed.

This was the background against which the Rees Review (2005) considered the options for Welsh universities from 2007. As already quoted in Part 2, some members of the Review shared the view that variable fees are in principle wrong – indeed some felt that tuition fees of any sort are wrong, and would have liked to recommend total abolition of fees in Wales, but this was rejected on grounds of feasibility. Instead, the Review considered six options, including the following:

- (i) maintaining a fixed fee of £1,200 a year (the rate that will be charged by Welsh HE institutions (HEIs) in 2006/7),
- (ii) variable fees of up to £3,000 a year, with universities competing in terms of scholarships and bursaries (as in England),
- (iii) variable fees combined with a National Bursary Scheme, and
- (iv) differential fees for Welsh and non-Welsh domiciled students.

All these options were costed, and the Rees Review report set out arguments for and against each option. Many non-economic issues had to be taken into account, including the possible effect on Welsh HEIs of cross border flows if fees were lower in Wales than in England, and legal issues. For example, European Union (EU) law requires that residents of other EU countries must be treated no less favorably, regarding fees and student support, than Welsh citizens, but it does not forbid fee differentials between English and Welsh citizens; these might, however be subject to legal challenge by English students, as has happened in Scotland. After months of work⁷ (including research on the changing labor market for graduates, patterns of

⁷For a discussion of the effects of devolution on HE financing policy in the UK, and the issues considered by the Rees Review, see Woodhall and Richards 2006. The paper was written in 2004,

access and participation, and a survey of attitudes of young people) the Rees Review published its report in May 2005 and recommended that Welsh HEIs should be able to charge deferred flexible fees of up to £3,000, with a National Bursary Scheme offering targeted bursaries to both Welsh and non-Welsh domiciled students.

Exactly two days before the date of publication, the opposition parties in the Assembly put forward a motion instructing the Assembly **not** to introduce top-up fees in Wales. This motion was passed by 30 votes to 29. The decision to force a vote, two days before the publication of the Rees Report, and before its arguments and evidence could be considered, was taken for purely party political reasons:

The decision by a coalition of [the three opposition parties: Conservative, Liberal Democrat and Plaid Cymru (the Welsh Nationalist party)] to sabotage the report two days before it was published reflects the balance of power in the Assembly. At the General Election Labor lost its one-seat majority...So the Opposition parties were itching for an opportunity to embarrass the Assembly Government. What better issue than the much loathed top-up fees? (The Independent, 16 June 2005)

Attacked by critics as “opportunistic” and “politics of the worst kind,” this vote was followed by “wall to wall meetings” (Independent, 2005) between politicians to try to reach a compromise. Eventually a compromise solution was agreed: from 2007 Welsh HEIs will be able to charge flexible fees of up to £3,000 a year, as in England, but all Welsh domiciled students attending a Welsh institution will receive a fee bursary of £1,800, which means that they will continue to pay the same as at present (£1,200 a year) by virtue of living in Wales. The fee bursaries will not be means-tested, so will not be targeted in the way the Rees Review anticipated. This makes no economic sense, but it was the only political compromise that could be agreed in the limited time available. As *The Independent* explained, under the heading “Why has the Welsh Assembly voted down top-up fees?”:

Because Wales has a different political culture. Top-up fees were a hot political potato in England, but they are even hotter in [Wales]. Seizing the moment when the Labor Assembly Government had lost its majority, the opposition parties were able to give it a big thumping. In future, these parties

before the Report was published, but it summarises the historical background, describes the debates that were conducted in Wales, and sets out the main policy issues.

will have to be consulted on every contentious issue. (The Independent, 16 June 2005)

There were several reasons why top-up fees were regarded as so contentious, but they are not primarily economic. The Rees Review invited written evidence from interested organizations, individuals and academic researchers from different disciplines, and held “Stakeholder Consultations” to gather views from a wide range of national bodies. The Review found evidence of widespread misunderstanding, among politicians, students, other stakeholders and among the wider public, both about the existing system and the proposal to introduce variable fees. Because of the use of the term “top-up” fees, many thought that variable fees simply meant higher fees, and were opposed to them on principle. The fact that payment of the fees would be deferred until after graduation, would be collected on an income-contingent basis, and only from those whose earnings were above a specified threshold, was not properly understood. Nor was it understood that the interest rate on student loans is highly subsidized (it is linked with inflation, so in real terms the graduate pays zero interest). There was deep dislike of the notion of students incurring substantial debts, but many did not appreciate the difference between student loan debts – with interest subsidies and protection for graduates with low earnings – and credit card debt or bank overdrafts.

Fear of debt, or “debt aversion,” has featured prominently in debates on HE finance in the U.K. (Callender 2003a, 2003b, 2006), but the survey of attitudes of young people in Wales, carried out for the Rees Review, showed that not everyone had the same attitude to debt. Eighty-two percent of respondents agreed that going to university was expensive, but the report noted,

The idea that university is expensive and leads to debt does not, however, appear to affect the likelihood of individual respondents going into HE...the great majority (over 80 percent) stated that they did not want to get into debt. On the other hand, many of those interviewed regarded student loans, like a mortgage, as an investment – a debt with long term benefits. Those most likely to go to university appeared to accept debt as a part of the university experience, and there was a prevailing view that university costs were a ‘worthwhile debt.’ (Rees Review 2005, 8-9)

The picture is incomplete, however, since these survey respondents had already decided to remain in school, and many had already decided to go to university. A survey of attitudes to debt among school leavers and further education students found that “prospective students’ values as well as economic considerations influenced the way they framed and made their educational decisions...Debt aversion deterred entry into HE but was also a social class issue” (Callender 2003a, 10). Those expressing the strongest aversion to debt were four times more likely to opt out of HE than those of similar ability and characteristics who were more tolerant of debt. The most “debt averse” included those from the lowest social classes, black and ethnic minority students, particularly Muslims, while those with the most relaxed attitude to debt included pupils attending private schools, the highest social classes, and men (Callender 2003b). This suggests that economic analysis will not be sufficient by itself to explain the effects of debt aversion on HE participation. Sociological tools and analysis are crucial for an understanding of whether fear of debt acts as a barrier, and which groups are most affected.

Economists have been quite skeptical about the concept of debt aversion. Johnstone (2005) writes, “The claim of debt aversion has become almost ‘conventional wisdom’ among those predisposed to resent tuition fees and loans. However, the evidence in support of the assertion (Callender 2003a, 2003b) is exceedingly thin.” Nevertheless the concept of debt aversion has played an important role in the U.K. in fostering hostility to student loans and deferred payment of fees, and engendering political opposition. The *Times Higher Education Supplement* (18 November 2005) reported that publication of the latest research on student debt had been “suppressed” at the time of the Higher Education Bill in 2004, because it was deemed to be “too politically sensitive,” and that Universities U.K., who had commissioned the research, regarded it as too “politically contentious” to publish until after the General Election. When the study was eventually published in November 2005, two years after it was first submitted, it reported that 86 percent of the students questioned agreed that “student debt puts off people going to university” (sic), 73 percent were seriously worried about the debts they were building, but at the same time 73 percent agreed “borrowing money for university is a good investment” (Centre for HE Research and Information (CHERI) and London South Bank University, 2005, 38). The report concluded that student’s attitudes to debt “could be characterized as pragmatic acceptance” (120).

Nevertheless, rising levels of student debt continue to attract headlines, and the concept, or at least *perception* of debt aversion discouraging low-income students persists, and had considerable influence in debates in Scotland when the Scottish Parliament decided to abolish up-front fees in Westminster at the time of the Higher Education Bill, and in Wales when the Assembly voted that variable fees were “in principle wrong.” Although economists may be skeptical about debt aversion, the economics of information could perhaps provide useful insights. Callender’s survey certainly demonstrated asymmetric information: “All prospective students had unrealistic expectations about the actual financial situation of students. They underestimated both students’ income and expenditure and over-estimated students’ final debt.” (2003a, 12) But she also found that while most students felt they were not well informed about HE finance and funding, those who were most likely to go to university found it easiest to access information, and those who were least likely to go on to HE reported the greatest problems in gaining access to information. Similar results have been reported in other countries. Surveys for the Canada Millennium Scholarship Foundation showed that those from low income families were more likely to overestimate the costs of HE and underestimate the benefits (Usher 2003).

Just as the *perception* of debt aversion is often stronger than the evidence, perceptions of fairness and equity explain the common conviction that “free” HE is “fairer” than charging fees, despite the frequency with which economists have shown that abolition of fees is regressive (Blaug 1970, Psacharopoulos 1977, Goodman and Kaplan 2003, Greenaway and Haynes 2003, Chapman 2005). It is hardly surprising if articles in economic journals fail to convince the electorate, or even most politicians, but the arguments have been explained at length in the press, radio, or television. For example, Barr has not only published numerous academic articles and evidence to the Education Select Committee (reprinted in Barr and Crawford 2005), but also newspaper articles, arguing “tax funding redistributes towards the better-off. Beyond a certain point, subsidizing HE is like subsidizing champagne – nice for those that can get it,” while he describes the Conservative Party’s proposals to abolish fees as “overtly regressive” and “offensive to anyone who cares about fairness” (Barr 2003b). Although Chapman (2005, 42) refers to “the recognition that university education financed without direct contributions from the private beneficiaries is in essence regressive and inequitable,” this “recognition” is far from universal. Debates about HE finance in the U.K. frequently cite social justice, fairness, equity, and equality of

opportunity to attack fees and loans. In Scotland, the Independent Committee of Inquiry into Student Finance (2000), which recommended abolishing means-tested fees and replacing them with a flat rate graduate contribution, was called *Student Finance: Fairness for the Future*, although, as discussed above, the change meant that students from low-income families, previously exempt from paying fees, would now have to pay the Graduate Endowment Fund contribution. This illustrates how *perceptions* of equity and social justice have had more influence on HE financing policy than economists' arguments about redistribution of income, regressivity, and costs and benefits.

Other non-economic issues may influence the outcome of HE financing policy reform. Some of the legal issues considered by the Rees Review in Wales were discussed above, and other legal issues, particularly regarding contract law, the age at which students can legally enter into a binding contract, the enforceability of collateral arrangements, and the absence in many countries of a strong legal framework to enforce collection of loan repayments, have all been cited as problems with some student loan programs. Palacios (2004, 49) cites legal uncertainties and ethical concerns as two of the main hurdles faced by human capital contracts. This list of non-economic issues could be extended. Psychologists, for example, might throw light on the concept of debt aversion and the failure of government campaigns to convince students and their parents of the need for cost-sharing. Certainly the governments in both England and Wales are now devoting far more attention to public information on the new fee and student support arrangements and they are no doubt calling on communication experts, particularly in the development of web sites to explain the complexities of deferred fees and income-contingent repayment, while universities in England have called on marketing experts to help in the design and promotion of bursary schemes. This is a new development in the U.K., although it is more prevalent in the U.S. (Wilkinson 2005) and growing elsewhere (Teixeira et al. 2004).

7. Conclusion

This paper has demonstrated the influence of economic thinking on HE finance policy in many countries, including Australia, the U.K. and U.S., Sweden, Hungary and developing countries in Africa, Asia, and Latin America. The concept of education as both a private and public investment and estimates of the private and social rate of return; the concept of cost-sharing and estimates of the distribution of financial burdens between students, parents, taxpayers, and philanthropy; and the concept of income-contingent repayment of student loans have all been used in policy debates and in the formulation of new policies on tuition fees and student support.

The question “*Do recent advances in economic thinking contribute to the major challenges faced by education?*” must, in this case, receive the answer “*Yes.*” The paper has shown that recent research on measurement of externalities and the contribution of education to economic growth, through knowledge creation and transmission, have strengthened the notion that HE is a public investment, while new estimates of private rates of return have shown that rapid expansion of HE has not led to a dramatic fall in individual returns, as predicted by pessimists. Thus, economic reasoning, backed by empirical analysis, supports the global trend towards greater cost-sharing in HE. Comparative studies of cost-sharing, which started twenty years ago and which now cover at least 35 countries, have been used to develop and justify new policies on HE finance in order to meet the challenges of rising private demand and increasingly constrained public budgets. Recent advances in formulating and analyzing the concept of income-contingent repayment of student loans have helped to shape policy decisions in Australia, New Zealand, Hungary, South Africa, and U.K., and advances in the economics of information may provide insights into problems such as debt aversion.

Champions of income-contingent repayment, notably Barr, Chapman and Palacios, believe that its potential to contribute to the challenges facing HE is even greater than so far revealed. In the Foreword to Palacios (2004, xix), Barr welcomes the idea of human capital contracts: “The application of option theory to the finance

of HE is entirely new – finance theory meets ICLs. This is a significant intellectual advance. As well as being an intellectual advance, the approach also points toward policy innovation.” Palacios (2004, 162) himself argues that “the capacity that income-contingent repayment schemes have to transform the traditional way in which governments have faced the challenges of financing education are enormous.”

This paper has shown, however, that it takes a long time before advances in economic thinking are fully accepted by politicians and even longer to reach the general public. Some of the economic thinking that finally bore fruit in the U.K. in 2004 had first been put forward in the 1960s. Barr and Crawford’s (2005, 301) advice on policy reform is “Get a lot of patience: Reform is rarely fast. In the British context, hostility to reform has been widespread, some of it for entirely honorable reasons, some of it for motives which do not bear close scrutiny.”

This paper also demonstrates that there are significant limitations on the influence of economic thinking. Outcomes of policy debates and reforms of HE finance have often been determined by non-economic factors and issues, as well as the economic concepts listed above. There has been a growing recognition, not only among economists quoted in this paper, but also among policy makers, politicians, and donor and international agencies, that administrative and implementation issues can be crucial in determining the success or failure of tuition fees or student loans. Barr and Crawford’s (2005) insistence on the need for a tripod, consisting of “strategic policy design, practical politics and...administrative and financial market expertise” (ibid., 301) is a useful reminder. For many economists the interesting part is policy design, and this is where the influence of economic thinking seems most obvious. But experience in many countries shows that if politics and sound administrative principles are ignored, the outcome of the policy process may be quite different from what was intended, and the reform may fail.

As well as economic concepts, such as education as investment, concepts of social justice have been hugely influential in debates on HE finance, but there are often sharp differences between how economists perceive equity, in terms of distribution of costs and benefits, and how it is perceived by sociologists, politicians and the wider public. The contribution of other disciplines, including sociology and anthropology, as well as economics and politics, has stimulated interest in the concept of social capital, which is wider than the concept of human capital. Dasgupta and Serageldin (2000), in *Social Capital: A Multifaceted Perspective* argue that our

understanding is deeper today in the past, because of recognition of the importance of non-economic concepts, such as trust. The conclusion of this paper is that the financing of HE also demands a multifaceted approach. Economic thinking on education as investment, cost-sharing and income-contingent loans has been influential, but the importance of politics, administrative and legal issues, and wider issues of social policy should not be underestimated. What is needed to meet the challenge of reforming HE finance, in an era of rising demand and declining public resources, is not only new developments in economic thinking, and advances in the economics of education, but a recognition that the older concept of Political Economy also has much to teach us.

Annex 1 -- Matrix of Voucher Systems

Country or State	Year Establ.	Institutional Eligibility	Eligibility Criteria	% of total student population	Amount	Comments
Bulgaria	2001	public only	master's level only	90%	\$1,300	same per student amount for all institutions penalizes more expensive research universities, in the absence of separate research budget
Chile (Aporte Fiscal Indirecto)	1981	public and traditional private only	top scores at national university entrance examination (bachelor's level only)	27,500 students (about 6% of total undergraduate population)	\$900	new private universities not eligible; selection through university entrance examination that is closely correlated with family income
Colorado (U.S.)	2004	public and private	resident of the state	100%	\$2,400 (public) \$1,200 (private)	
Georgia	2005	public and private	bachelor level students with highest score at National Entrance Examination	8,270 students (about 58% of total student population)	\$800 on average	
Kazakhstan	2001	public and private	bachelor level students with highest score at National Entrance Examination	14.6%	\$1,200 (public) – \$4,000 (top private)	working well to facilitate the growth of good quality private institutions and provide actual choice to students
U.S. (GI Bill)	1944	public and private	2-3 years of active duty	all former active duty soldiers, within 10 years of leaving the military	up to \$30,000 towards tuition expenses	

Elaborated by Jamil Salmi

References

- Barr, N. (1989). The White Paper on Student Loans. *Journal of Social Policy*. 18 (3), 409-17. Reprinted in Barr, N. and Crawford, I. (2005). *Financing Higher Education. Answers from the UK*. London: Routledge, pp. 66-74.
- Barr, N. (1991). Income-contingent Student Loans: An Idea Whose Time has Come. In Shaw, G.K. *Economics, Culture and Education: Essays in Honour of Mark Blaug*. Aldershot: Edward Elgar, pp. 155-170.
- Barr, N. (1993). Alternative Funding Resources for Higher Education. *Economic Journal*, 103 (418), pp. 718-28.
- Barr, N. (2001). *The Welfare State as Piggy Bank*. Oxford: Oxford University Press.
- Barr, N. (2003a). Financing Higher Education: Lessons from the UK debate. *Political Quarterly*, 74 (3), 371-81. Reprinted in Barr, N. and Crawford, I. (2005). *Financing Higher Education. Answers from the UK*. London: Routledge, pp. 268-82.
- Barr, N. (2003b). Can't Pay, Won't Pay. *The Guardian*. June 12, 2003.
- Barr, N. and Crawford, I. (2005). *Financing Higher Education: Answers from the UK*. London: London: Routledge.
- Becker, G. (1964). *Human Capital: A Theoretical and empirical Analysis, with Special Reference to Education*. New York: National Bureau of Economic Research.
- Bennell, P. (1995). *Using and Abusing Rates of Return: a critique of the World Bank's 1995 Education Sector Review*. Institute of Development Studies (IDS) Working Paper 22.
- Bennell, P. (1996). Rates of Return to Education: does the conventional pattern prevail in Sub-Saharan Africa? *World Development*. 24 (1) 183-99.
- Bennell, P. (1998). Rates of Return to Education in Asia: a review of the evidence. *Education Economics*. 6 (2), 107-121.
- Blaug, M. (1965). Rate of Return on Investment in Education in Great Britain. *Manchester School* 33 (3) 205-51, reprinted in Blaug, M. (1987). *The Economics of Education and the Education of an Economist*. Aldershot: Edward Elgar Publishing, pp. 3-49.
- Blaug, M. (1970). *An Introduction to the Economics of Education*. Harmondsworth: Penguin Books.
- Blaug, M. (1990). *The Economic Value of Education*. Netherlands Institute for Advanced Study in the Humanities and Social Sciences.
- Bynner, J. and Egerton, M. (2001). *The Wider Benefits of Higher Education*. London: Higher Education Funding Council for England (HEFCE).
- Bynner, J. , Dolton, P., Feinstein, L., Makepeace, G., Malmberg, L., and Woods, L. (2003). *Revisiting the Benefits of Higher Education*. London: Higher Education Funding Council for England (HEFCE). (www.hefce.ac.uk/pubs/rereports/2003)

Callender, C. (2003a). *Attitudes to Debt: School Leavers and Further Education Students' Attitudes to Debt and their Impact on Participation in Higher Education*. London: Universities UK.

Callender, C. (2003b). "Degrees of Debt – How Poorer Students are Put Off University" Economic and Social Research Council, *The Edge* Issue 14, November 2003.

Callender, C. (2006). Access to Higher Education in Britain: The Impact of Tuition Fees and Financial Assistance. In Teixeira, P. et al. (Eds.) *Cost-Sharing And Accessibility in Higher Education: A Fairer Deal?* Dordrecht: Springer, 105-132.

Callender, C. and Wilkinson, D. (2003). *2002/03 Student Income and Expenditure Survey: Students' Income, Expenditure and Debt in 2002/03 and Changes since 1998/99*. Nottingham: Department for Education and Skills (DfES).

Carnegie Commission on Higher Education (1973). *Higher Education: Who Pays? Who Benefits? Who Should Pay?* New York: McGraw-Hill.

Centre for Higher Education Research and Information (CHERI) and London South Bank University. (2005). *Survey of Higher Education Students' Attitudes to Debt and Term-time Working and their Impact on Attainment*. London: Universities UK.

Chapman, B. (1997). Conceptual Issues and the Australian Experience with Income Contingent Charging for Higher Education. *Economic Journal*. 107 (482), 705-30.

Chapman, B. (1999). Reform of Ethiopian Higher Education Financing: Conceptual and Policy Issues. Economics of Education Thematic Group Series 2. Washington: The World Bank. (<http://www.worldbank.org/education/economicssed/research/econseries/Chapman.htm>)

Chapman, B. (2005). 'Income Contingent Loans for Higher Education: International Reform'. Discussion Paper No. 491. Australian National University, Centre for Economic Policy Research. [Draft of Chapman 2006a, <http://econrsss.anu.edu.au/pdf/DP491.pdf>]

Chapman, B. (2006a,). International Reforms in Higher Education Financing: Income related loans. In Hanushek, E. and Welch, F. (Eds.) *Handbook on the Economics of Education* North-Holland.

Chapman, B. (2006b,). *Government Managing Risk: : Income Contingent Loans for Social and Economic Progress* London: Routledge.

Chapman, B. and Ryan, C. (2002). "Income Contingent Financing of Student Charges for Higher Education: Assessing the Australian Innovation." *The Welsh Journal of Education* Special International Issue 11.1: 64-81.

Chevallier, T. and Eicher, J-C. (2002). Higher Education Funding: A Decade of Changes. *Higher Education in Europe*. 27 (1-2) 89-99.

Dasgupta P. and Serageldin I., Eds. (2000). *Social Capital: A Multifaceted Perspective*. The World Bank, Washington DC.

Danière, A. (1964). *Higher Education in the American Economy*. New York: Random House.

Department for Education and Skills (DfES). (2003). *The Future of Higher Education*. London: The Stationery Office.

- Department of Education and Science (DES). (1988). *Top-up Loans for Students*. London: Her Majesty's Stationery Office.
- Eicher, J-C. (2000). The Financing of Education: an Economic Issue? *European Journal of Education*. 35 (1), 33-44.
- Eicher, J-C. and Chevaillier, T. (1992 and 2002). Rethinking the Financing of Post-Compulsory Education. *Higher Education in Europe*. (1992) 17 (1), 6-32. Reprinted in *Higher Education in Europe*. (2002) 27 (1-2) 69-88.
- Eicher, J-C. and Chevaillier, T. (1993). Rethinking the Finance of Post-Compulsory Education. *International Journal of Educational Research*. 19, 445-519.
- Finnie, R. and Usher, A. (2006). The Canadian experiment in cost sharing and its effects on access to higher education, 1990-2002. In Teixeira, P. et al. (Eds.) *Cost-Sharing And Accessibility in Higher Education: A Fairer Deal?*. Dordrecht: Springer , 159-87.
- Friedman M.(1968). The Higher Schooling in America, *The Public Interest*, 11 (108-112)
- Friedman, M. and Friedman R. (1980). *Free to Choose: A Personal Statement*. London: Secker and Warburg.
- Glennester, H., Merrett, S., Wilson, G. (1968). A Graduate Tax. *Higher Education Review*, Spring, 65-7.
- Goodman, A. and Kaplan, G. (2003). 'Study Now, Pay Later or HE for Free'? *An Assessment of Alternative Proposals for Higher Education Finance*. London: The Institute for Fiscal Studies, Commentary 94.
- Greenaway, D. and Haynes, M. (2003). Funding Higher Education in the UK: the role of fees and loans. *The Economic Journal* 113(485).
- Hanson, J. (1989). Cost Sharing in Higher Education: The United States Experience. In Woodhall, M. (1989) Ed. *Financial Support for Students: Grants, Loans or Graduate Tax?* London: Kogan Page, pp. 45-66.
- Harris, S. (1964). Higher Education: Resources and Finance (USA). In OECD, Study Group in the Economics of Education, *Economic Aspects of Higher Education*. Paris: OECD.
- Haveman, R. and Wolfe, B. (1984). Schooling and Economic Well-being: the role of non-market effects. *Journal of Human Resources*. 19, 377-407.
- Independent Committee of Inquiry into Student Finance. (2000). *Student Finance, Fairness for the Future* (The Cubie Report). Edinburgh: Independent Committee of Inquiry into Student Finance.
- Independent, The*. 16 June 2005 (<http://education.independent.co.uk/>).
- Ishengoma, M.J. (2004). Cost-Sharing in Higher Education in Tanzania: Fact or Fiction? *Journal of Higher Education in Africa*. 2 (2), 101-133.
- Jackson, R. (2002). The National Student Financial Aid Scheme of South Africa (NSFAS): How and Why it Works. *The Welsh Journal of Education*. Special International Issue 11.1(2002): 82-94.

- Johnstone, D.B. (1972). *New Patterns for College Lending*. New York: Columbia University Press.
- Johnstone, D. B. (1986). *Sharing the Cost of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden and the United States*. New York: The College Board.
- Johnstone, D. B. (2003a). Cost-Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility. *Czech Sociological Review*, 39 (3), 351-374.
- Johnstone, D. B. (2003b). Income Contingent Loans and Graduate Taxes: Can they Work in Developing and Transitional Countries? Prepared for the International Forum of the Association for the Study of Higher Education (ASHE), 2003. (<http://www.gse.buffalo.edu/org/inthigheredfinance/publications.html>). Published (in shortened form) in *Journal of Educational Planning and Administration* [New Delhi, India] 18 (2) 2004, 159-74 and in Chinese translation in *Peking University Education Review*. 2 (1) 2004.
- Johnstone, D. B. (2004a). The Economics and Politics of Cost Sharing in Higher Education: comparative perspectives. *Economics of Education Review*. 23 (4), 403-10.
- Johnstone, D. B. (2004b). Higher Education Finance and Accessibility: Tuition Fees and Student Loans in Sub-Saharan Africa. *Journal of Higher Education in Africa*. 2 (2), 11-36.
- Johnstone, D. B. (2004c). Student Loans in the Russia Federation: Policy Options. Prepared for Publication (in Russian) in *University Management*(2005). (<http://www.gse.buffalo.edu/org/inthigheredfinance/publications.html>)
- Johnstone, D. B. (2005). "Fear and Loathing of Tuition Fees: an American Perspective on Higher Education Finance in the UK," *Perspectives*, 9 (1):12-16.
- Johnstone, D. B. and Aemero, A. (2001). The Applicability for Developing Countries of *Income Contingent Loans or Graduate Taxes*, with Special Consideration of an Australian HECS-type Income Contingent Loan Program for Ethiopia. (Mimeo). (<http://www.gse.buffalo.edu/org/inthigheredfinance/publications.html>)
- Kiamba, C. (2004). Privately Sponsored Students and Other Income-generating Activities at the University of Nairobi. *Journal of Higher Education in Africa*. 2 (2), 53-73.
- McMahon, W. (1998). Conceptual Framework for the Analysis of the Social Benefits of Lifelong Learning. *Education Economics*. 6 (3), 309-346.
- McMahon, W. (1999). *Education and Development: Measuring the Social Benefits*. Oxford: Oxford University Press.
- Mayanja, M.K. (1998). The Social Background of Makerere University Students and Potential for Cost Sharing. *Higher Education*. 36 (1), 21-41.
- Morris, M. (1989). Student Aid in Sweden: recent experience and reforms. In Woodhall, M. (1989) Ed. *Financial Support for Students: Grants, Loans or Graduate Tax?* London: Kogan Page, pp. 85-109.
- National Assembly for Wales (NAfW) (2004) Official Record, 2 November 2004. Cardiff: National Assembly for Wales.

- Nerlove, M. (1975). 'Some Problems in the Use of Income-contingent Loans for the Finance of Higher Education', *Journal of Political Economy*. 83(1), 157–183.
- Organisation for Economic Cooperation and Development (OECD). (2001). *The Well-being of Nations: the role of human and social capital*. Paris: OECD.
- Organisation for Economic Cooperation and Development (OECD). (2002). *Education at a Glance 2002*. Paris: OECD.
- Palacios, M. (2003). *Options for Financing Lifelong Learning*. Policy Research Working Paper 2994. Washington: The World Bank.
- Palacios, M. (M.P. Lleras) (2004). *Investing in Human Capital: A Capital Markets Approach to Higher Education Funding*. Cambridge: Cambridge University Press.
- Peacock, A.T. and Wiseman, J. (1964). *Education for Democrats*. London: Institute of Economic Affairs Hobart Paper 25.
- Prest, A. (1963). The Finance of University Education in Great Britain. In Robbins Committee, *Higher Education. Evidence – Part 2* London: HMSO: 139-52. Reprinted (with additional material) in Prest, A R. (1966). *Financing University Education*. London: Institute of Economic Affairs Occasional Paper 12.
- Prest, A R. (1966). *Financing University Education*. London: Institute of Economic Affairs Occasional Paper 12.
- Psacharopoulos, G. (1973). *Returns to Education: An International Comparison*. Amsterdam, London & New York: Elsevier.
- Psacharopoulos, G. (1977). The Perverse Effects of Public Subsidisation of Education. *Comparative Education Review* 21 (1) 69-90.
- Psacharopoulos, G. (1981). Returns to Education: an updated international comparison. *Comparative Education*. 17 (3), 321-341.
- Psacharopoulos, G. (1985). Returns to Education: a further international update and implications. *Journal of Human Resources*. 20 (4), 583-604.
- Psacharopoulos, G. (1994). Returns to Investment in Education: a global update. *World Development*. 22, 1325-43.
- Psacharopoulos, G. and Patrinos, H. (2004). Returns to Investment in Education: a further update. *Education Economics* 12 (2), 111-134.
- Rees Review. (2005). *Fair and Flexible Funding: A Welsh Model to Promote Quality and Access in Higher Education: Report of an Independent Study into the Devolution of the Student Support System and Tuition Fee Regime in Wales (The Rees Review)*. Cardiff: Welsh Assembly Government. (www.learning.wales.gov.uk/pdfs/students/mainrr-e.pdf)
- Richards, K. (2002). Reforming Higher Education Student Finance in the UK: The Impact of Recent Changes and Proposals for the Future. *The Welsh Journal of Education*. Special International Issue 11.1(2002): 48-63.

- Robbins Committee. (1963a). *Higher Education: Report of a Committee under the Chairmanship of Lord Robbins*. London: Her Majesty's Stationery Office (HMSO).
- Robbins Committee (1963 b) *Higher Education: Evidence. Part 2, Documentary Evidence*. . London: Her Majesty's Stationery Office (HMSO).
- Robbins, L. (1980) *Higher Education Revisited*. London: Macmillan. Sianesi, B. and Van Reenen, J. (2002). *The Returns to Education: A Review of the Macro-Economic Literature*. Institute for Fiscal Studies Working Paper 2002/05. London: Institute for Fiscal Studies.
- Task Force on Higher Education and Society. (2000). *Higher Education in Developing Countries: Peril and Promise*. Washington D.C.: The World Bank
- Taubman, P. and Wales, T. (1973). Higher Education, mental ability and screening. In *Journal of Political Economy*, 81, 28-55.
- Teixeira, P. Jongbloed, J., Dill, D., and Amaral, A. (Eds) (2004). *Markets in Higher Education: Rhetoric or Reality?* Dordrecht/Boston/London: Kluwer Academic Publishers.
- Teixeira, P.N., Johnstone, D.B., Rosa, M.J. and Vossensteyn, (Eds) (2006) *Cost-sharing and Accessibility in Higher Education: A Fairer Deal?* Dordrecht: Springer.
- Teklelassie, A. (2002). Cost-Sharing in higher education in Ethiopia: Demystifying the myth. The International Comparative Higher Education Finance and Accessibility Project Discussion Paper. Buffalo, New York: Graduate School of Education, University of Buffalo. (Mimeo). (<http://www.gse.buffalo.edu/org/inthigheredfinance/publications.html>)
- Times Higher Education Supplement. (2005). 'Cover-up claims over debt research' (by Phil Baty), 18 November 2005.
- Trow, M. (1974). Problems in the Transition from Elite to Mass Higher Education. In: OECD, *Policies for Higher Education: General Report on the Conference on Future structures of Post-secondary Education*. Paris: OECD.
- Usher, A. (2003). Presentation to International Conference on University Reform and Accessibility of Higher Education, Prague, June 2003.
- West, E. G. (1994). *Britain's Student Loan System in World Perspective: A Critique*. London: Institute of Economic Affairs.
- Wilkinson, R. (2005). *Aiding Students, Buying Students: Financial Aid in America*. Nashville: Vanderbilt University Press.
- Woodhall, M. (1970). *Student Loans: A Review of Experience in Scandinavia and Elsewhere*. London: George Harrap.
- Woodhall, M. (1989). Ed. *Financial Support for Students: Grants, Loans or Graduate Tax?* London: Kogan Page.
- Woodhall, M. (1990). *Student Loans in Higher Education 1: Western Europe and the USA*. Educational Forum Series No. 1. Paris: International Institute for Educational Planning (IIEP).
- Woodhall, M. (1991). *Student Loans in Higher Education 3: English-speaking Africa*. Educational Forum Series No. 3. Paris: International Institute for Educational Planning (IIEP).

- Woodhall, M. (1992). 'Student loans in developing countries: feasibility, experience and prospects for reform', *Higher Education*, 23 (4), 347-56.
- Woodhall, M. (2006). Financing Higher Education: The Role of Tuition Fees and Student Support. In Global University Network for Innovation (GUNI), *World Report on Higher Education 2006: The Financing of Universities*. Basingstoke (U.K.) and New York (U.S.): Palgrave Macmillan and GUNI, pp. 122-130.
- Woodhall, M. and Richards, K. (2006). Student and University Funding in Devolved Governments in the United Kingdom. In Teixeira, P. et al. (Eds.) *Cost-Sharing And Accessibility in Higher Education: A Fairer Deal?*. Dordrecht: Springer , 189-211.
- World Bank. (1986). *Financing Education in Developing Countries: An Exploration of Policy Options*. Washington D.C.: The World Bank.
- World Bank. (1988). *Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization and Expansion*. Washington D.C.: The World Bank.
- World Bank. (1994). *Higher Education: The Lessons of Experience*. Washington D.C.: The World Bank.
- World Bank. (1995). *Priorities and Strategies for Education*. Washington D.C.: The World Bank.
- World Bank. (2002). *Constructing Knowledge Societies: New Challenges for Tertiary Education*. Washington D.C.: The World Bank.
- Wran Committee. (1988). *Report of the Committee on Higher Education Funding* (under the Chairmanship of Neville Wran). Canberra: Australian Government Publishing Service.
- Yale Daily News. (1999). Alumni struggle to keep abreast of ongoing loan payments. *Yale Daily News*, March 25, 1999 (<http://www.yaledailynews.com/article.asp?AID=1139>).
- Yizengaw, T. (2005). Cost Sharing in the Ethiopian Higher Education System: The Need, Implications and Future Directions. (Mimeo). (<http://www.gse.buffalo.edu/org/inthigheredfinance/publications.html>.)
- Ziderman, A. (2004). *Policy Options for Student Loan Schemes: lessons from five Asian countries*. Bangkok: UNESCO, and Paris: IIEP.
- Ziderman, A. and Albrecht, D. (1995). *Financing Universities in Developing Countries*. Washington D.C. & London: The Falmer Press.



THE WORLD BANK
1818 H Street, NW
Washington, DC 20433

www.worldbank.org/education

A major challenge faced by governments everywhere is the reform of finance of higher education (HE) in response to pressures of rising private demand for HE and heavily constrained public budgets. Recent experience in industrialized, transition and developing economies shows a world-wide trend towards greater reliance on tuition fees and student loans to finance the expansion of HE. After a brief summary of debates on HE finance in the 1960s and 1970s, this paper examines the influence of economic thinking in the last 20 years on debate and policy on HE finance in selected OECD countries (including Australia, Sweden, the U.K. and U.S.), transition economies (Hungary) and developing countries (Ethiopia and South Africa). The influence of three economic concepts is discussed in detail: (i) education as a social and private investment (including estimates of rates of return), (ii) cost sharing, and (iii) income-contingent student loans. Economic reasoning, using these three concepts, has had a significant impact on debate and policy on HE finance, but other influences, including politics, administrative and legal issues have also been important in determining outcomes. The recent U.K. experience, particularly in the recently devolved governments of Scotland and Wales, shows that politics has been as influential as economic thinking in shaping new policies on funding HE and financial support for students. The paper concludes that economic thinking has made a significant contribution to the formulation and implementation of policy on HE finance, but the influence of politics, administrative, legal, and social policy issues should not be underestimated.

The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and should not be attributed in any manner to the World Bank, its affiliated organizations or to the members of its board of executive directors or the countries they represent.

Copies of this publication may be obtained in hard copy through the Education Advisory Service (eservice@worldbank.org) and electronically through the World Bank Education website (www.worldbank.org/education).