

I.1

FINANCING HIGHER EDUCATION: INTERNATIONAL PERSPECTIVES

Abstract

The authors introduce the paper with a list of six factors influencing the new trends of financing higher education. These are: massive expansion in higher education, inability of the state to finance this massive expansion leading to the emergence of the private sector, the rationale for cost-sharing with parents and students, the public call for accountability and ‘value for money’, the emergence of foreign providers through the General Agreement on Trade in Services (GATS), and finally, the need for adjustment in state funding to reduce widening disparity. The authors then establish the reciprocal relationship between financing of higher education and its mission at system and institutional levels. The paper then touches upon the evolution of the steering mechanism of higher education because of the changes in financing pattern. The role of the state in financing higher education is then discussed with empirical evidence with the conclusion that although the state is making an effort to finance higher education, its share in the education budget expenditure per student has gone down drastically, primarily because of the massive expansion. The case for the need for partnership with other entities is established. In this respect, the role of the private sector in its four forms is discussed. These are: privatization of public institutions, establishment of private institutions with government support, self-financed private institutions, and profit-making private institutions. Examples of each of these forms are provided, ending with the public–private debate providing merits and demerits of their partnership, with the conclusion that in order to meet the social and economic demand for higher education, partnership between the state and other stakeholders is essential. This leads to an analysis of cost-sharing between different partners and its seven forms following Bruce Johnstone. These are: the introduction of tuition fees, the dual tuition track, a sharp rise in tuition, the imposition of user charges, a diminution of student grants and scholarships, the introduction of various measures to recover student loans, and the imposition of ceilings in low-fee enrolment and/or free enrolment in public institutions. Suggestions for effective cost-sharing programmes are then offered. The paper

then goes forward with the methods of generating non-traditional, non-state income by institutions and systems to finance higher education and provides examples of the best practices from around the world. A discussion of the financial implications of the internationalization of higher education through GATS follows, indicating the latest position of UNESCO in the debate on higher education as a ‘public good’ and a ‘tradable good’ protecting the interests of developing countries. The role of distance learning with the availability of information and communication technology (ICT) and the ease of access to training materials in meeting the massive expansion of higher education with less cost is then mentioned, citing the example of the British Open University. Finally, the authors discuss in detail the role of effective management in financing higher education and show how the better allocation of funds, improved management of cash reserves, production of financial indicators, better utilization of resources, evaluation and auditing, and protection from fraud could provide additional funds for higher education. Examples of good practice are provided whenever possible. The paper ends with some conclusions for strategies in financing higher education at the system and the institutional levels.

INTRODUCTION

The dawn of the new millennium has brought a significant amount of new ideas on financing of higher education. This has been the result of at least six factors described below.

First, there was a massive expansion of higher education in the nineties. According to latest available statistics, total enrolment in higher education increased from 68.6 to 110.7 million approximately between 1990–1 and 2001–2. Developing countries doubled their total enrolment from 29.3 to 58.3 million, while the countries in transition and the developed countries increased their enrolment from 8.5 to 12.2 million and from 30.8 to 40.3 million respectively (see Table I.1.1). Interestingly, five of the countries having more than one million

additional students belong to the countries having the largest number of illiterates in the world, the E-9 countries of UNESCO initiative launched in 1993. China and India lead the list with 8.3 and 5.6 million additional enrolments respectively (see Table I.1.2). Even with this rapid expansion during the last decade, the gross enrolment ratio of the developing countries at 11.3 is less than half the world average at 23.2, still less than that in the countries in transition at 36.5, and far behind that of the developed countries at 54.6 (see Table I.1.1). If only to reach the world average, the developing countries will need to expand higher education much faster. Moreover, the increased number of secondary school graduates as a consequence of the universalization of primary education will also create strong pressure for expansion. There are all the signs that expansion will continue at an accelerating rate in developing countries in higher education as in the overall economy, as has been perceived by Jeffrey Sachs: ‘the technologies are known and the strategies proved; what is needed is simply the political and the financial will to implement them.’¹ To become active members of the knowledge society, the developing countries – especially those of Africa and Asia – will expand their higher education in spite of the priority given to basic education within the framework of the ‘Education for All’ programme.²

TABLE I.1.1
Enrolment in higher education by regions 1990–1 and 2001–2 (thousands)

Group of countries	Enrolment 1990/1	Enrolment 2001/2	Gross enrolment ratio 2001/2
Countries in transition	8,481	12,168	36.5
Developed countries	30,837	40,273	54.6
Developing countries	29,326	58,290	11.3
World	68,644	110,731	23.2

TABLE I.1.2
Countries with more than 1 million increase in enrolment during 1990–1 and 2001–2

Country	Increase in enrolment (million)
China	8.3
India	5.6
Russia	2.9
USA	2.2
Egypt	1.8
Brazil	1.6
Indonesia	1.6
Korea	1.4
Iran	1.3
Thailand	1.2
Japan	1.1

Second, since the massive expansion could not be

matched by the corresponding expansion of state finance, the private sector financing in higher education is emerging all over the world. While a major part of this sector is not-for-profit, a part of this sector is doing business by making profit. Two of the biggest firms selling higher education in the United States, Apollo Group and Laureate Education Inc., are listed on the stock market.³ Their coverage is worldwide. While private higher education has an important role in the United States, Latin America and some Asian countries, it is becoming an emerging trend in Africa and transitional countries like China, Vietnam, the Russian Federation and countries of Central and Eastern Europe. We shall come back to this issue in detail later.

Third, due to the inability of the government to bear the cost pressure, some of the costs are being shifted to the parents and students with the emergence of the phenomenon of cost-sharing. This is being achieved through the introduction and increase of tuition fees, withdrawal of subsidies and maintenance grants, and the introduction of student loans.⁴

Fourth, cost-sharing is making the public at large and the students and their parents in particular demand ‘value for money’. The taxpayer and the students want more transparency and accountability in the way the money they pay is being spent. This calls for the involvement of improved financial management in the financing of higher education.

Fifth, the General Agreement on Trade in Services (GATS) of the World Trade Organization makes higher education a tradable commodity. Studies abroad, cross-border provision of higher education, private institutions run by foreign agencies (for-profit like Apollo and Laureate, mentioned above and non-profit like any foreign institution of higher education), and employment of foreign teachers are the four kinds of trade in higher education.⁵ For developing countries, finance may be available from abroad through governments or through private sources shifting the paradigm of financing higher education. For industrialized rich countries, the liberalization may reduce their monopoly in exporting higher education with the arrival of countries like India, Korea and South Africa on the one hand, and widen the scope of their export of higher education with implications for financing on the other hand.

Sixth, the diversification of funding sources away from the state and the introduction of GATS will increase the individual cost of higher education and will widen the inequality of opportunities. The state funding mechanism will have to make adjustments to face this challenge.

The above factors are influencing the mission of higher education systems and institutions and having an impact on the financing of higher education, as observed below.

MISSION OF HIGHER EDUCATION

The missions of different types of higher education systems vary. For example, the mission components of public higher education systems will be to provide high-level manpower, to meet social demands for higher education, to ensure equity in the distribution of higher education, and more recently, to ensure efficient management. The mission of the private non-profit secular sector will be to respond to students' private interests. The religious sector has its own agenda. The for-profit sector's mission serves the private interests of students, clients and owners. It is self-evident that financing higher education ought to operate within its mission. The differences in mission result in different types of financing of higher education. Similarly, funding sources influence the mission of higher education. The relationship between mission and financing is reciprocal.

The missions of the institutions and the systems are defining the steering mechanism of higher education at both system and institutional levels, as will be noted below.

a more important role in the United States because of the large private sector. Except in the United Kingdom, state authority was dominant in most of the public universities and in the universities receiving major state funding.

With time, especially from the beginning of the nineties, the relative importance of academic authority diminished. This was the result of the emergence of a market-friendly society in which institutions of higher education were reduced to providers of academic services accountable to the public through the state in the case of public institutions, and to the important stakeholders in the case of the other institutions. The state and the market became dominant forces in financial decision-making. The mission of the system and the institution became strongly influenced by the funding source transforming the steering mechanism. Since the state could not bear the full burden, the private sector emerged with its own mission. Public-private partnership in financing of higher education was taking a new turn. We shall examine the role of the two partners below, dealing first with the financing of higher education from government sources.

THE STEERING MECHANISM OF HIGHER EDUCATION

One can identify three types of steering mechanisms following Burton Clark.⁶ Firstly, academic authority is derived from the possession of the professional knowledge which is necessary for higher education to operate effectively and efficiently. The steering of higher education 'depended on the informed consent of those who are managed.'

Secondly, the authority of the state is derived from the provision of a large part of the funds necessary for higher education and collected through the taxpayers. The social benefits derived from higher education constitute a powerful justification for the state to play a dominant role; in addition, the promotion of national coherence, ensuring equality of opportunity among the different social groups, is a state concern.

Thirdly, the market reflects the aggregation of the choices of millions of individual people who 'buy' higher education and thereby get the right to influence the nature of what they are buying.⁷

In practice, all three of these mechanisms exist to different extents in all systems and institutions.

Until recently, academic authority was more dominant in the institutions of the United Kingdom, Australia, the Netherlands, and to a large extent the United States. The state authority was dominant in most developing countries, continental Europe and Japan. Market forces played

STATE FUNDING OF HIGHER EDUCATION

An analysis of the trend of the share of public expenditure on education in the gross national product during the period 1990–1 (or the nearest year) and 2001–2 (or the nearest year) shows that the government of 83 countries out of the 139 reporting had secured a relative increase in educational expenditure. Sixty-two of them are from developing countries out of a total of 94. What is striking is that their relative share is more than the developed countries' where 20 countries increased their share out of 36 demonstrating the 'financial will' as perceived by Sachs (see Table I.1.3). The share decreased in most of the reporting countries in transition, whereas, in the developed countries, the number of countries losing and gaining their share was more or less the same.

The analysis of the share of the government expenditure in education out of the total government expenditure also shows an increased emphasis on education by the state during the same period, relatively slightly more than in the previous case. Out of 87 countries reporting, 56 had increased their share of educational expenditure in total government expenditure, 30 had decreased, and 1 retained the same share. Here also a slightly larger proportion of developing countries (39 out of 61) increased their share than the developed countries (13 out of 21). Interestingly, most of the countries in transition increased their share (see Table I.1.4).

TABLE I.1.3

Number of countries having an increased, decreased or stationary public expenditure as a percentage of gross national product during the period 1990–1 and 2001–2 or nearest years

	Increased	Decreased	Stationary	Total
Countries in transition	1	7	1	9
Developed countries	20	16	0	36
Developing countries	62	32	0	94
World	93	57	1	139

Definition follows UNESCO (2004) EFA Global Monitoring Report 2005

TABLE I.1.4

Number of countries having an increased, decreased or stationary share of public expenditure in education as a percentage of total government expenditure during the period 1990–1 and 2001–2 or nearest years

	Increased	Decreased	Stationary	Total
Countries in transition	4	1	0	5
Developed countries	13	7	1	21
Developing countries	39	22	0	61
World	56	30	1	87

Definition follows UNESCO (2004) EFA Global Monitoring Report 2005

Based on the number of countries on which data were available, one could observe that a majority of the countries' governments gave priority to the education sector. Developing countries were slightly greater in number in increasing their share of expenditure on education in both gross national product and in the total government expenditure. How much of the educational expenditure went to higher education?

In the replies to a UNESCO questionnaire, it was observed that the share of higher education in the national budget varied from 2.3 per cent in the Republic of Korea to 7.4 per cent in Sweden.⁸

The share of higher education in the national educational budget enjoyed a privileged position, according to UNESCO, varying from 13.66 per cent in South Africa to 40 per cent in Romania.⁹ This supports the empirical finding of Varghese: 'it is not always factually correct to argue that the share of higher education in the education budget declined.'¹⁰

According to the latest UNESCO statistics, out of 111 countries reporting, 70 enjoyed an increase in their share of public expenditure in higher education. In the total public educational expenditure, 38 of them belonged to the developing countries. Out of 41 countries having a reduction in their share of expenditure in higher education, 34 belonged to the developing countries, and only 6 belonged to the developed countries. Among the developing countries, a significant number (38 out of 72) could increase expenditure in higher education in spite of the priority

given to basic education in these countries during the past decade. However, a majority of them had suffered a reduction in their share. A large number of developed countries increased their share in higher education (see Table I.1.5). The reason is that most of them had already achieved saturation in lower levels of education and could focus on higher education. Since the expansion is massive all over the world, per student resource availability from the state has decreased massively as well, the situation being worse in developing and transitional countries than in developed countries. While the annual average cost per student varied from US\$220 in Madagascar to US\$13,224 in Sweden, public expenditure per student, according to UNESCO, fell from US\$6300 in 1980 to US\$1241 in 1995 in Africa. In the United Kingdom, state funding per student fell by 50 per cent during the last decade.¹¹ The need for exploring funds from sources other than the state became important universally, but more so in developing and transitional countries than in the developed ones. Hence the role of the private sector.

TABLE I.1.5

Number of countries having an increased, decreased or stationary share of public expenditure in higher education as a percentage of total public expenditure in education during the period 1990–1 and 2001–2 or nearest years

	Increased	Decreased	Stationary	Total
Countries in transition	4	1	0	5
Developed countries	28	6	0	34
Developing countries	38	34	0	72
World	70	41	0	111

Definition follows UNESCO (2004) EFA Global Monitoring Report 2005

ROLE OF THE PRIVATE SECTOR

The role of the private sector in financing higher education is being manifested in the following forms:

- The privatization of public institutions.
- Establishment of private institutions with government support.
- Self-financed private institutions.
- Profit-making private institutions.

We shall discuss them below.

PRIVATIZATION OF PUBLIC INSTITUTIONS

Governments have implicitly encouraged higher education institutions to adopt privatization policies or explicitly formulated policies that contribute to the privatization of higher education. This is being done through the withdrawal of government grants, provision of incentives to mobilize financial resources from private sources, including fees, introducing 'marketable' courses of study, and

various other means of income generation which we shall discuss later. This is happening all over the world. However, the government remains the important source of funds for these institutions.

ESTABLISHMENT OF PRIVATE INSTITUTIONS WITH GOVERNMENT SUPPORT

An already prevalent practice in the United States of America, private investment in higher education is similar to or larger than public investment in many countries of Latin America, such as Chile, Colombia, Paraguay and Peru.¹² In several countries in Asia also, such as the Philippines and India (both government-sponsored and government-aided, depending upon the extent of government support), the establishment of private institutions with government support is becoming an emerging practice. Tunisia, in the Arab region, with one of the highest public shares of GNP devoted to higher education at 2 per cent, has set up a legal framework to encourage investment in higher education which has led to the creation of a large number of private institutions.¹³ The Ministry of Education in Japan subsidizes 12 per cent of undergraduate students who are enrolled.¹⁴ Tuition fees (of an amount often controlled by the government), donations, foundations' contributions and government support of varying extents (more for 'sponsored' institutions than for 'aided' ones) finance these institutions.

SELF-FINANCED NON-PROFIT PRIVATE INSTITUTIONS

The religious and philanthropic foundations take the lead in setting up non-profit institutions of higher education, which constitutes the largest component of the private sector's role in higher education. To retain their autonomy in steering mechanisms, they would not take government aid of any kind. Private businesses and secular non-governmental organizations are now initiating non-profit private institutions in both developing and developed countries to achieve their own mission. Some of them are affiliated to foreign agencies and universities. For example, the Georgia Institute of Public Affairs in Georgia is funded as a joint venture with the United States Information Agency, Washington DC; the Solusi University of Zimbabwe (a Seventh Day Adventist University) is affiliated to Andrew University, Michigan, USA; an incomplete list of 131 institutions of higher education in India have higher education provided by foreign universities;¹⁵ Monash and Bond University in Australia have set up private higher education institutions in Africa owned by them; and Daystar Company of the USA owns the Daystar University of Kenya. Some of the private non-profit private institutions are set up in collaboration with universities within the country. For example, several institutions in Karnataka and Andhra Pradesh in India are

offered degrees by Anna Malai University in Tamil Nadu. The Arupe College in Zimbabwe is affiliated to the University of Zimbabwe for certain degrees and to the Gregorian University of Rome for some other courses.

Among the religious foundations, the Roman Catholic Church has been active in Asia, Latin America and Europe. The Protestant Church promoted private institutions of higher education in the USA, while Islamic organizations have set up institutions of higher education in countries such as Egypt, Indonesia, Malaysia and Pakistan. Both Christian and Islamic organizations have been active in setting up private non-profit institutions in African countries.¹⁶

Contributions from foreign agencies/universities, donations from foundations, tuition fees and individual donations are the funding source of these institutions, which are mushrooming all over the developing world.

PROFIT-MAKING PRIVATE INSTITUTIONS

A recent phenomenon in the world of higher education, profit-making institutions in the private sector have the same mission as a private business firm: to make profit while meeting the customer demand for higher education. Initiated in the United States of America, higher education business companies quoted on the stock market are delivering real value to their shareholders and their students by providing some form of postsecondary education for different target groups with additional provision for working students over the age of 24. These are the Apollo Group, the Career Education Corporation, the Corinthian College, Strayer Education and Laureate Education Inc. (the former Sylvan Learning) among others.¹⁷ These companies offer both onsite and online programmes spread over many countries in Latin America, Europe and Asia.¹⁸ A selected group of 12 such companies were valued at more than US\$40 billion in March 2004. Tuition fees are the main source of income of these companies. Obviously, they charge very high fees. Although developing countries have yet to play an important role in this sub-private sector, the National Institute of Information Technology (NIIT) of India started as a profit-making institution some years ago. It has by now become a multinational enterprise with 2500 education centres in India and abroad. Tuition fees are their main source of income.

Lack of public funds and a cultural bias against loans has led to the emergence of a new type of investors in higher education. These institutions invest in the intellectual stock of students by paying their educational expenses and mentoring them to build up their career. In return the students, after graduation, pay a certain percentage of their earnings for a given number of years. Munich-based Career Concepts in Germany has financed 1500 students and is set to start a nationwide fund with

2100 students. Similar investing companies are also emerging in developing countries like Chile and Colombia. The students obtain a double advantage from the programme: free education and support from the investors in getting good jobs. The investors benefit from the marketing of the programmes by the universities themselves.¹⁹

TABLE I.1.6 Emerging trends in policy, planning and financing of higher education	
Conventional system	Emerging system
Welfare approach	Market approach
Public higher education	Mixed and private higher education
Public financing	Private financing
Private: state-financed institutions	Private: self-financing institutions
Private: government-recognized institutions	Private institutions requiring no government recognition
Private: degree-awarding institutions	Private: non-degree (diploma/certificate) awarding institutions
Private: philanthropic and educational considerations	Private: commercial motives, profit motives
No fees	Introduction of fees
Low levels of fees	High levels of fees
No student loan	Introduction of student loan programmes
Commercially ineffective loan programmes – No security High default rates Based on criteria of educational qualifications and economic needs	Effective/commercially viable loan programmes – security/mortgage Expected high recovery rates Based more on commercial considerations
Scholarly/academic disciplines of study	Self-financing/commercially viable/profitable disciplines of study
Emphasis on formal/full-time education	Open/distant/part-time education
Selection criteria for heads of institutions: academic background	Selection criteria for heads of institutions: expertise in financial/money management and in resource generation

The combination of the role of the government and the private sector in financing higher education will have its impact on the functioning of the higher education system, changing its mission, its approach, the mode of its financing and the role of the head of the institution. Tilak has articulated the emerging trends in Table I.1.6.²⁰

The changed paradigm of higher education has provoked a debate on the public–private partnership in financing higher education, which will be discussed in the following section.

THE PUBLIC–PRIVATE DEBATE

The increased role of the private sector is raising questions among students and parents in many countries. They

view higher education as a public service that should be subsidized for the following reasons.

First, higher education benefits the society through economic growth, increased tax payments from graduates, greater flexibility in the labour force, higher consumption, social cohesion, higher social mobility, lower crime rates, increased capacity to adapt to new technologies and higher social and political participation, among other benefits to the members of the society other than the students – the so-called positive externalities.²¹ Social rates of return calculated on the basis of the external monetary effects alone have been roughly estimated for some developed countries and have been found to be substantial, varying from 6 to 15 per cent.²² If one adds the non-monetary benefits, the argument for public subsidies becomes stronger.

Second, investment in higher education involves risks for students because of the uncertainties in getting jobs after graduation. It is impossible for any individual to make a properly informed judgement about the quality of higher education he or she has received until it is complete. These uncertainties stand in the way of getting loans for students from private banks. Neither banks nor individual students have an incentive to invest in higher education without external subsidies. Market imperfection obliges the government to intervene and invest.

Third, state subsidies are needed for equity consideration, to equalize entrance opportunities for students from different socioeconomic backgrounds. Left to the private sector, students from disadvantaged groups may not be able to enter higher education institutions and the gap between rich and poor will widen.

Fourth, disciplines and programmes which are strategic for the sustainable development of the country in the long term (for example art, literature, natural science, ethical and moral education) but not economically attractive in the short term will have to be promoted by the government.

However, the source of state subsidy for higher education includes relatively proportional or even regressive taxes on sales or businesses or from the printing of money resulting in inflation and reduced purchasing power of mostly lower and middle class people, whereas higher education in many countries is still the realm of privileged citizens from higher income groups who have the capacity to pay. Moreover, higher education benefits the individuals pursuing it monetarily through higher productivity and net earnings, better job opportunities, higher savings and personal and professional mobility; and non-monetarily through educational enrichment, better labour conditions, higher personal status, better job satisfaction, better health and life expectancies, more hobbies and leisure activities and personal development.²³ Based only

on the monetary costs and benefits of education, several studies have demonstrated substantial private rates of return to higher education. Wage premiums of graduates compared with individuals having only secondary education result in private rates of return to higher education for selected countries, as follows: Japan, 7 per cent; Netherlands 12 per cent; the United States 15 per cent; and the United Kingdom, 18 per cent.²⁴

With income equality measures (Gini Coefficients) for these countries at 24.9, 32.6, 40.8 and 36.8 respectively on a 0 to 100 scale, according to the latest data available, one could still assert that a large part of this return is due to higher education.²⁵

Including non-monetary benefits listed above, the gain of a higher education graduate is much higher. If individual students benefit so much from higher education, it is only fair that they bear part of the burden, especially when the state is incapable of meeting the high cost of massive expansion of higher education and when there is growing competition from other, more politically competing needs such as basic education, public health, housing, public infrastructure and the social and economic ‘safety net’ and security. UNESCO has taken a position in this respect as follows:

With regard to inputs, the general consensus is that financial responsibilities should be shared by all stakeholders. More concretely, increased contributions are expected not only from the state but also from students and their families, and from industry and business.²⁶

This leads us to the issue of cost sharing among the beneficiaries including the state.

COST-SHARING IN HIGHER EDUCATION

Articulated by Bruce Johnstone, the leading authority in the financing of higher education systems, cost-sharing is now a worldwide phenomenon in which the burden of the cost of higher education is shifted from exclusive or near exclusive dependence on the government or tax payers to some reliance on parents and/or students. This takes the form of either tuition fees or ‘user charges’ to cover the living costs of students.²⁷

PARTNERS IN COST-SHARING

Four principal parties have been identified as bearing the cost of higher education: the government or taxpayers, parents or their substitutes, students and/or individuals, and institutional donors. These are discussed below:

- The government fund comes from the people who pay taxes visibly and directly, invisibly and indirectly and from their reduced purchasing power from deficit-driven inflation resulting from printing money.
- Parents or their substitutes bear some of the costs through the payment of tuition and bearing their living costs. They do so from their current income, past savings, or loans to be paid from their future earnings.
- Students can pay their educational costs through part-time paid work or loans. These loans can be paid back directly by the students after graduation in monthly installments or can be deducted at source by the employer, who then pays the lender. Repayments can also be income contingent, limited to a certain percentage of earnings and graduated over time. The monthly repayment burden depends on the discounted present value of the total anticipated payments and the number of years to repay.
- Individual or institutional donors (to be found mostly in the USA and UK) contribute to the institutions of higher education to reduce their fiscal pressure or to financially needy students. Some of these donors create endowments that go on in perpetuity, with only the income earned spent for scholarships or other current needs of the institution. Some other donors also contribute on a recurrent basis. The institution itself may provide scholarships to needy students. Most of these donors are wealthy families or industrial and business concerns. However, as Michael Shattock has noted, ‘Capital grants given on a charitable basis are, however, no longer a route that can be relied upon.’²⁸

FORMS OF COST-SHARING

Cost-sharing is most associated with tuition and with fees or ‘user charges’ on room and board. Seven forms of cost sharing have been identified:

1. Introduction of tuition fees. This was done in China in 1997, Britain in 1998, Austria in 2001, and most recently Germany in 2005.
2. Introduction of a dual tuition track: free higher education for the regularly admitted and a fee-paying track for the less qualified, as is being practised in Russia (50 per cent of all university revenue from tuition through the dual track) and most of Eastern and Central Europe, India, Uganda (80 per cent of Makerere University students are fee-paying through the dual track), among others.
3. A very sharp rise in tuition. The public universities in the United States increased their in-state fees by an average of 10 per cent in 2001–2002. Some institutions of higher education in India (for example the

Indian Institute of Technology and the Indian Institutes of Management) also increased their fees sharply. The IIMs are at present charging a tuition fee of about US\$3500.²⁹

4. Imposition of user charges. This is happening in China, several African countries (Ethiopia, Mali and Guinea,³⁰ among others) and the Nordic countries.
5. Diminution of student grants or scholarships. This has happened in Britain, Russia and most of the Eastern and Central European countries.
6. An increase in the effective cost recovery of student loans though various measures.
7. The imposition of ceilings of enrolment in the low-fee or tuition-free public sector coupled with official encouragement and sometimes with state subsidization of a tuition-dependent private higher education sector. This has happened in Japan, Korea, the Philippines, Indonesia, Brazil and some other countries in Latin America. This has increased the participation of parents and students in cost-sharing, and even in profit-making institutions.
8. The student loan programme should be equipped with legal authority to collect; technology to maintain accurate records; collectors who can track borrowers and verify financial conditions; repayment advisers in the institutions; the legal authority to enlist the employers in the collection of repayments and to oblige the parental or other family co-signatory; and a government guarantee to back up the guarantees of the co-signatories and to control passports of émigrés or students who leave the country with student debts.
9. It should be remembered that the need for cost-sharing involves the need for non-governmental revenue now, making the parental contribution to tuition an important component.
10. Solutions to the financial crisis facing the higher education system all over the world should not be sought only at the expense of students and parents. Other ways of generating income are also to be explored. This leads us to the next issue of income generation from non-state sources (we have already considered one earlier: institutional and individual donors).

SOME SUGGESTIONS FOR AN EFFECTIVE COST-SHARING PROGRAMME

The following list of suggestions has been based on Bruce Johnstone's work:³¹

1. Institutions of higher education have to supplement state funds with cost-sharing from parental and student contributions, especially for their living expenses, but also for part of the instructional costs in the form of tuition.
2. Programmes of cost-sharing including tuition fees should be established only after policies are in place for programmes of means-tested financial assistance as well as generally available student loans.
3. The determination of tuition fees should be depolitized and entrusted to a body independent of the government and the institutions.
4. Student loans should be minimally subsidized with interest rates at least at the prevailing inflation rate and at best at the government's borrowing rate.
5. Student loan schemes should not be treated as alternatives to an up-front tuition fee in most developing and transitional countries, thereby forgoing the parental contribution altogether, which is the characteristic of income contingent loans.
6. Suitable procedures should be adopted to accommodate borrowers with low earnings or serious financial hardship for repayments.
7. Repayment terms should be manageable for most borrowers.

GENERATION OF FUNDS FROM NON-TRADITIONAL, NON-STATE SOURCES

The traditional source of non-state funds for higher education was mostly wealthy donors. Although its relative importance is decreasing for various reasons, this still is an important source for institutions in the USA, UK and Israel. China and India have also entered this sector of endowments for funding higher education with the initiatives of their diaspora and some multinational enterprises in these countries. Endowments are also being initiated in Africa, with the leadership of South Africa, where one university, the University of Cape Town (UCT), generated US\$10 million in 2000 with the help of the UCT Fund (USA) and the UCT Trust (UK). Two Japanese philanthropic institutions, the Nippon and Tokyo Foundations, have committed US\$1 million in endowments for each of the three African higher education institutions in Egypt (American University of Cairo), Kenya (University of Nairobi) and South Africa (University of Western Cape). In addition, four major US-based institutions – the Ford, MacArthur and Rockefeller Foundations and the Carnegie Corporation of New York – announced a US\$100 million initiative to revitalize higher education in Africa.³² On an international scale, the Bill and Melinda Gates Foundation has given approximately US\$1.2 billion for educational causes, and a significant part is for higher education.³³ Similarly, George Soros's Open Society programme is contributing substantially to

the development of higher education in Central and Eastern Europe. In spite of these initiatives in the developing and transitional countries, the role of wealthy donors is minimal. Institutions all over the world are looking for alternatives in non-traditional, non-state sources. These are as follows:³⁴

1. Student fees from overseas students, self-financed students in the dual track system, and specialized tailor-made programmes.
2. Research patents, licences, royalties and overheads.
3. Fees from continuing education programmes organized for industries and professions.
4. Service fees from internal privatization programmes.
5. Profits from retailing through shops.
6. Income from rents of conference facilities, sports facilities and equipment for external use.
7. Income from rents of residential facilities during holidays.
8. Income from science parks set up on campus.

A successful case of income generation worth noting in Africa is Makerere University of Uganda (see Special Collaboration II.2). Its dual track fee system, consulting services and other university-enterprise partnership programmes are generating good income and supplementing the inadequate state funding.³⁵

The key universities of China are earning a large share of their revenues from non-state sources (see Box I.1.1).

BOX I.1.1 REFORMS IN HIGHER EDUCATION FINANCE IN CHINA³⁶

Financial management of higher education has gone through tremendous changes since 1978, when China initiated the policy of reform and opening up to the outside world. These changes can be classified into two phases. The first phase covering the period 1978–92 saw the gradual introduction and adoption of concepts and measures such as cost-sharing and cost recovery. During the second phase, since 1993, the whole higher education financing system has been dramatically reconstructed and a totally new system has come into place.

During the first phase especially, the policy reform of 1985 authorized the universities:

1. To cooperate with other industrial and research organizations to conduct research projects.
2. To establish teaching, research and production entities.
3. To decide the disposition of the capital and recurrent funds received from the government.
4. To seek other appropriate sources of investment.
5. To adapt to the concepts of cost-sharing and cost recovery in higher education financing.

In 1989, most institutions began to implement the policy of charging tuition and other fees.

In August 1992, the former State Education Commission issued an official directive relaxing central control in 16 areas including the provision that (1) an institution could receive capital and recurrent budgets as 'global budgets' from the government which allowed

flexibility within the total, and (2) they could expand tuition, fee-paying and contracted student numbers to a maximum of 25 per cent of the total.

The result was that government dependence on funds fell from 96 per cent in enrolment in 1978 to 82 per cent in 1992. The institutions generated the rest.

During the second phase, the Outline of Reform of 1993 introduced educational taxation and allowed the institutions to generate funding by diversifying sources, through six principal channels: (1) financial allocations from the government; (2) institutionally affiliated enterprises; (3) commissioned research and consulting; (4) tuition fees and user charges from students; (5) donations and gifts; and (6) various forms of services by universities such as commissioned training and other funded activities.

The Education Act of 1995 required that: (1) public expenditure on education should keep pace with the growth of the national economy and national finance revenue; (2) increases in financial allocation for education from regional governments should exceed increases in regional revenue and be assessed in terms of average funding per student; and (3) a gradual increase in the salaries of faculty and average public expenditure per student be guaranteed.

The Higher Education Act of 1998: (1) encouraged the universities to conduct contract research and undertake joint projects with enterprises, business, social organizations and other branches of the private sector, which were also encouraged to contribute to and invest in higher education; (2) made tuition fees compulsory for college students;

and (3) ensured that the government continues to increase its financial allocation to public institutions.

As a result of these changes, the government share of funds in public universities declined from 82 per cent in 1992 to 63.4 per cent in 1997, the latest date for which data were available. In some institutions, the income generated by the institution has exceeded the government contribution. In Peking University, 39.7 per cent of the income in 1998 was from the government and the rest from its own sources.

An interesting development was the launching of the 211 Higher Education Project in 1993, which made special financial allocations for excellence among China's top 100 institutions to make them internationally recognized, and the 985 World Class University Project in May 1998 which, in addition to the 211 project allocation, concentrated an even higher-level funding on nine top universities in the first round to make them 'world class'.

Another important reform with financial implications was the promulgation on 28 December 2002 of China's first national legislation on private education, including higher education. As of 2002, four private colleges were authorized to award bachelor's degrees and 129 'sub-bachelor degrees'. More than 1200 other private colleges could not offer degrees but could offer self-study programmes. In 2002, the private sector accounted for 10 per cent of the total enrolment. In 2005, a total of 228 private colleges were qualified to award diplomas and there were 7.11 million students in the private sector.

Many universities in Russia are also earning 50 per cent or more from entrepreneurial activities.³⁷ Indeed, the most interesting examples of non-traditional, non-state income generation are to be found in Russia. For example, integrating the education research and industry, the Educational Research and Innovation Complex (ERIC) of Orel State Technical University of central Russia has helped to create three times more training programmes, increase fixed assets more than 170 times, extend the laboratory and classroom space by 8.5 times, increase the number of registered patents five times, and increase the volume of research and development more than eight times during a period of seven years.³⁸

The Tyumen State Oil and Gas University of Western Siberia in Russia has increased its share of non-state ('off-budget') income to normal income from 75 per cent in 1998 to 85 per cent in 2002 through its cooperation with business enterprises.³⁹

In the USA, most major state universities have increased their non-state funding to around 70 per cent of their total income, and in Colorado it has risen to 84 per cent.⁴⁰

Universities are becoming entrepreneurial at a rapid rate. From an updated study of fourteen internationally distributed case studies, Burton Clark rightly observes:

Perhaps most enabling of all, we find the entrepreneurial university to be a place that diversifies income to the point where its financial portfolio is not heavily dependent upon the whims of politicians and bureaucrats who occupy the seats of state policy, nor upon business firms and their 'commercial' influence, nor even upon student tuition as main support. Funds flow not only from such well-defined sources but also, crucially, from a host of public agencies (other than the core support ministry or department) and alumni and other private donors who provide moral and political support as well as direct year-to-year funding and accumulation of endowment. Effective stewardship comes to depend not on the state or on 'the market', but on university self-guidance and self-determination. The entrepreneurial university does indeed provide a new basis for achievement.⁴¹

Although most of the developing countries still have a long way to go to achieve the mindset of the cases studied, the direction is there.

INTERNATIONALIZATION OF HIGHER EDUCATION: GENERAL AGREEMENTS ON TRADE AND SERVICES (GATS)

Institutions of higher education have always been international in scope, with students and teachers crossing the borders to pursue higher education. Some of the fiscal stress on the government in higher education has been reduced through internationalization.⁴² In developing countries, that has occurred through studies abroad, sometimes with foreign support and sometimes at the students' own cost. In developed countries, this has brought extra income not only from cost-recovered tuition fees, but also from the visiting students' investment in their living expenses. The USA, the UK and Australia, to a large extent, have benefited from this source of income. France, Germany and the Netherlands are newcomers in this sector. Very recently, this phenomenon has taken a new turn with increasing market-oriented delivery of higher education across borders, often by institutions run for profit. As early as 1998, the international market for student mobility alone amounted to around US\$30 billion in exports (3 per cent of global service exports). Today it may be more than US\$50 billion.⁴³ The rise of international trade has prompted many industrialized countries to include educational services in the negotiations of the General Agreement on Trade in Services in order to facilitate the free flow of education – mostly higher education – among countries. Although this would reduce fiscal pressure for many developing countries and, if properly managed, improve the quality of higher education, it would also create many problems in controlling the quality and relevance of foreign, mostly for-profit, higher education in competing with the industrialized countries in student and staff recruitment, threatening public funding of higher education of domestic students, and lastly, damaging the mission of higher education in order to promote its commercial objectives. The Organization for Economic Co-operation and Development (OECD) – a champion of the market approach to higher education and a supporter of trade in it – prepared draft guidelines on quality assurance and accreditation in cooperation with UNESCO and presented them at an international conference in October 2004. The academic community who had been left out from the drafting task strongly opposed it.⁴⁴ The foreign providers must be concerned with national basic values and more so with equity issues, as this new phenomenon will obviously increase the cost of higher education and widen the disparity in developing countries. They might need to make adjustments for financing this type of higher education. A new set of draft guidelines for the 'Quality Provision in Cross-Border Education' were prepared at a

meeting organized jointly by the OECD and UNESCO in January 2005, and are expected to be adopted as non-binding guidelines by both the organizations in 2005. The new draft adopts a broader concept of quality and allows 'the notions of relevance and specificity related to the local context'.⁴⁵

THE ROLE OF DISTANCE LEARNING IN REDUCING FINANCIAL PRESSURE

If the Open University of the United Kingdom is any guide, the introduction of distance learning in the institutions of higher education could go a long way to meet the massive expansion of higher education with relatively less funding. The availability of information and communication technology (ICT) and easy access to training materials free of charge in some cases are reducing the cost of higher education. The training materials prepared by the staff could improve the teaching/learning strategy of regular programmes as well.

DOING MORE WITH LESS: THE ROLE OF EFFECTIVE MANAGEMENT OF HIGHER EDUCATION

Our last source of financing higher education is through effective management of the higher education system and the institutions. This can be done in the following ways:⁴⁶

- Rational allocation of funds.
- Management of cash reserves.
- Production of financial indicators.
- Better utilization of resources.
- Evaluation and auditing.
- Protection of funds from fraud.

We shall discuss them in this order.

RATIONAL ALLOCATION OF FUNDS

Broadly, there are five ways in which the government can fund public universities:

1. The university submits a periodic (usually annual) budget based on its estimate of the costs of its commitments to staff salaries and other essential inputs. It may bargain with the government over which percentage of this budget is to be met. The grants are 'earmarked' or 'hypothecated', which means that the university must spend the funds on the items specified by the government.
2. The university receives a single block grant based on the grant received in the previous period plus an

increment, and is free to spend this money as it wishes within very broad legal limits.

3. Funds are based on a formula reflecting past performance, but the university is able to spend the funds as it wishes once they are received. The basis of most formulae is student numbers (weighted by subject, level of study and so on). However, increasingly, governments are trying to include in the formula weighting to reflect the academic performance of the students.
4. The government buys academic services from the university. This is similar to (3) above but funds are based on prospective future performance rather than performance in the past.
5. The university sells its teaching, research and consultancy services to a wide variety of different customers, students' employers and public authorities.

The actual mechanisms are often a combination of two or more of these models. In particular, various combinations of (3) (4) and (5) are often discussed. For example, formulae may determine much of the funding while a proportion is determined by the 'sale' of incremental student places to the government. One much discussed possibility is student vouchers, whereby students pay fees but are reimbursed in whole or in part by government grants.

However, it is usually possible to identify a dominant model corresponding to one of these ideal types.

Another important point is that most funding models are, in practice, incremental in that universities receive last year's allocation plus or minus an increment, with differing consequences.

Decisions on how resources are to be allocated within the institutions of higher education depend upon the prevalent steering mechanism (as discussed above). However, it is not possible to relate these external funding mechanisms exactly to the internal resource allocation procedures, but experience in many countries suggests that item (1) above and, to some extent, item (3) require a substantial measure of bureaucratic regulation to ensure that resources are spent as required by the 'state' funding agency. Item (2) and some aspects of item (3) usually permit some degree of 'academic authority' in which academic priorities are very influential. Items (4) and (5) require in varying degrees market-oriented management in which entrepreneurialism and the satisfaction of market demands are rewarded.

Financial management in respect of allocation of funds depends also on the organizational structure of the institution which, reduced to the simplest terms, consists of four areas:

- Central administration.
- Centrally provided services.

- Specialized teaching and research departments.
- Non-academic services.

We shall give some examples of practices in allocation of resources below.

Even this simple model of organizational structure of a university allows for seven basic financial management procedures:

1. All resources are received by the centre and are allocated, managed and administered from the centre (the pure bureaucratic model).
2. Strategic decisions are taken at the centre but routine decisions and implementation are made by departments (decentralized bureaucracy).
3. Income is top-sliced for central administration and services; the remainder is allocated to departments to use in accordance with academic priorities (the collegial model).
4. Most income is passed on to departments that ‘buy’ services from the centre (the hybrid model).
5. Income is ‘earned’ by departments but administered from the centre (corporate entrepreneurialism).
6. Income is earned by departments; it is ‘taxed’ to cover central administrative costs and the remainder is spent by departments according to the requirements of the external ‘purchasing’ agency (managed entrepreneurialism).
7. Income is earned by departments and retained by them; they ‘buy’ central services, as they are needed (the laissez-faire model).

In practice, of course, resource allocation procedures are usually a mix of more than one model. For example, externally funded research often requires somewhat different financial management procedures from the centrally funded core activities of the university.

Whatever is the steering mechanism prevalent in an institution, the institutional budget is an important management tool in the allocation of resources for coordination, control and evaluation. One can identify four types of budgeting being practised around the world. These are:

- Line item budgets, which are strictly input-based and follow state bureaucracy.
- Lump sum budgets, by which institutions are accountable to the government and the public on their educational and research outcomes. Lump sum amounts for teaching are based on the number of students priced by discipline, and research and investments are covered by other funds following a set formulae.
- Formula-based budgets, which are based on the use of indicators for input and output both for instruction and research.

- Incentive budgeting, by which additional government money is allocated to achieve a certain impact (for example girls’ participation, further education programmes, and the participation of strategic target groups of students).

We shall give some examples from both OECD and developing countries.

A: EXAMPLES FROM OECD COUNTRIES⁴⁷

The United Kingdom and to a lesser extent the United States, Japan, Poland, the Czech Republic, Belgium, Australia, France and Slovenia practise input-oriented funding for teaching and output-oriented research funding.

Austria, Germany and New Zealand practise input-oriented budgeting for both teaching and research.

Sweden and the Netherlands practise output-oriented funding for teaching and input-oriented funding for research.

Denmark practises output-oriented budgeting for both teaching and research.

It is therefore observed that the role of output indicators in the mechanism is relatively small for most OECD countries; most of the countries practise input-oriented budgeting for training and output-oriented funding for research.

Only one OECD country, Denmark, uses output-oriented budgeting for training and research.

B: EXAMPLES FROM DEVELOPING COUNTRIES

For the four public universities in Uganda, allocations approved by the parliament take into account, without any consistency, the size of the institution, its needs, and historical allotments. Funds are allocated in the form of block grants (lump sums) and the universities have some discretion on how they allocate these funds within the university. For other tertiary institutions, the government decides on the number of students to be admitted and gives a capitation grant. For students’ fees, the universities are allowed to follow a dual track system as discussed earlier. They are also allowed to seek external funds to cater for the reduction in state expenditure (see Special Collaboration II.2).

In Mexico, public funds for higher education are based on a scheme of historical increments, taking into account different indicators such as the number of students, teachers or researchers, and the size of the institution. Output-oriented indicators play an indirect role in getting extra-budgetary resources that are discretionally distributed by the government (see Box I.1.2).

An innovative method applied by the Ministry of Finance, Kingdom of Jordan, is to collect a ‘university tax’ on each single sale by or through individuals or cor-

BOX I.1.2 RECENT TRENDS IN HIGHER EDUCATION FINANCING IN MEXICO⁴⁸

In spite of the rapid growth of the private sector, Mexican higher education is still dominated by the government, with 70 per cent of undergraduate enrolment and 10 per cent of graduate enrolment. By the year 2000, Mexico devoted 5.5 per cent of its gross domestic product to education, with a relatively low share of 0.4 percent to higher education. In 2005, the government increased it by 0.2 per cent. The major financial burden is borne by the federal and the state government, which

also contribute to private institutions through scholarships, research funds, technical infrastructure and graduate programmes.

The predominant model for allocation to public institutions is based on annual negotiations which take into account historical increments. These increments are based on different indicators such as the number of students, teachers and researchers, and the size of the institution.

The institutions receive additional extra-

budgetary allocations for programmes and projects for institutional development, strengthening graduate programmes, and so on. These allocations are based on performance record, the quality of their work and organizational capacity to innovate.

The public higher education institutions generate between 15 and 20 per cent of their income on their own.

BOX I.1.3 RECENT TRENDS IN HIGHER EDUCATION FINANCING IN JORDAN⁴⁹

Public higher education in Jordan is financed from six sources:

1. Centrally collected taxes.
2. Tuition and fees.
3. Government subsidy.
4. Donations.
5. Investment funds.
6. Loans.

The details are as follows:

1. Centrally collected taxes

The Ministry of Finance, Kingdom of Jordan, applies an innovative method to finance higher education. A university tax is collected on each single sale by or through individuals or corporations in the country. The revenue is distributed by the Council of Higher Education according to four basic categories of weights based on the number of students, develop-

ment needs, the total budget and new programmes.

2. Tuition and fees

The second-largest source of revenue for higher education is students' tuition fees and other lump-sum fees paid by students for their services. The university also receives fees for its services provided for the community and private enterprises, commissioned studies, fees from local and regional institutions and for consultants and training.

3. Government subsidy

Based on the recommendations of the Council of Higher Education and the decision by the cabinet, the Ministry of Finance allocates this subsidy for each university and transfers the amount every three months.

4. Donations

The main source is the private sector. Individ-

uals, local, regional or international institutions make donations in response to special appeals from the university.

5. Investment funds

The university invests its assets in stocks and real estate. The returns are sometimes used for financing income-generating projects.

6. Loans

This is an exceptional source of financing deficit, usually provided by the central government on an ad hoc basis or by the banks guaranteed by the government. The following gives the share of different sources for the year 1994: government, 2.5 per cent; tuition, 28 per cent; enterprise/institution training fees, 1 per cent; consultations, 0.5 per cent; taxes, 44 per cent; donations, 2.6 per cent; investment returns, 5.6 per cent; loans (deficit), 15.8 per cent.

porations in the country (a practice which has also been adopted recently in Nigeria). The revenue is distributed among the semi-state universities by the Council of Higher Education based on the number of students, development needs, total budget, and new programmes. The government provides an additional subsidy to the universities on the recommendation of the Council (see Box I.1.3).

In respect of private universities, there is a built-in tendency to be more accountable because the income constitutes mainly student fees, and contributions of sponsoring authorities and programmes, or donors who look for performance. In most cases, the role of the government is replaced by the governing board, board of trustees or the owner of the university, depending upon the source of the funds, capital and operational system. Here also, most funding models are incremental in practice with the same consequences as noted for public universities.

MANAGEMENT OF CASH RESERVES

The extent of the second function, management of the university's cash reserves, depends largely on the overall legal framework within which the university operates.

In countries where universities have neither financial autonomy nor cash reserves, the function obviously does not exist. However, as more and more countries move in the direction of decentralization and devolved budgets, this function becomes a very important one.

In countries with a well-developed banking system, properly managed cash reserves can generate significant income for the university. The management of the institution's income-generating enterprises is growing in importance. Bookshops, guest-houses, printing services, conference bookings, sports facilities, consultancy services, intellectual property rights and many other services all generate income, costs, and cash balances that need to be properly managed in the interests of the university.

PRODUCTION OF FINANCIAL INDICATORS

The cost of higher education has come under intense scrutiny in recent years and in many countries there has been an attempt to monitor public expenditure on higher education. Financial indicators can be useful in the evaluation of the financial management of an institution, although it is clear that they do not tell the whole story.

Much work has been done in the United Kingdom on such indicators, particularly since the mid-1980s. The development of a set of consistent financial indicators was intended to permit the monitoring of university performance and public expenditure on the university sector, and to facilitate internal management within the universities themselves.

The following indicators were developed to assess the financial health of an institution:

- Ratio of government grants to total income.
- Ratio of tuition fees to total income.
- Ratio of foreign student tuition fees to total income.
- Ratio of income from research grants and contracts to total income.
- Ratio of income from other services to total income.
- Ratio of income from residences and catering to total income.
- Ratio of miscellaneous income to total income.
- Ratio of surplus (deficit) to total income.
- Ratio of long-term liabilities to total general funds.
- Ratio of liquid assets to current liabilities.
- Ratio of net-liquid assets to total expenditure.
- Ratio of current assets to current liabilities.
- Days of total income represented by debtors/ creditors.

The indicators listed above are intended only as examples. They should be used with caution and reviewed for their potential utility in specific situations.

UTILIZATION OF RESOURCES

Resource utilization is the phase in which the budget plan is put into operation. Broadly interpreted, this task encompasses all the management activities of staffing, establishing timetables, running the premises, ordering supplies and so on, which incur expenditures. Other activities, such as running a university bookshop, hiring school premises or selling courses for a fee, which bring in additional income, may also be included.

The specific task for financial managers is to monitor the budget regularly throughout the year in order to compare actual income and expenditures under various budget heads with planned expenditures. If there are differences between the real income and expenditure, as is likely, it is the job of management to correct them. This may involve adjusting certain expenditure plans or exert-

ing better financial control over internal budget holders, such as heads of departments, in order to either curtail or stimulate spending. It is here that an efficient management information system is important in keeping university leaders and administrators up to date on the academic and financial performance of the various segments of the institution.

In the higher education sector, it is observed that two important resources are not appropriately accounted for, especially in developing countries. These are staff time and space. Indicators are now available to improve staff time utilization.⁵⁰ At a time when a large number of public university academic staff have a second part-time job at private universities and/or are being called upon to carry out multiple tasks of teaching, research and consulting to generate additional income, proper accounting of their time utilization for the principal employer and the assigned task is becoming imperative.

In respect of space, new modes of utilization are making a lot of economies. These are: extending the working hours during the day and night; use during the weekends and holidays (see Generation of Funds from Non-traditional, Non-state Sources); computerization of timetable; space rental; use of norms for space utilization, to mention a few. While extension of the working hour is being practised in many institutions around the world (Kenya even faced the challenge of double intake), the use of computers in timetabling, which is widespread in Latin America, has improved space utilization by 35 per cent in the African University of Ghana. Space rental, the most radical change in the mode of space utilization, is a system by which the university rents space to departments with varying rates for different days and hours (Monday morning, Friday afternoon and evenings, lower rate) to improve utilization rate. Some universities in the Netherlands, Finland and United Kingdom are practicing this system.⁵¹ There is an overall trend to place more and more university space for allocation at a central level.

EVALUATION AND AUDITING

Evaluation and auditing are currently the least developed aspects of financial management. With increased autonomy, higher education institutions have to be accountable for their academic and financial performance. While considerable educational evaluation is undertaken, very little of it relates the value of resources used to the resulting educational outcomes.

Although educational outcomes are not easily measured, nevertheless, decisions have to be made, so there is certainly merit in quantifying where possible. There is no one absolute and correct way of costing, but if there are several ways to achieve an objective, then if the same

costing principles are adopted, relative costs can be measured. Cost analysis should aim to summarize net resource implications of an educational activity over a period of time, particularly if a change is involved. Cost per student per annum is a common measure utilized, as is cost per student hour.

At present, government advisers and inspectors are usually the ones to undertake educational evaluation. Quite separately, auditing is normally restricted to checking the probity of transactions undertaken by educational administrators. Ideally, the auditors should assess the efficiency and effectiveness of resource utilization by relating service outcomes to policy objectives (effectiveness) and resource utilization (efficiency). Since in education the major operating cost is teaching staff, cost effectiveness is usually related to staff hours used and the number of students benefiting.

In addition to the above, it is becoming more common for institutions to conduct their own self-evaluation, comparing performance within the university with set strategic targets. It is advantageous to involve staff in setting targets and measuring actual performance.

Accountability exercises may be carried out by staff assessing work to parts of the university other than their own, so as to engender a sense of corporate responsibility. The objectives of each course have to be clearly defined, in addition to setting the percentage of students expected to succeed, the optimum teaching hour investment in each course, and the education processes to be used (for example audiovisual and practical aids increase cost effectiveness). Once this task is completed, the information provides a stable database for the future, which may be reviewed each year.

In the framework of accountability procedures, it is becoming common practice for universities to publish an annual report that includes comparative data to show both present and past results and budgets. Such reports are circulated not only to government departments but also to local authorities, industry and students.⁵²

PROTECTION OF FUNDS FROM FRAUD

We end our analysis of financial management function with the discussion of the basic control function, the most traditional and by far the most widespread role of higher education financial managers.

With the emergence of a market-friendly higher education system around the world, the amount of fraud is also increasing. According to one estimate, academic bribes run at US\$2 to 5 billion per year in Russia.⁵³ In the Republic of Korea, ‘one school diverted US\$4.9 million to personal use and illegally redirected another US\$4.6 million’. Institutions of higher education worldwide have

enjoyed high social prestige for their commitment to honesty and integrity. They will lose all of that if they cannot keep public faith. Protection of funds from fraud becomes an essential function of financial management today. An increasing call for accountability, strict auditing procedures, a computerized accounting system, constant use of the financial indicators listed above, and the introduction of a computerized financial management information system can help detect some financial irregularities and save higher education funds.

CONCLUSIONS FOR STRATEGY

From the above analysis, we have observed that financing higher education has gone through almost revolutionary changes during the past decade all over the world. We have given only a few examples. We are not sure whether all these changes, especially the emphasis on accountability and marketization will lead to the sustainable welfare of the societies. When Margaret Thatcher introduced the ‘value for money’ concept in British higher education, we were worried that it might lead to reduced innovation and excellence. Fourteen years later, when we asked the Head of the Higher Education Funding Council of England at an OECD meeting about the outcome, he said that he did not notice any reduction in the innovative capacity of the system or any reduction in the quality of the higher education being delivered, in spite of a significant increase in enrolment without a matching increase in expenditure. What we have observed in this paper is that countries and institutions are trying to meet the demand for education in various ways financially. Some private sector organizations, including institutions of higher education, are finding higher education a profit-making business. In respect of developing countries, we have to remain alert to what extent marketability can be welcome in resource-poor developing countries.⁵⁴ The following strategies are being suggested with a view to seeing the future of higher education financing in a balanced way for sustainable development and minimizing the risks of uncertainty.

NATIONAL STRATEGIES

- Governments retain control of higher education on the whole in respect of content, method and structure, in strategic disciplines (for example basic science, arts and literature, ethical and moral education) essential for sustainable development and in strategic target groups (disadvantaged women, handicapped and poor persons) for which the private sector will not have much interest.

- Encourage public–private partnership in a proactive way to facilitate retaining public interest.
- Create a framework conducive to diversification of resources and encourage cost-sharing principles as recommended in the text.
- Introduce a resource-allocation mechanism based on formulae which will include performance indicators including social factors like equity through incentive budgeting.
- Introduce the application of norms for use of resources of all kinds and allow for flexibility in the utilization of resources at the basic unit level.
- Allow for financial planning at the institutional level.

INSTITUTIONAL STRATEGIES

- Integrate financial planning with institutional policies.
- Facilitate generation of income and cost recovery at the basic unit level.
- Reduce costs and increase efficiency through better utilization of resources.
- Develop appropriate administrative structures.
- Develop an appropriate management information system.
- Provide appropriate training for the staff.

To conclude, we must emphasise that financing higher education has to remain a state responsibility shared with other stakeholders because it is too important to leave it entirely either with the state bureaucracy or with those stakeholders for whom public interest may not be a priority.

Bikas C. Sanyal and Michaela Martin

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