Financially Sustainable Student Loan Programs: The Management of Risk in the Quest for Private Capital

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The steeply increasing costs of higher education, propelled by the combined trajectories of rising per-student costs and rising enrollments, have outrun the availability of public resources in almost every country. This has led most countries to search for non-governmental revenues to assist in supporting these ever-increasing costs of their higher educational enterprises. Such non-governmental, or private, revenue can come from the entrepreneurial activities of the university as a whole (e.g. selling or leasing assets) or of a department, school, or member of the faculty (e.g. contract research or revenue-supported instruction). It can come from philanthropy, either in the form of returns on past philanthropy (endowment) or from current giving, restricted or unrestricted. But the form of private revenue that is the most financially significant, sustainable, least disruptive to instruction (indeed, that probably enhancing the quality of instruction), and supportable on grounds of both efficiency and equity has come to be known as *cost-sharing*.

Cost-sharing is both a statement of fact—i.e. that the costs of higher education are shared by governments (or taxpayers), parents, students, and philanthropists—and also a term designating a worldwide policy shift of the costs of instruction as well as the costs of student living from what was at one time, in many countries, a predominant or even exclusive reliance on governments to being shared by governments, parents (or extended families) and students. This shift, as documented by Johnstone (1986, 2004, 2006a), may take the form of tuition fees being introduced where instruction was formerly free (as in many countries in Europe or in the post-communist world) or being increased at rates well above the increase in underlying costs in countries in which tuition has long been accepted (as in the United States, Canada, and many Asian countries). The shift can take the form of introducing fees for food, lodging or supplies that used to be heavily subsidized or even provided free of all charge by the government. A shift can also take the form of a policy-induced shift from highly subsidized public institutions to much less subsidized, tuition-dependent, private colleges and universities (whether non-profit or for-profit). Finally (or additionally), the shift of costs from government to students can take the form of shifting financial assistance from grants to loans, or from highly subsidized loans (that is, a combination of a *true loan* and a substantial *effective grant* in

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the form of embedded interest subsidies) to less-subsidized or even to unsubsidized loans (Johnstone 2006).[1]

The Need for Student Loan Programs

The increasingly accepted notion that a portion of this non-governmental revenue is appropriately borne by the student rather than—or in addition to—the parents presents the need for ways to allow much or most of this student-borne share of costs to be deferred into the future, when the individual is likely to have entered the full-time workforce (presumably aided by his or her higher education) and is able to begin repaying a portion of the costs that were advanced either by the government or by the private capital market (or by a combination of both in ways that we shall discuss in this paper). Thus, more and more countries are looking to student loan programs as a way to allow (or require) students to bear a portion of the costs of their higher education (Johnstone 2005, Woodhall 2002, Ziderman and Albrecht 1995).

At the same time, student loan programs in many countries, especially in low income or developing countries, have not been financially sustainable—at least not at levels required to promote widespread participation. The f*inancial sustainability* of a student loan requires both that the subsidy costs of student lending be held to levels affordable to the government and also that the amounts to be lent be made available mainly from the private capital market rather than having, like the subsidies, to come entirely from hard-pressed governmental budgets.

It is important to note the differences as well as the interconnection between these two dimensions of financial sustainability. The first dimension, or *affordability*, is a function of the availability of public finds and the degree of needed subsidization, or the extent to which public funds are required to cover losses: (a) from borrowers who fulfill their repayment obligation, but at an ultimate effective rate of interest that fails to cover the underlying cost of money plus the cost of administration and servicing; and/or (b) from borrowers who fail to fulfill their contractual obligation—that is, who default, whether out of an inability or an unwillingness to repay. Obviously (and other things being equal), the less subsidization , the more financially sustainable the student loan program, especially in low income countries with the most steeply rising cost trajectories, the most limited tax capacities, and the most politically and socially compelling alternative needs competing for these scarce public revenues.

The second dimension of financial sustainability—the ability to tap private capital markets rather than government budgets for the student loans—is more complex. In theory as well as practice (as in the US Stafford Loan programs) the amounts originally lent can come largely or entirely from banks and other private sources of savings, yet obligate the government to very considerable subsidies, both in the form of the in-school interest subsidies and subsidies during repayment, and also obligate the government as guarantor to pay the private lender for loans in default. In short: what may seem like

[1] This is true even when the *loan* is in the form of a *deferred tuition fee* to be repaid in the form of an income contingent loan (such as in Australia or the UK). In such a case, a shift of costs from government to students can take the form of provisions of the repayment obligation (e.g. a higher percentage of income required for student debt amortization) that require most borrowers to repay in full, with all but the very lowest low earners simply repaying for longer periods of time.

private lending in the first instance, with no immediate impact on the governmental budget, can in fact be indistinguishable in proper accounting terms from a considerable public expenditure, albeit in the form of future and contingent liabilities rather than outright current expenditures. On the other hand, a loan requiring little or no subsidization (that is, with a flow of repayments sufficient to cover the cost of money plus the cost of administration and servicing) and no risk of default to the lender (because of sufficient collateral by either the borrower or a co-signatory) could be made directly by the government, with taxpayer money rather than by a bank or other private lender and be treated not like an expenditure at all but rather like a government investment. In theory, then, the financial sustainability of a student loan program could by assured by eliminating or at least minimizing governmental subsidization and somehow minimizing the element of risk. Tapping into the private capital market would then be easy, whether the student loans were originated by banks or were originated by a government agency or even by a university and then sold to banks or other institutions that comprise the private capital market.

In fact, however, there is always an element of risk, at least in generally-available student lending, that is beyond that which can reasonably be expected to be covered by lenders or parental co-signatories, and which then presents governments with some element of at least contingent liabilities—the present values of which are akin to ordinary governmental expenditures and which, therefore, become impediments to financial sustainability, especially in low income countries already experiencing the most steeply rising higher educational costs and the most strained public budgets. *This paper is about managing the high level of risk involved in student lending—above and beyond reducing the level of subsidization—so that the private capital market can be accessed and the necessarily high volume of student loans does not have to be treated like a simple government expenditure, with all of the attendant limitations and opportunity costs.*[2]

Criteria for Financially Sustainable and Successful Student Loan Programs

In order to serve the nearly universal policy of expanding higher educational participation as well as to shift some costs to the student, loan programs need, as nearly as possible, to be:

1. *Generally available*: Student loans should be available to all academically prepared students who need the loan in order to pursue post-secondary studies without regard to the wealth or credit-worthiness of their parents or to their

[2] It is important to note at the outset that our use of the term *student loans* is applicable to all obligations to repay in the future, whether the obligation is a fixed schedule of repayments or an obligation to repay a portion of future earnings or income (that is, whether the obligation is a *conventional mortgage-type* or an *income contingent* loan). We will also refer to the obligation as a *loan* whether it is openly acknowledged to be such or is referred to by some euphemism such as a *financing scheme*, or a *graduate tax* (possibly in order to disguise the fact that the obligation is, in truth, a loan). It is also a *loan* whether the borrowed funds ever pass through the hands of the student and are paid to the institution in the form of a tuition fee or whether they are paid directly to the institution and the repayment obligation incurred through either matriculation or graduation or both. (Thus, Australia's Higher Education Contribution Scheme, Scotland's Income Contingent Obligation to the Scottish University Endowment Fund, and Ethiopia's Graduate Tax are all, for the purpose of this analysis, *student loans*.)

individual career and earnings prospects.[3] (It is the heightened risk of lending, which is enhanced by this requirement of *general availability*, that raises the cost of lending and limits access to the larger private capital market—and creates the problems addressed in this paper.)

2. *Sufficient*: It follows from the above that at least the maximum student loan amount should be sufficient to enable the student—after reasonable allowances for parental contributions, other forms of financial assistance, and possibly some term-time and summer earnings—to participate in an appropriate form of postsecondary education without unacceptable personal deprivation, unacceptable parental sacrifice (e.g. spending pension assets on children's postsecondary education), or spending an unacceptable amount of time (e.g. more than 20 hours a week) in term-time employment. From the standpoint of a higher education system or a country, *sufficiency* also means the provision of a sufficient number of student loans to achieve the country or system goals pertaining to the extent of higher educational participation.

3. *Need-based:* Some means-testing or targeting should be employed to minimize student borrowing that is not required for the desired enrollment behavior, but that either me rely replaces an officially expected parental contributions (if called for) or is simply invested by the *non-needy* student borrower at a more favorable rate of interest than would be charged on the loan itself.

4. *Minimally subsidized*: Most, if not all, student loan programs that meet all of the above criteria will require some continuing governmental subsidization. However, subsidization that goes beyond what is necessary to maintain reasonable interest rates (e.g. at levels of governmental borrowing or credit worthy consumer debt) and to secure sufficient capitalization is revenue that, by definition and like all governmental expenditures, has an *opportunity cost* in the foregoing of other competing expenditures (such as more grants, additional capacity, or higher quality of the existing higher educational institutions).

5. *Collectable*: *i.e. able to minimize defaults and other forms of non repayment:* Generally available student loans have a high incidence of non-repayment for reasons discussed below. But much of the high rate of default in many countries is attributable to bad lender practices—mainly by government agencies as lenders—and is thus, in theory, amenable to correction through a better legal framework and better lender practices.

6. *Able to tap the* private *capital markets*: This criterion has been discussed above and is related both to the sufficiency of private savings (clearly less abundant in very poor countries) as well as to the extent of reliable financial intermediaries to channel what private savings as might exist into socially and economically worthwhile investments. Also as discussed above, an inability to tap private

[3] A qualification to this criterion is that very high levels of essentially *discretionary debt*—such as might be required for students to declare themselves financially independent of their parents or to pursue costly advanced professional programs—can properly be restricted to students with higher paying career prospects.

savings is due to the high levels of risk involved with generally-available student lending where there are neither government guarantees nor sufficient co-signatories, exacerbated in developing countries that frequently implement poorly designed student loan programs in government agencies with inadequate lender practices. Hence many low income countries need to rely on tax funds not merely for subsidies (generally excessive), but also for the loans themselves—thus having to compete with all of the other claims on the government's budget.

(This difficulty in the developing and transitional worlds in taping private capital markets does not arise in the United States, where banks have long been relied upon to supply the capital required for the very extensive—and mainly governmentally guaranteed (i.e. riskless) US student loan programs. In fact, the US student loan programs are even more reliant on the primary private capital markets—pension funds, insurance companies, corporate reserves, and even equity funds—through the secondary markets that purchase the student loan notes in large bundles from banks and other direct lenders.)

The financial sustainability and sufficiency of generally available student loans are products of all of the qualities above. In other words, student loans that are minimally subsidized, need-based, and collectible are generally able as well to tap private capital markets and thus to be provided in sufficient volume to achieve the twin goals of enhancing both participation and cost-sharing.

Among countries where such *generally available* student loans are integral to the edifice of higher educational finance—that is, to widespread participation as well as to students bearing of a share of either the underlying costs of instruction or to the expenses of student living or both—are the United States, Canada, the United Kingdom, the Netherlands, Germany, Sweden, Norway, Australia, New Zealand, South Africa, Kenya, Tanzania, Japan, China, Thailand, Korea, and the Philippines (Johnstone 2005, Usher 2005, Woodhall 2002, Ziderman 2004).

At the same time, a host of countries have tried unsuccessfully, or tried successfully for only a limited period of time, to establish generally available, sufficient, and financially sustainable student loans programs. The lender in most cases is the government or a public agency. Too often, the present discounted value of the repayment stream is totally insufficient to cover the cost of the money plus the administration and collection costs *quite aside from any level of non-repayment, or default*. Adding the losses from default and other causes of non-payment—frequently very great, especially in developing countries—leaves many governments unable to provide loans either in sufficient numbers or in sufficient amounts to meet the dual objectives of widening participation and effecting real cost-sharing.

However, even if the criteria of minimal subsidization and reasonably minimal levels of default were to be met, there could still be insufficient amounts of new loan revenue as long as these funds had to come from the public treasury just like any other governmental expenditure. In other words, regardless of the government's success in establishing a student loan agency, holding subsidization to some politically reasonable minimum, and managing to collect a significant portion of repayments due, the actual

loan capital needs to tap the country's (or better yet, the world's) capital markets rather than relying on tax revenues like an ordinary public expenditure.[4]

Accessing the Private Capital Market

The adequacy and financial sustainability of a student loan program, then, requires both that the subsidy costs, including the costs of any governmental guarantees, be minimized (or at least held to an amount that the government and its tax revenues can support) and also that the *true loan* amounts—that is, the portions of the loans that are reasonably likely to be recovered—can tap the private capital market, which is the repository of most savings and thus the appropriate ultimate source of all loans. Although the two limitations are related, the limited availability of student loans in many low or moderate income and transitional countries (whether of the available numbers of loans or the available amounts per loan) is as likely to be found in the difficulty of accessing savings (the private capital market) as in the limitations of government budgets, per se.

The inability to access private capital, in turn, is due mainly to the very high default rates (or more accurately, the high *anticipated* default rates) inherent in most generally-available student lending. Student loans in the United States that have full governmental guarantees as well as mortality and disability insurance—*and that thus have virtually no risk of non-repayment*—are obviously sound assets and have virtually unlimited access to private capital. In other words, any bank will give such a loan providing the rate of interest covers the costs of their capital (i.e. what the bank must pay to attract savings) plus the costs of administration and collection (or if a governmental subsidy makes up any interest shortfall). And even if the individual notes have a discounted present repayment stream insufficient to cover their costs, the loan notes as assets still have considerable value and can be sold in bundles by the original lender (which may be the government, the higher educational institution, or an originating bank) to any source of primary capital such as a pension fund or insurance company at an appropriate discount.

Financial sustainability for a generally available student loan program does not call for repayments necessarily to cover *all* of the costs of lending, including the costs of defaults. Generally-available student loans are usually too small and require too much servicing and collection expenses—quite aside from any risk of default and loss altogether—to require all of these costs to be covered only from the student borrowers. Government (taxpayer) subsidies are not-inappropriate ways of supplementing borrower repayments in order to lessen some such costs in addition to governments and parents shouldering some or all of the costs of default.[5] At the same time, large or unnecessary

[4] In theory, a student loan (or any other credit-worthy loan) could be given by the government and be booked as an asset rather than as an expenditure. However, because of the default risk of student loans, governmental accounting rules such as those imposed by the World Bank, the IMF, and even the Euro Zone require that the full amount of the loan be entered as an expenditure (essentially failing to recognize any significant asset value to the obligation).

[5] Ryan Hahn of the Institute for Higher Eduction Policy points out the irony in that some governmental interest rate subsidization—particularly in the absence of governmental guarantees—may keep interest rates sufficiently reasonable to assure a broad mix of borrower participation, in the absence of which *high risk takers*, who would be most likely to default, might participate disproportionately and actually increase losses and governmental costs.

government subsidies as well as *avoidable* costs of defaults call into question the need for the cost-sharing in the first place—which was to require students to bear a portion of the underlying costs as an alternative to government (taxpayers) or parents. And parental contributions in the form of serving as co-signatories (that is, bearing all or a major part of the risk of non-repayment) is something that many parents cannot do and that other parents may chose not to do. Thus, as long as generally available student lending is to serve the dual and somewhat contradictory aims of (1) expanding participation as well as (2) shifting a portion of higher educational costs to the student, there needs to be a careful assignment of these costs—and especially the high but uncertain costs of default, or non-repayment, among government and other parties).

The Costs of Student Lending

The costs of student lending, then, include four quite separable components: (1) the cost of capital itself; (2) the costs of administration and collection; (3) any subsidy that the government or other third party wants to contribute to reduce the repayment burden of the borrower or otherwise affect the borrower's behavior; and (4) the costs of defaults and all other forms of non-repayment (e.g. death, disability, incarceration, or outright disappearance). Let us look at each, keeping in mind the theme of this paper, which is the management of risk in order to better access private capital and lower the need for government to be the lender and therefore to hold the loans on the government's books.

1. ***The cost of capital:*** The cost of obtaining savings, or *purchasing power for hire*, is a function of the productivity of these savings invested by the borrower (that is, the rate of return) relative to what the savers can make with their money invested in other ways, as well as of the supply of such savings and of the projected erosion of the purchasing power of these savings when returned by the borrower (that is, the best estimate of future inflation).

2. ***The cost of administration:*** The costs of administration include the costs of holding the purchasing power, negotiating with potential savers and borrowers, estimating the likely inflation, calculating the likely incidence of non-repayment, and servicing or collecting the repayments and performing other functions of private banking. In governmentally-sponsored student loan programs, much of this can be shifted to the institutions of higher education, or to employers (which may be required by law to collect at the point of wage and salary payment), or to other government agencies, such as those charged with the responsibility to tax and to monitor income and earnings. Nevertheless whoever is paying, the administrative costs associated with student lending will always be high due to: (a) the small size of the individual loans; (b) the costs associated with keeping track of highly mobile students through the in-school, grace, and early repayment years (especially as graduates are searching for employment); (c) the long repayment periods; and (d) the costs associated with collecting loans that are frequently in arrears but short of default. And these costs will be especially high in very low income countries with insufficient (much less digitized) employment, tax, and credit records (Johnstone 2005, Ziderman and Albrecht).

3. ***The cost of governmental or other third party subsidies*:** Subsidy costs may include the rather small subsidies needed to compensate for the inherently higher administration and collection costs of student lending in order to bring the required interest rates on student borrowing (excluding any premium for non-repayment) within range of credit-worthy consumer debt or even of governmental borrowing generally. However, subsidies in the form of repayment forgiveness may be considerably higher and more expensive in pursuit of goals that are quite unrelated to student lending *per se*. These goals may include the encouragement of certain kinds of postgraduate professional practice or postgraduate practice in certain socially valuable venues, as in the US and other countries, or simply to encourage retention and program completion, as in South Africa.[6] Or, the seemingly excessive subsidies and their attendant taxpayer costs may be more akin to grants given to mollify students or politicians who dislike cost-sharing to begin with. Such costs—that is, those costs that are essentially unrelated to the costs of providing a true student loan program—may or may not be cost-effective expenditures in support of these other public goals; but they should not be included in estimations of the costs of student loans themselves.

4. ***The costs associated with the risk of non-repayment***: Non-repayment may be a function of lender error or ineptitude, willful default, uninsured death or disability, or through the inability to repay due to unemployment or other reasons. This is the cost of *generally-available* student lending that is potentially the highest and most troublesome, particularly in effectively closing off access to the private capital market and limiting the annual volume of student lending to whatever amount the government can provide in a given year from the combination of taxes, current loan repayments, and general governmental borrowing. Although the incidence of default and other forms of non-repayment on generally available student loans varies enormously by country, program, and borrower characteristics, non-repayment as a percentage of amounts originally borrowed—and before turning to co-signatories and other guarantors—might range from a low that would be near the prevailing rate of default on auto loans or consumer debt generally (say, 5 to 10 percent), to a rate of 30 to 40 percent on loans to the least credit worthy borrowers in otherwise well-administered loan programs, to rates that may be as high as 50 to 70 percent or even more on student loans in the most adverse circumstances such as those that have plagued the many failed student loan programs in Sub-Saharan Africa.

With the increasing globalization of capital flows, savings can and do (absent capital controls in such countries as e.g. China and Malaysia) flow to places where returns (adjusted for risk) are the highest. Thus, the cost of capital alone—that is, absent country-specific adjustments for especially high risks of default or especially high costs of administration—is essentially a global cost. This global cost of capital will be at its lowest where there are economies of scale and technology along with little or no risk—such as in the sale of United States Treasury notes. The cost of administration for student

[6] A typical provision would be to forgive some percentage (e.g. 20%) of the principal amount owed for each year that the student borrower, say, teaches or teaches in a remote village such that the entire loan is converted to a grant after five years of the targeted practice and/or targeted venue.

lending will also be high for reasons given in #2, above. But the most significant and volatile costs are the risks associated with non-repayment. This risk, in turn, is due to a combination of factors, some of which are inherent to student lending, some to prevailing lender practices that might be substantially improved, and some a function of country- and culture-specific factors such as familiarity with credit, job and earnings prospects, and attitudes toward cost-sharing and student indebtedness in general.

Risk and Student Loans

The major factors associated with the risk of student lending include:

- ***The absence of collateral:*** The fundamental *riskiness* of student loans is due to the fact that unlike home mortgages, auto loans, and some other forms of commercial debt, a student loan provides nothing for the lender to repossess in the event of non-repayment. This is referred to in the human capital literature as the *capital market imperfection* of most forms of student lending.[7]

- ***The absence of a general credit culture***. In the highly industrialized countries, credit has become a normal means of making major purchases such as homes or automobiles, as well running businesses, farms, and other small enterprises. In such cultures, *credit histories*, maintained by *credit agencies*, play a vital role in making cost-effective credit available to good risks—and conversely, in keeping bad credit risks from borrowing and raising interest rates to everyone. Students typically have no credit histories, but when they enter repayment as young adults, they quickly learn the importance of maintaining a good credit history, without which automobile and home purchases and even credit cards may be out of reach. Student borrowers in countries lacking such a credit culture may be more prone to default as they may perceive less of a need for a good credit history.

- ***Students misunderstanding the nature of the repayment obligation:*** This may be due in part to the immaturity of the student at the time of borrowing and/or to the considerable length of *in-school* time between the original borrowing and the supposed beginning of the repayment obligation. Misunderstanding is also more likely when the original loan never passes through the student's hands, as it does in the case of an automobile loan or in most commercial credit, but rather is simply recorded as a future obligation upon a student's matriculation, as in Australia, New Zealand, and the UK. Finally, the students' misunderstanding and consequent proclivity towards default is almost certainly more likely when the lender (in most cases the government) purposefully obfuscates the fact of the repayment obligation in order to portray the student financing scheme as something *other than a tuition fee and a loan* due to a fear of student and other political opposition to any overt form of cost-sharing.

[7] The pure *equity* form of income contingent student loans, in which a lender stands to make a great deal of money from students who become very wealthy and who pledged a percentage of their future earnings in order to receive the loan that enabled the higher education which in turn contributed to these earnings, is an exception because the lender actually *owns* a share of the borrower's future earnings. To date (2007) this form of lending continues to fascinate economists and theoreticians, but has never been successfully implemented in a widespread, generally-available, program of student loans.

- ***The extreme mobility of students for a period of time after leaving the university:*** Students typically move around in search of first employment, or simply the lure of young wanderlust. For several years, they may not have what they consider regular employment and typically do not own a home or real property. They may be traveling abroad, leaving no forwarding addresses. In the case of low-income countries, there may be few jobs, and many students may seek to emigrate, legally or illegally. (*Grace periods*, during which time repayments continue to be either subsidized or deferred are common in student loans programs and almost certainly contribute to the problem of tracking.)

- ***The absence of regular employment sufficient to handle the initial repayment obligations:*** This may be a factor in emerging or transitional economies where the university graduate labor market is very weak. In such cases, the student borrower might well repay if he or she could, but in many instances cannot because of the absence of regular employment. This problem is in large part a function of the health of the economy, the nature of the university degrees, and the supply (frequently the oversupply) of university graduates. (This cause of default is especially serious in certain developing countries that feature very high youth unemployment together with—and partly a consequence of—university degrees having little connection to the needs of employers.)

- ***Other country-specific factors:*** Other factors could include such factors as extreme political instability or unusually high mortality such as can be anticipated in countries with a high incidence of HIV-AIDS.

Bearing the Risk of Student Lending

The key to securing private capital—which is also the key to tapping other-than-tax-revenue for student lending—is to cover the abnormally high risk of generally-available student lending in ways other than through an extremely high rate of interest charged to all student borrowers. The minimal risk involved in student lending that is *not generally available*—that is, limited to students of known high ability, or to students with credit-worthy parents who are willing to co-sign the note, or only to students in elite advanced professional programs such as medicine or advanced management —can be handled by the lender alone through a small *interest premium*, like that which is charged to other kinds of lending, whether for autos, homes, or consumer credit generally.

However, the risk of non-repayment for student loans that are made available to the general student without these tests of creditworthiness is too great to be handled simply through an interest premium paid by all borrowers. Thus, *generally available* student loan programs need alternative ways of handling risk. These then become the keys to tapping the primary capital market for the loans, which in turn is an important factor in the long-term viability of any cost-sharing scheme dependent on the students bearing a portion of the costs of their higher education.

Some alternative sources for handling the risk of generally available student lending (that is, other than by interest premiums charged by the originating lender) include:

1. ***The government as direct lender:*** If the lender is the government itself or is a public agency—as in many countries, or as in the US Direct Student Loan Program—then the government's (or the public agency's) loan recovery will be absent those notes defaulted, and the government implicitly will bear all the risk and will need a continual infusion of new capital to replenish the losses from the defaulted loans (in addition to whatever else the government-as-lender might lose by any insufficient spread between the interest on its student loan notes and the interest rate on its own government bonds)
2. ***The government as implicit lender***: In the student loan schemes of Australia, Scotland, England, and Wales, the government funds the universities from direct tax appropriations, a portion of which it notes for each student as a *deferred fee* and which the government then attempts to collect (with payment of interest) from students after they have graduated or otherwise left their universities. That most of these *deferred tuition fee loan schemes* take the form of an obligation to repay a portion of the borrower's earnings or income rather than an obligation to repay a fixed amount per month may have important consequences with regard to the manageability of the repayments and the political acceptability of the obligation. However, with regard to the ability to sell the obligations to the private capital market, potential purchasers may be reluctant to purchase bundles of the relatively unfamiliar income contingent repayment obligations except at a very high discount, thus requiring either the even higher effective subsidy of the discount or requiring the government to hold the notes and thus to continue to be the major or even exclusive provider of capital from available tax resources.[8]
3. ***The government as guarantor of private lending:*** Alternatively, the government can rely on banks or other private lenders to provided the needed capital and agree to buy those notes that the private lenders claim to be uncollectible (with contractual provisions requiring the private lender first to exercise some level of diligence in its attempts to collect). This, of course, is the dominant method in the United States for the Stafford Federally Insured Student Loan program, under which most student loan origination is done through private banks. (The governmental guarantee also makes it possible for the private banks to sell the high-value guaranteed notes to secondary lenders in the larger private capital market, thus replenishing their capital.)
4. ***The government as guarantor of last resort:*** The government, or a funded public guarantor, could serve as a guarantor of last resort, becoming obligated to repay or write off the loan as uncollectible only after the primary guarantors (such as parents as co-signatories) had been exhausted or had paid up to some contracted limit, or been relieved of the obligation by some kind of means test. In theory, this could overcome one of the objections to the requirement of parental co-signatories in that low income parents could immediately call upon the government as the guarantor in the event of their child's default.

[8] This will change at least in the more developed countries with greater experience with student loans (or *deferred obligations*) of the income contingent variety and the ability to predict with greater precision an appropriate discounted present value of the lifetime repayments from a bundle of such obligations. In fact, the United Kingdom announced in March 2007that it will sell £6 billion of student loans to the private sector.

5. ***A secondary lender:*** A secondary lender can purchase student loan notes (assets) in large enough bundles, with some knowledge of the nature of the borrowers and therefore of the nature of the collective credits risks, at a sufficient discount—that is, a risk premium paid mainly by the primary governmental lender rather than the student borrowers—to cover the inevitable losses. The initial lender (in most cases a public lender) therefore becomes a major subsidizer of the student loans, with the subsidy going not to a simple interest rate subsidy or even to a simple guarantee, but rather to an up-front payment to pass the risk off to the new private holders of the notes. This is the model where the government or some public entity is the lender but which sells the notes *(without a guarantee)* to a bank or other private lender/collector at a substantial discount (i.e. a "risk premium") and thus needs a constant infusion of new public money.

6. ***Securitization:*** This form of tapping the primary capital market for student lending is similar to the aforementioned sale of the actual student loan notes at a discount sufficient to cover the anticipated losses from default. In *securitization*, however, the originator of the loans (either a public agency or a bank) sells the student loans to an intermediary purchaser (frequently a special form of trust, or *Special Purpose Vehicle*) that then issues its own asset-based securities for sale in the private capital market, collateralized by the student loan notes it now holds. The value of the equity—from which new loans can be made—depends on the value of the notes as assets, which in turn continues to depends on the repayment flows (a function of the interest rates on the notes in repayment) and on the aggregate likelihood of defaults (a function of collection capabilities and the presence or absence of guarantors or co-signatories). The private capital market, then, makes an estimate of the likely losses on the student loan notes in order to calculate the value of the equity of the of the public lender—which estimation, of course, is very similar to that used to calculate the appropriate discount for a direct purchase of the notes themselves. The advantage of such securitization is that the risk is essentially managed by the large numbers of revenue producing notes and by the ability of the market to impose discipline of whichever entity is charged with collection and servicing (Kendell and Fishman 1996).

7. ***A co-signatory or co-signatories***: The most direct and prevalent guarantor of student loans in much of the world is the requirement of having a co-signatory: usually a parent or an extended family that has sufficient assets to be cost-effectively seized in the event the student borrower defaults. The limitation, of course, is that the requirement of co-signatories with no backup or alternative guarantor does not meet a strict test of *general availability* as many students simply do not have parents or relatives with sufficient assets to serve as an effective guarantor (or there would be such a political firestorm in the event of widespread seizure of family assets to collect student loans that it would be politically infeasible). Therefore, we can look to several variants on the theme of a co-signatory as guarantor. For example:

    7.1. ***A "soft" co-signatory:*** In theory, a "soft" co-signatory contract could be drawn that would obligate the parents not to a full repayment of the defaulted loan, (with the threat of losing their assets) but rather to steering the lender or collection authorities to the borrower who is in arrears. In addition to the addition

of some potentially useful *parental moral suasion*, such a provision might at least recover some payments that would not otherwise be recovered due to the loss of the borrower's current whereabouts.

7.2. ***A means-tested co-signatory requirement:*** Similar to, but going a step beyond the *soft* co-signatory requirement described above, a means-tested so-signatory requirement would require a "hard" co- signatory obligation only from more affluent parents and allow less affluent parents, who could prove financial hardship, either free altogether from the co-signatory obligation or simply move to the government as the guarantor.

7.3. ***Employer as cosignatory:*** An employer could also serve as a cosignatory, which would obligate the borrowing student to a period of employment after graduation in return for a prospective employer guaranteeing the loan. Again, such an arrangement would likely help mainly the more creditworthy students who could find a potential employer willing to assume this obligation in return for an agreement to join the particular firm or business—and would thus fall short of student loans that were genuinely *generally available (*Kirshstein et. Al. 2004).

7.4. ***Fellow borrower[s] as cosignatories on conventional student loans:*** Student borrowers might, at least in theory, have *fellow borrower[s]* as co-signatories. In this untested model (similar to the soft parental co-signatory model described above), the fellow borrower or borrowers would be co-signatories not because they will necessarily be in a position to assume the defaulted obligation or have property that can be confiscated or wages that can be attached in event of a the default, but because they are likely to know where the defaulting borrower may be. These special cosignatories would be liable, in so far as they could, to assist in the tracking of the defaulting fellow borrower. Although there will be little or no direct recovery from the cosignatories themselves, such a provision (as yet untested) might at least help to surmount one source of student default risk, which is the extreme mobility of student borrowers in the immediate post-graduation years (as well as possibly providing some personal pressure on their fellow students to repay).

7.5. ***Fellow borrowers as cosignatories in mutualized income contingent student loans:*** In a so-called *mutualized* income contingent student loan scheme, each borrower joins a cohort of borrowers (e.g. all of the borrowers who finish their schooling and enter into repayment status the same year), all of whom are obligated to repay some percentage of their income or earnings until the collective debt of the entire cohort is repaid. High earners contribute more to the amortization of the collective indebtedness, and low earners contribute much less; and the debt is repaid as a collective, or mutualized, obligation. Although there would be a legally enforceable obligation to repay the amount due even if this amount were very low, such a provision is inevitably ambiguous about whether the low payments—which prolong the discharge of the cohort obligation and add considerably to the repayment burdens of the high earners—are the consequences of low paying jobs, failure to report earnings, unemployment, voluntary withdrawal from the workforce, or behavior that would more nearly coincide with *default* on a conventional fixed schedule repayment obligation. At

the same time, the prospect of *adverse selection* (that is, the likelihood that potential higher earners would void participation, while potential low earners would overparticipate) and the general uncertainty of the scheme make capital market participation unlikely.[9]

8. ***The Higher Educational Institution:*** Another potential guarantor is the higher institution itself. The problem, however, is that public institutions simply retain the risk on the taxpayer, and few if any private institutions have the resources to responsibly even consider the massive contingent liability that large scale student loan guarantees would entail. This was tried in China, but the institutions simply refused to lend unless there were sufficient parental guarantors to reduce the institution's risk to nothing (in which case the purpose of the lending—to those who really needed the money—was essentially lost).

   However, several Latin American loan programs (public and private) are experimenting with involving the higher education institution in a guarantee role. In Chile, under the newest government student loan program (*the Crédito de la Ley 20.027 para Financiamento de Estudios de Educatión Superior)*, the higher education institution (whether public or private) must guarantee the student loan during the in-school and grace periods, while in Mexico, under the *Sociedad de Formento a la Educación Superior* (SOFES) program, private universities must take over the loan after nine months of default.

9. ***International Finance Corporation (IFC) as partner in student loan risk assumption:*** A number of new innovative risk sharing initiatives are underway that would allow the private sector to provide student loan capital without a full governmental guarantee (and generally without government subsidization), many of them involving the International Finance Corporation (IFC), the private sector arm of the World Bank (Perkinson 2006). Several examples are given below. All of them involve selective institutions (some of them private) and hence do not meet strictly the criterion of *general availability*. Furthermore, these loan programs rely on a development agency (The IFC) whose support cannot be relied upon indefinitely. Nevertheless, these loan plans are available on a need basis to all students within these select institutions, and the plans thus provide examples of programs that seem to successfully tap the private capital market by absorbing risk, via partnerships, for a potentially significant number of students.

   9.1. ***The Samponara Foundation in Indonesia:*** One of the most innovative is the risk sharing facility that was set up in Indonesia involving the Sampoerna Foundation, Bank Internasional Indonesia (BII) and the IFC that extends loans to needy students in selected state and private universities. The Sampoerna Foundation provided funds to cover the set up costs and the first losses on the portfolio of loans, while the BII and the IFC agreed to jointly guarantee the

[9] This was the method of the first strictly private operational income contingent loan plan in the early 70s, the *Yale [University] Plan for Tuition Postponement*, which was abandoned by the university due to a combination of factors including adverse selection, the difficulty of competing with the governmentally guaranteed and subsidized student loan programs, and the inability to access private capital. For a full description of the Yale Plan and other early income contingent loan experiments see Johnstone (1972).

losses that are in excess of the specified first loss threshold. In this way, Sampoerna's contribution of US$2.75 million is being leveraged by 7 times to permit the loan portfolio to reach $20 million over the next four years and to extend loans to 20,000 students. Loans range between 10 million (US$1,083) and 100 million Rupiah ($10,830) for 6 to 36 months with an interest rate of 12.9 percent, which is significantly lower than the prevailing consumer loan rate. The first loans were made available in January 2007.

9.2. ***Finem in Mexico:*** The IFC is also working with Finem, a specialized non-bank private financial institution in Mexico, that it owns (18 percent) with a private Mexican company (82 percent). The IFC has invested a 10-year senior loan facility of up to $15 million to be used in granting student loans originating at the university level to lower and middle-income students. The project aims to show investors and financial institutions that education financing can be a good business. Under this program, Finem has a reserve fund that covers the risks up to 5 percent of the loans and the universities agree to buy back loans that are more than 90 days overdue.

9.3. ***Sociedad de Formento a la Education Superior (SOFES):*** The Finem initiative was modeled in part on the experience of the Sociedad de Formento a la Education Superior (SOFES), a government-sponsored student loan program that was founded by a group of 40 private selective universities supported by a loan from the World Bank. Risk is shared among co-signatories (when available)[10], and universities (that have to take over the loan from SOFES after 9 months of default). The loans carry a 2 percent real interest rate and monthly interest payments must be made during the in-school years. Repayment of the capital begins six months after graduation and must be made on a monthly basis for a time period not exceeding two times the period during which the student received the loans (Canton and Blom 2004).

Bearing the Risk: Layering the Guarantors

The examples above illustrate the need in many cases to *layer* the bearers of risk and to involve multiple actors (students, parents, government, the private sector, and higher education institutions). The most obvious *first guarantors*—provided there are secondary guarantors and an effective means test—are parents, with the government and/or some kind of foundation assuming the risk for students whose parents are unable to reasonably perform this function. In so far as the extreme riskiness of student loans is due to uncertainty (as in uncertainty over the ability of the lender, especially a new government lender, to perform responsibly, as well as uncertainty stemming from the absence of experience about borrower behavior in a country attempting to inaugurate cost-sharing and student loans for the first time), a development agency such as the World Bank might appropriately join as a subordinated, or back up, guarantor for a limited number of years, or limited number of borrower cohorts, in order to get beyond the uncertainty and allow the government or a local private foundation, or a group of institutions to assume the role of guarantor, in most instances with parents, extended

[10] Students with co-signatories are eligible for a larger loan than students without a guarantee in order to balance SOFES' equity and efficiency (i.e. operating a viable business) goals.

families, or employers as the first guarantors. Clearly the World Bank's International Finance Corporation has begun, on a limited scale, to play this role, and it would be well for additional development agencies to look to other examples, especially for the purpose of lessening the extreme risk that is so inevitable in developing countries beginning (or *re-beginning*) a student loan program.

This paper began with a reminder of the imperative of cost-sharing, especially in developing countries experiencing the threefold pressures of: (1) the already high and very rapidly increasing costs of higher education; (2) the limitations on government's ability to tax; and (3) the long queue of socially and politically compelling competing needs for government funding. Particularly in the low-income and most of the so-called transitional countries, measures that can allow the student to bear a portion of the costs of their higher education—that is, student loans (by whatever name or euphemism they are called)—are almost essential.

For student loans to be financially sustainable there must not only be a high rate of loan recovery, but the ability to tap the private capital market. Both of these requirements rest on two requirements: first, lessening the risk of default, and second, having some guarantor or set of guarantors to bear remaining risk of default in order to access private capital sources and relieve the government's operating budgets from the necessity of providing the capital as well as whatever subsidies are deemed to be necessary. We have outlined here a number of sources that can participate in this risk bearing in order to expand private capital participation and to therefore expand the volume of student lending. As with the design and administration of student loan programs themselves, the process of expanding the capital sources is a program in process. It is our hope that this paper can be helpful as nations, universities, foundations, and international development agencies continuing working to expand higher educational participation.

References

Canton, Erik and Andreas Blom. (2004). *Can Student Loans Improve Accessibility to Higher Education and Student Performance? An Impact Study of the Case of SOFES, Mexico*. World Bank Policy Research Working Paper. Washington, DC: World Bank.

Kendall, Leon T. and Michael J. Fishman, Eds. (1996). *A Primer on Securitization*. Cambridge, MA and London, UK: The MIT Press.

Johnstone, D. Bruce. (2006a). *Financing Higher Education: Cost-sharing in International Perspective*. Boston: Boston College Center for International Higher Education; and Rotterdam: Sense Publishers, 2006.

_____ (2006b). Cost-*Sharing* and the Cost-Effectiveness of Grants and Loan Subsidies to Higher Education. In Teixeira, Pedro, Bruce Johnstone, Maria Joao Rosa and Hans Vossensteyn, Eds., *Cost-Sharing and Accessibility in Western Higher Education: A Fairer Deal?* (pp. 51-78). Dordrecht The Netherlands: Springer.

_____ (2005). Higher Education Accessibility and Financial Viability: the Role of Student Loans. In Tres, Jaoquim and Francisco Lopez Segrera, Eds., *Higher Education in the World 2006: The Financing of Universitie*s (pp. 84-101). Barcelona: Global University Network for Innovation (GUNI) published by Palgrave Macmillan.

_____ (2004). The Economics and Politics of Cost Sharing in Higher Education: Comparative Perspectives. *Economics of Education Review*. 20:4, pp. 403-410.

_____ (1986), *Sharing the Costs of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden, and the United States*. New York: College Entrance Examination Board, 1986.

_____ (1972). *New Patterns for College Lending: Income Contingent Loans*. New York and London: Columbia University Press.

Kirshstein, Rita J., Andrea R. Berger, Elana Benatar, and David Rhodes. (2004). *Workforce Contingent Financial Aid: How States Link Financial Aid to Employment*. American Institutes for Research. Indianapolis: Lumina Foundation for Education.

Perkinson, Ron. (2006). *International Higher Education. Seizing the Opportunity for Innovation and International Responsibility*. Plenary Speech to the Global 2 Education Conference, Edinburgh, Scotland, December 2 and 8, 2006.

Usher, Alex. (2005). *Understanding International Debt Management/Repayment Programs and their Effect on the Repayment of Student Financial Assistance*. Toronto: Educational Policy Institute.

Woodhall, Maureen, ed. (2002). *Paying for Learning: The Debate on Student Fees, Grants and Loans in International Perspective.* Special International Issue of *The Welsh Journal of Education*, Vol.11, No. 1, pp. 1-9.

Ziderman, Adrian and Douglas Albrecht (1995) *Financing Universities in Developing Countries*. Washington, DC: The Falmer Press.

Ziderman, Adrian. (2004). *Policy Options in Student Loan Schemes: Lessons from Five Asian Case Studies*. Bangkok: UNESCO Bangkok; and Paris: International Institute for Educational Planning.

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