Cost Sharing in the Ethiopian Higher Education System: The Need, Implications and Future Directions

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Abstract: Only about 1.5% of the age cohort is currently participating in higher education in Ethiopia. This is dismal, and is the major factor for of the critical shortage of educated and skilled human resource. The five-year (2005-2010) education sector development program (MOE, 2005) indicates that the higher education system in Ethiopia should be moving away from exclusive enrolments of 1-2% of the age cohort towards increasing participation to over 5%. However, free higher education is not feasible and simply inappropriate for Ethiopia. Covering the full tuition and food and room cost for a small proportion of the age cohort from the taxpayers' money is inappropriate and inequitable distribution of resources. A significant number of students (about 54% of total enrolment in 2003/04) are enrolled in fee-paying programs in public and private institutions. The increasing need for more public budget to expand access, the requirement to redress inequitable subsidies by taxpayers to a small proportion of the age cohort and the desire to diversify revenue necessitates the introduction of cost sharing. Ethiopia has chosen a modified model of the Australian type Graduate Tax. This model is relatively more attractive, simple and manageable than other systems such as the mortgage type loan. The graduate tax scheme, as implemented in Ethiopia, ensures equitable access to students of any background, as there is no need to stipulate income of parents to arrive at the repayment amounts. It essentially foregoes mandatory parental obligations. By strengthening the tax collection and information system, recovery from graduate tax can represent over 20% of recurrent budget in a decade or so. Some policy and implementation issues need to be given serious consideration. Immediate removal of all subsidies to food and room need to be effected. Appropriate tuition fees and costs should be calculated in each program and institution. There is a need to provide each and every citizen a tax identification number (TIN) and decentralization of tax collection. Management information systems in higher education institutions and the tax collecting authorities have to be updated, harmonized and shared. A credible and transparent mechanism by which extra revenue would be dedicated to higher education for improvements of academic quality need to be put in place. The above improvements enhance the confidence of both public and university community including students towards fulfilling their responsibility and the success of the cost sharing that is implemented to diversify revenue and to address equity and quality in the Ethiopian higher education system.

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The Status of Higher Education in Ethiopia

Higher education and training in Ethiopia has started over 50 years ago, but still remains highly underdeveloped. For a population of over 70 million, the enrolment in higher education is very low. The system as a whole (private and public) has enrolled a total student population of about 172,111 (Table 1), in the 2003/4 academic year. This is a significant increase from the situation in 1995 when the total student population was around 35 thousand (Table 1). Only about 1.5% of the age cohort is currently participating in higher education in Ethiopia (Teshome, 2004). However, even by Sub-Saharan African standard, the enrolment figures of Ethiopia are dismal.

There are nine higher education institutions under the direct auspices of the Ministry of Education. In addition to these, there are three institutions under different federal government entities, more than eight teacher-training colleges under regional governments and over 64 accredited private higher education institutions. Of the 64 private institutions, 56 provide diploma level education and training while 41 provide degree level training. These private institutions account for about 23% of the 2003/04 overall (degree and diploma levels) enrolment and about 11% of the degree level enrolments of the system.

Although the student population per 100,000 inhabitants has increased from the 62-70 in 1995 to 220-240 in 2004, it still shows critical shortage of experts and professionals in different disciplines. This is a point of concern in national development and poverty alleviation endeavors. It is also a serious limitation in attracting local as well as foreign direct investments that are important and key factors for quick and sustainable development that requires large number of highly skilled human resource. The low participation rates have resulted in the shortage of educated and skilled human resource, constraining sustainable development of the economy.

Table 1: Student enrolment in the Ethiopian Higher Education System

Year	Both Sexes	Female	
		No.	%
1995/96	35,027	7,282	20.8
1996/97	42,112	8,514	20.2
1997/98	45,554	8,702	19.1
1998/99	52,305	9,769	18.7
1999/00	67,673	16,272	24.1
2000/01	87,431	18,207	20.8
2001/02	101,829	26,894	26.4
2002/03	147,954	37,256	25.2
2003/04	172,111	43,307	25.2

Source: MoE, Education Abstracts

The sources of income of a public institution consist of an annual block grant budget allocated by the government, subsidies made by government in cash or kind, income generated from services delivered by the institutions such as research, continuing education and distance education, consultancy and such other activities undertaken by the institution to generate income. In the past few years, there has been significant investment in the higher education sector towards increasing access, improving quality and relevance, and making the universities and colleges more responsive to the needs of the country (Teshome, 2004). Ethiopia spends about 2.8% of its GDP on education; lower than the average for Sub-Saharan Africa which is around 3.9%. The annual budget allocation to the education sector has increased, over the past few years, from about 9% (176 million USD) in 1997 to about 14% (353 million USD) in 2003. However, this is still low compared to the African average of 20%. Of the total education budget, on average 15-20% is allocated to higher education. In real terms, the recurrent budget has increased from around 13 million USD in 1996 to over 60 million USD in 2004 (Table 2). In addition, the capital budget investment for higher education in Ethiopia has increased from less than ~8 million USD in 1996 to over 90 million USD in 2004.

Table 2: Recurrent Budget Allocated for Higher Education Institutions under the Ministry of Education

	Recurrent Budget		
Year	In Eth Birr	In USD 1USD~8.5Birr	Proportion that goes to Salary (%)
1995/96	88,363,082	10,395,656	59.4
1996/97	113,774,900	13,385,282	57.7
1997/98	144,434,400	16,992,282	54.1
1998/99	198,659,200	23,371,670	42.4
1999/00	235,158,300	27,665,682	39.5
2000/01	254,867,700	29,984,435	46.3
2001/02	328,480,300	38,644,741	31.6
2002/03	443,781,700	52,209,611	29.4
2003/04	510,434,300	60,051,094	31.6

Source: MoE, Education Abstracts

Despite the large investment and expansion efforts of the sector, there is still a widespread inefficiency in the system. University management is, in many cases, much too cumbersome and unsophisticated for modern needs. Some have management and administration systems and work cultures that stretch back to several decades and are not in tune with modern needs. Staff/student ratio is low, commonly ranging between 9 and 16. For instance in 2002, the ratio is 9, 11, 12, 14, 13 and 16 for Jima, Debub, Alemaya, Mekele, Addis Ababa and Bahir Dar universities, respectively. Ratios in the universities of Ghana, Cairo and Makarere stand at 19, 28 and 20, respectively. The academic to non-academic staff ratio for Jima, Alemaya, Mekele, Addis Ababa and Bahirdar universities is, respectively 2:1, 1:3, 1:1, 1:2 and 1:1 showing the inefficiency and budget allocation that is skewed towards administrative rather than academic affairs in the universities. From the recurrent budget allocation of the universities, in general, consistently more than 30% goes to salaries (Table 2) and over 15% to student food and room. During the last eight years, out of the total capital investments made to higher education, not less than 45% was allocated/utilized for construction and procurement works related to dormitories and cafeterias. This has constrained investment on academic related activities, such as books, library, laboratory, equipment and faculty.

The five-year (2005-2010) education sector development program (MOE, 2005) indicates that the higher education system in Ethiopia should be moving away from exclusive enrolments of 1-2% of the age cohort towards increasing participation to over 5%. This is an ambitious plan, but a necessary one if Ethiopia is not to be left further behind in the increasingly knowledge based global society. The budget allocation for higher education will be about 25% of the total education budget, primary education accounting for 54.8% of the budget (MOE, 2005). For the planned period, a total budget of over 1.52 Billion USD (1.1 billion USD for recurrent and 482 million USD for capital) is earmarked for the higher education sector.

The allocated budget is expected to cover the cost for quality education (faculty, books, laboratory, etc.), administrative costs (generally high) and student support (food and room). The challenge is to broaden access while still covering student tuition, food and room with the taxpayers' money. The inappropriateness of covering the full tuition and food and room cost for a small proportion of the age cohort is starkly clear and has increasingly become questionable. Furthermore, the irony is that a significant number of students are enrolled in fee-paying programs of the evening and summer courses in public institutions. In 2003/04, for example, 53,780 students (31.2% of total enrolment or 45.9% of those in public institutions) were enrolled in the evening and summer programs in the public institutions (Table 3). Therefore, the total student population that is practically fee-paying (in both public and private institutions) account for about 54% of the total higher education student population. These students, in practice, are not only paying tuition fees but also cover the full cost of food, room and transportation.

Table 3: Students Enrolled in Public Institutions under the Regular, Evening and Summer Programs in the 2003/04 Academic Year

Institution	Regular		Evening *		Summer *	
	BS	F	BS	F	BS	F
Addis Ababa University	17,652	3,159	16,803	4,544	3,173	419
Debub university	6,846	1,410	3,167	684	2,032	311
Alemaya University	6,891	1,599	2,216	422	2,153	107
Bahirdar University	7,390	1,444	6,436	1,354	2,506	318
Jima University	8,532	1,644	4,511	1,039	1,328	139
Mekele University	6,774	1,350	3,392	812	886	67
Gonder University	3,757	979	1,882	646	-	-
Arbaminch University	2,934	422	1,290	219	310	4
Nazreth College of T.T.E	2,440	664	1,136	201	559	22
Total	63,216	12,671	40,833	9,921	12,947	1,387

Source: MoE, 1996 E.C. (2003/04) Education Abstracts
* Fee-paying

Furthermore, in the last decade, in any one-year, on average 2000 Ethiopian self-sponsored students have been enrolled in Indian universities, covering their transportation from and to Ethiopia, tuition, food and other living expenses. On average these students pay 250 USD per month for their food, room and transportation. In addition, they pay a one-time payment of not less than 550 USD to enroll in a program and a yearly tuition of 200-300 USD for non-professional programs (business, geography, sociology, etc.) and not less than 2000 USD for professional programs (engineering, computer sciences, etc.). All the above indicate that a large percentage of students are covering their costs of higher education.

The large proportion of the higher education student population is undoubtedly made up of people drawn disproportionately from the socio-economically advantaged group of the Ethiopian society. The larger taxpayer public inappropriately subsidizes this privileged group for its higher education. It is inequitable that a very small proportion of the age cohort who attends higher education is getting their education as well as food and room at the taxpayers' expense. The increasing need for more public budget to expand access, the requirement to redress inequitable subsidies by taxpayers to a small proportion of the age cohort and the desire to diversify revenue, therefore, necessitated the introduction of cost sharing in Ethiopia.

Cost Sharing in Ethiopian Higher Education System

a. Policy and Legal Frameworks

A comprehensive Education and Training Policy (TGE, 1994) was adopted in Ethiopia, with a view to enhancing the education sector as key to socio-economic development of the country. The policy stresses issues of quality and relevance in educational programs; quality of teaching staff and facilities; improvement of learning process towards a focus on students; improvement of management and leadership; introduction of financial diversification, including income generation and cost-sharing by students; and improvement in the system of evaluation, monitoring, autonomy and accountability. Higher education policies and strategies are designed and implemented with the same objective of ensuring national development and competitiveness.

The policy states that government will cover fully for the cost of education at primary level and up to grade ten, while the beneficiary has to share cost at the secondary and tertiary levels of education and training. However, until very recently there were no direct charges on students who attend higher education in Ethiopia. Cost sharing has been implemented in higher education institutions only in October 2003, following the promulgation of the Higher Education Proclamation (FDRE, 2003a) and the Cost Sharing Regulations (FDRE, 2003b). According to the provisions of these legislations, any student who has entered an obligation for repayment and graduated from a public higher education institution is required to share the cost of education and training, and other services. Payment of the cost is to be effected in a form of a tax payable from the salary or other earnings obtained after graduation. The scheme adopted is a "Graduate Tax", which principally is an Income Contingent Repayment System of Australia, slightly modified/adapted for implementation in Ethiopia.

Public debates and dialogues with students were undertaken prior to the implementation of the cost-sharing scheme in 2003. Actually, discussion with students and the public started in 1999/2000 when the scheme chosen then was a mortgage loan type mechanism involving the Development Bank as lender. However, most of the students who participated in the 2000 debate in the several institutions had graduated by 2003 during which another round of debates were initiated. The 1999/2000 proposal was not effected due to the Ethio-Eritrea war, which started in 1998. The introduction of cost sharing at such a difficult and sensitive time was rightly unnecessary from political and practical considerations. The lapse has given the Ministry of Education to look into the proposed loan system and choose another alternative that may get quicker and smoother acceptance both by the public and government. However, it has to be recognized that there is no single "ideal" model that is appropriate for all countries (Woodhall, 2004). The revision by the Ministry, then, came up with a "slightly modified graduate tax" model on the basis of the one that was effectively applied in Australia.

b. The Principles of Cost Sharing in Ethiopia

Cost sharing is defined in Ethiopia as a scheme by which beneficiaries of public higher education institutions and the government share the cost incurred for the purposes of education and other services. A beneficiary is any student at a public institution pursuing higher education/training and who has entered into an obligation for the future payment of the cost of his/her education/training and other services, as the case may be.

Who?

The scheme focuses on the beneficiary student and in principle excludes parents from any legal obligation. However, parents could pay to their children's education on a personal basis and willingly. A parental contribution is based on the principle that the student is still a dependent child, and that parents have an obligation to see to the full education of their children (Johnstone, 2002). In Ethiopia, the focus on the beneficiary students is not only based on the assumption of substantive private or individual benefits from higher education, but also on the principle that these 18 year-olds are legally independent adults in most aspects of their lives. When it comes to higher education, therefore, there is no reason or legal basis to consider them as dependents on their parents. Furthermore, their obligation is effected only after graduation when the students are in the world of work and, for all practical purposes, independent of parents.

Governments and students are the two most important and legally obliged parties that share the cost of higher education. Parents could come into the picture, only as willing party. When parents are willingly contributing to their children's higher education cost, it is mainly to fulfill their social and moral obligation. As alluded to by Johnstone (2002; 2004) and Merisotis & Wolanin (2002) parents also derive considerable satisfaction from their children's education and from their sense of economic security and social status increment, as graduates of higher education are commonly earning relatively high incomes and are privileged members of the society. Parents are able to make up-front payments with the view of having their children free from any indebtedness in the future, or they could make repayments after graduation. In such cases, although legally excluded from any mandatory obligation, parents become one of the sources of alternative non-governmental revenue for higher education.

What?

In Ethiopian public higher education system, not only tuition but also food and room were provided for free. In many countries, free food and room services have been abolished a long time ago, or were not even part of the services of the system at all. With the introduction of cost sharing in Ethiopian higher education landscape, beneficiaries of public higher education and those who enter an agreement are required to share full costs related to food and lodging and a minimum of 15% of the tuition cost. The amount shared is calculated at the beginning of each academic year based on the cost incurred in each institutions and depends on the program of study. Accordingly, the full cost of food and room is estimated to be about 220 USD per student per annum, while the 15% cost of tuition that is to be shared by a student is in the range of 100 to 230 USD per annum per student. Tuition fees differ on the basis of the program a student follows-medicine being the most expensive and humanities and social sciences being in the lower ranges.

Why?

Higher education of an individual increases his/her productivity, brings higher personal earnings and improves livelihood. These individuals become respected members of the society. They also become people with better ability and access to acquire and use information to deal efficiently to the changing environment locally and globally. While these are some of the private returns of higher education, investments in people are critical for a country's socio-economic development, as well. The social or public returns are also significant, although these benefits accrue to society only after several years. Investments in higher education make other investments (in physical capital and infrastructure, human resource development and service delivery, etc.) more productive. While individuals are required to pay for their higher education, the taxpayers also have a responsibility to share these costs as beneficiary parties. Furthermore, as not all groups and individuals in society can afford the full cost of higher education, sharing of the cost by the public becomes essential mechanism of delivering social responsibility.

As is the case in many other countries, the major reasons for the introduction of cost sharing in Ethiopia include:

a) Supplement revenue as alternative non-governmental source

As government could not indefinitely and sustainably continue to invest on higher education as it does today, revenue needs to be supplemented through cost sharing and other revenue/income generating activities. There are also other compelling and competing needs, such as primary education and health, HIV/AIDS and malaria, safe drinking water, infrastructure and many other public services. One of the arguments to introduce cost sharing is that public resource to higher education is declining and governments are unable to keep up with the budget demand (Johnstone and Abebayehu, 2001). In the Ethiopian case, as shown in Table 2, the absolute amount of resource allocated to higher education, did not decline and its share from the overall education budget is still relatively high. This situation has, in fact, for the last 5-6 years, been a point of concern during the education sector joint review missions and annual and consultative meetings with development partners (World Bank and donors) of Ethiopia who contend that higher education share is increasing. It is, however, true that the budget is not keeping up with the pace of increasing student population, resulting in a decline to the student unit cost over the years. This requires alternative revenue sources to supplement revenue. Graduate tax is, therefore, an alternative scheme to supplement revenue. It is not a replacement for government budget to higher education for a long time to come. Furthermore, looking into the fact that over 50% (of which 31% are in public institutions) of higher education students in Ethiopia are covering their cost of education and services fully, and that not a small number of Ethiopians are traveling abroad (particularly India) to get higher education covering all costs, it is appropriate that cost sharing was introduced in Ethiopia as an alternative non-governmental revenue.

b) Address equity vis-à-vis opportunity to higher education

Students getting placement in universities are only a small proportion of the potential student population and insignificant compared to the general taxpayers population who require a number of services from government. As described earlier, only 1-2% of the age cohort is getting access to higher education in Ethiopia. If students are not charged for higher education, the minorities who receive it are being subsidized by those who do not attend higher education and by the larger society. The National Household Income Consumption and Expenditure survey of 1999 indicates that not less than 71% of tertiary students come from households in the top income quintile. Furthermore, these individuals on average have high private returns while the majority poor taxpayers are paying for the higher education of the minority. It is therefore, equitable that those who receive higher education pay at least a part for the additional individual benefits they receive.

There is also a view that government priorities should be directed at funding basic education rather than catering essentially to a social and economic elite educated in higher education. The argument is that basic education is one of the basic rights of citizens that the taxpayers' money should be used for. Since graduates benefit so clearly and substantially from higher education in an economic sense, then it is only fair that they should share the cost of providing it.

c) **Maintain and enhance access to higher education opportunities**

Diversification and increasing funding sources facilitate expansion of opportunities by increasing access to students. It will possibly also contribute to improving facilities such as library and laboratories. Although the cost shared is not a direct revenue or is not directly recovered by the institutions themselves, the government's investment is expected to improve access and quality of higher education. The government has to continue to invest on higher education as an important sector in national capacity building, in anticipation of some cost recovery in the future, in order to push management reforms/transformations in institutions and other public and economic considerations. This will ensure the expansion of access and improvement of opportunities to a larger number of the age cohort to higher education.

d) Make students "customers-like"

As customers who share costs of education and services, students contribute to and ask for better efficiency in management of institutions, quality of teaching learning and services. The students will also become more responsible to their education. As value for money, students will increase their desire for transparency and accountability of faculty and the institutions. Institutions, as a consequence, would be required to put in place management systems that allocate and utilize existing resources efficiently and effectively. Furthermore, they need to develop and nurture initiatives to diversify revenue and become student-experience oriented/centered in all their undertakings. By sharing costs, therefore, students will proactively and increasingly become centers of higher education activities and strategies. They directly or indirectly influence the betterment of quality and relevance of their education and training.

Implementation of Cost Sharing in Ethiopian Higher Education Institutions

a) "Graduate Tax"

Graduate tax is basically an income surtax, almost over a lifetime, related to earnings as a means of repaying part of the cost of university education. Graduate tax in the Ethiopian context refers to a scheme by which an amount is deducted from the future income or earnings in the form of a tax to be paid by a beneficiary who agreed to share the cost of his/her higher education including services. The scheme essentially foregoes any mandatory parental contribution. Beneficiaries (students) of public higher education are required to share full costs related to food and lodging and a minimum of 15% of the tuition cost. The amount shared is calculated at the beginning of each academic year based on the cost incurred in each institutions and the program of study. This has to be revealed to the students and they enter an agreement to pay the amount either up-front or after graduation as deferred payment (graduate tax), or in principle as loan to be paid from their income in the future. Raising additional income for higher education from the beneficiaries of the system is, in principle, a fair way on which a graduate tax operates. The repayment arrangements for a graduate tax mean that the students don't pay anything while studying. They only pay after they have graduated and start earning incomes. The repayments are then practically collected through the tax system.

The Ethiopian "graduate tax" is, therefore, a slightly modified form of the basic understandings of a graduate tax as introduced in Australia in the 1990's. The specific features of this modified graduate tax are:

i. The cost of tuition, food and room are to be borne by government, and collected as repayment from the beneficiaries (students) of higher education only after graduation and employment. No means of testing parental or individual income or criteria for loan eligibility is required to be a beneficiary. Thus, all enrolled students are eligible to enter agreement for cost sharing and obligation of future repayments.

ii. Beneficiaries are required to start payment, in principle, after a one-year grace period. There is no lower limit of earnings below which repayments are not expected, i.e, repayments have to start after the grace period whatever the income. The assumption here is that a university graduate's salary or income will not be in the lower income brackets of the larger society and will be sufficient to cover the somewhat 8-12 USD per month repayment required. In the case of Ethiopia, therefore, there is no need to have the ability to stipulate and verify income that is to be taxed in order to arrive at the proper repayment amount. The other assumption is even if people may earn different incomes upon graduation, they may have similar amounts of "debt" to repay.

iii. Only beneficiaries of higher education after the introduction of cost sharing (i.e., students enrolled after 2003) have the obligation of entering into contractual agreement and repay the amount owed in the form of a graduate tax. It is not education surtax imposed on every citizen and does not refer to those who obtained public higher education prior to the implementation of cost sharing in the country.

iv. Students enrolled in programs that are chosen by government for exemption may be required to repay their due in kind (providing the necessary public service). Such a program at the moment is teacher education and students trained as secondary school teachers are not required to pay their share in monetary form. Rather they will be required to serve as teachers for a specific number of years. There is no hidden agenda to assign students to any vocation that the government wants with this provision, as some such as Shimelis (2004), seem to assert. The World Bank (2003) asserts that more than 30% of graduates enrolled in teacher education programs exempted from the graduate tax are in the category of non-recovery of payments. However, these groups are repaying their due in kind that is, in some cases, more important than the pure monetary recovery. Shimelis (2004) presumed that such modalities will be taken up by risk-averse poor rural students and concluded that such modalities have failed and are rejected by students. However, the fact is that the cost sharing scheme has been only in its second or third year of implementation and it is hard to conclude that some modalities have failed. First, with the graduate tax implemented in Ethiopia there is no issue of risk-averse or risk-taking by students. The system is designed to work for all students on equal basis whether from a poor or rich family. Second, enrolling in teacher education programs has no risk-averse related advantages, as the student is not exempted from repayment - he or she is exempted only from repaying in cash. It has to be clear that many students do not choose teacher education programs irrespective of the provisions of the cost sharing being implemented. Therefore, this can hardly be equated to rejection of the monetary repayment waiver.

v. Graduates may be required to repay differential amounts depending on the band of programs of study they followed. Thus, generally, social science programs are in lower range while medicine and pharmacy are in the upper range. However, some programs may have artificial high cost due to the low student faculty ratio and widespread inefficiency in the system.

vi. The completion of the repayment of the amount owed is expected to be effected within a maximum of fifteen years, depending on the type of program studied, unless a person decides to finish repayment in a shorter period. The repayment period is calculated on the basis of minimum monthly salary that graduates of different disciplines (e.g., biology, geography, engineering, medicine, etc.) would get upon employment. Thus, on the assumption of a range of about 82 USD to 140 USD monthly salary, the amount due for education and services (i.e., about 870 USD for a three year program or 1395 USD and above for a five year program), is expected to be repaid within ten to fifteen years, usually with a monthly repayments of about 8-10 USD deducted from incomes.

vii. The monthly minimum amount to be deducted from earnings is 10%, but the beneficiary could decide to pay more, but not more than 1/3 of the monthly salary or income. The 10% tax is not a surcharge added on any declared income. If the beneficiary has multiple income or earnings more than the minimum assumed as discussed above (vi), then there will be a faster completion of the amount owed and a lift of graduate tax obligations. Therefore, revenue loss, perceived inequitable treatment because of income differences or disincentive to declaration of income will not be issues.

viii. The total amount payable is subject to service fee or interest, determined pursuant to the deposit rate in use at the time of conclusion of the agreement.

ix. The repayments are deducted from earnings in a from of a tax and the employer (self or other) is obliged by law to collect the specified amount (or what the beneficiary adds over and above) and transfer to the Federal Inland Revenue Authority or the Treasury.

x. Beneficiaries can pay the calculated amount up-front, and an incentive mechanism by which a 25% reduction on payments is effected is built in the system. This gives an opportunity for parents to willingly cover the cost of education of their children. This is a viable incentive, unlike the assertions of Shimelis (2004) who considers the amount reduced to be so small to attract students and parents for up front payment.

Why Ethiopia chose graduate tax over other systems is mainly because graduate tax was considered and felt attractive to government and students as a simple and manageable scheme. In addition, it gives a sense of deferment of payment addressing the issue of parental and individual inability to pay up front or to take a loan in part of the community that is debt-averse.

The graduate tax scheme, however, is not without some drawbacks. The major ones refer to the following.

- Government would not recover money for several years. Recovery or revenue from taxation only begins after four to five years of the introduction of the scheme. It is likely to be a decade or more before the system begins to properly pay itself and that break-even point may be reached. The initial investment by government as a form of grants before the first graduates begin to repay anything through taxation is high and may constrain public treasury to shoulder the burden in light of other competing and compelling services.

- There is no guarantee that the universities would receive the additional funding raised, except for the relatively small amount of up-front payments. Government, therefore, has to develop a credible and transparent mechanism by which extra revenue would be dedicated to higher education.

- There are possibilities that beneficiaries may avoid repayment making the scheme unattractive and ineffective alternative revenue source. Information about the beneficiaries' whereabouts is not centrally or regionally well documented. This, therefore, necessitates efficient and modern taxation mechanisms and improved but costly government bureaucracy to keep track of the increasing number of graduates.

b) Students' and Public Perceptions

The perceptions, opinions and reactions of both the public and students were mixed to the introduction of cost sharing in Ethiopia. The following points are based on reports of debates in many universities and the public debate on radio and newspapers conducted in 2002/03 prior to the introduction of cost sharing in Ethiopia. While many agree to the principle of introducing the scheme, they also ask why it should be introduced at this time. The reasons are partly out of personal interest (parental obligations, including to the would-be students) and partly out of pessimism about what the cost sharing would bring in terms of improving the higher education systems, better quality delivery and expansions. In general, as discussed in Johnstone (2002; 2004), any policy that seeks to impose a new or sharp increase in the price of a good or service that has come to be viewed as an entitlement, especially as important as higher education, will be fiercely contested.

A large proportion of the public realizes that beneficiaries have to cover part of their cost of higher education and the services. Most believe that a very small proportion of the age cohort is enrolled in higher education and needs to cover cost to ensure equitable redistribution of taxpayers' money. Many have also realized that the introduction of cost sharing in the form of a graduate tax will level the field for both the affluent and the poor students, as all are required to pay back only after graduation. A significant number of the people also believe that the repayments would bring some additional money to the treasury that would eventually be used to expand and improve the higher education sector, improving access and opportunity. The benefit that cost sharing brings in the form of pressure on the institutions to be more student centered, efficient and proactive to the students' and market demands also appeals to many. Some relate the necessity of introducing cost sharing to the need by the public to get better education (mainly primary), better health services and other socio-economic services that are budgeted for by the government to be given priority over higher education in supporting the scheme.

A segment of the public that resents cost sharing root their cause by stating that education, at all levels, is a public good that shall be provided by the government. It is generally perceived that provision of education should be free and is the sole responsibility of the government. Some assert that if government becomes more focused on reducing corruption and widespread inefficiency and mis-use of resources, then there could not have been a need for cost sharing in higher education. Lack of clear understanding of the cost sharing scheme was also a reason for resistance. One such situation is that some, including current students, claim that the scheme is designed to leave behind students from poor backgrounds. Whereas the scheme has not put any mandatory obligation on parents, many students have expressed concern that their families could not be able to pay for their education.

Resistance and rejection of the scheme by many of the students are related to their own personal experience in higher education and the wish to have a greater impact for transformation in the system. One issue raised is the timing of the introduction. Many ask why it should be introduced now, while they are still students and why not after they have graduated. Many also question why the scheme does not include all beneficiaries of higher education, past and present. They ask for education surtax. Many associate the introduction of cost sharing to the increasing cost of education and services in the universities, which are actually due to the widespread corruption, inefficiency, wastage, and managerial and administrative incompetence of the institutions. Few even go to the extent of asking for a leadership, administrators' and personnel changes and a betterment of the food and room services before the introduction of the cost sharing scheme.

Another critical issue raised was how they could enter into an obligation to pay in the future, while they are not sure whether they could get good jobs or not after graduation. They even insist that the government make sure that they get jobs. The perception that cost sharing is an imposition from the World Bank and Western governments was also a widespread issue. This is considered as a breach of sovereignty and interference in our internal affairs and was used for rejection of the scheme.

Students also question why they were not consulted during the design and policy draft of the cost sharing scheme. Although this is overplayed, it has some truth. To a large extent, consultation of drafts with many university heads and the community had helped in pacifying the policy and creating awareness among administrators, faculty and students. However, the lack of ownership and sense of responsibility by some institutions have resulted in the misunderstanding of the policy by faculty and students. In addition, the graduation of students who were involved in the consultations before the introduction of the cost sharing may have contributed to the complaint of many “new” students, as the preparation phase has taken over three years.

In general, there is a strong need for a detailed study into the perceptions and the reasons of resistance both by students and parents. Success in ensuring compliance and inculcating social responsibility may be forged easily by creating an understanding between the government and the beneficiaries that get taxpayers’ subsidies for their higher education.

c) Repayment and Cost Recovery

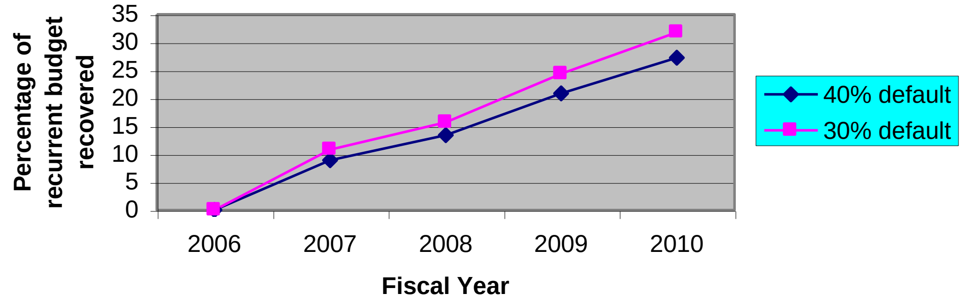
Repayment or recovery of cost is effected on the basis of the legally binding agreement that a beneficiary student entered into with the institutions at the beginning of each academic year. With this contract, the student has given his/her agreement that amount owed will be paid from future earnings in the form of tax deductions according to the provisions laid in the pertinent laws.

Johnstone and Abebayehu (2001) stressed that the Australian type income contingent loan (graduate tax) will not provide a significant alternative non-governmental revenue system for Ethiopia. They suggest a modest upfront tuition fee in addition to a gradual lowering of subsidies to room and board. The revenue collected by the graduate tax scheme may not be significant, particularly in light of the huge amount of budget and investment required to expand access and maintain quality and ensure relevance. However, if the recovery rate is kept high, the amount to be generated from the graduate tax is not small by any standard. By the year 2020, the share for higher education from the total education spending would be some 4 to 5 percentage points lower with cost sharing than without it (World Bank, 2003). The income from cost sharing would then represent a significant and fairly reasonable 20% of the total cost of running the higher education system in the outlying years, say 2015 or 2020.

As discussed earlier, the amount shared by students in Ethiopia is extremely low, in the range of 320 to 450 USD per student per annum. It seems high when looked from the perspectives of the per capita income. However, graduates of higher education are in the relatively top segments of the society in terms of their annual income that is commonly not less than 900 USD. According to the estimated budget projection for the period 2005 to 2010, recurrent budget is expected to rise from about 90 million USD in 2005 to over 260 million USD in 2010. Assuming that the 2003 entrants of higher education start repayment by 2007 and 2008, and that there would be about 30% default, the amount that would be recovered could reach up to about 10% of the recurrent budget of the 2008 fiscal year, which amounts to 1.4 to 1.6 million USD of the 12-14 million USD estimated recurrent budget (Fig 1). As the number of students coming into the pool of repayments increases, the amount recovered also increases. After 2010, the amount recovered could reach over 20% (for instance about 8.2-9.6 million USD out of the 71-83 million USD estimated recurrent budget of 2010) of the recurrent budget of the respective fiscal periods[1].

[1] The estimates are calculated assuming that (a) payments are to be completed in an average of ten years and the amount owed by graduates is thus paid 1/10 in each fiscal years for ten years, (b) 1/10 payment of 2003 university entrants is to start being recovered in 2007, 1/10 of the 2003 and 2004 entrants in 2008, 1/10 of 2003, 2004 and 2005 entrants in 2009, and 1/10 of 2003, 2004, 2005 and 2006 entrants in 2010, (c)the annual recurrent budget estimated on the basis of student enrolment increases anticipated and are estimated as 142, 176, 214, and 261 million USD in 2007, 2008, 2009 and 2010 fiscal years, respectively.

Fig 1. Possible cost recovery percentages of the recurrent budget with graudate tax scheme under two recovery scenarios



Is this a significant revenue may be a question, but the important issue here would also be whether the picture would be different if the scheme adopted was a loan system. There are few examples of loan programs that have brought substantial relief to their governments or taxpayers for the support of higher education (Johnstone, 2002). According to Colclough (1997) non-repayment (associated with default, subsidies and administrative costs) of loan were as high as 108% in Venezuela, 90% in Brazil and 103% in Kenya. In any case, however, the long-term effect of any form of cost sharing scheme is significant. Graduate tax, in Ethiopia, has the advantage of being simple and manageable, administratively attractive and politically sound, but also generating some alternative revenue.

Here, considering the relatively small amount of revenue that could be recovered from cost sharing, it is important to mention that the amount of tuition fee and the requirement of government to cover costs of food and room to beneficiaries need a major revisit and reconsideration. It is appropriate to focus on tuition and address the problem of food and room services provided to students. These services are really affecting the possibility of focusing on improving quality in the institutions. University management and leaders spend most of their time and energy on providing these services rather than on enhancing quality of education. The government should totally get out of subsidizing and, even giving the food and room services in selected institutions (such as Addis Ababa, Bahirdar, Mekele, Debub-Awasa campus, Nazreth universities). Outsourcing of these services is a long overdue issue. The tuition fee currently installed is underestimated. Furthermore, students are now required to share only 15% of this underestimated cost. This will not bring a substantial amount of additional revenue that is required to expand and improve the higher education delivery in the country in the near future.

Unlike the assertions of Chapman (1999) and Chapman & Ryan (2002) that there is no chance of default under income contingent repayment, there are issues of default that are anticipated in the implementation of cost sharing in Ethiopia. There are some expectations of defaults even under the graduate tax system implemented in Ethiopia. Some of the reasons for the default could be:

- Lack of information about the whereabouts of the beneficiary after graduation
- The less controlled mobility of beneficiaries outside of the country, and
- Weakness in the tax collection mechanisms.

The situation is not any different from the case of a loan collection that, according to Johnstone (2004), is difficult to recover in the best of circumstances, even from guarantors and cosignatories. In anticipation of these possible defaults, some precautionary mechanisms and legal provisions have been put in place. These are discussed briefly below.

a) Upon graduation and employment (self or other), the beneficiary has to inform the full address of place of work and residence as well as prior employment to the Federal Inland Revenue Authority. Although this relies on compliance, it is giving a provision for legal enforcement or for improvement of the national information system.

b) If a beneficiary decides to leave the country for more than six months before completing the repayment, the person is required by law to provide a guarantor for the outstanding payment. Although this is provided by law, it is difficult to enforce and at the moment impractical to effect. The first reason is that as an expression of freedom of movement, the government has lifted the requirement for an exit visa for Ethiopians, which could have served as a point of control on repayments. The second reason relates to the willingness, honesty and responsible actions of the beneficiary to produce a guarantor. It is also hard to ask for a guarantor once the beneficiary has left the country. The remedy to these leakages could be the introduction of a requirement for counter-signatories at the time of the contractual agreement or a better passport control at exit while not reinstating exit visa requirements.

c) The cost sharing regulations has included specific provisions to improve the tax collection system and ability of the Federal Inland Revenue Authority. Institutions of higher education are obliged to keep a record of all necessary data. They are required to keep data on each beneficiary and transfer these to the Ministries of Education and Revenue for tax collection purposes. Taxation authorities in Ethiopia are given a task in administering and following up the repayment of dues from respective beneficiaries. Setting up a necessary structure, they may follow up the beneficiary through a Tax Identification Number (TIN) possibly given to each student at the time of registration, and issuance of certificate to those who completed their repayment. They are also required to notify each beneficiary and prospective employers about the amount owed and the mechanisms of payment. Facilitation of the collection of the graduate tax from beneficiaries employed in regions is also coordinated by the Federal Inland Revenue (Tax) Authority.

d) Employers are, by law, obliged to withhold a specific percentage of the monthly earnings of any employee (beneficiary of higher education), as they normally do in the case of collecting pension contributions. They have to transfer these amounts in the name of the beneficiary to the Tax Authority. This form of collection from an employee continues until the beneficiary produces a certificate of completion given by the Tax Authority. Any employer (self or other) who fails to discharge these obligations is liable for the amount not collected and is guilty of an offence according to the tax laws of the country. This is relatively easily enforceable.

Chapman (1999) has argued that an income contingent loan collected along with, and by, the government's income tax collection mechanisms will almost certainly not provide significant cost recovery for the simple reason that Ethiopia does not at present have a workable income tax system, and is not likely soon to have one. However, unlike these assertions that were made without detailed in-country analysis, Ethiopia has a workable income tax system. The system obviously needs strengthening and modernization. The Ethiopian income tax collection system is weak, particularly in terms of capturing all taxable citizens and residents, and the amount collected from those captured is not as it should be. The income tax collection from the over 300 thousand civil servants is very efficient and effective. The majority of the Ethiopian people, 85% or more of whom are farmers, are generally captured in the system though the total amount collected is not high. Income tax collection was relatively more difficult when it comes to the business community and people employed in non-governmental and international agencies. The increasingly growing private sector and business development is addressed with the recent introduction of value added tax (VAT) replacing sales tax. The sales tax were hardly collected and transferred to the treasury.

The introduction of VAT, the provision of tax identification numbers (TIN) and the decentralization of tax collection to local authorities and districts will further increase the tax base and improve the collection of tax. The new tax laws also oblige private, non-governmental and international agencies to collect tax from their employees. Although supporting data is not yet well collated and available, this has improved compliance and brought increment in tax collection. Introduction of e-government that will possibly improve information about people and facilitate better tax collection should be pursued with urgency.

The most important success factor, however, is educating the citizens and inculcating a shared value of social responsibility. Tax is generally assumed to be a take-away from the people. The fact that the tax collected is used for the provision of social services, such as education and health care, safe drinking water, policing, as well as other economic activities such as infrastructure, is not well recognized. Thus, education is a very effective tool in improving compliance and increasing tax collection base.

Conclusions and Recommendations

Ethiopia needs to expand its higher education to produce highly trained human resource that is critically required for development and poverty alleviation. To achieve these goals both public and private higher education provisions have to be further expanded. However, free higher education is not feasible and simply inappropriate for Ethiopia. Although the current development of private higher education is encouraging, it needs more support and focus to provide more space and opportunity to potential students and deliver education and training with the requisite standards and quality. The fee-paying programs of public institutions also need to be strengthened and maintain quality standards.

Students in public higher education are a very small percentage of the age cohort and it is no more equitable to cover their costs of higher education, food and room by the taxpayers. With the increasing private provision and strengthened fee-paying programs in public institutions, although currently a little over 50%, the non-fee paying segments of the overall tertiary level students would be a minority very soon. Although their education has significant social benefits, they need to share part of the cost of education as they get additional individual benefits for the higher education and should therefore cover fully the cost of food and room. There are quite a significant number of students covering their full cost of tuition, food, room and other expenses, both locally and abroad. The commitment and desire of the Ethiopian people to get higher education is demonstrated by the fact that about half of the higher education student population is enrolled in the private and fee-paying programs of public institutions.

In funding and managing higher education, improving resource allocation and utilization policies/strategies, reorganization, redeployment of personnel, program closures, and diversifying income-generating activities need to be picked up by the system urgently. Improving managerial efficiency include the efficient utilization of block grant budgets, introduction of cost reduction measures such as changing academic and administrative staff ratios, increasing class or changing pupil teacher ratios particularly in the humanities and social sciences fields. Although the government is currently spending not less than 15% of the education budget to higher education, it has to continue investing in higher education for a long time to come. However, the policy towards funding universities needs to be based more on concerns of equity, efficiency and accessibility.

Graduate tax has the potential to help achieve these goals. There are skeptics that say graduate tax does not and cannot work in Ethiopia. There is a good indication to the contrary. Graduate tax can contribute to revenue diversification making cost sharing politically smart, socially acceptable and economically feasible. Targeting the beneficiary student as the ones with the obligation of repayment has a contribution to creating responsible citizenry and encourages students to become cost conscious and recognize value for money. More importantly, the graduate tax scheme, as implemented in Ethiopia, ensures equitable access to students of any background, as there is no need to stipulate income of parents to arrive at the repayment amounts. Incentives to encourage able parents to pay for their children's education up-front should be pursued with vigor, as this can generate direct alternative revenue to the institutions. As stipulated by the World Bank (2003), if the cost sharing implemented in Ethiopia works well, the arrangement should make the higher education system more accessible, more equitable and more efficient in the allocation of resources.

For graduate tax to be a significant alternative non-governmental revenue source, however, some policy and implementation issues need to be given serious consideration. These include:

i. Immediate removal of all subsidies to food and room need to be effected. These services are better provided by the private sector and local communities, which are often efficient and able to give competitive advantage to students.

ii. The current tuition cost is underestimated. Therefore, true costs of educational program expenses should be calculated in each program and institution. Programs that are not cost effective or that are not chosen by students need to be identified and either closed or sponsored by government if required for the benefit of the nation. This has to be a requirement of all institutions as a basis to get each year's budget.

iii. The tax collection mechanism needs strengthening, particularly by providing each and every citizen a tax identification number (TIN). Universities should also devise a system that uses the TIN in their engagement with the students. Decentralized tax collection will also contribute to more efficient tax collection. Management information systems in higher education institutions and the tax collecting authorities/agencies have to be updated, harmonized and shared. Taxes on income and sales are technically difficult to collect and too easily avoidable, depending on the government’s ability to monitor income and sales cost effectively, as well as on a developed culture of tax compliance (Johnstone, 2002).

iv. Although asking each beneficiary for guarantors at the time of contract agreement in each university is difficult, this will be one of the measures to tackle problems of default. In relation to addressing problem of default by émigrés, although argued against on grounds of right of movement (human rights), mechanisms in the passport control during exits need to be put in place.

v. The public and students need to be educated and made aware on the need and benefits of cost sharing. Furthermore, it is suggested to have exit seminars to students reminding them of their obligations and social responsibility before leaving the institutions after graduation. Detailed study into the perceptions and the reasons of resistance need to be done. Understanding between the government and the beneficiaries is critical and beneficial for success.

vi. Government needs to put in place a credible and transparent mechanism by which extra revenue would be dedicated to higher education. The extra revenue needs to be earmarked for improvements of academic quality, benefiting such undertakings as books, equipment, quality and dedicated faculty. This enhances the confidence of both the public and the university community including students, towards fulfilling their responsibility. In the near future, once the cost sharing in public higher education takes root within the society and the benefits of it in ensuring equity, efficiency and accessibility is cemented, Ethiopia needs to focus on generating direct revenues to the universities in the form of up-front payments by the beneficiaries and their parents. This may require the institution of a need-based system of financial assistance to students.

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