Higher Educational Accessibility and Financial Viability: The Role of Student Loans

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Higher education at the start of the 21ST century has become increasingly important. From the highly industrialized countries of the OECD, to the so-called transitional countries that are moving from centralized to market economies, to the middle and low income countries, higher education (or the more inclusive term, *tertiary* education) is seen nearly everywhere as an underpinning to democratic civil societies, an engine of economic growth, and a policy instrument for the advancement of individual economic mobility and social justice.

However, in spite of this universally recognized importance, higher education at the start of the 21st century seems everywhere beset with some variation or variations on the theme of *financial austerity*. This austerity is caused principally by flat or declining governmental budgets in support of higher education and is manifested by overcrowded institutions, deteriorating physical plants, declining faculty-student ratios, increasingly demoralized and distracted faculty, and in many countries higher fees, greater student debt loads, and a restive student body.

A common (albeit contested) prescription to this worldwide austerity is some form or forms of *cost sharing*. The *perspective* of cost-sharing, as developed and elaborated by Johnstone (1986, 2000, 2002, 2003, 2004a) posits that the costs of higher education are borne by four parties: governments (or taxpayers), parents, students, and philanthropists.[1] The *policy* of cost-sharing—particularly in response to the austerity posited above—is a deliberate, or policy-driven, shift in the bearing of these costs from a substantial reliance on government, or the general taxpayer (especially in continental Europe and in many of the current or former socialist/communist countries), to being shared as well by parents and students.

Rationales for, and descriptions of, this shift have been set forth by Johnstone (as cited above), Woodhall (2002), Vossenstyne (2002, 2005), Ziderman and Albrecht (1994), and Ziderman (2002), as well as by many others. These rationales generally begin with the claim of greater equity to a financing scheme with some cost sharing. This claim, in turn, is based on the observation that in virtually all countries higher education is partaken of disproportionately by the sons and daughters of the more privileged, while the governmental revenue base supporting this expensive governmental benefit depends heavily on taxes that are born substantially (if not regressively) by the general taxpaying citizen. This general citizen/taxpayer may benefit from the considerable *social* returns to higher education but will not (by definition) benefit from the also considerable *private*

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returns, which will come in the forms of higher earnings, greater status, increased life options, and the pleasure that comes of higher education and the university experience. Beyond the conventional claims of greater equity and efficiency, and probably less ideologically contestable, is the observation that the greatly increasing revenue needs of higher education—especially in countries where governmental revenue is so limited, enrollment pressures so intense, and the competing public demands so great—make it a virtual imperative to supplement scarce governmental tax revenue with non-governmental revenue.

The increasingly accepted policy stance that a portion of this non-governmental revenue is appropriately borne by the student 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 general capital market. Thus, more and more countries are turning to student loan programs as a way to allow (or require) students to bear a portion of the costs of their higher education. 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 are also being designed to be, as nearly as possible, both *need-based* and *generally available*—that is, available to academically prepared students without regard to the wealth or credit-worthiness of their parents or to their individual career and earnings prospects.

At the same time, student loans are exceedingly complex and difficult to operationalize. In fact, the world of higher educational finance—especially in the so-called *developing* and *transitional* countries—are littered with the bones of seemingly failed student loan programs. But as student loan programs have a variety of objectives, some of them at least superficially contradictory—such as the goal of enhancing accessibility (which implies to some a need for high degree of subsidization) and the goal of supplementing inadequate governmental revenues (which implies minimal subsidization and maximum collection)—even *success* and *failure* become complicated. This paper is an attempt to describe the reasons behind the widespread policy interest in student loans, some of the variation in student loan programs, and some of the criteria for success (or failure). We will describe some of the student loan programs to be found in the first decade of the 21st century, and we will conclude with some cautions and some suggestions for countries contemplating starting, expanding, or reforming a student loan program. But first, we will return to the underlying problem that these programs are designed to solve: the pervasive and worsening austerity in higher education worldwide.

Higher Education Austerity and Cost Sharing

Underlying much of the worldwide austerity in higher education—and the consequent turning to parents and students for supplementary revenue—is the surging demand of the past four decades. Most of the universities and nearly all of the national higher education systems of the world have grown dramatically since the mid and late 60's. They have grown in sheer numbers, but more importantly in rates of cohort participation. Some of this growth—especially in Latin America and much of South and East Asia—has been absorbed by emerging private sectors. These are frequently undercapitalized, expensive (to parents and students, albeit quite inexpensive to the

taxpayer), and of uneven quality, but may be highly responsive to student and employer demand, and are quite often the only option available to students unable to get into the subsidized and therefore inexpensive, but increasingly overcrowded, public institutions. Some of the growth, particularly in cohort participation, has been absorbed by the creation and expansion of institutions that are avowedly alternative to the classical university: the German Fachhochschulen, the Dutch HBOs (higher vocational schools), the French Institutes Universitaires Technologies, the American comprehensive colleges and universities and community colleges, and other "non-universities." Some of the university overcrowding in some European countries (as well as in Japan and Russia) may at least partially solve itself through a combination of demographic decline and cohort saturation, leading even to declining enrollments, at least for some institutions. But in most countries—and particularly in most middle and low income countries—the combination of high birth rates plus increasing percentages of these increasing numbers completing secondary school and aspiring to some form of higher educational experience are creating massive demand pressures on tertiary education systems. And the trajectory of these increasing numbers and their increasing costs is, in almost all countries far exceeding the likely trajectory of increasing tax-generated revenues—and even farther exceeding the likely trajectory of those public revenues that governments can and/or will devote to higher education.

Such a squeeze has to be solved either on the *cost side*—that is, through cutting waste and enhancing productivity, or on the *revenue side*—that is, through supplements to governmental, or tax-generated, revenue. Cost-side solutions that absorb more students with the same or even declining resources can look deceptively like advances in productivity or efficiency, which we must assume to be desirable. However, while most universities in the world are probably getting by with fewer real (that is, inflation-adjusted) dollars per student than they were at some base period in the past, most of what may once have been the low hanging fruit of waste has probably been cut, and most of the easy efficiencies long since adopted.[2] At this point in time, *cheaper* is no longer necessarily *more productive* or *more efficient*. It may just mean spending less per student—and getting less. Outputs may be declining along with inputs—a decline measured in less quality of learning and/or scholarship or in less service to the community. Or, the decline in real operating dollars per student may be masked by a hidden borrowing in the form of depleting the physical assets by forgoing upkeep and maintenance of the physical plant and the replacement of obsolete equipment. The real decline in output may also be masked, at least temporarily, by requiring greater and greater effort and sacrifice from the faculty and staff—a long run wasting of the academic profession. And finally, the decline in output may occur not in anything having to do directly with the performance of the universities or in their teaching and research, but rather in the social cost of diminished accessibility—and thus diminished social justice—occasioned by the constriction of capacity and the increasing financial barriers to widening participation.

It is important that the cost-side solutions not fall from the policy table altogether, as universities are notoriously reluctant to make hard decisions like cutting programs and especially cutting faculty or staff whose marginal contributions to the university's net production of learning and scholarship product may have fallen to little or nothing. At the same time, the very nature of the higher educational production function is labor

intensive and resistant to the substitution of capital for labor. (In fact, most technology introduced in higher education—assuming the system has enough resources to introduce new technology for more than the office of the rector / president / vice chancellor—tends to expand learning, scholarly output, faculty or student comfort, or governmental demands for accountability rather than reduce per-student costs.) As noted above, the losses arising from austerity are frequently both hidden and hard to measure—like the diminution of scholarly quality that might not be noticed until the university is called upon to address a question that it can no longer handle, or take a principled stand for which its demoralized faculty no longer has the heart. Indeed, part of the problem of universities everywhere is that it always *seems* as though one more student can be added with no overall loss of teaching or learning quality—or one more journal can be cancelled, or more piece of scientific equipment deferred.

Furthermore, the nature of higher educational austerity is that that it generally cannot be *solved* at a point in time for all time. Most operating expenditure cuts, however deep, solve a financial problem only in a given fiscal year; and even this assumes that the cuts are real—that is, not simply deferred. The true underlying cause of higher education's austerity is the result of the naturally diverging trajectories of expenditures and revenues: underlying costs that tend to increase naturally at a rate almost certainly greater, year in and year out, than the natural trajectory of available tax revenues.[3] Such diverging trajectories apply as well to universities that are very wealthy—Oxford, Harvard, Berkeley—which can also experience the pain of difficult budget cuts when their very considerable flows of revenues nevertheless fail to increase as fast as their very considerable expenditures. And this is especially true of public universities for which flat or declining tax-generated revenues make up a large proportion of their revenue base.

These diverging trajectories of underlying costs and available governmental revenues are likely to be greatest in the developing and middle-income countries. On the side of cost pressures, such countries are the most likely to combine high birth rates with rising participation rates for potentially explosive enrollment pressures. And on the revenue side, these same countries are likely to be the ones that also combine the greatest difficulty in raising taxes with the most voracious and compelling competitors (e.g. public health, sanitation, elementary and secondary education, and public infrastructure needs) for the limited public dollars available.

It is not enough to blame governments for their unwillingness or inability to tax. For most countries (and again, more so for middle- and low-income countries), taxation is nearly as difficult technically as it is unpopular politically. In very many countries, individual incomes, business profits, and sales—on which so much taxation depends—are too easy to hide (or similarly, too difficult to verify). Globalization and the nearly unlimited mobility of capital, technology, and production facilities leads multinational goods producers to seek a combination of political stability, low wages, and *low taxes*, constraining the ability of countries to maintain high taxes and limiting the revenues able to be devoted to their public sectors—including their publicly financed universities. The transitional, or post-communist, countries of Russia and the rest of the newly independent nations of the former Soviet Union as well as the countries of Central and Eastern Europe, all of which were dependent on easy-to-collect *value added* taxes on state-owned

producers, have had to devise new means of taxation, none of which have been particularly successful.

As an alternative to taxation, the large scale printing of money, or deficit financing, which was once at least a "fall back" method of raising public revenue, is highly constrained by the increasing dependence of nearly all countries on the international capital market that is highly averse to deficit financing and inflation. (This is especially true with the developing countries and their dependence on the World Bank and the other regional development banks as well as the European countries and their fiscal subjugation to the conservative public finance rules of the Euro block.) Anyway, the impact, or *incidence,* of deficit financing is much the same as a consumption tax, with citizens' purchasing power being essentially confiscated via inflation rather than via direct taxation.

Finally, to the extent that any of these countries are able to generate new taxes, there remain the other compelling public needs—e.g. elementary and secondary education, energy, ageing populations, unemployment, public health, public infrastructure, and the protection of the environment—that compete with higher education for these limited additional revenues. In short, the likelihood of higher education's rapidly increasing cost trajectory being able to be sufficiently met with commensurately rising tax-generated revenues is slim.

What emerges from this confluence of the high and rapidly rising costs of higher education and the increasingly limited public revenues that most governments are willing and able to devote to the enterprise is the increasing reliance on revenue supplementation, or the need for other-than governmental/tax revenue. And worldwide, the most common approach to the need for increasing revenue is some form or forms of *cost sharing*, or the shift of some of the higher educational per-student costs from governments and taxpayers to parents and students. This trend in the mature economies can be seen in the high and rapidly increasing tuition fees in the US, Canada, Japan, Australia, and New Zealand. More recently and very unevenly, tuition fees have begun emerging in Western Europe: first in the Netherlands, then very tentatively in Portugal, finally (in 1997) a more-than-nominal tuition fee in the UK, and most recently (2001) in Austria—the first German-speaking country to adopt a tuition fee. Many of the post Communist countries, including Russia and other of the former Soviet Republics, other East and Central European countries, as well as the East African countries of Kenya, Uganda, and Tanzania have all adopted some form of so-called *dual track -tuition fees* in which the powerful political (and sometimes constitutional) obligation to provide free higher education is limited to those students who pass the entrance examinations at a high enough level to constrain the supply of tax-supported students to the (very limited) numbers that the governments can (or choose to) support—with others being admitted but only upon payment of tuition fees.[4]

Cost Sharing and Student Loans

The need for some program of governmentally sponsored student loans—a need that is recognized in most countries even if carried out successfully by rather few—follows upon the perspective and the policy of cost-sharing. Borrowing can (at least in theory) provide a substantial amount of money in support of higher education, essentially adding

a ‘third leg” to cost-sharing and supplementing revenue from parents and taxpayers. Thus, a functioning student loan program can provide revenue to higher education that, in its absence, would presumably not be there at all. Assuming (or to the degree) that borrowing does indeed *supplement* rather than *supplant* higher educational revenue from governments/taxpayers and parents, the additional revenue from borrowing can make possible: (a) enhanced institutional quality, (b) additional capacity and thus additional participation and accessibility, (c) more higher educational choices for students, and/or (d) a better style of student living. Expressed another way, if additional revenue from governments or taxpayers is unlikely, either because a government is at its effective tax capacity or because other public needs would take precedence even if taxes could be raised, and if parental contributions are also at their likely maximums, then the other major possible source of additional revenue for the general operations of the university or for the costs of student living would seem to be the deferred, or borrowed, contributions of the students themselves.

From the perspective of the student, the ability to borrow for at least some of the costs of their higher education gives young persons the ability to invest in their own futures. While many or most students might prefer all of the money to come either from parents or (preferably) from taxpayers, in light of the demonstrable private benefits from higher education that accrue to the student—including both monetary (i.e. higher future earnings) and non-monetary (e.g. status, access to generally more interesting and pleasant jobs, and more choices of occupations, mates, and places to live—such an investment is perfectly reasonable. In fact, in light of the limits on both parental and governmental contributions as well as on part-time employment possibilities, borrowing, for some students, will be the difference between having, or not having, access to higher education.

Borrowing is particularly necessary in the absence of (or to supplement insufficient) parental contributions. This lack of sufficient parental contribution may be the obvious consequence of low family income, or of the parent’s disinclination to provide further financial support, or of the student’s disinclination to be financially dependent on his or her parents—all of which reasons are more compelling the older the student and/or the more advanced the degree. Or, the absence of any officially expected parental contribution may, as in the Nordic countries, be the prevailing socio-political norm by which the parental contribution is assumed to be through the high taxes that support university education without the supplementation of tuition fees, but that requires the costs of student living to be born by the students themselves through borrowing. In the case of a *dual tuition* country such as Russia, borrowing also allows (or in theory ought to allow) students to attend a university or other higher educational institution when they are capable of the academic work but did not pass the admission examination with a high enough score to earn a tuition free admission--and whose parents cannot afford the tuition fee.

In other cases, borrowing is not so much the difference between participating or not participating in higher education, but rather provides the student with additional choices, such as living independently instead of living at home and commuting, or working fewer hours (or not at all), or living at a somewhat higher standard than is often thought of as the *appropriate* life of student poverty. In these examples, borrowing (and saving and lending) are economic expressions of *time preferences for money*. The saver is

one who has more claims on goods and services than he or she needs at this moment and who, as (or through) a lender, is wiling to rent these claims for a fee that we call *interest*.[5] The borrower, in turn, is one who has a need *in the present* for claims that he or she does not yet have, but who is reasonably certain to have these claims (that is, the money) in the future and so is thus willing to return these claims with interest, which is a payment for the use of this borrowed money. In this way, the ability to borrow makes possible the choice of a higher standard of living for students confident of their eventual higher incomes and who thus would apply higher subjective discount rates to their future repayment obligations.

The Need for Government Participation in Student Borrowing

The case for student borrowing, as made above, does not in itself make the case for *governmental participation* in this lending. That is, if student lending and borrowing were no more than the bringing together of student borrowers, who wish to invest in their higher education, and lenders, who have the savings to lend, it is not immediately self-evident why the governmental subsidization and participation (that is, beyond normal regulation and consumer protection of borrowing and lending generally) should be needed. Particularly in a market economy, banks and other private financial institutions, on behalf of savers, lend for purposes of business expansion, working capital, or the purchase of homes or automobiles, covering their cost of money, administration and all other expenses, as well as allowances for defaults, with the *interest rate spread*, or the difference between the interest paid to savers and the interest charged to borrowers. In fact, there are in many countries strictly private—that is, unsubsidized and non-guaranteed—loans to students. But these will be limited to students in advanced professional programs such as medicine or law, in which the likelihood of high future earnings and the imperative of building a good credit reputation lower the risk of default, and in which the desirability of attracting the students as a future bank customer, combine to allow credit to be extended to such students at favorable terms without governmental subsidization or guarantees.

However, *generally-available* lending to students, as described above, is another matter altogether. Here, in the absence of credit worthy co-signatories, the risk of default on student loans is considerable—probably high enough to force the student's interest rate to entirely unacceptable levels in the absence of governmental intervention, either in the form of a governmental guarantee or an interest rate supplement (both of which, of course, imply costs to the government). What makes the risk of default especially great in lending to students is the absence of collateral that can be recovered in the event of non-payment. (That is, the collateral stemming from an investment in higher education is all in the form of knowledge and learned behaviors that cannot be easily repossessed in order to recover on a defaulted loan.) In addition, and further increasing the likelihood of default and the cost of collection, the typical student borrower usually cannot begin repayment until the end of his or her studies and the beginning of gainful employment, often leaving a long period of time between the origination of the loan and the beginning of repayment—in any event, long enough for the student to have forgotten the debt or to have moved residence three or four times, possibly to another country, leaving little trace of his or her whereabouts.

Such a risk generally calls either for a governmental guarantee, thus enabling a student loan program to tap the private capital markets of banks, pension funds and other major sources of savings, or for the government itself to be the lender, effectively originating the student loans either from current tax revenue (like any other governmental expenditure) or from revenue borrowed from the national and or international capital markets and added to all other governmental borrowing, to be repaid from future tax revenues. Of course, there are limits on the borrowing capacity of any government, especially a government whose ability to tax and/or to maintain the value of its currency may be suspect in the views of domestic and international capital markets—as in most developing and many transitional countries. But these very limitations apply as well to the worth of the governmental guarantee: a government that might not be able to repay its debts to domestic bondholders or international lenders may be as unlikely to be able to cover the defaulted debts it has guaranteed. In such cases (again, applying mainly to developing as well as to some transitional countries with limited taxation capacities), the need to cover the risks of generally-available student lending can be at least lessened through judicious use of co-signatory requirements, with the government as a primary guarantor only for families with insufficient collateral, and then a secondary guarantor for families who are able to co-sign the loan and bear a part of the risk. But in the end, student loans are inherently risky, and governments will always be required to at least share in the risk of a student loan program that is widely available to all or most students in need.

At the same time, the need for government to bear a substantial portion of risk does not in itself mean the need for the government also to heavily subsidize the loans—or to collect the repayments, or even to originate the loans. If the government decides to subsidize student borrowing—for example, by covering the interest payments during the in-school years and perhaps for a period of time afterwards while the student (hopefully having graduated) is seeking employment, or by charging an interest rate that is less than the cost of money to the government for the entire life of the loan—it is making an effective policy decision that the cost of the subsidies, which can be very considerable, is worth the expense in terms of the higher educational participation that the borrowing can generate. It must be kept in mind, however, that a high level of subsidization of student borrowing—which is already expensive to service, and which carries the additional expense of absorbing some level of default in the best of circumstances—can be extremely expensive. In fact, Ziderman and Albrecht (1994) describe a number of scenarios in which the combination of high defaults, high levels of subsidy, and high expenses of servicing and collecting yields student loan programs that bring an effective *negative* return: in other words, the governments would have saved money by giving the money out in non-repayable grants in the first place.

Forms of Student Loans

Student loans may take one of two basic forms, with many variations of each and with "hybrids" of the two also possible.[6]

The first is the ***fixed-schedule, or conventional mortgage-type***, loan. This loan carries a *rate of interest* expressed as an annual percentage of the amount borrowed, a *repayment period*, or the amount of time the borrower has to repay the loan, and *repayment terms*, such as whether the payments are to be in equal monthly installments,

or installments that begin small and increase over time, or some other arrangement that yields a stream of payments sufficient to amortize the loan at the contractual rate of interest. (An interest rate can also be *variable* as long as neither party (i.e. neither borrower nor lender) can unilaterally set or manipulate the rate. A typical variable rate, then, might be pegged to the market-determined rate on, say, 90 day US Treasury bills sold at auction. The fluctuating rate would presumably reflect the true variable worth of money, but would presumably be beyond manipulation by either the lender or the borrower.)

The second form of student loan is the ***income contingent*** (or "contingent repayment") loan.[7] This type carries a contractual obligation to repay some percentage of future earnings generally until the loan is repaid at a contractual rate of interest, or until the borrower has repaid either a maximum amount (which can release the high earner), or for a maximum number of years (which can ultimately release the low earner). That which is stipulated in the loan contract is the annual *repayment burden*, or the percentage of earnings that must go to loan repayment (which may be *fixed* for all income levels, or *progressive*, applying to earnings only above some threshold and/or increasing as incomes rise). That which varies according to income or earnings is the *repayment period* and, at least for some low earning borrowers, *the ultimate cost of the loan*. The Swedish, Australian, New Zealand, South African, Scottish and those UK student loan programs scheduled to begin in 2006 all feature income contingent repayments. In addition, the US has an income contingent repayment option within its Direct Loan Program.

As in conventional student loan programs, an income contingent loan program is likely to subsidize all of the borrowers to the degree that even those who repay "in full" will have repaid at a subsidized rate—that is, at a rate that is generally set below the market rate of interest (or even below the rate of interest charged to the best and most credit-worthy borrowers, or even to the government itself). For most income contingent loan borrowers, then, repaying *income contingently* as opposed to *conventionally* merely affects the *shape* and the *length* of each individual repayment period rather than the *ultimate amount* (in present value) that will be repaid. However, all income contingent loans have a provision for forgiving the remaining debts of some of the lowest earning borrowers who reach some maximum repayment period or some maximum age with a debt still outstanding. The present value for any particular lifetime earnings profile of this so-called *low lifetime income subsidy* depends on the terms of the income contingent loan contract. For example, for any given set of assumed borrower lifetime earnings profiles, a high percent of income required for repayment together with a long repayment period will minimize the number and amounts of remaining debts to be forgiven and reduce the subsidy cost to be recovered (usually from the government). In contrast, a low percent of income and a short maximum repayment period will (again, for any given set of assumed borrower lifetime earnings profiles) increase the number of borrowers who are likely to reach the end of their maximum repayment period with substantial debts to be forgiven—and of course increase the cost to the lender (presumably the government.[8]

The source of the subsidies for an income contingent loan program in most cases is the government itself, which will ultimately forgive the remaining debts of the *low lifetime earners* in the same way that it might elect to make up the shortfalls from borrowers who simply default, or might provide other kinds of grants or subsidies to

students on the basis of their low family incomes at the time they were in the university.[9] Expressed another way, the government in such an income contingent loan program is electing to *subsidize ultimately* those who turn out to have low lifetime earnings, just as it may, in a conventional need-based grant program, be electing to *subsidize currently* those whose parents had low incomes at the time the student was in the university. Those who advocate governmentally-subsidized income contingent loans frequently claim that it makes greater sense to spend scarce tax dollars to subsidize those whose higher education, for whatever reason, has not paid off monetarily, than to provide a stream of repayment subsidies to students merely because their parents were poor when they were students and had to borrow--but who may later earn good incomes.

A variant on the income contingent loan is the ***graduate tax***, whereby the student (sometimes only the *graduated* student), in return for government subsidization of higher education in the form of low or no tuition (and possibly of an additional student maintenance grant), becomes obligated to an *income surtax*, generally for the rest of his or her earning lifetime. A true graduate tax is just that: An income surtax on university graduates, without the keeping of individual borrower accounts or "balances owed" (Woodhall 1989). However, one purpose of a graduate tax—like any governmentally-sponsored student loan plan--is to shift a portion of the costs of higher education from the government or taxpayers to students, albeit to be paid only after the student has finished (presumably graduated) and is earning an income (supposedly higher because of the higher educational experience). The financial success of the *graduate tax* would be measured by the discounted present value of this stream of future income surtax payments—just as the financial success of a government-sponsored *income contingent student loan program*, would be measured by the present discounted value of repayments that are based on a percentage of yearly income. Thus the mathematics and the practical effect on participating students of the graduate tax and the income contingent loan—assuming similar terms—are practically indistinguishable.

Finally, a student loan program can combine features of the conventional fixed schedule and the income contingent obligations in any number of what might be called ***hybrid fixed schedule-income contingent*** loan plans. These would feature an underlying, or *default*, obligation with a fixed schedule of payments that would be due unless the monthly or annual repayments exceeded some maximum percentage of monthly or annual earnings—in which event the obligation would not exceed that maximum percentage. Amounts owed on the original fixed schedule of repayments would be deferred and become due only at such a time as the earnings or income rose and the repayment obligation could once again be made within the maximum percent of income limit. In such a scheme, most borrowers would simply repay according to the original fixed schedule (which might be graduated upwards over time to correspond with anticipated earnings growth, but still on a fixed schedule of repayments). Some borrowers, particularly those experiencing a year or perhaps two or three of low income due to unemployment, would pay *income contingently* during these years, but return to the fixed schedule of repayment obligations when they regained their employment and their earnings. These borrowers would have been granted the convenience of automatic deferment of payments—similar to a refinancing—but not a subsidy, as such. A few borrowers who combined prolonged periods of unemployment or a low paying job with high initial indebtedness might never get back on the fixed schedule. They would

continue to repay their student loans on an income contingent basis, reaching the end of the original underlying repayment period with remaining indebtedness—which at some point would be forgiven as though the entire student loan obligation had been income contingent from the beginning.

The advantage of such a hybrid version, as found in Canada (Usher 2005a), is that most borrowers in most years would repay on an administratively simpler fixed schedule, not requiring income verification, and the lender (presumably the government) could count on a flow of repayments—which could still be collected at the point of wage or salary payments by the employer if this is what government policy established. At the same time, borrowers would have the assurance that their repayments, by definition, would never become hopelessly burdensome, and that they would be ultimately be forgiven some measure of their initial student indebtedness in the event that their higher education never pays off monetarily. With some variations, the US, Netherlands, and German student loan programs as described in Usher (2005b) also feature some percent-of-income threshold at which point further payments are either deferred or forgiven, thus capturing the essential low income protection of income contingency with the more certain repayments of a fixed schedule repayment obligation.

Elements to be Considered in any Student Loan Program

Any of the forms of student loan programs described above need to answer the following seven questions—and in so doing can be fully and unambiguously described.

1. Eligibility: who is eligible to borrow? Are loans generally available to all students who want them? Or, are there limiting criteria such as full-time student status, study only in certain institutions, or in certain academic programs? Are loans to be available to students only in the public sector, or can eligibility for governmentally - sponsored student loans be one of this ways that government can support—and indirectly subsidize—a private sector of higher education? Of special importance are criteria of *"financial need"* (usually determined according to the financial means of the parents), or *"academic merit"* (which may refer either to academic promise or actual performance).

***2. Source of Capital*:** Where does the money come from? The capital for the student loans may come from individual or institutional savers, made available to the student borrower via a bank or other form of credit institution that in turn sells its notes to savers. Or, the money to be lent may come from the government—in which case it may be obtained: (a) from savers, via governmental debt; (b) from taxes, levied either directly upon the general citizenry or indirectly on business and passed on to the general citizenry through higher prices of the products or services; or (c) through the printing of money and the confiscation of purchasing power from the general citizenry through the resulting inflation.

***3. Origination and lender*:** Who or what is the lender? The source of capital may well not be the entity that actually disburses the student loan: that is, from which the student actually receives the money and with which the student borrower (and any required co-signatories) make a legally enforceable contract. The originator may be a governmental agency, a quasi-governmental "public corporation," a private bank, or the higher educational institution itself. In some cases (e.g. Germany or South Africa), the loan is that *ultimately repayable* part of a larger sum given to the student as "study

assistance" (the other part being a grant, or bursary). For loans given to students at public institutions and which are limited to no more than the tuition due, no cash need actually change hands: the "loan" (as in Australia) becomes whatever portion of the governmental allocation to the university that the student is to bear (i.e. the tuition) and which the student, with his or her parents, must choose either to defer and repay *as a loan* or to pay directly "up front."

***4. Ultimate Risk*:** Who bears the ultimate risk: that is, who or what loses in the event of default? With a private commercial loan, the risk is usually born by the lender, who reduces this risk by the requirement of collateral, or assets that must be forfeited in the event of default. However, the default risks on generally available student lending, as noted above, are very high due to the absence of collateral, frequent periods of unemployment, high mobility, and lack of already established credit. For this reason, a truly market rate on *generally available* student loans (that is, loans available to most or all students rather than just to low risk students such as medical or MBA students) would almost certainly have to carry a prohibitively high rate of interest. Therefore, most student loan programs pass most or all of the risk on to the government. This risk and the resulting cost may be largely hidden, as when the government serves as the lender and simply fails to collect on all of the repayments that are due. Or the risk may be in the form of a guarantee to a private or quasi-private lender, which can collect from the government in event of default, leaving the government with the defaulted note and the task of finding, and trying to collect from, the defaulting borrower. Or the risk may be shared, as with parental or other co-signatories or with the higher educational institution itself in addition to the state.

***5. Loan Amounts and Limits*:** How much can be borrowed (or deferred)—each year and in the aggregate? To significantly enhance accessibility (and not merely provide a better standard of student living, or reduce the amount that might otherwise be contributed by the parents), the maximum loan should be sufficient to cover at least the minimum expenses associated with university participation, less any reasonably expected means-tested contribution from parents and less any amount deemed appropriate (and possible) for the student to earn and save during the academic terms or between academic years. At the same time, the resulting aggregate debt levels—together with the interest rates and repayment periods that together generate the monthly repayment amounts—must be in some kind of accord with the prevailing earning of the graduates so that repayment is possible without great hardship (and thus likely default).

***6. Amount and Form of Subsidization*:** What is to be the amount and the form of subsidization—or conversely, how much of the full costs of the loans are to be repaid by the borrower? The costs of lending are three: (1) the cost of money to the lender—which will always be some rate of interest in excess of the prevailing rate of inflation for there to be any *real* return to the saver and/or lender; (2) the costs of defaults; and (3) the costs of administration, or servicing and collecting the loans. The key question in student lending is how much of this total cost is to be paid for by the student borrower through payment of interest and how much by some source of subsidy—generally by the government, or taxpayer? As mentioned above under the treatment of *risk*, a generally available student loan program must cover much if not all of the costs of default through some combination of governmental and co-signatory guarantees rather than through the

interest charged to all of the borrowers. But the cost of money and the costs of administering student loans—which are, in comparison to most business or consumer lending, small and expensive to service and collect—must be recovered through the interest charged to the student and the (usually) governmental subsidy.

A few loan programs, such as the repayable portion of the German Study Assistance, or BAföG[10], charge no interest at all, which amounts to a very large governmental subsidy to all student borrowers. Others, as in Kenya and Ghana, charge a flat rate of a few percentage points regardless of the interest rates prevailing in the market, which may still amount to a very large subsidy in an inflationary climate where the money eventually returned will have lost most of its value by virtue of the inflation. Some student loan schemes, such as those in Sweden, Australia, and the UK, will claim that they do not charge "interest," as such, but merely *adjust upwards* the amount owed according to the prevailing rate of inflation so the borrower repays in real terms only what he or she borrowed. This is still an interest rate—albeit what is frequently called a *zero real*, or inflation-adjusted, rate of interest—which by definition is still moderately subsidized, as money always has some real value, and interest rates will always be something in excess of the prevailing rate of inflation. A still lesser degree of subsidization might be a rate of interest charged at the government's borrowing rate, which is generally the lowest nominally unsubsidized interest because of the large denominations (and thus lower cost per dollar borrowed) and because of the presumed security of government notes. Finally, an essentially unsubsidized student loan might be one that charged a rate of interest equivalent to the rate charged on consumer debt generally.

The inevitable political pressure for high subsidization—in addition to the recognition that higher rates of interest cause higher debt loads and almost certainly contribute to higher default rates—will press for higher subsidization and lower student interest rates On the other hand, high governmental subsidies carry extensive opportunity costs—that is, forgone alternative governmental expenditures, which might, for example, be more loans at lesser amounts of subsidy, or more grants, or additional operating revenue either to improve university quality or to expand capacity (and thus participation).[11] In addition, high subsidies require *rationing*, which in turn needs to be primarily on the basis of family financial need in order to prevent subsidized loans from simply displacing parental contributions and further subsidizing the upper middle class. But rationing by forms of *means-testing* itself adds both administrative costs and opportunities for unfairness and corruption. A reasonable compromise is probably *minimal subsidization*: an interest rate high enough to assure some recovery and to discourage unnecessary borrowing (and thus to minimize the need for extensive family income verification—which would probably be futile anyway in many countries), but still subsidized enough to be politically palatable and to control excessive student indebtedness.

Finally, a loan program must resolve how it will disburse the subsidies. Loan subsidies can, for example, be granted at the beginning by subsidizing all interest during the period in school and during a substantial grace period afterwards. Or, the subsidies can provide fewer "front end" years of total interest forgiveness, but charge a considerably less than market rate of interest during the actual years of repayment.

Income contingent loans can feature a substantial subsidy to all borrowers—as in the Swedish and the proposed UK plans, which feature a zero *real* rate of interest—or they can charge closer to a market rates to the students who will repay, but provide more substantial low-earnings protection to those who cannot. None of these policy options is necessarily correct. But the differences are significant. And a student loan program cannot provide all forms of subsidization at generous levels and still be part of an overall policy of cost-sharing.[12]

***7. The Shape and Duration of the Repayment period*:** Finally, some essentially technical questions must be resolved regarding the shape and the duration of the repayment obligation. A repayment period is defined precisely in a conventional fixed schedule, or mortgage-type, loan; it is only implied in an income contingent loan by the combination of percent-of-earnings required to be repaid, the average level of aggregate indebtedness, and the earnings profiles of the borrowers. With subsidized loans—as most student loans are—the value of the subsidy to the borrower (and likewise, the cost to the government lender) increases as the repayment period increases, giving reason to limit the repayment periods. At the same time, the shorter the repayment period, all, else being equal, the higher the individual payments and the likelier the payments are to be a burden —and to be defaulted. As in the resolution of the rate of interest to the student borrower and the degree of subsidization borne by the government, as discussed above, the resolution will need to be a compromise between several competing objectives, including maximum cost recovery, the generation of maximum additional higher educational participation, the minimization of defaults, and maximum political acceptability.

Less politically charged and more technical matters having to do with the form of repayments must also be resolved. For example, conventional, fixed schedule loans generally feature equal, or level, installments. However, the fixed schedule of repayments can also be graduated upward over time to correspond better with the likely increases in income or earnings—that is, made to *approximate* an income contingent repayment schedule. The terms of the loan must also stipulate whether the payments are to be paid directly to the lender by the borrower or whether they are to be (or can be at the discretion of the borrower or his/her employer) removed from the borrower's pay by the employer and paid directly to the government, similar to the withholding of taxes or pension contributions.

An income contingent obligation must stipulate the percentage of income that is required for repayment as well as how "income" is to be defined: e.g., last year's actual or the current year's estimated income, or earnings only or earnings plus taxable assets, and similar questions. Some income contingent obligations have an "*income threshold*" that must be exceeded before the effective *surtax*, takes effect, such that only income in excess of this amount is subject to the repayment rate. Income contingent obligations must also stipulate how long this percentage of income is to be paid: e.g. until the loan is fully repaid at some (what?) rate of interest, or until the attainment of some age, or until some maximum number of years has passed since the beginning of repayments.

The Applicability of Income Contingent Loans

An increasingly important question in the construction of national student financial assistance and student loan policies is the applicability of *income contingent*

loans, which seem to be increasingly capturing the fascination of policy makers and politicians. As provided in Australia, New Zealand, Sweden, and South Africa, as recently (2000) adopted by Scotland and soon (2006) to be adopted in the rest of the UK, and as recommended in much of the higher educational policy literature, income contingent loans (sometimes mistakenly referred to as "graduate taxes") have certain theoretical as well as practical advantages. However, some of these advantages are not in themselves properties of income contingency, *per se*, but of features that can as easily be built into conventional fixed schedule loan forms. For analysts contemplating new governmental student loan programs, it is well to keep in mind four qualifications, or caveats, to the all-too-common presumption of the superiority of the income contingent loan form.

First, an income contingent loan is still a loan, and in spite of some presentations to the contrary it is not *per se* any "cheaper"— *for most student borrowers*—than a conventional loan merely because the repayment obligation is expressed as a percentage of income or earnings. For most student borrowers, the "cheapness" or "expensiveness" of a loan—not to be confused with the manageability of its repayments—is measured by its "true" simple annual interest rate (or alternatively, by the discounted present value of the reasonably anticipated repayment stream). The income contingent loan can be made *cheap* for all or most borrowers only with a governmental subsidy—*just like the conventional, fixed-schedule loan.* On the other hand, "manageability" is measured by the *ease of the repayments*. Manageability can always be enhanced by reducing the individual repayments (for a conventional loan) or by lowering the percent of income to be repaid (for an income contingent loan)—in either case, however, extending the repayment period and the total dollars that will ultimately be repaid, but not *in itself* affecting the true cost of the loan (that is, the discounted present value of the eventual repayment stream).

Second, an income contingent loan ought not to be viewed as a *substitute for a tuition fee*, but rather as simply another way of *deferring it*—like deferring any other necessary expense of higher educational attendance. If a student incurs a payment obligation for attending an institution of higher education that can be paid in the future—*income contingently or otherwise*—then for all practical purposes there is an effective tuition fee. In some cases, as in the US, it is assumed that parents (or perhaps students) pay the tuition "up front," but may take out either a parent or a student loan to do so—which, in the case of a US Direct Student Loan, may be converted at the initiation of the repayment process to an income contingent repayment schedule. In other countries, the "loan" passes directly from the lender (generally the government) to the university (or into the university's budget appropriation) without ever passing through the student's hands, and perhaps never even being perceived quite like the combination of *tuition fees* and *student loans* that such a policy really presents. In still other cases—Australia being a good example—the student and the parents are given the choice of accepting the income contingent loan, which goes directly to the university and is repaid by the student, or paying "up front," which likely to be paid by the parents but at a considerable discount. However, a cost-sharing obligation that is totally in the form of an income contingent loan and that is presented (or allowed to be perceived) as *in lieu of tuition* (without a strong incentive to pay "up-front) discourages and may all but preclude a parental

contribution to the costs of instruction, thus effectively shifting the higher educational cost burden only to the student (Johnstone 2004b).

Third, some of the attractiveness attributed to income contingency—specifically, the presumed convenience to the borrower and the presumed greater certainty of repayment (and thus of lower defaults) to the lender, or the government—comes primarily from the government's willingness to force the same policies and procedures of mandatory, employer-collected income tax and pension or insurance withholding on to the cause of collecting student indebtedness. But this machinery, including the power to mandate employers to collect such sums at the point of wage and salary payments as well as the government's power to verify compliance and punish transgressors, could in theory be applied as well to the collection of conventional loans. This observation in of itself does not deny the theoretical attractiveness of these provisions, nor deny certain other theoretical attractions of income contingency. But if the government can compel employers to collect income contingent loans or graduate taxes, it can also compel employers to collect any payment owed by citizens, the effective collection of which is deemed to be of overriding public importance: local taxes, for example, or child support, or the cost of automobile insurance, conceivably weakening the primary purpose of tax collection, which is to make possible necessary public expenditures Furthermore, an obvious corollary to this presumed advantage, of course, is that a government that has difficulty collecting taxes and pension contributions from its citizens—which difficulty surely describes most developing and many transitional countries—such countries can hardly be expected to be able to collect payments on an income contingent loan or graduate tax obligation.

Finally, an income contingent loan presents major complications not found with conventional "mortgage-type" loans. Most of these arise from the need to stipulate precisely, and to be able then to verify, the income that is effectively to be "taxed" in order to arrive at the proper repayment amount. Multiple sources of income, highly variable income, income that tends to not get reported all, and income that can be easily shifted between a borrower and a non- borrower member of the family all constitute great problems for the viability of an income contingent loan scheme. Highly industrialized countries with extensive reporting and monitoring of virtually all income and with a culture of voluntary income tax compliance may be able to overcome these problems, as Sweden and Australia seem to have done. For other countries, including most of the developing and many of the transitional countries, where sources of income of earnings are frequently multiple, highly variable, and often unreported, the problem of establishing the repayment obligation may be enormous and virtually invites misrepresentation of income and almost certain repayment shortfalls.

In summary, then income contingent loans such as those modeled after the Australian Higher Education Contribution Scheme (HECS) would seem to work well when:

- A government, by downplaying (or not mentioning at all) the politically treacherous concept of *tuition fees*, is able to get an element of cost sharing that it would likely be politically unable get were it to advocate openly even the relatively modest tuition fees that such plans generally reflect.

- A government in stressing mainly the income contingent loan obligation of the student, is willing to forego the potential of more *up front* tuition—and thus to minimize the role of parents (even affluent ones) as an important current partner in sharing the costs of higher education.
- A state does not really need even the students' deferred revenue *now*, but is able to tax or borrow sufficiently to keep the universities open and the students fed and housed, and to accept payment only in the future--in essence *becoming the lender*.
- The majority of student borrowers (or students who become obligated to future income contingent payments) will have a single employer, which will pay them a periodic and relatively regular salary, and which is also sufficiently large, sophisticated, and legally compliant that it can be counted upon to take out of the borrower's paycheck the correct amount, year in and year out.

Conversely, income contingent loans would seem to be less applicable when:

- The need is for non-governmental revenue *now*, making the parental contribution to tuition (even with a great deal of discounting) the primary source of needed revenue supplementation.
- The scarcity of governmental revenue precludes government from being the sole lender (which places a premium on student loans that have some—albeit discounted—value on the private capital market).
- Many graduates (borrowers) are likely to hold multiple short-term jobs or to be employed in the informal economic sector, where records are most unreliable—or are likely to be emigrating.
- There is no tradition of voluntary, reliable self-reporting of income, and state systems for monitoring and verifying incomes for the purpose of income tax withholding and/or pension or social security contributions are non-existent or unreliable.

Examples of current Student Loan Programs

Drawing on, and providing examples of, the aforementioned principles, some current student loan programs include:

Australia: The Higher Education Contribution Scheme (HECS) in Australia is a combination of tuition plus income contingent loan available to most Australian students. The loan covers the full amount of tuition as established by the university up to limits set by the government within three bands. The upper limits in 2005 have been set at A$4808 [$3509] for Band #1 (humanities, social and behavioral sciences, languages and visual and performing arts); A$6849 [$4999] for Band #2 (engineering, science, computer science, and business/economics); and $A8018 [$5853] for Band #3 (medicine and law). Up to 20 percent of the tuition due is discounted for paying "up front." The interest rate, as in Sweden and the UK, mirrors the rate of inflation—that is a zero *real* rate of interest. Repayments are income contingent on annual incomes above A$ 30,000 [$24,898]. Rates range from 3 percent to a maximum of 8 percent on annual incomes in excess of A$ 64,999 [$47,445]. Repayments due are collected as an income surtax by the employer or are paid along with estimated or year-end taxes due. There is no forgiveness after a

certain age or passage of years since the borrowing took place. According to the definitions above, HECS is not a true *graduate tax* as individual accounts and balances owed are maintained on each borrower. However, enlistment of the national tax system gives HECS the appearance of a graduate tax and assures both a low administrative cost of servicing as well as a very low default rate. There is also a loan program for non-Commonwealth supported—that is, non-HECS eligible—students collected in the same way and with zero real interest, but without the in-school and grace period interest subsidies. (Chapman and Ryan 2002).

China: China's loan programs have undergone many modifications since their experimental beginnings in 6 cities in 1999. The Government Subsidized Student Loan Scheme (GSSLS) as modified in 2004 provides student loans in amounts up to Y6000 [$109] a year to needy students (officially acknowledged to be 20 percent of the enrollment). Interest rates are paid by the government during the in-school years. Borrowers pay one-half of the commercial interest rate after graduation, which is deferred (but not forgiven) for up to two year's grace period. Repayment periods are 6 years, which is an increase over the prior 4-year repayment period that required far too high monthly payments. The loans are disbursed by participating banks, and the risk is shared by the university, the government, and the bank. Co-signatories are not required for the GSSLS. There is also a non-subsidized student loan program, the General-Commercial Student Loan Scheme (GCSLS), available for children of the more affluent families, requiring a parental co-signatory (Shen and Li, 2003).

Germany: Germany has an extensive system of means-tested, or "need-based," study assistance known colloquially as BAföG. At different times, different portions of the accumulated BAföG grant have been treated as a full grant, and the other portion as "repayable"—i.e. as a loan. At present, one-half of the total accumulated study assistance must be repaid—with the first repayment due five years after graduation, at a zero nominal rate of interest (which is actually a *negative real* rate of interest), and many additional provisions for deferment or forgiveness--making even this supposedly repayable portion mainly an effective (additional) grant, and very little "true loan."

Japan: The newly created independent administrative institution, Japan Student Services Organization (JASSO), administers the recently revised student loan system. The system is made up of two types of student loans: the first class scholarship loan that is interest free and awarded based on merit and need, and the second class scholarship that is interest free during in-school years (carries a maximum of 3 percent interest after school has been completed) and awarded based on economic need. When applying for the loan, students can choose between the personal guaranty system and the institutional system, whereby the Japan Educational Exchanges and Services (JEES) cosigns the loan and the student pays it monthly default insurance ranging from ¥ 1,000 to ¥ 7,000 [$43]. The loans themselves range from ¥ 44,000 to 50,000 [$273-$311] per month based on residency (living at home or independently) in the first class scholarship program and from ¥ 30,000 to 100,000 [$186-$621] per month also based on residency in the second-class scholarship program. Loan repayment is on a fixed monthly schedule of payments and must be paid within 20 years. Loans are collected automatically from the student's bank or postal account the information for which the student must supply when applying for the loan.

Kenya: Kenya began its current Higher Education Loan Scheme under a quasi-public Higher Education Board in 1995, resurrecting a student loan program that had failed in the 1970s through a combination of extremely high defaults and apparent administrative incompetence (or at least absence of readiness to administer such a program). Amounts are "means-tested." Interest is 4 percent. The key to the new loan program is the extraordinary effort to recover payments, aided by the new legislation that mandates employers to deduct amounts due from employees in repayment. (The new law also mandates employers to collect outstanding loans from the earlier 1974 Kenyan student loan program.) Non-payment is supposed to bring severe penalties to both borrower and employer. Capital is provided by the government, with the hope that repayment on the "old loans," buttressed by the vigorous collections on the new loans, will soon capitalize a revolving student loan fund.

The Netherlands: Student loans are provided in the Netherlands to cover tuition and maintenance. Part of the loan, including a basic allowance that is not "means-tested," plus another means-tested component, can be converted to a grant if satisfactory academic progress is maintained. Interest on the remainder varies annually at the government's borrowing rate plus about 1 percent to cover administrative costs. Repayments are fixed after a two-year "grace period," with an income contingent payment feature for those whose incomes are low. Repayments remaining for those repaying on an income contingent basis are forgiven after 15 years.

Russia: In 2002, the Savings Bank of the Russian Federation (Sherbank) announced the start of what was then described as Russia's first student loan program, The Educational Credit Program, which was to provide loans to students from low and middle income families to cover up to 70 percent of tuition costs, to be repaid with interest over a period of up to ten years. The bank announced that 1.5 billion rubles (then about $1.5 million) had been set aside for the venture. However, at least through 2003, it appeared that no loans had actually been granted by Sherbank, and the bank spokespersons at that time were reported to have been very reticent even to discuss it, leaving some doubt as to whether there had ever been an intention to implement the announced program (Protapenko 2002, Mac Williams 2001). In all likelihood, however, the program as proposed—with no prospect either of a governmental subsidy or a governmental guarantee—was not viable even if the intentions had been sincere. As of 2004, the only Russian governmental initiative for student loans has been a proposal to provide *workforce contingent* loans. These would be grants or vouchers to institutions in place of the institutional grants that provide tuition-free higher education to students scoring high enough on the institutional or national entrance examinations. By this proposal, students who fail to obtain a tuition-free place could be admitted as though they had qualified for a tuition free place as long as they agree to work for a certain period of time after graduation in an appropriate profession or place. If they do not abide by this agreement, the institutional subsidy must be repaid. Thus, the government *subsidy* is to be treated as a full *tuition grant*—but only as long as the student in fact accepts the critical need work assignment—and as a *tuition loan* if he or she declines the assignment. (Protapenko, 2002 p. 5). Significantly, however, there is to be no interest charged on the tuition loan, so there would appear to be no real penalty on the student who declines the assignment, and in fact a substantial incentive (i.e. an interest free loan) to take the higher education with no intention of compliance. As of 2002, it was not clear exactly how the

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program of subsidies was to be administered, the students selected, or the tuition loan—if it were to become a loan—was to be handled. (Protapenko 2002, Vossenstyne 2002). As of 2005, then, Russia seems still to have no governmentally-sponsored student loan program.

South Africa: Student loans are given by the governmentally-sponsored *Tertiary Education Fund of South Africa* (TEFSA). Loan amounts range between R 1100 and R 13,000 [$200-2,364], and are need-based. The interest rate is a relatively high (inflation-plus-two-percentage-points), with no in-school interest subsidy. However, fully 40 percent of the amount borrowed can be converted to a grant if all subjects are passed, with this "forgiveness" prorated for only some subjects passed. Repayment is income contingent, beginning with 3 percent on the first R 26,300 [$4782] of income, progressively adding an additional 1 percent for each annual income increment of R6000 [$1090] until a maximum of 8 percent of income must be paid for student debt retirement at an annual income of R59,300 [$10,782] and above. The national tax and pension contribution systems are not used for collection, but the government has authorized the tax agency to report borrower incomes to TEFSA for purposes of income verification (Jackson 2002).

Sweden: Sweden (along with other Scandinavian countries) has relied on student loan programs since the 1960s to cover student living costs and to free parents from the obligations of paying for these costs. (The university is tuition-free; that is, the government already pays all instructional costs.) Swedish student loans are *generally available*—that is, available to all who wish to avail themselves of the opportunity, with no "risk rating" or co-signatory requirement, and diminished only according to the students own income and/or assets. Prior to 1988, borrowers repaid their loans at a rate of interest that was set at slightly more than 4% or at the annual rate of inflation, whichever was the lower. Repayments were graduated upward over time at this same rate, forming a graduated repayment schedule amortizing the principal at an effective *zero real* rate of interest. In 1988, the basis for repayment was changed to a fully income contingent schedule, with annual payments set at 4 percent of income, amortizing the principal at a rate of interest set at one-half of the market rate, with remaining debts forgiven after 25 years. In 2001, the student loan program changed again, reverting to a long term graduated schedule with a minimum repayment of 5% of annual income, amortizing the principal amount borrowed at the government's borrowing rate minus a 30 percent interest subsidy.

Thailand: The Thai Student Loans Scheme (SLS), created in 1996, covers both upper secondary and tertiary level schooling. The SLS Committee allocates the annual loan budget to the Ministry of Education (MOE) for educational institutions under the jurisdiction of the MOE and other ministries and to the Ministry of University Affairs (MUA) for universities. The MOE and the MUA then allocate the loan budgets to the actual institutions. Each institution sets its own rules regarding loan levels and composition within maximum ranges set by the MOE and MUA for tuition fees, accommodation and living expenses. In 1998, the maximum loan for a student in a MUA university was set at 100,000 Baht [$8,203] for the academic year broken down as 52,000 Baht [$4,265] for tuition fees and other educational expenditures paid directly to the university and 48,000 Baht [$3,937] for food and lodging paid to the student. While some

institutions provide loans only for tuition fees, others award loans for both tuition fees and living costs. Loan awards are based on need (measured by family income with an income ceiling of 150,000 Baht [$12,305]) and students must provide guarantors (usually parents or guardians). Repayments are spread over 15 years following a two year grace period and the repayment percentages are fixed at very low rates that increase over time; repayments are in nominal terms and the rate of interest on the loans is only 1 percent.

United Kingdom: The UK student loan program began in 1989-90 as a small, conventional (i.e. mortgage type), strictly "top up" loan program as the government began to freeze, then lower, its once generous means-tested maintenance grants. The private sector never embraced the program, however, and in 1998-99, a much expanded program was announced by the government to replace the former maintenance grants and to accommodate the inauguration of means-tested tuition. Some borrowing is generally available to most students, with maximum loans means-tested, but 75 percent of the maximum is available to all students regardless of family income. As in Sweden, loans carry an interest rate that mirrors the rate of inflation—that is a zero *real* rate of interest. Loans have administered by the government's *Student Loans Company*. Repayment is income contingent: to be repaid at 9 percent of marginal income above £15,000 [$16,181] (increased from £10,000 in April 2005), which is deducted by the employer as though an income surtax and passed to the government treasury. Any indebtedness remaining after 25 years is to be forgiven. In 2006, England will join Scotland (as presumably will Wales and Northern Ireland) in converting the tuition fees of up to £3000 [$5700] to an additional income contingent loan obligation along the same terms as the current maintenance loan, thus converting what has been a *means-tested parental* obligation to an *additional student obligation*—albeit one that is deferred and repayable income contingently. (Richards 2003, Johnstone 2005).

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The United States: Loans and parental contributions are bedrocks of the very extensive reliance in the United States on cost-sharing. The United States provides mainly conventional, fixed-schedule loans, available to all students with some financial need (including some students from upper-middle income families attending very expensive private colleges and universities) at minimally subsidized rates of interest. The federal government guarantees all student loans and pays all interest during the "in-school" years and for a grace period for those with financial need. Unsubsidized loans are also available that do not require the demonstration of financial need and that carry only the implicit (but not insubstantial) subsidy of the governmental guarantee and the benefit of an interest rate near the government's borrowing rate.

Much of the capital and loan origination is provided by the private banking sector, which in turn sells much of its student loan portfolio to private secondary markets. The federal government through participating colleges and universities can lend to students directly via the Direct Loan Program, in turn either selling the notes in the private capital market or tapping the federal government's general borrowing capacity. Student borrowers in the Direct Loan Program can elect to repay according to an income contingent repayment schedule, but as yet relatively few have elected this repayment option (which is *not* collected by employers along with income tax withholding and insurance / pension contributions, and which features mainly a kind of "assured

refinancing" that stretches out the repayment period, with very little ultimate low-earnings protection.

Summary: The Role of Student Lending in Effective Higher Education Finance

Following are some summary points implied by the theory of cost-sharing, the potential role of student loans, and examples (good and less good) of student lending practices in a variety of countries.

1. Student loans have the potential both to increase higher educational accessibility and to allow some portion of the costs of instruction and of student maintenance, or costs of living, to be shifted to students, to be paid as he or she enters the workforce. In this way, student loans, at least in theory, can provide additional revenue to higher education for the purposes of enhancing capacity, quality, and participation.
2. Student loans serve a variety of purposes, including: (a) putting money in the hands of students, thus promoting access; (b) shifting a portion of higher educational costs onto the student (and presumably increasing the total amount of revenue available to higher education); (c) supporting (or purposefully declining to support) certain sectors of higher education, including private and even proprietary, or profit-making, institutions; and (d) influencing post-graduation behavior by the conversion of grants to loans, or visa versa, depending on whether the graduate, with a potential repayment obligation, pursues certain occupations or practices in certain venues.
3. Student loans are an essential ingredient to any comprehensive policy of cost-sharing: that is, shifting a portion of the costs of higher education (including the expenses of student living) from exclusive or even predominant reliance on the government (or taxpayer) to being shared with parents and students. For most countries and most institutions of higher education, the absence of some way for students to share in the high and rising costs of higher education (including costs of instruction as well as the costs of student maintenance) means that such costs will have to be covered by taxpayers and parents alone. In such a case, higher educational accessibility is likely to be limited to the very academically talented and the children of the affluent. In any case, very many potentially talented students will likely be left out—to the detriment of society, the economy, and the cause of opportunity and social justice.
4. If student loans are to be a part of a comprehensive package of cost-sharing, the loans should be provided in sufficient amounts to cover tuition fees plus some percentage (say, 80%) of a minimal cost of student living—less any grants and any expected parental contribution. The goal is to provide sufficient lending to permit higher educational participation without lessening a reasonable expected parental contribution.
5. The repayment obligation should be spread over just enough time for the monthly payments to be manageable. Benchmarks should be established as to what constitutes a "manageable" loan repayment, but something like a *maximum* of 10-15 percent of earnings might be considered for a start. The fixed schedule of repayments may be graduated to increase over time at the option of the borrower.
6. If the loan form is fixed-schedule (that is, not income contingent), the scheduled repayments should be automatically deferrable in the event of unemployment,

prolonged illness or loss of work, maternity, and other such demonstrated criteria. Borrowers so needing repayment deferment should be placed on an extended repayment period and the monthly repayments lowered. Provision should be made to forgive the remaining indebtedness of a borrower after some period of extension beyond the originally scheduled repayment period if he or she is still unable to repay the initial debt at the required rate of interest. (Thus, low earners will pay for most of the life of the loan more-or-less *income contingently*.)

7. Student loans will always be expensive, and a program should not be launched in the mistaken notion that it will ever become self-funded (that is, with repayments sufficient to finance all new lending). In fact, all student loan programs that are generally available are costly to the government. These costs include: (a) the costs of necessary guarantees to cover the inherently high risk of default; (b) the cost of subsidization to bring the effective interest rate down below, say, the prevailing rate of consumer debt generally, or near the government's own borrowing rate; (c) the cost of administration, including costs of means-testing, origination, and collection; and (d) the costs of any debt forgiveness, whether such debts are forgiven to encourage academic success, post graduation behavior, or to reflect low lifetime earnings (or the failure of the higher education to "pay off" sufficiently to repay the indebtedness without undue burden).
8. It is imperative to minimize these costs—consistent with the policy objectives of the student loan program—as they can be very large, and as excessive costs of student lending carry implicit *opportunity costs* in the form[s] of e.g. the larger number of loans or some number of grants that might have been possible for the same amount of taxpayer subsidization with a more cost-effective student loan program.
9. The three costs that many student loan programs can almost certainly lessen without compromising the goals of the program are: (a) reducing the base interest rate subsidization to a rate closer to the government's own borrowing costs; (b) minimizing servicing and collection costs with good practices (possibly through privatization of this portion of student lending); and (c) minimizing defaults by assuring that the initial loan is viewed by the student borrower as a real obligation, by requiring some form of a repayment plan to be agreed upon to prior to graduation, by engaging in good collection practices, and possibly by requiring or encouraging repayments to be made through employer deduction at the time of wage and salary payments.
10. The risk of default should be shared between government and, if necessary to lessen the government's financial exposure, cosignatories. Co-signatory requirements, however, may need to be limited to moral persuasion and loss of credit reputation so as to avoid losing those parents—and thus losing their children from those able to borrow—who may have no assets to pledge as well as parents who will be reluctant to divulge their full assets.
11. The origination of the loans should be vested in a governmental agency, with servicing and contracting possibly contracted out to a bank or other private entity. Universities and other higher educational institutions should also be involved and committed, with responsibilities for means testing and mandatory repayment

obligation counseling required for the borrower to receive the degree. Institutions should bear some financial exposure for excessive defaults.

In summary, effective student loan programs are possible and can enhance both institutional financial viability and student accessibility and participation. However, student loans are exceedingly complex, and require both proper design and good execution. Unfortunately, too many student loan programs have failed, both for poor design and poor execution. It is hoped that this paper can be a small contribution to the policy planning required to begin new student loan programs and to reform existing ones.

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End Notes

[1] It is possible to conceive of *government* or the state being a potential contributor apart from the general taxpayer--but only to the degree (and not a trivial degree in the post communist countries) that the state continues to hold title to very substantial assets such as land or oil and mineral rights that can be sold off *year after year*, reducing although not eliminating the need for taxation, as such. It is also possible to view *business* as a possible contributor to the general operating expenses of higher education. However, to the degree that businesses make such contributions, these are essentially like other costs of production: recovered through the price of the product and paid for by the general consumer—who is essentially the same entity as the general taxpayer.

[2] Although I have studied and written about the economics and finance of higher education for more than twenty years, my most vivid lessons in higher educational finance have come from nine years as president of the largest comprehensive college of the State University of New York system and another six years as chancellor of that system, which consists of 29 distinct state-operated colleges and universities. In almost every one of those fifteen years (and frequently more than once in a single fiscal year), I and my administrative team had to cut faculty, staff, and operating expenses (on more than one occasion extending to the removal of tenured faculty), totaling between 15 and 20 percent of the full-time faculty and staff of these institutions.

[3] The natural trajectory of per-student instructional costs to rise at rates in excess of the prevailing rate of inflation is sometimes called the *cost disease*, or what I have labeled *the rising relative unit cost phenomenon in the labor intensive, productivity resistant, sectors of the economy*. It was first articulated by Bowen and Baumol (1966) and is elaborated upon in Bowen (1968) and in Johnstone (1999, 2000).

[4] Even where such high stakes entrance examinations are free from corruption, the children of the upwardly mobile middle class parents have the obvious advantages of better secondary schools and private tutors, exacerbating the distributional inequity of the supposedly "free" higher education. available only to the academically elite.

[5] Borrowers can also obtain purchasing power from savers through the sale of ownership, or equity, in the venture they are endeavoring to build. In countries adhering to Islamic law where the charging (or paying) of interest is prohibited, Islamic banks and other observant lenders typically take equity positions in lieu of charging interest. The analog in student borrowing and lending could be the fully mutualized *income contingent* loan, described more fully below, in which (in theory) the lender "buys" a share of the student borrower's future earnings.

[6] This section draws on Johnstone (2000).

[7] The literature on income contingent loans is extensive. See e.g. Chapman and Ryan (2002), Johnstone (1986, 2004b, 2004c), and Usher (2005 a, 2005b)...

[8] The US income contingent loan program, for example, features such high percent-of-income repayments and such a lengthy repayment period that only the very lowest lifetime earners are likely to be forgiven any debt; the merely moderately low earners will simply pay for a very long time.

[9] In theory, the source of subsidy might also be the high-earners who, in a so-called *mutualized* plan, would finish their repayments having repaid at a *premium* rate of interest, thus effectively subsidizing their low-earning borrowing colleagues and providing the loan program with an *average* break-even interest rate over all of the loans. The principal conceptual flaw in this concept—perhaps explaining why there are no such generally available *mutualized* plans in operation— is that students who reasonably anticipate high lifetime incomes will decline to participate, at least in any voluntary scheme, thus depriving the plan of its necessary source of subsidies to protect the low earners.

[10] *Bundesausbildungsförderungsgesetz*, or Federal Law for the Promotion of Education.

[11] See Johnstone (2004a) for an elaboration of the theoretical trade offs between a dollar volume of *general subsidies* (such as to allow free or very low tuition fees for all students), the same dollar volume of *targeted subsidies* (i.e., grants whether means tested or rationed in some other way), and finally, the same dollar volume of *effective subsidies* imbedded within subsidized student loans.

[12] Still another form of governmental subsidization to some student loan programs are expenditures in the form of *debt forgiveness* unrelated to the provision of student loans, per se. The most common are provisions to forgive portions of student loan indebtedness as long as the borrower remains in certain professions or occupations and/or working in certain venues. The United States, for example, forgives portions of outstanding student loan balances for years that the borrower is teaching in an inner city school, and such workforce contingent repayment forgiveness is a major feature of the proposed Russian Loan

Student (not yet implemented as of 2005). South Africa's student loan program forgives portions of indebtedness contingent on successful and timely completion of a program.