OCCASIONAL PAPERS

Cost Recovery Approaches in Education in India

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Abstract

The 'neo-liberal' economists and the economists believing in welfare state philosophy constitute two distinct schools of thought on issues relating to financing and cost recovery in social sectors like education. The present paper is an attempt to examine the arguments of these two schools of thought. Specifically, it (a) looks at the several approaches of cost recovery in education, (b) discusses the pros and cons of the several approaches, including their effects on equity and efficiency, and (c) reviews the experience of some of the countries in this regard. Such an attempt is hoped to help in discerning some valuable lessons for educational policy makers and planners around the world, faced with difficult policy choices.

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1 *Cost Recovery in Education*

Long ago Coombs (1965) predicted the world education crisis. *A View from the Eighties* reconfirmed it and its continuance in the near future (Coombs, 1985). A very striking aspect of the crisis relates to financing of education. Almost all education systems around the world -- in the developed as well as developing countries -- have been in deep financial crisis. Public budgets for education are shrinking both in current and real prices, per student as well as totals (see Tilak, 1993c). It is widely recognized that the requirements of the education systems increase faster and faster, and the likely availability of resources is likely to be restricted, thereby increasing the gap between the financial needs of the system and the level of resources that would be available.

The adjustment and readjustment processes, the mounting foreign debt, balance of payments crisis, inflation, unemployment, recessionary trends and rapid global changes in

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* This is a revised version of the paper presented in the Workshop on the 'Social and Economic Effects of Alternative Methods of Financing Education and Health Services in Developing Countries' organized by the Institute of Development Studies, Sussex, England, (February 28 - March 2 1994). Without implicating for any of the opinions expressed here, the author acknowledges with gratitude the helpful comments and suggestions made by Malcolm S. Adiseshiah, V.N. Kothari, N.V. Varghese and the participants of the Workshop, particularly Christopher Colclough, Mark Bray, David Theobald, Keith Lewin, Charles Griffin and Martin Greeley on an earlier version of the paper. An abridged/edited version of the paper is likely to appear in the workshop based book edited by Christopher Colclough.

political and economic conditions -- in other words, the intensified global economic crisis, marked the beginning of the 1990s, and accordingly the 1990s is feared all over the world as a decade of containment in all sectors, including important human development sectors like education and health. The negative trends in public expenditure on education are feared to get further intensified in the near future. But the social demand for education is not likely to be significantly reduced. It has been clearly concluded that the growing demand for education can no more be satisfied with public budgets alone (Psacharopoulos, 1980, p. 157).

The clearly noticeable trend in many countries around the world in the recent past that public budgets for education are declining and are going to decline further, may imply the following: (a) some of the education institutions may be closed and education may get restricted to fewer and fewer number of students; or (b) education institutions may become highly cost effective and more efficient, and still cater to the needs of increasing number of students; or (c) education institutions may attempt at substantial levels of cost recovery from non-governmental sources and perform at the same level as if no financial crunch is felt. All are likely to happen simultaneously in varying degrees. While alternative (a) may not be feasible in the modern democratic societies, and may not necessarily be desirable in general, alternative (b) may be desirable, but not highly feasible, alternative (c) seems to be more feasible and somewhat desirable than the other ones. Hence the need for cost recovery in education.

Discussion on cost recovery is of relatively recent origin. Solutions to the financial crisis in education were searched for for a long time in the arena of allocation of public resources: concentrating on improving the mechanism of allocation of resources to and in education, inter-governmental transfer of resources for education, raising more public resources (through taxation), improvement in the efficiency in utilization of resources, etc. It is also held for a long time that the benefits of education are vast and widespread, and in the long run the investments made in education are recovered by the society through increased productivity of the labour force and through consequent higher tax receipts by the government, and hence there is no need for any specific measures to *directly* recover the investments made in education. As Mishan (1969) observed, "higher education is an investment and will pay for itself; and will increase the earnings of the beneficiary students and the government will recover its costs through consequent higher tax receipts." But political and socioeconomic compulsions gradually paved way for search for direct measures of cost recovery in education under different garbs:

first mobilisation of additional (public) resources, later mobilisation of non-governmental resources, then diversification of finances, and now cost-sharing, cost-shifting, cost recovery, and user charges. Thus market and quasi-market principles have been brought to bear in education through, *inter alia*, measures like student fees, loans, and other forms of cost recovery, reflecting in all a steady march towards marketisation and privatisation. The term privatisation itself became an important slogan for the 1990s. As Psacharopoulos (1992, p. 114) observed, "the wind of privatization blowing all over Europe is affecting more than conventional markets for goods and services. Education absorbs considerable resources: hence, it is a natural candidate for removal from the public sector."

Measures for cost recovery came into prominence essentially due to worsening economic conditions in general, and declining public budgets in particular, affecting the welfare state activities (Snower, 1993). Under such conditions, the levels of living of the people are also adversely affected with a high probability of pushing down the social demand for education. Introduction of cost recovery measures may accentuate this probability.

In this context several methods are being proposed: some refer to secondary and higher education, and some to the whole education system. The most prominent proposals being made in this context are largely confined to higher education, and they revolve around student fees, student loans, and graduate/payroll tax. These several approaches of cost recovery generate varying levels of funds, and are also associated with several positive and ill-effects, particularly on equity, and also on quality and quantity of education. Rarely the relative effectiveness of the various approaches has been discussed. Hence it is necessary to critically examine the costs and gains of these cost recovery measures. This is attempted in the following sections.

2 *Why and Why Not Cost Recovery in Education?*

The 'neo-liberal' economists and the economists believing in welfare state philosophy[1] constitute two distinct schools of thought on issues relating to financing and cost recovery in social sectors like education. The present paper is an attempt to examine the arguments of these two schools of thought. Specifically, it (a) looks at the several approaches of cost recovery in

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[1] Supporters of 'public choice theory' also belong to the former category, though strong supporters advocate pure private systems of education. The latter are also often labelled as 'structuralists'. See Colclough (1991a, p. 1).

education, (b) discusses the pros and cons of the several approaches, including their effects on equity and efficiency, and (c) reviews the experience of some of the countries in this regard. Such an attempt is hoped to help in discerning some valuable lessons for educational policy makers and planners around the world, faced with difficult policy choices. It may be noted at the very outset that the paper does not discuss several important issues relating to overall financing of education. It focusses on some important measures of cost recovery only.

Cost recovery is defined as a the proportion of public expenditure that is financed through user payments, mainly the students being identified as the users. The beneficiaries can also include employers of educated manpower. Cost recovery can take the form of full cost recovery or partial cost recovery or even zero cost recovery, even though generally the debate is concentrated around partial cost recovery. Secondly, while the debate refers to all levels of education, the intensity of the debate is on post-primary (compulsory) education, particularly higher education.

2.1 *Case for Cost Recovery*

While financial considerations form the most important reason for cost recovery, arguments are also made in favour of cost recovery on the grounds that it would improve quality, quantity and equity in education (World Bank, 1986, 1988; Psacharopoulos and Woodhall, 1985; Thobani, 1984a; and McMahon, 1988). The arguments generally made in favour of cost recovery in education can be briefly summarised as follows:

a) Without significant levels of cost recovery, public budgets will not be able to meet the social demand for education, and education sector may suffer from severe degree of under-investment (Psacharopoulos, 1986, p. 563). Cost recovery measures will allow an increase in the supply of and access to education (Mingat and Tan, 1986b; Jimenez, 1989).

b) It is held that huge public subsidisation of education, particularly higher education, would be regressive, increasing income inequalities by transferring the resources from the poor to the rich, as the higher education subsidies accrue more to the rich than to the poor; and that cost recovery measures can reduce this regressive nature in public financing of education, and thus may in fact contribute to equity in distribution of public resources (Psacharopoulos, 1977; Blaug, 1982, 1992; Mingat and Tan, 1986a; Jimenez, 1994).

c) As price elasticity of demand for education is estimated to be less than unity (Handa, 1972; Turner, 1959; Chutikul, 1986), it is argued that cost recovery measures will not lead to significant fall in enrollments, and accordingly these measures will generate substantial resources for education (Jimenez, 1986a, 1987, 1989).

d) Some argue that demand for higher education is not price elastic, but at the same time it is argued that cost recovery measures will contribute to a fall in graduate unemployment, as the demand for higher education itself might reduce, and/or the relevance of higher education would increase, thereby producing more employable graduates. It is argued that measures like fee can be effectively used not only as a source of revenue for the government, but also as an effective tool for planning higher education by influencing demand for various types of higher education (Panchamukhi, 1983). Cost recovery is in fact viewed by some as an important solution to the problem of graduate unemployment (e.g., Muta, 1990, p. 35).

e) It is also claimed by some that cost recovery measures also contribute to improvement in the quality of education, by providing better and serious student inputs into the system, who will be diligent about studies and vigilant about costs, and accordingly demand seriousness from teachers, and educational administrators that results in improvement in internal efficiency of education. It is also argued that any good or service provided free is not valued by the consumers, and cost recovery measures like fees makes the people to appreciate the value of education, and it ensures regular attendance of the students.[2] By making education expensive from the students' point of view, the 'baby sitting' role of education will be reduced, thereby students' wasting of time in education (McMahon, 1988), and their 'excessive consumption' of higher education would be reduced (Stiglitz, 1986, p. 316).

f) Another strong basis for arguing in favour of cost recovery is the vast evidence on high private rates of return to education in several countries (Psacharopoulos, 1993). As the private rates of return are high, it is felt that the students will be willing to pay for education. Further, not necessarily based on estimates of rates of return, it is generally

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2 These arguments are not however new. The Woods Despatch in the 19th century British India exactly made the same arguments Further the 1844 *Order of the Government of West Bengal* introduced fee in British India to introduce elitism in education.

felt that households seem to be willing to pay reasonably high charges, though not as much as full costs, and that this willingness is not adequately tapped (Gertler and van der Gaag, 1988; Gertler and Glewwe, 1990). And hence cost recovery is not only desirable, but also is easily feasible.

In short, cost recovery, particularly in the form of pricing education, is advocated as a "multi-purpose remedy" to several educational problems (Hall *et al.*, 1975).

2.2 *Case Against Cost Recovery*

Opposition to cost recovery largely comes from structuralists, welfare economists, and specialists in public finance who believe in the philosophy of 'welfare state' in general, and in the externalities associated with education.[3] According to them, education cannot be brought into the market mechanism, as market failures would be predominant in case of education. Important arguments against cost recovery include the following:

a) The benefits of education are not restricted to the students; the neighbourhood or externality effects of education are so large (see Blaug, 1970, p. 108), that any method that aims at full or very high levels of cost recovery becomes inappropriate. State funding of education is necessary to capture the externalities. Otherwise, the social investment in education would be under optimum.

b) Education is not only a public or a quasi-public good[4] (Blaug, 1970, p. 107; Levin, 1987; Tomilnson, 1986), but also a merit good, consumption of which is socially beneficial, but provision of which by a free market would be at a sub-optimal level (Musgrave, 1959; Arcelus and Levine, 1986). The consumers may not be even aware of the benefits they receive from such goods, and hence it needs to be financed by the state, and cost recovery approaches would be counter productive. Merit goods like

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3 There are also other social scientists, particularly non-economists, who believe in the 'human' nature of education and argue that education cannot (and should not) be brought into economic (mainly cost-benefit) calculus; and that discussion on cost recovery in education is not justified.

4 In a strict sense, higher education may not be a public good; but it has characteristics that are associated with public goods, such as externalities, qualifying itself to be regarded at least as a quasi-public good. See Blaug (1970, p. 107).

education also contribute to reduction in inequalities in income and wealth.

c) It is also argued that basically any method of cost recovery restricts demand for education, and as education is a social merit good it is argued that it should not be rationed on the basis of ability to pay by the consumers (Weisbrod, 1988). Exclusion of the poor in the consumption of education, will result in loss in overall equity as well as efficiency of the economy.

d) It is also felt that demand for education is indeed price elastic. But as the advocates of cost recovery rightly argue, over all enrollments may not fall as a result of cost recovery, as increases in enrollments from privileged sections of the society will compensate for the fall in enrollments from the lower socioeconomic strata (e.g., Tan *et al.*, 1984). But as the price elasticity of demand differs by income groups, by social groups, and by gender, introduction of cost recovery measures will result in a significant change in the composition of the student population against the poor and in favour of the rich.

e) The argument that cost recovery in higher education will reduce income inequalities is based on the evidence that a substantial number of the students in higher education is from higher income groups. But poor students do not come in large numbers to higher education, as higher education is costly: high non-tuition costs of the students, including opportunity costs of higher education, even if tuition costs are nil. Introduction of cost recovery measures would only aggravate the bias in the distribution of enrollments in favour of the rich.

f) With respect to improvement in the quality of education, it is contended that as ability to pay and student motivation or ability to learn are not necessarily positively correlated, the students need not necessarily be more diligent as claimed by the advocates of cost recovery (see Colclough, 1991b, p. 202).

g) Referring to private returns to higher education, it is contended that private rates are high because of low private costs; if through cost recovery measures, education is made costly for the students, the private rates of return will decline, and the students may not be willing to pay for.

In short, those who oppose cost recovery measures argue that only state financing of education is desirable, and "alternative approaches (of cost recovery) are either not appropriate or feasible

f development" in many developing countries (e.g., Patel, 1992, p. 234).

essment of the Claims and Counter Claims

bate between the two sides is intensifying in the recent years (Hinchliffe, 1993). ie claims and counter claims valid? While it may be possible to marshall enough gue on either side, there are some aspects that stand out very clearly, which may g an objective assessment.

se for cost recovery in education is based on the premise that governments, overnments in developing countries, do not have adequate resources at their that the scope for restructuring the public budgets, and thereby increasing he allocation to education is rather limited. Except quoting the figures relating its, or those relating to external indebtedness, and the corresponding debt service developing countries, this premise has rarely been critically examined, although of restructuring public budgets by withdrawing public resources from sectors, and their reallocation towards human development sectors has been me (e.g., UNDP, 1991, 1992). Some research (e.g., Looney, 1990; Hess and) also exists that shows that education expenditures are affected my military indicating a clear trade-off between public expenditure on defence and education. ailable evidence on distribution of education subsidies by income groups in several narised in Table 1 leads us to conclude that the distribution of education subsidies , are equitable, the distribution of primary education subsidies being highly nd the distribution secondary education subsidies is somewhat progressive; but the higher education subsidies is largely skewed in favour of the top 20 per cent of 1 (Tilak, 1989a). Thus it is argued that in general, the distribution of higher sidies is to a large extent, pro-rich. But in India, as the evidence in Table 1 bly because of positive discriminatory policies and corresponding relative n of higher education, the middle 40 per cent population benefits most from higher sidies, followed by the bottom 40 per cent population. In Costa Rica and s the middle 40 per cent, followed by top 20 per cent, population that capture a f higher education subsidies. After a careful review of several studies, and after the results, Leslie and Brinkman (1988, p. 118) found that "higher education in

most cases does contribute to progressivity and moreover that when the analytical methods employed are most advanced, progressivity is found without exception."

The claim that cost recovery measures will make the students diligent and improve internal efficiency in education is also not tenable, as it is based on the premise that students and household costs of education are not significant. Available evidence indicates that this premise is not true. After all, students and households do incur huge costs on education (non-fee direct, and in terms of opportunity costs) in developing countries. Quite a few estimates (Tilak, 1991a, 1993d; World Bank, 1993) revealed that students/households spend as much as or even more than what government spends on education.[5] Further, it is also argued that when poorer and more motivated students enter the education system, cost recovery measures will make education expensive, and compel the students to take up part-time work, and also to participate in institutional fund raising activities (Eisemon, 1992, p. 14), resulting in less time left for studies. As a result the overall internal efficiency of education may indeed decline, not increase.

That cost recovery measures will increase supply of education is least supported by empirical evidence. Supply of education facilities may not increase with cost recovery, and even if it is possible, "higher supply strongly biased toward more privileged groups may be worse than lower supply" (Stern, 1989, p. 145). That cost recovery measures on their own restrict the access to education of the poor, and result in inequities in education, is least challenged. For the same reason, the advocates of cost recovery suggest introduction of scholarships and loan programmes along with cost recovery measures to reduce the ill effects. But the ill effects cannot be eliminated altogether.

The use of rates of return in support of arguments in favour of cost recovery is also questionable. First, the high levels of private rates of return may not even sustain themselves

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5 For example, Tilak (1991a) found that household expenditures on education in India are sizeable and comparable to the expenditures of the government on education, and household costs of education that includes opportunity costs, exceed the government (institutional) costs by 2-4 times. In case of higher education, Tilak (1993d, p. 60) reported, that household expenditure per student on higher education in Kerala in India was Rs. 5566, compared to institutional expenditure of Rs. 5718 in 1985-86). In Jamaica the household expenditures on education per student (about US$ 205) were much higher than government expenditure (about US$ 100) in 1990. In community colleges the household expenditures are about 3.5 times higher than public expenditure (World Bank, 1993, p. 38). Some more evidence is discussed here in the later sections.

long, as already being experienced by some countries, as documented in Table 2, reducing the probability of students' willingness to pay. Secondly, private rates of return will decline with introduction of cost recovery measures.[6] Thirdly and more importantly, it is now well known that the social rates of return to education are not *true* social returns: except for tax revenues, no benefits received by the society are taken into account in the estimation of social returns, i.e., externalities associated with education are not included.[7] Hence it is contended that rates of return, in which strong assumptions about perfect competition are implied, cannot be used to argue for cost recovery (e.g., Leslie, 1990).

Unfortunately, cost recovery measures underplay the externality and quasi-public good benefits of education[8], and emphasise the role of market (and price) mechanism, private sector in general, and on the need for reduced role of the state. But the externalities or spill-over benefits of education are indeed are very large. Even if externalities cannot be quantified, it is clear that they do exist (Summers, 1987), and so one should refrain from being dogmatic (Hope and Miller, 1988, p. 40). The presence of educated labour force, increases the productivity of the less educated as well (Johnson, 1984; Lucas, 1988), which is an important externality. Besides, large evidence exists on the effects of education on economic growth, income distribution, infant mortality, life expectancy, health conditions, fertility rates, population control, etc.[9] In addition, in case of higher education, 'dynamic externalities' (Stewart and Ghani, 1992) may be very important. Higher education adds to the stock of knowledge of the society, which is an important externality. The externalities of education cross over generations. Higher education is also viewed as a major instrument of social mobility in developing countries

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6 For example, see Creedy (1995) for a theoretical analysis of varying effects of surcharges on rates of return to education.

7 For the same reason Schultz (1971, p. 172) stressed the need for "repair" of the estimates on social rates of return.

8 Further, Bates (1993, p. 10) argues, cost recovery measures remove the 'social' nature from the economics of social goods.

9 Weale (1993, p. 736) argues that these externalities are particularly important in developing countries. See Bowen (1988) and Leslie (1990) for recent elaborate descriptions of externalities in education.

like India.[10] As Snower (1993, p. 706) noted, "the uncompensated benefits from education are legion."[11]

Further, that education is a merit good is also well recognised. People could be ignorant of the benefits of education; may not prefer investing in education whose gestation period is relatively very long; and may not be ready to take risk of investing in education, whose benefits are not certain. The experience of developing countries with respect to universalisation of first level of education confirms this. Poor households are reluctant to invest in primary education, as they fail to foresee the benefits of education.[12] It is widely held that cost recovery in case of merit goods is not justified, as it will result in below optimum levels of social investment in education.

To conclude, it seems that the overall case against cost recovery is relatively stronger. Some of the arguments against cost recovery, however, do not stand strong, particularly if it is not full cost recovery, and in fact, if the level of cost recovery is very limited, if it is confined to higher education, if state funding continues to be significant, and if sufficient corrective measures accompany. Shifting the burden from the government to the beneficiaries, and based on the benefit-principle, that he who benefits (directly) must pay for, the principle of cost recovery, an important approach towards privatisation, fits well with the growing market-oriented ideology.

In the following section we concentrate on a few methods of cost recovery, and critically examine some of the available empirical evidence from a cross section of countries on the relative effects of various methods. But before we proceed further, it may be in order to briefly examine a little bit more in detail the public good characteristic of education., which has valuable implications for financing and cost recovery in education. But this particular characteristic of education is getting overlooked in the context of discussion on cost recovery and financing of education, resulting in equating education with soaps and cars.

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10 See Schultz (1990) and Birdsall (1988) on the externalities of higher education.

11 Very few (e.g., Arrow, 1993) believe that externalities in higher education are negligible.

12 It does not necessarily mean that rich households are aware of the future benefits of primary education. They may be sending their children to school for non-economic reasons.

3 *Education as a 'Public Good'*

Education is generally regarded as a public good and as a 'merit good' (Musgrave and Musgrave, 1976, pp. 49-59), producing a variety of externalities. Several ways in which education generates public good can be enumerated: contribution of education to economic growth, distribution, reduction to fertility rates, etc. Education enhances the earnings levels of not only those who receive education, but also of others; better educated present generation may contribute to higher earnings of future generations; education provides better cultivating potential talents, benefits each individual in society, improves occupational flexibility and social mobility, promotes voluntary responsibility for welfare activities, creates general healthy environment for national development, and helps to redistribute economic outcomes, namely, income and well being. Among the non-economic benefits, better citizenry, reduction in crime, improved health conditions, and political democracy are felt to be the most important. For example, each individual would be healthier, if all other individuals learn better methods of sanitation; each pedestrian and driver is likely to be safer when all drivers are able to read traffic signs; each citizen would be happier, if other citizens vote rationally; and so on. Buyers of education confer external benefits on those not purchasing education. The benefits that one individual derives from the general level of education does not diminish the benefits that any one else derives from it. Further, education is one mechanism through which the shared norms and common experiences that contribute to social cohesion and stability are inculcated. Education may be said to generate the public good of social cohesion and stability. Education also widens intellectual horizons of both the educated and the uneducated, contributing to enhanced enjoyment of life and leisure. The externalities of education are a legion and outweigh the direct benefits (e.g., Friedman, 1955; Snower, 1993, p. 706). The total social benefits of education exceed private benefits by several times. In short, as Lucas (1988) has argued, accumulation of human capital is "a *social* activity, involving *groups* of people, in a way that has no counterpart in the accumulation of physical capital."

While the public good characteristics of education are generally well recognized, few empirical details are available on the exact nature and quantum of these externalities, and more importantly on the quantum of externalities by levels of education. However, it is widely felt that these externalities or spill-over benefits of education are maximum with respect to primary education, and that they decline by increasing levels of education. Yet they are regarded to be

sizeable even in case of higher education and even in case of specialized human capital. On the other hand, individual benefits increase by increasing levels of education. In other words, externalities of higher education are not as high as the externalities associated with primary education.[13] Therefore, primary education is rightly regarded as a pure public good, and higher education a quasi-public good and also as a merit good. Higher education is neither a pure public good like national defence, or clean environment and pure air, benefits of which are received by all members of the society equally, nor is it of course a pure private good like food, or clothing, the benefits of which are exclusive to those who consume. It is both a private and a public (or social) good. Private individuals may not be willing to pay for pure public goods, as those who pay for such goods cannot exclude those who do not pay from receiving benefits, and as there is no rivalry in consumption, they being 'collective consumption goods' having 'external effects' (Samuelson, 1954). Hence government must tax the citizens and provide the pure public goods out of the general tax revenue. On the other hand, individuals purchase sufficient quantum of pure private goods as the principle of exclusion does not apply in case of such goods, and the society's consumption may be at an optimum level; hence government intervention is not generally needed.

Problems arise in the context of semi- or quasi-public goods like higher education. In case of such goods, individuals will be willing to pay for them, as these goods are associated with reasonably high private returns. But the returns are not exclusive to individuals who purchase. It is not possible to exclude the less educated from the various externalities generated from higher education. The rest of the society also benefits along with individuals who invest in education. But the purchasers of these quasi-public goods do not take into account the non-private benefits of education, and the social benefits are far greater than those perceived by individuals. As a result, the total private investment in education would not be equal to society's desired or optimum levels of investment in education. Accordingly, government intervention becomes necessary in the provision of quasi-public goods. In case of pure private goods, individual choices are important, or consumer sovereignty exists. But in the case of quasi-public goods like education, government intervenes to change, if not to override the tastes for and

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13 Higher externalities associated with primary education partly explain the weak private demand for primary education, and low externalities in higher education the excess demand for higher education.

demand of the people for quality and quantum, as education also represents a social merit good, and merit goods cannot be produced in a market system efficiently and optimally.

The general level of educational attainment in a society is, therefore, a public good, and as such it will not be provided in the right amount by an entirely free market economy. Hence by taxing those who receive these benefits and subsidizing those purchasing education, the welfare of both groups can be improved. Thus public financing of education is required essentially due to the public good and merit good characteristics of education. All this also suggests the need to make a distinction between primary (if not school) education and higher education. This seems to be critically important while discussing cost recovery and financing. Primary education is not only regarded as a 'public' (or even as a 'pure public') good, but also in most modern societies, primary education is compulsory, and state legislation exists in favour of provision of free primary education to all. Hence, the state has to necessarily take rather complete responsibility of funding primary education. It needs to be funded out of general tax revenues, and no direct cost recovery measures should be attempted.

On the other hand, higher education is regarded neither as a pure public good, nor it is compulsory by legislation in any country. Hence, some scope for cost recovery or some form or other of privatization exists in case of higher education.

4 *Methods of Cost Recovery*

Of late, several measures of cost recovery are being suggested and are being implemented in several countries, most of which can be described under the broad umbrella of 'neo-liberal' (Colclough, 1991) prescriptions for financing education, or simply under the familiar terms of 'privatization' or 'marketization'. Generally privatisation implies a move from state to private control and ownership. But now a days, privatisation takes several types and forms. Some of the several forms of privatization of education can be identified as follows (Tilak, 1991b): (a) an extreme version of privatization implying total privatization of education, educational institutions being managed and funded by private sector, with little government intervention and with scope for making profits; (b) privatization of a strong form meaning recovery of full costs of education from users, viz., the students; (c) a weak or mild version of privatization implying public provision of education but with reasonable level of finances mobilized from non-governmental sources, supplementing the public resources, and (d) pseudo privatization implying

private provision of education with public finances, and characterized by socialization of costs and privatization of gains. Due to the externalities associated with higher education, privatization of the types (a) and (b) above are not desirable, and of course not empirically feasible, and type (d) results in "private enrichment and public pauperization, with a disproportionate share of public funds flowing to private schools in the form of aid, and state run schools suffering from the paucity of resources" (Tilak, 1993e, p. 7). Then the choice is confined to (c) only, at least three proposals under which category deserve to be discussed here. They are student fees, student loans, and payroll/graduate tax. Category (b) is also briefly referred to; but formal forms of private schooling are kept outside the purview of the present paper.

Important measures of cost recovery that are being currently discussed and/or being experimented with in several developing and developed countries include (a) fees, (b) loans, and (c) earmarked taxes.

4.1 *Student Fees*

One of the most important methods of cost recovery is introduction or enhancement of student fees in education. The general prescription is in favour of introduction of fees, and enhancement of fees in those systems where it was already introduced. Only when fees in primary education was contested by the opponents (e.g., Klees, 1984), it was stated that user charges and fees should be applicable only to higher education, and not to primary education (Jimenez, 1989, p. 112). But it must be noted that fees are introduced/enhanced recently in several countries even in primary education, some on the basis of the recommendations of the international donor community like the World Bank (e.g., Malawi in Africa),[14] and some not necessarily pressurised by such organisations (e.g., China).[15]

The low price elasticities of demand for education (Jimenez, 1987, pp. 80-81; 1989, p. 116) are quoted in support of the argument in favour of fees. But it may be noted that demand would be less elastic, only in cases of excess demand situations, i.e., situations characterised by

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14 See Thobani (1983, 1984a, b) and Klees (1984). See also Tilak (1989b).

15 In China the laws were changed in favour of introduction of fees. After the change, as much as 7.9 per cent of the total expenditure on basic education was generated through student fees in 1988. See Ahmed *et al* (1991).

large unmet demand, supply being less than demand, e.g., higher education in many developing countries. In such situations, fall in demand by some (poor) due to introduction of cost recovery measures may be more than offset, as noted earlier, by increase in demand by others (relatively better-off students), resulting in no significant fall (or even in an increase) in the overall demand (e.g., Tan *et al.*, 1984; Jimenez, 1987). But if the demand is deficient, as in case of primary education in most developing countries, where special incentives have to be introduced in order to fulfill the goals relating to universal primary education or 'Education For All' or 'Schooling For All', the price elasticity can be expected to be high.[16]

On price elasticities of demand very few detailed estimates are available.[17] Jimenez (1989) could refer to estimates in Peru, Mali and Malawi. In all these three cases, and in many other cases (e.g., Chutikul, 1986 on Thailand, etc.), demand is found to be elastic to price (fee, or distance to school in Mali), though the elasticity is less than unity, i.e., an increase in fees necessarily reduces the demand for education. Several studies have found serious adverse effects of fees in lower levels of schooling: fall in overall enrollments and even in gross enrolment ratios in Nigeria (Hinchliffe, 1989), Mali (Stewart, 1994), and Jamaica (Cornia *et al.*, 1987), and in the growth in enrollments in Ghana (Lavy, 1992)[18] and Malawi (see Bray, 1987). To the contrary, the positive effects of reduction or abolition of fee on enrollments are also found, e.g., Botswana (Colclough, 1993, pp. 17-18) and in higher education in the City University of

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16 Birdsall (1983a) shows that even when excess demand is not observed, user charges can be levied, and that it would increase access and equity in education. This is yet to be empirically supported.

17 Indeed very few detailed estimates on price elasticities of demand for education are available. Birdsall (1982) has reviewed several studies on determinants of enrollment or educational attainment, but many of these studies have not included a price variable. Jimenez (1989) also reported only a couple of estimates. Further, the elasticities are measured in response to small changes in fees. But substantial levels of increases in fees might as well produce high elasticity coefficients. For instance, Jimenez (1987, p. 82) calculated that significant increases in fees in Malawi would lead to decline in enrollments by 22-57 per cent in primary schools and by 52-91 per cent in secondary schools.

18 Logistic regressions of school enrolment in rural Ghana (Lavy, 1992, p. 18) have produced clearly negative and statistically significant coefficients for fees in primary and middle schools, after controlling for student, household, community and school factors, though the absolute levels of fees were believed to be 'negligible' from western standards (US$ 0.40 in primary and US$ 1.0 in middle level).

New York (Franklin and Hamovitch, 1988).

Further, income elasticities of demand are also important. Generally demand for education is found to be highly income elastic, even in the absence of direct cost recovery measures. The elasticity is clear even from mere frequency tables, e.g., on Brazil (Birdsall, 1982, p. 6) and on India given in Table 3. The evidence given in Table 3 makes it very clear that demand for secondary and higher education is a monotonically increasing function of economic levels of living of population. While detailed estimates of elasticities are not available, in regression equations of enrollment in schools, income of the households turns out to be one of the important and statistically significant factors (with a negative sign). For instance, among the recent studies, Appleton *et al* (1990) estimated that income is an important determinant of enrolling in, and completing the primary, lower secondary and upper secondary education in Cote d'Ivoire. A high income elasticity obviously suggests that the demand for education of the poor would be reduced by increase in fees as real disposable incomes will further decline with introduction of cost recovery measures.

Even if the overall demand is less elastic, it cannot be expected that it would be the same for demand for schooling of low income groups.[19] Serious regressive effects of fees on poor families have been reported in a few important studies (e.g., Gertler and Glewwe, 1990 on Peru; and Colclough, 1993, p. 15). So while the overall demand may increase or remain the same even after fees are introduced, it is most likely that the composition of the enrollments, as argued earlier, changes in favour of the rich. Further, even if one does not observe fall in enrollments as a result of increase in fees, it is very likely that the probability of the out-of-school children going to schools declines steeply with introduction of fees.

For the same reasons, introduction of fees in primary schools is not strongly advocated, nor is it seriously discouraged, i.e., there is net silence and the silence conveniently favours introduction of policies of any kind, depending upon the circumstances. Interestingly, while the earlier national and international declarations, and conventions of rights of children assure *free* and compulsory education for all, the term 'free' began disappearing of late in such

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19 Very few detailed estimates on price elasticity of demand by income groups are available.

declarations.[20] Organisations like the World Bank favoured in the earlier years introduction of fees in primary education[21], simultaneously opposed and supported the same later[22]; and subsequently stopped 'insisting' on introduction of fees in primary education,[23] while fees in higher education became an important condition for the Bank's loans (Hinchliffe, 1993, p. 185).[24] This rather unclear policy of the governments reflected in frequent measures of introduction-abolition-reintroduction of fees in developing countries[25] and of the international organisations with respect to primary education resulted in mushrooming of high fee charging private schools mostly in (but not necessarily confined to) urban areas on the one hand, and introduction of various kinds of small levels of non-tuition (some times tuition) fees in public schools on the other.[26]

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20 For example, compare the *World Declaration on Education for All* (WCEFA, 1990), and the *Delhi Declaration* (EFA Summit, 1993), with the *United Nations Declaration of Human Rights* (1948), the *Rights of the Children* (International Year of the Child, 1979), and the *Convention of the Rights of Child* (United Nations, 1989b), among many UN and Unesco resolutions.

21 Using Mali as an example, the World Bank (Birdsall, 1983a, b) stressed in the past that there existed considerable scope to increase cost recovery in primary education in several countries (e.g., Malawi). See Thobani (1983). See also Bray (1987, p. 122), Bray and Lillis (1988), and Jones (1992, p. 248).

22 For example, the World Bank (1986, p. 23) observed that "in general, increased private financing at the primary level is not recommended since it might interfere with universal coverage -- a socially desirable goal"; but argued that it "could increase efficiency within schools" (p. 23) and "improve the future distribution of income" (p. 24); and approved fee in primary education in Malawi, Mali, Lesotho and other countries.

23 It should be noted that the Bank only stopped insisting; but still favours fees in primary education. For instance, World Bank (1994b, p. 83) stated: "Even at primary level, the charging of fees need not be incompatible with the principle of free primary education, so long as these fees are regulated and or met by parents out of vouchers financed by the state."

24 Fewer and fewer Bank loans by the end of the 1980s were free of the obligations imposed by loan conditionalities to promote privatization and expansion of user charges (Jones, 1992, p. 249).

25 See Bray (1987) for a description of such shifts in Nigeria, Ghana, Kenya, etc.

26 World Bank (1986) documented that in 21 out of 36 countries on which information was available there were user charges in primary education. See Ainsworth (1984) for a

While many, not all, seem to agree on the need to provide free primary education, not many people support free post-primary education. Generally, the arguments seem to be strong in support of fees in secondary, and much stronger in case of higher education. But these arguments overlook the inter-sectoral dependencies. It is to be noted that even if fees are nil or negligible in primary education, but if fee levels are high in secondary education, enrollments in primary education may fall, as primary education is demanded to secure entry not into labour market, but into secondary education. Similarly very high fees in higher education may reduce demand for secondary education, particularly in those societies, where secondary education does not provide any employment opportunities, and it is demanded mainly to go for higher education later.

Though earlier a good number of countries used to provide higher education free, now except for a few countries (e.g., Brazil, Sri Lanka, Tanzania, Soviet Union and some east and west European countries) a majority of countries charge fees in higher education, some very small nominal amounts, and some reasonably large (see Eicher and Chevaillier, 1993, p. 465).[27] Table 4 documents some evidence on absolute levels of fees in higher education in a few countries. It is evident that there exist wide ranges in fee levels across several countries and even within countries. Between different countries, fees per student varies between zero to US$ 5000 in 1987. Within the countries also, the range of variation is very high in Spain, Belgium, and Switzerland. They vary by discipline, by region, and probably by socioeconomic categories of student population. While there is no theory to determine the levels of fees, it is generally argued that fee levels in higher education in many developing countries are very low. As far as empirical evidence is concerned, fee levels and economic development do not seem to have any relationship. After all, even in many developed European OECD countries fees are small and that fee levels as a proportion of total costs in higher education are very less in several developed countries than in many developing countries, as shown later (Table 5).

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description of fee levels and policies in school education in a number of countries.

27 Some countries have abolished and reintroduced fees in higher education. For example, tuition fees having been phased out in Australia in 1974, but were reintroduced in 1989.

Strong advocates of cost recovery plead for full cost recovery from the students,[28] and many for very substantial levels of cost recovery. Theoretical justification for full cost recovery in higher education is extremely restricted. But in practice, governments do allow private higher education institutions (and also even primary schools) to not only recover full costs, but also to reap profits. For instance, 'profit making educational institutions' has become a recognised category of educational institutions *de jure* in the USA and *de facto* in a few other developed and developing countries (Geiger, 1986; Tilak, 1994b). Many also favour and some countries do practice full cost-recovery from the foreign students.[29] Theory however does not justify full cost recovery from the students, as the rationale for subsidisation of education in general, and at least partial subsidisation of higher education in particular, is obvious on many counts.[30] At least three kinds of subsidies are identified as necessary in higher education: 'allocative efficiency subsidy', 'external benefit subsidy', and 'welfare subsidy' (Judge, 1990). Many seem to agree with Mishan (1969) when he stated that "it is not necessary that the students bear the full cost of higher education" and seem to favour partial, but substantial, cost recovery in higher education.[31]

There is no method to determine the desirable rate of cost recovery in higher education. But one can learn from wider cross-national experience. It is important that cross country comparisons on fee levels and their share in education finances need to be interpreted with

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28 Again only when contested by others, it was stated that higher education would have to be excluded from general arguments in favour of full cost recovery in social sectors (Jimenez, 1989, p. 112).

29 Many countries like England experienced significant declines in enrolment of foreign students, after full cost recovery policies were introduced in 1980, and now several countries reassess their policies (Woodhall, 1987). See also Blaug (1981) and Winkler (1984). This may suggest that demand for education by the foreign students is highly price elastic (see Woodhall, 1991c). But they may also be due to changing policies of the developed as well as of the developing countries on student flows.

30 For some arguments, in addition to the conventionally made ones in this context, see, e.g., Kang (1991), Kodde and Ritzen (1985), Johnes and Johnes (1994), and Johnson (1984).

31 For instance, in India some argue for 50 per cent to near full cost recovery in higher education (see Rao, 1992; Dandekar, 1991). See for a discussion, Tilak (1993a, b). However, UGC (1993) and AICTE (1994) favour only 20-25 per cent cost recovery.

caution, because the incidence of fees varies very significantly between different countries. Except for a few scholarships offered by the government, and hidden public subsidies in terms of low fees and charges, students in developing countries have to bear the full costs of education on their own, while in advanced countries, students do bear substantial amounts, but the non-government and the non-student sector of the society also share the costs significantly.[32] As Hough (1992, p. 1356) noted, fees in US, Spain, and Japan are met out of public subsidies. Much of the fees in US are recouped by students and their parents though important loan and grant schemes, in addition to through part-time work. Fees in UK were paid not by the students but by the local education authorities, which, in turn, receive part of their funding from central government. "Virtually all of the fees for home first-degree students are paid out of central government funds" in UK (OECD, 1990); so tuition fees, or increases in tuition fees, even full cost fee as advocated by Lal (1989) in UK are of no consequence at all, as bursaries equivalent to full costs are paid to the students by the government (Johnstone, 1992, p. 1504). But in many developing countries the incidence of fee burden squarely lies on the students and their parents. As Hough (1992, p. 1357) further clearly noted, "most developing countries have been able to provide little in the way of financial assistance for students, who have had to be supported by their families."

Even keeping these factors aside for a moment, international evidence on fees given in Tables 5 and 6, clearly suggests that no public higher education system in the world on which data are available, including those in the most developed market economies, recovers more than a quarter of the total public expenditure on higher education through fees, with the exception of South Korea and Chile. The rate of cost recovery through fees even in private universities and colleges in the USA is less than 39 per cent. It is only in some private institutions in Japan and Korea it is higher: cost recovery rates are estimated to be 70 per cent in Japan in 1980 (65 per cent in 1985) and 82 per cent in Korea in 1985 (Eicher and Chevaillier, 1993, p. 462).[33] It is well known that in several European market economies the rate of cost recovery through fees

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32 See Johnstone (1986) for details.

33 Lee (1987) estimated that tuition in private higher education in South Korea formed about 75 per cent of the costs. In the education system as a whole, students and parents meet 25 per cent of total expenditure in public schools, and 79 per cent in private schools in 1988. See also Dong-Kun and Jooing-Ryul (1990, p. 54).

is negligible (OECD, 1990), compared to some universities in Africa, particularly South Africa, Lesotho and Botswana, as shown in Table 6.[34] Hence, the rate of cost recovery though fees in developing countries cannot be expected to be very high.

Secondly, in the context of discussing the rate of cost recovery, it is also necessary to take into account students' private (household) costs of education -- direct and opportunity costs. In the absence of information on household costs, it was generally felt to be negligible. Now the available evidence makes it no more tenable to argue that household costs are insignificant, and that higher education is provided free in several developing and developed countries.[35] Students (and their parents) pay not only tuition fees, but also several other kinds of fees, such as application fee, registration fee, 'special' fee, examination fee, re-evaluation fee, laboratory fee, eligibility fee, transfer fee, convocation fee, fee for marks (grade) sheets, etc. A careful examination of available evidence on India, for example, reveals that while tuition fee forms a small proportion of the total costs of higher education, all kinds of fee put together constitute a sizeable proportion of the total recurrent costs. A significant part of the fee revenue might be from examination fee.[36] Further students' costs include direct money costs on not only fee, but also non-tuition costs such as text books, transport, and other out-of-pocket expenses, and secondly the opportunity costs. Available evidence shows that students and/or their families incur considerable costs on both categories.[37] For example, in India of the total social costs (sum of students' costs and institutional costs, net of transfers) of higher education, students' direct costs constitute about 30 per cent, and opportunity costs another 50 per cent; so that in all, private costs form more than 80 per cent of the total social costs of higher education, while the corresponding figure was 43 per cent in USA (Table 7).

Even though in general in many countries the household (private) direct costs (excluding opportunity costs) seem to be small in comparison with public costs, nevertheless, they are sizeable. Two sets of available cross-country data are presented in Tables 8 and 9. The figures

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34 See also Saint (1992).

35 See Johnstone (1989, pp. 31-39) for some evidence on a few developed countries.

36 This is true in case of Pakistan as well (Bellew and DeStefano, 1991, p. 35).

37 The limited evidence on other countries also indicate the same. See foot note no.5 on India, Tilak (1994d) for evidence on Cambodia, and Kotey (1992) on Ghana.

in Tables 8 and 9 do not give complete details, e.g., how the private costs are computed. Table 8 refers to household expenditure on education, as a proportion of total national (government plus household) expenditure on education. In India, households incur as much expenditure as the government on education.[38] It is interesting to note that in some developing countries (e.g., Thailand, Zimbabwe, Columbia and India), households share a greater part of the expenditure on education than in developed countries (Netherlands, France, UK, Australia and USA), partly corroborating with the evidence given in Table 7 that in developing countries the household share a greater proportion of the costs of education than in the developed countries.

It is quite probable that figures in Table 9 not only exclude opportunity costs, but also several other components of direct private costs. For instance, they might include only the fees and other contributions received by the institutions from students and or their parents in Denmark, Germany, Ireland, Norway, Spain and Switzerland. In other countries, they might include the investments incurred by private institutions as well.[39] Hence country-studies would be able to provide important details.[40] These and other private costs are important, as though fee elasticity of demand for education is less, the elasticity of demand with respect to some kinds of private costs is very high even at school level (see Birdsall, 1983a, b).

While thus there seems to be existing some scope for increase in fee in higher education, it should however be emphasised that the resource potential of fees is not unlimited, as the evidence presented in Tables 4 through 9 suggest.

An important question in this context is: if fees have to be introduced/increased, should it be uniform for all the students, or not. Uniformly zero or low levels of fees clearly increase participation rates in education; but they can be considered to be inequitable as they help the rich as much as the poor. They even could amount to a regressive distribution of income if the tax structure is not progressive.[41] A uniformly high fees, or a steep uniform increase in fees may thus have adverse effects on access to higher education, as though on the whole, higher

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38 In a detailed study, Tilak (1991a) also confirmed this.

39 This may explain the differences in figures between Tables 6 and 8, e.g., on USA.

40 For related details on, for example, India, see Tilak (1991a).

41 Penrose (1993, p. 32) observed that many countries were moving towards regressive taxation in the 1980s and 1990s.

education is a favoured sector of the privileged, the student composition is not homogeneous, and a sizeable proportion of the students belong to poorer sections. Compared to the 1950s and 1960s, higher education now is fairly 'democratised' in several developing countries, with increasing number of students from poorer socioeconomic backgrounds. In countries like India the proportion of students from bottom and middle income groups is roughly half of the total (Tilak, 1994c). Hence a discriminatory fee structure may be preferred, so that rich students pay higher shares of costs as fees, and poorer students less.[42] Such a discriminatory pricing mechanism minimises the perverse effects of public subsidisation of higher education reflected through uniform and/or low levels of fees. In an unequal society uniform fees for all is inequitable because the proportionate incidence falls more on poorer households. Therefore, it is desirable to adopt a discriminatory fee structure based upon (a) the costs of education, (b) perhaps more importantly, the ability to pay, measured in terms of, say, family income of the students, and (c) the likely benefits in the labour market (i.e., future life time earnings) for a given type/kind of education.[43]

Discriminatory pricing may be more efficient than uniform fee, as it provides additional resources, and is equitable as students are charged according to their abilities, and according to their future likely benefits of their education.[44] But is it better than other measures? We shall

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42 See Tilak and Varghese (1985) and Tilak (1994c) for a detailed description of a discriminatory pricing model. See also McMahon (1988). Discussing several forms of differential fee system, Johnstone (1992, p. 1505) also refers to exactly the same: discriminatory pricing based on ability to pay, as argued here.

43 However, discrimination of other kinds may not be desirable. E.g., discrimination on the basis of merit of students (higher fees for students unsuitable for higher education and lower fees for academically suitable students) leads to deterioration in the overall quality of higher education as it allows academically undeserving students getting into higher education system; or discrimination in quality of education on the basis of fees paid (Stubblebine, 1965) results in a dual system of education, one for the rich and one for the poor.

44 While no evidence is available on the adoption of discriminatory pricing of the kind suggested here in a systematic way in any country, some kind of discrimination in charging fees does exist in relation to ability to pay in a number of countries. For example, in India, socially and economically backward sections of the society get full or partial (generally 50 per cent) exemption form payment of tuition fees, while the rest are charged fees. In a few states in India, fee rates in secondary education vary between rural and urban regions. That household incomes in rural areas are much less than in

come to this question towards the end of the paper.

4.2 *Student Loans*

The second most important cost recovery measure that is being talked about refers to student loans. Loans are also viewed as an important measure to accompany fee reforms, so that the poor students who cannot pay high fees do not opt out of higher education, but rather take loans, go for higher education, get jobs, and pay back the loans when they can. Loans are regarded as an important equity measure as well as a strategy to improve efficiency (Blaug, 1970; Woodhall, 1983; Psacharopoulos and Woodhall, 1985; Mingat *et al.*, 1985).[45] Of late, in addition to 50 and odd countries where the loan programme had been in practice (Albrecht and Ziderman, 1991, p. 3), many other countries constrained by the unavailability of public resources, and influenced partly by international thinking, began showing interest in student loan programs.[46]

That the loans shift the burden from the present generation (government or parents) to future direct beneficiaries has more appeal. In contrast to mortgage type loans that involve repayment of *fixed* equal amounts in regular installments, irrespective of earnings levels of graduates, the income contingent loans that require payment of a given *proportion* of graduates' income as loan repayment, sell better as they are more based on the principle of ability to pay. Barr (1988) argues that income contingent or income related loans would be "fair, efficient, cheap, administratively simple, easy to understand, flexible and politically attractive. It would have major impact on access and expansion."[47]

In an important study, Woodhall (1983) enumerated the benefits of the loan schemes, most of which are common to the claims made in favour of general cost recovery measures, that

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urban areas is well known. Even though the effects of these practices are not analyzed, generally they are believed to be positive and desirable in terms of providing increased access to the poor.

45 In some countries (e.g., India) the loan programme is known as loan *scholarship* scheme, as it is viewed as a measure of equity.

46 See Woodhall (1989b, 1990, 1991a, b, 1992) for details on several countries.

47 See also Barr (1991) for a review of loan programmes and reforms in the same in a few developed countries.

the loans would increase access to higher education, reduce the extent of redistribution of resources from the poor to the rich, increase diligence and efficiency of the students, and provide for flexibility in the use of loans (for full time or part time education, for education in government and private institutions, etc.), compared to other methods of financing like the grants. Woodhall (1989a) argues that the loans do not necessarily discourage low income students or women from pursuing higher education, and argues in favour of loans as against grants (in UK).[48]

There are several problems associated with student loans. First, in many societies, psychologically, loans in general are not welcome. When needed, poor people may not mind borrowing for investment in physical capital, or other productive sectors that have shorter gestation periods, or consumer durable goods (Maynard, 1975), or even for necessary consumption activities like marriages, but not for 'invisible' human capital formation, whose benefits cannot be identified, if identified cannot be comprehensively quantified, even if they can quantified, they are not certain, and even if they are certain, they flow after a long gestation period. Concerns about increased levels of student indebtedness have both psychological and socioeconomic dimensions, which led to reforms in Sweden where every student over the age of 16 years gets a loan. Further, the view that grants to students need to be preferred to loans is also receiving appreciation in Sweden and other countries (see Morris, 1989; and Shackleton, 1993).

Secondly, loans involve both higher perceived and higher actual personal costs than others (like grants) (Colclough with Lewin, 1993, p. 172), which would affect the demand for education particularly of the poor families as students from lower socioeconomic backgrounds would be reluctant to saddle themselves with debt burden (e.g., as reported in case of Jamaica; World Bank, 1993), thus entrenching further the inequalities in access to education.[49] As the Robbins Committee (1963, para 647) warned long ago, the loans would have "undesirable incentive effects."

Thirdly, the credit market in several developing countries is not well developed to float

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48 In fact, Woodhall (1989a) favours a balance between grants and loans.

49 The argument that income contingent loans do not compromise on access (Hope and Miller, 1988) is difficult to accept; they can at best offer bet method of repayment of loans only.

educational loans. The lending financial institutions seek security which the economically weaker students, for whom the programme is mainly meant for, may not be able to provide. The inability to borrow may negatively influence preferences for higher education. As a result, as Alfred Marshall (1890) noted, imperfect capital markets lead to under-investment in education. As also recognised by many (e.g., Pigou, 1920; Friedman, 1955; Nerlove, 1975; Stiglitz, 1986, p. 309), most types of loans require collateral provisions that provide lenders compensation in the event of default of loan. Hence loans may not be available to the poor due to problems of repayment particularly in economies characterised by imperfect capital markets on the one hand, and low standards of living on the other. Though capital market does exist to some extent in some countries, it is not adequate to float educational loans efficiently.[50]

It is also feared that student loans would work as a 'negative dowry', and accordingly will have serious adverse effects on enrolment of girls in higher education in not only UK (Robbins Committee, 1963, p. 211), but also in many other developed and developing countries where dowry is an important social phenomenon, and also in those countries where it is not, but husbandal obligations are an accepted phenomenon.

The most important problem faced with respect to student loans in most developed and developing countries, relates to non-repayment of the loans. In India, of the total investment of Rs. 869 million made on student loan programmes during 1963-64 to 1987-88, only 5.9 per cent was recovered. Upper estimates might be around 15 per cent in the recent years (Tilak, 1992). That default rates are high, and the losses to the government are abnormal in several developing countries, are well documented by Woodhall (1990, 1991a, b, 1992). Every student in Kenya, for example, gets the loan, and the loss to the government on account of defaults is as high as 94 per cent, i.e., 94 per cent of the loan amount is not recovered. Costs of administration of loans, i.e., costs incurred on personnel and office expenses on administration and attempts to recovery, are also very high. While costs of administration of income-contingent loans seem to be small (e.g., in Australia, and Sweden), costs of administration of mortgage type loans are quite high, as shown in Table 10. If such costs are added to the loss to the government on loans, the total loss amounts to 103 per cent in Kenya; and that loss increases by 20 per cent points in Honduras (53 per cent due to default and 20 per cent due to

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50 See also Arrow (1993, p. 9).

administration, the total loss being 73 per cent of the total loan amount) (Albrecht and Ziderman, 1991, p. 15). Even in some Latin American countries like Colombia, where the modified scheme was believed to be yielding adequate returns, the rate of recovery as per cent of total costs (value of loan amounts and administrative costs) was only 53 per cent in 1985, that too after some reforms were introduced in the system. But reforms in loan scheme did improve rates of cost recovery in some Latin American countries like Columbia, Brazil and Jamaica; but still the default rates and losses to the government are high.[51] Further, Albrecht and Ziderman (1993, p. 83) estimated that in some of the countries characterised by the highest public sector cost recovery in the world, governments recover only between two per cent (Colombia) and 14 per cent (Quebec, Canada) of instructional costs from loan recipients. "Governments are actually spending large amounts of money on student support in addition to institutional subsidies" (Albrecht and Ziderman, 1991, p. 20).

Worries about student indebtedness led to lowering of interest rates in Sweden. Many countries also provide interest-free loans. But low or zero rates of interest make student loans more 'inefficient': with increase in costs of administration, and along with increase in prices, the loans carrying negligible or nil rates of interest, and,payable for a 10-14 year time period as is the case in many countries like India, and several European countries, the efforts to recover loans were found to be highly cost ineffective.[52]

Loans may also be regressive. The loan funds created with the help of public resources, may be available more to the rich than to the poor, for the reasons mentioned earlier. Further, it is also well noted that they would work against enrolment of women in higher education.

The net gains from student loan programmes are believed to be not substantial. There cannot be any savings in public expenditure in the short and medium term periods. In fact, the governments have to allocate more public resources for higher education in the form of student

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51 Based on simulations of behavioural responses, Mingat and Tan (1986c, p. 282) conclude that the potential rate of cost recovery is substantial under what appears to be bearable terms of repayment of loans in Asia and Latin America, but not in Africa. In fact, it may not be feasible at all to recover 100 per cent of the investments made in loans. For example, World Bank (1993, p. 183) estimated that given the need for subsidization of interest rates and longer periods of repayment, the recovery of loans in Latin America and Caribbean countries can at best be in the range of 40-75 per cent.

52 For the same reason, some (Johnstone, 1986) argue in favour of grants or direct subsidies as against interest-subsidized loans.

loan funds. Colclough (1993, pp. 209-10) has estimated that if loans were typically taken to cover four-years of study with a 20-year pay-back period, the government would not recover even 50 per cent of the initial generation of student loans until 14 years after the starting of the scheme. This is exclusive of rebates for unemployment etc., and defaults. Barr (1993, p. 725) has estimated that the programme in the UK produces "no cumulative net savings for at least 25 years." After a thorough review of 24 loan programmes in 20 countries, Albrecht and Ziderman (1991, p. iii) concluded that "in general, developing country loan programs to date have not reduced significantly the government's fiscal burden for higher education" and that the scope for increase in effectiveness of the programme is also restricted.[53] Hence, the student loans cannot be a short term or a medium term solution to the problems of resource scarcity in higher education, and given, *inter alia*, the levels of defaults, loans can never become self financing. On the other hand, they can indeed be "expensive enterprises" (Albrecht and Ziderman (1993, p. 86).

Finally, by fixing the amortisation as a percent of income, student loans in effect, become a tax (e.g., graduate tax), if the incidence of both the tax and the loan can be confined to the graduates/loanees only, the main differences being that unlike loans, the tax does not carry the feeling of indebtedness.

Thus, there are at least two basic inherent weaknesses underlying the philosophy of loans. The concept of student loans assumes strong relationship between education, employment and earnings. When education does not guarantee employment, and as repayment of loans (mortgage/fixed repayment loans) becomes compulsory, people from relatively poorer sections will be worst affected. Secondly, the very nature of loans assumes the ability to repay, which would be inversely related with the economic well being. Hence loans may adversely affect equity in and access to education, in addition to producing no significant net savings. The first problem can be avoided by shifting policies in favour income contingent loans as against fixed repayment loans; but not the second problem. On the whole, it seems that while investment in higher education yields high rates of return, investment in loans for higher education may not yield good fiscal returns, i.e., to the government that makes investment in loans.

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53 Even though Alrbrecht and Ziderman (1991) conclude about the developing countries, their own analysis confirms that the conclusion is equally applicable to developed countries.

4.3 *Earmarked Taxes*

As against public financing of higher education out of general tax revenue, it is increasingly argued in favour of recovery of costs of education through earmarked taxes, i.e., through taxes specifically meant for education. Among such proposals that are being discussed or adopted in a few countries, at least three kinds can be identified as follows:

i) *The Payroll Tax*

While in case of fees and loans, the costs of higher education are planned to be recovered from the students, there are other measures that aim at recovering the costs from the users of the graduates. One such specific measure is payroll tax, also referred to as employer tax (Albrecht and Ziderman, 1991, p. 42), a tax through which government investment in higher education is recovered from the beneficiaries, viz., the employers. Specifically a payroll tax is an education specific tax to be levied on those who use the educated manpower. The basic argument is that the employers who employ higher educated labor force should be required to share the costs of production of this high skilled 'human capital', that is useful for the employers in production. Just as the private enterprise pays interest for the physical capital, it seems justified to require the private sector to pay for the production of human capital, or interest on human capital, in the form of a payroll tax. In effect, particularly professional education may be financed out of earmarked taxes like payroll tax levied on manufacturing industry and trade. The taxes could be levied based on the wage bill referring to the skilled labor force employed, or number of graduates employed, and tax rebates can be given if the firms take responsibility of providing education and training to its employees.

The amount of tax to be levied needs to be based on the cost of education and the number of graduates employed. Since the payroll tax is linked to the cost of education, the rate of tax also has to vary depending upon the type of graduates employed. In general, one can expect that the payroll tax for employing an engineering graduate will be proportionately higher than the same for employing a graduate in arts. Once the employers start paying the payroll tax, the resources thus accrue to the education system are hoped to form a reliable and continuous source of financing education in the years to come.

Payroll tax is not extensively practiced. It is in practice in quite a few countries, but more specifically in case of financing training, not higher education (see Ziderman, 1989;

Middleton *et al.*, 1994, pp. 121-26). Albrecht and Ziderman (1991) refer to two cases that come very close to payroll tax: one in Ghana where employers of graduates who have taken student loans, contribute 12 percent of wages to the national security fund, which is redirected to the education budget. Secondly, in China employers *de facto* repay the loans taken by the students. Further, Eicher and Chevaillier (1993, p. 467) cite the case of France, where payroll tax allows the firms to pay a proportion of tax as an unrestricted grant to institutions of their choice. The tax is compulsory but choice exists in case of method of payment.

The main drawback of payroll tax, however, is that it might work as a dis-incentive to employers to employ graduates. Depending upon the elasticity of substitution between several levels/types of graduates, employers may tend to employ a 'cheaper' graduate, or an under graduate, or a secondary school product. This may aggravate the problem of educated unemployment,[54] unless education-productivity relationship becomes very strong, and the elasticity of substitution between several types of higher education is less. Thus this puts a burden on human capital intensive units, and the employers may try to substitute human capital for the physical capital on the one hand, and on the other, higher educated with the lower educated. Hence, Whalley and Ziderman (1989) argue that use of such taxes is less alluring because of weak links of formal education to labour market conditions.

Secondly, it will have a serious impact on the salaries of the graduates. Employers in all probability try to shift the incidence of the graduate tax to the graduate employees, through lower salaries, in which case there may not be much difference between loans (discussed earlier) or graduate tax (discussed below) and payroll tax, but for other aspects such as scope and extent of recovery, etc.

ii) *Graduate Tax*

Alternatively, as Glennerster *et al* (1968) proposed, a graduate tax could be levied on the graduate him(her)self -- the graduate paying a proportion of his/her income for a part or whole of his/her working lives, as a kind of repayment for the costs of his/her education. Such a tax is argued to be better than other kinds of cost recovery like fees and loans. There is no indebtedness, which is a characteristic feature of loans; there is no 'negative dowry' in it for

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[54] Colclough (1990) however argues that it would make the employers economize the use of graduates.

women to feel discouraged; like direct taxes it could be progressive -- income contingent, and compared to the other types of earmarked taxes like the payroll tax discussed above, there is no question of shifting the tax incidence.[55]

Colclough (1990) and Albrecht and Ziderman (1991) further show that the possibility of revenue generation is higher in case of payroll and graduate taxes respectively than in case of loans, besides being more equitable. Ziderman (1989) argues that compared to other taxes, such a tax may be relatively more efficient. Since the experience with graduate/payroll tax is rather limited, it is yet to be seen how far it can be efficient in general. But its appeal seems to be strong, though economic theory, in general, does not favour earmarked taxes compared to general taxes.[56]

But the difference between such a tax, and a well-designed income tax seems to be not much clear, except for the earmarking of the graduate tax. For example, Arrow (1993, pp. 9-10) makes almost a similar suggestion: a higher income tax rate for higher educated workers, and this was argued to be "the most practical way of securing the repayment." Friedman (1962, p. 105) also argued the same: the graduate individual should be required to pay a specified proportion of his earnings in excess of specified sum for each unit of additional earnings ($1000), which could be combined with income tax. Further, some graduate taxes and fees look alike in nature and effect. For example, the deferred fee charges introduced in 1986 in Australia amount to graduate (education) tax; and the graduate tax introduced in 1989 provides a choice to pay an "up-front" fee on entering higher education or pay the tax.

iii) *Educational Cess*

In comparison to payroll tax, educational cess has been in vogue in several countries. Cess is an earmarked levy, payable by all members in a given region, and its revenues are to be used for a specific purpose, education in case of an education cess. But educational cess is not restricted to the households having students currently (or in the past) enrolled in schools, or the direct users of graduates, but is extended to all in a given region, or to a specific group in a given region. e.g., all agricultural land owners are levied an educational cess. Usually a cess

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55 One example of such a tax is the proposed, but not implemented, graduate income tax in Argentina. See Gertel (1991, pp. 76-77).

56 See McCleary (1991) for a recent survey.

is levied as a small fraction of some other tax. For example, a cess for public financing of libraries is attached to professional tax or to urban property tax. In rural areas cess is levied as a proportion of land revenue. However, education cess is used largely for school education. For example, in China an education levy[57] has been charged since 1986, which amounts to 16.7 per cent of total expenditure on basic education in China in 1988 (Ahmed *et al.*, 1991).[58] In India an education cess was levied earlier in several states. It was imposed, collected and used by local governments, largely as a surcharge on land revenue, for the development of school education. The experience was not satisfactory in terms of the revenue generated and it was subsequently abolished.[59] Recently, AICTE (1994) proposed an education cess on industries in India for technical education and research and development activities. Quite a few countries have some kind of levies or taxes earmarked for education.[60]

One advantage claimed by the proponents of education cess, in addition to generation of additional revenues, is that since these revenues are generated and are also used at local levels, it is claimed that the potential for their efficient utilisation is high. Secondly, it is claimed that it ensures community participation in education, which will improve the internal efficiency of the system by making teachers accountable to the community. Both the claims lack empirical evidence.

Many economists have remained skeptical about earmarked taxes. Theory of public finance provides only limited justification for earmarked or special taxes, as decisions regarding raising resources and decisions regarding allocation of resources ought not to be linked, and as earmarked taxes produce a rigidity in the allocation of resources, and a rather unalterable prioritisation of public choices. For the same reason, the resource allocators generally do not favour earmarked taxes. But educational planners and policy makers argue that by assigning

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57 This is a surcharge on the amount of product tax, value added tax and business tax paid by work units and individuals.

58 See also Tilak (1993e).

59 Its abolition was also attributable to the declined role of local governments and the declined role and/or abolition of land revenues. Now proposals are being made for its revival.

60 See Lockheed *et al* (1991).

revenue from specific sources to education, expenditure on education can thereby be increased. Earmarked taxes may protect education from shifting allocations, inefficiency and corruption, and assure minimum levels of finances. Thus as funds for education from general tax revenue are subject to cuts, earmarked taxes would form a "sure source of funds for education, [and they have] to be preferred to general fund financing" (Panchamukhi, 1989, p. 44).

But earmarked taxes like education cess, imposed on all households could be regressive in principle, though the effect could be small in practice as the cess is generally a very small amount; but if they are selectively imposed the revenues could be very less. In fact, if they are selectively imposed, say on the households whose children go to schools, the distinction between fees and earmarked taxes disappears.[61]

Generally earmarked taxes and cesses have a very limited tax base. Also Glennerster *et al* (1968, p. 34) concluded that "even at the highest rate that could be justified revenue builds up [from graduate tax] fairly slowly. A [graduate] tax is therefore no immediate solution to the problems of financing higher education." Hence revenue from these sources would remain supplementary to, not substitutes for general tax revenue, as a means of financing of education. In case of education particularly, earmarked sources typically provide a small fraction of the total requirements and the education sector has to depend upon allocations from general tax revenue, making the role of earmarked taxes insignificant. Further, low levels of revenues along with huge costs of administration and collection often make the whole system of earmarked taxes economically inefficient (McCleary, 1991). Further, there is a danger of the flow of the revenues from earmarked taxes into the general pool of tax revenues, resulting in no net gain for education sector in specific, unless some specific and highly effective measures are adopted.

5 *Conclusion*

There are powerful arguments made in favour of cost recovery and against it in education. The case for cost recovery is essentially built around two arguments: resource constraints, and scope for improvement of quality and internal efficiency in education. The case against cost recovery is stronger and is built around externalities (public good argument), lack of information and knowledge on the potential benefits of education (merit good argument),

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61 Even though Penrose (1993) argues that compulsory fees and earmarked taxes are the same, they become the same only in such cases.

imperfections in credit market, and associated market failures. While resource augmentation is the major benefit of cost recovery methods, equity is believed to be the main trade-off.

Even those who strongly advocate cost recovery measures do not argue for full cost recovery, nor do they argue for cost recovery in all levels of education. There seems to be some sort of consensus on the need for providing free primary education as some view it as a pure public good. But differences of opinion exist in case of post-primary, particularly higher, education, where some strongly plead for a high degree of cost recovery, some a very low level of cost recovery, and some even zero cost recovery. The public and quasi pubic good characteristics of education do not justify any proposal for full cost recovery even in case of higher education, and the empirical evidence from various developed and developing countries leads us to conclude that substantially high levels of cost recovery are not feasible. So many proponents of these several strategies of cost recovery rightly opine that the effect of these measures in generating extra resources would not be substantial, and hence the dominant role of public financing of education, including higher education, cannot but continue in several developing countries.

However, in view of resource constraints the need for experimentation with various measures of cost recovery and financing education is also widely suggested. What is, however, questioned is mainly the views that (a) these cost recovery measures would ease the financial burden of the government considerably and would form a panacea for financing problems in education, (b) these measures do not produce serious socioeconomic inequities, and (c) the long term costs of these socioeconomic inequities would be more than offset by the gains in augmentation of needed extra resources. Empirical examination of these issues is still not adequate.

Now towards the end, a few tentative concluding observations may be noted as follows:

First, it should be noted that the power of the market forces is tremendous, as warned by many (e.g., Qiping and White, 1994). Once unleashed, they are not likely to be easily curbed. What they can do, can hardly be undone. Moreover, the changes they bring about will most probably stimulate still more market-oriented changes. The potential benefits of marketisation like improvement in efficiency, resources quality, accountability, etc., need to be contrasted with the potentially serious dangers as the creation of an increasingly inegalitarian society, a fragmentation of knowledge, decline in quality and increase in costs, the overheated

pursuit of immediate, short-term interests at the expense of long term social and intellectual needs of the society, etc.

Secondly, when it comes to specifics, it is crucial to note the limits of each of the proposals, and that the necessary safeguards have to be ensured when any proposal is being put into practice even on an experimental basis. For example, fees and other user charges, unaccompanied by an elaborate system of scholarship and loan programmes would be disastrous, and liberal loan programmes, without substantial increase in fee levels will create more strain on public revenues. Similarly there cannot be high fee levels and at the same time high levels of taxes like graduate/payroll taxes. So the interdependence of these various measures, has to be noted; a clear coherent package of reforms has to be identified.

Thirdly, the regional and inter-country variations are so vast, that general global prescriptions have to be taken with caution by the national educational planners. Reviews of cost recovery measures have clearly shown that specific measures are effective in some countries, but not in other countries or regions. This is not a dramatic finding, but generalised prescriptions are often suggested, and many countries do often consider them without taking into account the specific conditions in a given country or a region, and as a result, they turn out to be inappropriate solutions. And the countries learn in a dear way.

All cost recovery measures are also inherently inequitable, and the higher the degree of cost recovery, the higher will be their effects on inequities. Some measures can be made less inequitable by properly designing loans and scholarships; but that would result in less net revenue. Further, few governments could succeed in increasing cost recovery without deterring access of the lower income population to education. Some advocates of cost recovery are aware of it. For the same reason, they suggest the need for scholarships along with their proposals for cost recovery, to protect to some extent, the poor from withdrawing from education. The issue of scholarships has not been discussed in the paper. Generally a strong case exists, even in those systems where education is provided free and no direct cost recovery measures are employed, in favour of scholarships/grants, which are direct subsidies to the students to meet direct costs, and even opportunity costs in certain cases. The case for scholarships becomes stronger -- both in terms of the coverage of student population, and the amount of scholarship -- with the introduction of direct cost recovery measures. Generally arguments are made favouring discriminatory scholarships schemes or targeting of scholarships to the weaker

sections.[62] But generally fees are levied (or made known) at the time of entry into higher education, while scholarships are awarded during studies, i.e., after one gets the admission. In this sense, unless scholarship programmes are highly imaginatively designed, fees reduces the access of the poor students to higher education, and scholarships will not be able to correct it. Further, it is likely that in most developing countries, cost recovery measures are introduced/administered efficiently as revenues are generated, but subsidy schemes like the scholarships, including loans, may not be administered so efficiently, resulting in accentuation of inequalities. Particularly targeting of scholarships has been problematic and inefficient in developing countries. Hence universal subsidisation is preferred to targeting of subsidies.

Among the several alternatives, the relative superiority of one over the other is also not established beyond doubt. Therefore, it is difficult to prepare a balance sheet of the pros and cons of cost recovery measures, even though such an attempt is made in Table 11. It shows that some measures (e.g., high fees) have potential of generating resources; but their adverse effects on equity are significant. Some (e.g., special taxes) are apparently easily feasible as far as their implementation is concerned; but their potentiality in resource generation is not high. Certain measures (e.g., full cost fees and loans) may improve internal efficiency, but their other effects are serious and their feasibility is doubtful. Among the various measures discussed here, discriminatory fees are to be preferred to uniform levels of fees, both from equity and efficiency (resource generation) points of view. But administrative problems are more severe with respect to discriminatory fee compared to charging uniform fees. But both are associated with problems relating to possibilities of student and parent resistance, which may however be less in case of discriminatory fees. The student loan programmes may be better as the costs of education are recovered when the graduates are able to pay. The loans are also felt to be better than grants. But note that the loan programmes accompany increase in fee levels, and the increase in fee levels do cause some problems, even when loan schemes are launched. Further, the experience of several countries with loan programmes is not encouraging with respect to recovery of loan amounts, and to this extent, reforms in student fee have an advantage. But graduate/payroll taxes seem to be better than both loans and fees, with respect to efficiency in administration,

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62 See Tilak and Varghese (1985) and Tilak (1994c) for description of discriminatory incentive (scholarship) model along with a discriminatory fee model. See also Jimenez (1989) for similar arguments.

scope for introducing progressiveness, and generating revenues. But it may be producing limited revenues, compared to the total needs of higher education, unless the tax rate is reasonably high, and the taxation mechanism is efficient. The advantage of this tax is that it can be treated as an earmarked tax, so that the revenues do not go into the general pool of tax revenues.

To conclude, all measures seem to have certain strengths and certain weaknesses. At the same time, all these measures, if well designed, seem to be only marginally different from each other. Taxes, particularly earmarked taxes, are nothing but deferred fees. In principle, there may not be much difference between a package consisting of high fees and loans as one mechanism and free or highly subsidised higher education plus general direct and/or specific taxes like graduate/payroll tax as an alternative package. While in principle both should yield the same, administrative efficiency and scope for progressiveness should lead us to favour the latter package. In other words, progressive taxation, and funding education out of general tax revenues, and financing of higher education probably out of general and specific tax revenues, may still be the best option. All others are only second best solutions.

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Table 1: **Distribution of Education Subsidies by Income Group** (per cent)

	Year		Shares of the Population		
			Bottom 40%	Middle 40%	Top 20%
India	1978	Elementary	61	31	8
		Secondary	51	34	15
		Higher	33	49	18
		All Levels	45	40	15
Uruguay	1982	Basic	77	22	7
		Secondary	46	43	12
		Higher	14	52	34
		All Levels	52	34	14
Argentina	1980	Basic	64	27	9
		Secondary	47	39	14
		Higher	17	45	38
		All Levels	48	35	17
Costa Rica	1982	Basic	62	31	7
		Secondary	45	43	11
		Higher	17	41	42
		All Levels	42	38	20
Malaysia (1)	1974	Primary	50	40	9
		Secondary	38	43	18
		Higher	10	38	51
		All Levels	41	41	18
Malaysia (2)		Higher	30	35	35
Chile	1982	Basic	65	30	5
		Secondary	49	42	10
		Higher	12	34	54
		All Levels	48	34	18
Colombia	1974	Primary	59	36	6
		Secondary	39	46	16
		Higher	6	35	60
		All Levels	40	39	21
Dominican Republic	1980	Basic	31	48	21
		Secondary	22	46	32
		Higher	2	22	76
		All Levels	24	43	33
Indonesia*	1978	Primary	51	27	22
		Jr Secondary	45	21	33
		Sr Secondary	22	23	55
		Higher	7	10	83
		All Levels	46	25	28

Note: * Indonesia: under Middle 40%, it is Middle 30%; and under Top 20%, it is Top 30%

Source: Tilak (1989a, p. 55).

Table 2: **Declining Private Returns to Higher Education in Selected Countries** (per cent)

	Year	Rate of Return
Japan	1967	10.5
	1980	8.3
Mexico	1963	29.0
	1984	21.7
Pakistan	1975	27.0
	1979	6.3
Greece	1962	14.0
	1977	5.5
Philippines	1985	14.0
	1988	11.6
Taiwan	1970	18.4
	1972	15.8
Uruguay	1979	20.0
	1989	12.8
Venezuela	1957	27.0
	1989	11.0

Source: Psacharopoulos (1993, pp. 55-56).

Table 3: **Distribution of Enrolments in Education in India, by Household Expenditure Quintiles, 1986-87**

Quintile Group	Government			Private		
	Primary	Secondary	Post Secondary	Primary	Secondary	Post Secondary
Rural						
0 - 20	22.6	15.2	11.2	21.0	13.7	9.2
20 - 40	23.6	18.1	12.7	19.7	16.5	12.3
40 - 60	22.2	20.9	18.6	21.1	20.7	15.8
60 - 80	19.1	24.2	23.6	20.3	24.8	26.3
80 - 100	12.5	21.7	34.0	17.9	24.3	35.4
Urban						
0 - 20	31.8	19.9	9.4	18.4	13.2	8.1
20 - 40	32.9	26.6	14.1	22.5	19.3	10.4
40 - 60	19.3	24.5	19.4	22.0	23.0	17.3
60 - 80	11.9	19.3	25.4	21.7	25.4	27.5
80 - 100	4.1	9.6	31.8	15.4	19.1	36.7

Source: NSSO (1991, p.S-34 and p.S-89).

Table 4: **Fees in Public Higher Education in Selected Countries, 1987** (per cent)

Country	US $
Greece	Nil
Portugal	10 - 100
Federal Republic of Germany	10 - 100
France	10 - 100
Australia	10 - 100
Italy	225 - 300
Spain	350 - 5000
Belgium	350 - 5000
Switzerland	350 - 5000
Netherlands	800
Ireland	1350 - 4000
UK	700 - 3700
Canada	540
Australia (1989)	133
Japan	1600
Korea	300 - 500
Philippines	300 - 500
Anglophobe Africa	300 - 500

Source: Eicher and Chevaillier (1993, p. 465).

Table 5: **Share of Fees in Costs of Higher Education in Selected Countries**
(per cent)

	Share		Share
Developing Countries		**Developed Countries**	
(around 1980)			
Sri Lanka	.	Norway (Public Instns.) 1987	0.0
Tanzania	.	Australia 1987	2.1
Bolivia	1.0	France 1975	2.9
Pakistan	2.1	1984	4.7
Philippines		Germany 1986	0.0
Public 1985	10.9	Canada mid-1980s	12.0
Private 1977	85.0	Netherlands 1985	12.0
Nepal 1986-87	4.4	Spain mid-1980s	20.0
PNG 1988-89	4.4-9.0	Japan	
Brazil	5.0	Private 4-year Instns. 1971	75.8
Malaysia	5.8	1985	65.8
Thailand	6.9	Public Instns. 1970	2.0
Costa Rica	8.0	1987	8.8
Guatemala	10.0	All Instns. 1971	31.7
Nigeria	12.4	1985	35.8
Indonesia	13.0		
Turkey	15.0		
India 1984-85	15.0	United Kingdom	
South Korea 1985		Universities 1970-71	12.6
Public	49.6	1988-89	6.4
Private	82.3	Polytechnics 1982-83	15.0
Chile: All 1990	34.2	1987-88	14.0
Public	38.5		
Private	95.0		
Philippines			
Private 1987	2.3-2.5	USA	
Public 1985	10.9	Private Instns. 1969-70	38.6
All 1985-87	2.5-5.0	1984-85	38.7
Pakistan 1987-88		Public Instns. 1969-70	15.1
Colleges	7.4	1984-85	14.5
Universities (Gen.)	1.9	All Instns. 1969-70	20.5
Universities (Tech.)	1.3	1986	22.4
Colombia			
Public Univs. 1987	9.6	Soviet Union early 1980s	0.0
Private Univs. 1989	81.0	Hong Kong 1988-89	6.5-12.1
Venezuela (1986)		Singapore 1992	<20.0
Public	3.8		
Private	83.0		

Note: . Nil or Negligible; * All non-government sources including fees.

Source: Hong Kong: Bray (1993, p. 37); Korea: Eicher and Chevaillier (1993, p. 462); Nepal: Timilsina (1991, pp. 180-82); Philippines: Arcelo (1991, p. 226); Singapore: Selvaratnam (1994, p. 81); UK: Williams (1992, pp.6-7); Chile: Brunner (1994, p. 230); Others: Tilak (1993c, p. 20).

Table 6: **The Contribution of Students/Families (Fees) to the Recurring Budgets of Select African Universities** (per cent)

University (Country)	Year	Share
Botswana	1991	12.6
Ghana	1990	1.2
Kenyatta	1991	0.0*
Jomo Kenyatta	1991	0.0*
Lesotho	1991	14.0
Malawi	1991	4.0
Zimbabwe	1991	6.0
Ibadan (Nigeria)	1990	5.3**
Nsukka	1991	2.0+
Obafemi Awol	1991	0.0
Swaziland	1991	0.0
Makerere (Uganda)	1991	2.0+
Copperbelt (Zambia)	1991	8.0
Wiwatesrand (South Africa)	1991	27.9

Note: * fees was to be introduced in 1991-92.
** Fees is for Post-Graduate students only.
+ Fee is raised, but "paid" by the state.

Source: Blair (1992, p. 20).

Table 7: **Private and Social Costs of Higher Education in India and the United States of America** (per cent)

	Private Costs			Institutional Costs	Total Social Costs
	Direct	Foregone Earnings	Total		
India (1978)					
Higher: General	31.0	55.4	87.5	12.5	100
Professional	54.5	28.8	83.3	6.7	100
USA (1988)					
Higher*	3.9	39.1	43.0	57.0	100

Note: * College and Universities/ Institutions of Higher Education (Public and private).

Source: India: Tilak (1987); USA: Cohn and Geske (1990).

Table 8: **Share of Household Expenditure in Total National Expenditure on Education in Selected Countries**
(per cent)

Country	Year	Share
Netherlands	1986	3.5
France	1985	5.1
United Kingdom	1986	10.1
Australia	1986	16.4
United States	1986	24.1
Zimbabwe	1985	26.5
Thailand	1986	26.5
Colombia	1983	28.6
India	1985-86	50.3

Source: United Nations (1989a, Tables 2.1 and 2.5).

Table 9: **Contribution of Public and Private Sources to Financing Education in OECD Countries** (1989)

	Per cent of Total Educational Finances			Educational Finances Per cent of GDP		
	Public	Private	Total	Public	Private	Total
Canada	91.1	8.9	100	6.2	0.7	6.9
Denmark**	95.8	4.2	100	7.0	0.3	7.3
Finland	91.9	8.1	100	5.2	0.4	5.6
France	83.8	16.2	100	5.3	1.0	6.3
Germany**	96.0	4.0	100	4.0	0.2	4.2
Greece*	92.7	7.3	100	2.7	0.3	3.0
Ireland***	95.2	4.8	100	5.3	0.2	5.5
Japan*	76.5	23.5	100	4.7	1.4	6.1
Netherlands	95.9	4.1	100	6.2	0.2	6.4
Norway**	97.3	2.7	100	7.4	0.2	7.6
Spain**	79.7	20.3	100	4.2	1.0	5.2
Switzerland**	98.1	1.9	100	5.0	0.1	5.1
USA	80.3	19.7	100	5.4	1.3	6.7
Australia+	93.4	6.6	100	4.8	0.4	5.2

Note: * 1988
+ first three columns refer to 1985-86; others to 1989-90.
** Private expenditure refers only to household expenditure. See text for further details.

Source: Based on Marginson (1993, p. 10) for Australia; and OECD (1993, p. 111) for others.

Table 10: **Student Loan Programmes and Government Losses in Selected Countries**

Country	Year	Percentage of Students with Loans	Government Loss (%) on Account of			Rate of Recovery (per cent)
			Default	Administration	Default & Administration	
Mortgage Loans						
Columbia I	1978	..	76	11	87	13
Columbia II	1985	6	38	9	47	53
Sweden I	1988	..	62	8	70	30
Indonesia	1985	3	61	10	71	29
USA	1986	28	41	12	53	47
Hong Kong	1985	26	43	4	47	53
UK	1989	7	30	11	41	59
Norway	1986	80	33	15	48	52
Denmark	1986	..	56	6	62	38
Finland	1986	..	46	6	52	48
Brazil I	1983		94	4	98	8
Brazil II	1989	25	65	6	71	21
Jamaica I	1987	20*	84	8	92	8
Jamaica II	1988	..	62	8	70	30
Barbados	1988	..	18	15	33	67
Kenya	1989	100	94	9	103	-3
Canada**	1989	59	31	6	37	63
Chile	1989	..	69	13	82	18
Japan	1989	19	51	9	60	40
Venezuela	1991	1	98	10	108	-8
Honduras	1991	1	53	20	73	27
Income Contingent Loans						
Australia	1990	81	52	5	57	43
Sweden II	1990	..	30	3	33	67

Note: I and II refer to situations where the loan programmes underwent reform.
* 1985 ** Quebec
Rate of cost recovery refers to average loan recovery ratios, as a percent of loan amount, default and administration costs.

Source: Albrecht and Ziderman (1991, p. 5 and p. 15; 1993, p. 80) and World Bank (1994a, p. 47

Table 11: **Efficiency of Alternative Measures of Cost Recovery**

	Potential Resource Generation	Internal Efficiency	Equity	Feasibility	Current Use
Fees					
Token Fees	..	..	+	++	++
Substantial Levels of					
Uniform Fees	+	..	-	++	++
Discriminatory Fees	+	+	++	+	+
Full-Cost Fees	++	++	--	--	+
Student Loans	++	++	+	+	++
Payroll Tax	++	..	+	++	--
Graduate Tax	++	..	+	++	..
Educational Cess	+	..	..	+	+

Note: + Reasonably high; ++ Very high
- Reasonably low; -- Very low
.. Not significant or doubtful