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The Financing and Management of Higher Education: A Status Report on Worldwide Reforms

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1.
The Worldwide University Reform Agenda

The decade of the 90's has seen a remarkably consistent worldwide reform agenda for the finance and management of universities and other institutions of higher education. What is remarkable about the consistency is that there are very similar patterns in countries with dissimilar political-economic systems and higher educational traditions, and at extremely dissimilar stages of industrial and technological development. Thus, there seem to be similarities among countries greatly disparate in wealth and in political-economic systems. And there are similarities in the reform agendas of countries whose higher education systems are elite or universal[1], predominantly public or private, or relatively wealthy or staggering under austerity. This review is an attempt to assess the status of this worldwide reform agenda in the late 1990s, in anticipation of the first years of the next millennium.

2.
The Context of Higher Education Reform

Tertiary education has always been an important priority in the public agenda. It is a repository and defender of culture, an agent of change in this culture, an engine for national economic growth, and an instrument for the realization of collective aspirations. Furthermore, the public interest in tertiary education is generally present whether the delivering institutions are publicly or privately owned, and /or are publicly or privately financed. However, the modern world of tertiary education is undergoing enormous reforms and this finance and management reform agenda can usefully be viewed in the context of five themes: (2.1) Expansion and Diversification--of enrollments, participation rates, and number and types of institutions; (2.2) Fiscal pressure—as measured in low and declining per-student expenditures and as seen in overcrowding, low-paid (or unpaid) faculty, lack of academic equipment or libraries, and dilapidated physical plants; (2.3) Markets--the ascendance of market orientations and solutions, and the search for non-governmental revenue; (2.4) The Demand for Greater Accountability—on the part of institutions and faculty, and on behalf of students, employers, and those who pay; and (2.5) The Demand for Greater Quality and Efficiency—more rigor, more relevance, and more learning.

[1] Martin Trow's classic formulation ("Problems in the Transition from Elite to Mass Higher Education" in OECD, *Policies for Higher Education*, Paris: OECD, 1974) set this transition at about 15 percent of the relevant age cohort; most industrialized nations are in the range of 30-45 percent of the college-going age cohort entering some Postsecondary education, nearing "universal" participation.

2.1. Expansion and Diversification

An important theme underlying the reform agenda is an avowed orientation to expansion and diversification, driven by the demands of a growing, upwardly mobile (or at least upwardly aspiring) population and to the needs of an increasingly competitive, technologically-sophisticated economy.

The major forces for this expansion and diversity include: (a) the expansion of basic and secondary education which creates a strong potential demand for the tertiary level; (b) the rate of growth in the proportion of the above cohort that elects tertiary education--this rate, amongst other causes, is a function of the demand from the labor market, fair rates of return, tradition, and urbanization; (c) the diversification of higher education and new possibilities for the expansion of tertiary education, in order to meet the growing and complex demands of the modern world; (d) the increasing incentives being provided by governments globally in order for students to have equal access to tertiary education; and (e) the expansion of the amount of (or the time spent in) tertiary education per participant. With regard to this time, there are forces for both expansion and contraction. The former would include, the expansion of knowledge itself, the increasing level of skills and competencies required in a modern, globally-competitive economy, and the need for continuing professional upgrading, buttressed by the natural tendency of professions to seek enhanced status by requiring ever higher amounts of education for licensure. The latter would include the relatively greater growth in some countries of non-university sectors featuring shorter training cycles, as well as reforms being instituted to discourage excessive time-to-degree.

According to Salmi (1992)[2] "The most effective approach is an institutional diversification strategy whereby the social demand for higher education is managed through the development of a variety of lower cost alternative institutions differentiated in terms of missions, function and modes of delivery...". This is already reflected in the increasing trend towards community colleges, polytechnics, adult and continuing education programs, and distance learning programs.

[2] Jamil Salmi (1992) *Higher education and economic development: Strategies for reform--A policy brief.* Paper presented at the Senior Policy Seminar on Enhancing effectiveness and efficiency in African Higher Education. The World Bank, EDI, march 1992, Harare, Zimbabwe.

2.2. Fiscal pressure

A dominant theme of higher education in the 1990s has been financial distress—the principal (although not the sole) condition underlying the World Bank's declaration in 1994 that higher education was "…in crisis throughout the world."[3]

Four major factors contribute to this pervasive condition of austerity. The first is enrollment pressure, as described above, especially in those countries combining growing populations of secondary school leavers with low current higher educational participation rates and inadequate higher educational capacity to meet the growing demand. A second cause is the tendency of unit costs in higher education to raise faster than unit costs in the overall economy, a tendency accelerated by the very rapidly increasing costs of technology and by the rapid change in the fields of study in greatest need and/ or demand. The third cause of tertiary education's austerity is the increasing scarcity of public revenue--a function, in turn, of competition from other public needs like basic education, public infrastructure, health, the maintenance of public order, environmental stabilization and restoration, and addressing the needs of the poor; and also of the inability of many countries to rely on former methods of raising public revenues, such as turnover taxes on state-owned enterprises. A fourth factor behind the growing public sector austerity in so many countries is essentially political. It is the growing dissatisfaction in many countries with the rigidities and inefficiencies of the public sector generally, and a corresponding drift toward the market solutions, as described above, including privatization, deregulation, and decentralization of functions still considered "public".

2.3. Orientation to the market

The reform agenda of the 90s, and almost certainly extending well into the next century, is oriented to the market rather than to public ownership or to governmental planning and regulation.[4] Underlying the market orientation of tertiary education is the ascendance, almost worldwide, of market capitalism and the principles of neo-liberal economics.[5]

Higher education meets many of the conditions identified by Barr as characteristic of a private good, amenable to the forces of the market. First, higher education can not be treated as a purely public good. That is because it exhibits conditions of rivalness (limited supply), excludability (often available for a price), and, rejection (not demanded by all)--

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[3] The World Bank (1994) *Higher Education: Lessons of Experience,* p. 1.
[4] Frans van Vught, "Autonomy and Accountability in Government/University Relationships," in Jamil Salmi and Adriaan Verspoor, Eds. (1994) *Revitalizing Higher Education*. London: Pergamon Press.
[5] Barnes, John and Nicholas Barr (1988) *Strategies for higher education: The alternative White paper*. The David Hume Institute. The Suntory-Toyota International Center for Economics and related Disciplines, LSE. Aberdeen University Press. pp. 3, 6-9.

all of which do not meet the characteristics of a purely public good[6], but reflect at least some important conditions of a private good. Second, the consumers of higher education are reasonably well informed and the providers are often ill informed--conditions which are ideal for market forces to operate. This market orientation has lead to elements of the reform agenda such as tuition, which shifts some of the higher education cost burden from taxpayers to parents and students, who are the ultimate beneficiaries of higher education, more nearly full cost fees for institutionally-provided room and board, and more nearly market rates of interest on student loans, all of which rely upon market choices to signal worth and true trade-offs.

A greater reliance on market signals also brings a shift in decision making power not just *from government*, but also *from higher educational institutions*—and especially from the faculty—*to the consumer or client*, whether student, business, or the general public. This shift may appear "conservative" in the conventional modern political terminology. But it is also "liberal" and even "populist" in an older lexicon. The system of university financial dependence solely on government, coupled with substantial university (meaning especially "professorial") autonomy enshrined a system that was, by some accounts, elitist, self-serving, and insufficiently responsive either to the students it served or to the taxpayers who paid. The shift to reliance, even only in part, on tuition—and assuming financial assistance to maintain accessibility—shifts substantial influence from the faculty and the ministry to the student and family. And to many economists, shifting some of the cost burden from taxpayers to students and parents also reflects a reform in the direction of greater equity and a more reasonable alignment of those who pay with those who benefit. As universities and higher education systems pay more attention to e.g., good personnel practices, cash flow, market position, product diversification, and accountability, they will look more "private" than the stereotype of "public," even if they remain state owned, substantially tax-supported, and avowedly "public" in their mission.

A market orientation therefore includes (a) tuition, fees, and the sale of research and instruction via grants, contracts, and entrepreneurial training; (b) the private sector, including both non-profit and proprietary providers of tertiary education; (c) regional decentralization, or the devolution of authority from the central government to the regions; and (d) institutional autonomy, or the devolution of authority from government, at whatever level, to institutions. Much of what may look like the agenda of the neo-liberal economist may also be more opportunistic than ideological. With taxes increasingly avoidable and otherwise difficult to collect,[7] and with competing public needs—e.g. basic education, public health, public safely, transfer payments, and public infrastructure—so

[6] Barr, Nicholas (1993) *The economics of the welfare state*. Second Edition. Weidenfeld and Nicholsan. London. pp. 106, 345.

[7] In 1997, the Russian government collected only 52 percent of the taxes that were due. In Moscow, with a population of some 10 million, only 120,000 filed their taxes on time. *The New York Times International*, March 8, 1998, p. 3.

compelling in all countries, an increasing reliance on tuition, fees, and the unleashed entrepreneurship of the faculty may be mainly the only alternatives to a totally debilitating austerity.

2.4. Accountability

A fourth theme underlying the finance and management reform agenda is accountability. Universities should be accountable in various ways to students, parents, employers, and to the general public. There is a perception, widespread in some countries, that the university--and especially the classical university and the professorate--is insufficiently accountable, particularly to the first degree student. Accountability is difficult to achieve because the benefits are (appropriately) both multiple and hard to measure. But it is nonetheless essential to lay down transparent guidelines, to install better measures of outputs, or performance, and to better align both individual and institutional rewards with these performance indicators.

2.5. Quality and Efficiency

The World Bank's *Lessons of Experience* report identified severe quality problems resulting from overcrowding (frequently stemming from laws giving all secondary school graduates a legal right to university matriculation, regardless of student readiness or university capacity), from insufficient control over the quality or behavior of the teaching staff (stemming in part from low pay and virtual immediate civil service tenure), or from inappropriate curricula, unrelated to the needs of the emerging economies. The Bank's agenda for enhanced quality in the early 90s, then, included attention to such reforms as improving the qualifications of teaching staff and the quality of their instruction, the appropriateness of the curriculum, improved student assessment and selection; and the extent and quality of facilities such as libraries, computers, and equipment.[8]

While the thrust of this report is on the reform agenda in higher educational finance and management, this agenda cannot be divorced from matters of educational and scholarly quality. Indeed, policy makers are increasingly viewing the need for greater productivity—arguably the essence of financial and managerial reform—as demanding attention both to inputs, or costs, as well as to outputs, or learning and scholarly quality. According to the perspective of *learning productivity*, for example, the principal higher educational productivity problems lie not so much with excessive costs, but with insufficient learning.[9] The reform agenda for enhancing productivity, therefore, requires attention to: (a) effective teaching, including good instructional techniques, but also requiring appropriate instructional resources such as libraries, laboratories, scientific

[8] The World Bank, *Higher Education: The Lessons of Experience*. pp. 66-78.
[9] D. Bruce Johnstone, *Learning Productivity: an Imperative for American Higher Education*. Albany: The State University of New York, 1992.

equipment, computers, and internet accessibility; (b) an appropriate curriculum, including content that is intellectually challenging, up-to-date, and appropriate to the mission of the institution; (c) effective learning, including appropriate student time-on-task, as well as the ability to focus and concentrate; and (d) an efficient managerial and administrative structure. All of this has profound implications for reducing repetition rates and the average time to graduate, leading to substantial savings that can be diverted to quality improvement. Such efforts towards efficiency, cost control, and resource generation can go a long way in helping developing nations solve their resource and quality related problems.

3.
Trends and Reforms in Finance and Management

Within the context of the above mentioned themes, three major categories of reforms have emerged over the past decade or two, in countries differing widely in politics, culture, economies, and ideologies: (3.1) supplementation of public or governmental revenues with non-governmental revenues; (3.2) reform of public sector financing; and (3.3) radical change (restructuring) of the universities and other institutions of higher education. This section will provide examples of reforms in these categories--including some reforms that seem difficult to implement.

3.1. Supplementation of Governmental with Non-Governmental Revenues

Governmental revenues are supplemented by non-governmental revenues by shifting the burden of higher educational costs from the general taxpayer or general citizen to parents and students especially--but also to philanthropists and to purchasers of university services. When the government shifts costs to the students, it must introduce a parallel system of financial assistance in order to maintain accessibility and provide equity. Following are the five primary vehicles of this supplementation, or shift in cost sharing, or cost incidence: (a) the introduction of, or substantial increases in, tuition and full or more nearly full-cost fees into higher education sectors hitherto supported primarily or wholly by public revenues, (b) the introduction of means tested grants and loans, (c) the encouragement of private higher education supported mainly through tuition fees, (d) the encouragement of entrepreneurial activities on the part of the faculty and/or the university, and (e) the encouragement of philanthropy--for endowment, for direct operations, and for scholarships to students.

The following Resource Diversification Matrix[10] synthesizes the various strategies of revenue diversification which can be pursued by any higher education institution. Parts of the matrix will be discussed in detail.

Resource Diversification Matrix[11]

	Government (Taxpayers)	Students and/ or parents	Industries Services	Alumni and other philanthropists	International Cooperation
1. Direct Institutional Contribution	X				
2. Indirect contributions via Financial Assistance and Subsidized Loans	X				
3. Tuition Fees					
3.1 Degree Programs		X			
3.2 Non-Degree Programs		X	X		
4. Student Loans and Graduate Taxes					
4.1. Subsidized	X	X	X		
4.2. Unsubsidized		X			
5. Productive Activities					
5.1 Services					
5.1.1 Consulting	X		X		X
5.1.2 Research	X		X		X
5.1.3 Laboratory Tests	X		X		
5.2 Production of Goods					
5.2.1 Agricultural Products			X		
5.2.2 Industrial Products			X		
5.3 Rental of Land and Facilities			X	X	
6. Donations					
6.1 Direct			X	X	X
6.2 Indirect (lottery)				X	

Let us consider some important vehicles of supplementation:

3.1.1. Tuition and Fees. More and more developing nations have been shifting costs from the taxpayer to parents and students in the form of tuition and fees--a tradition that has been in place for decades in several industrialized and OECD countries. For example, Australia charges a differentiated fee (US$3300 for Social Sciences, US$4700 for the Sciences and Business, and US$5500 for Health); in New Zealand institutions set an average tuition fee of US$2300; and Netherlands sets a time limited fee between US$2250 and US$3150.[12] Although tuition and fees have been long established in the US in the public as well the private sector, they have been generally absent from European higher

[10] Jamil Salmi and Gabrielena Alcala (1998) *Opciones para reformar el financiamiento de la enseñanza superior*. Cuadernos del CENDES (Centro de Estudios de Desarrollo, Universidad Central de Venezuela). No. 37. January-April.

[11] Adapted from Jamil Salmi and Gabrielena Alcala (1998) *Opciones para reformar el financiamiento de la enseñanza superior*.

[12] Alan Wagner (1998) *Costs and financing of tertiary education: OECD trends and new perspectives*. Paper presented in the Training Session. The World Bank, Washington DC. June 22, 1998.

education. The UK has just decided to introduce a means-tested fee to a maximum of 1000 pounds. (It is significant that the fee, while proposed by a Tory Commission, is being implemented by a Labor government, which had been historically opposed to any form of tuition).

In Africa, the introduction of tuition and the movement toward more nearly full cost recovery on accommodations and catering seems to be widely recognized as both necessary and sound.[13] Implementation has generally been slow, sporadic, and unevenly applied, although Blair reported progress in Kenya and Zambia in the late 1980s and early 1990s. Saint (1992)[14] has elaborated upon the need for, and types of, revenue diversification in universities in Africa. The importance of user fees becomes all the more clear from the experience of Tunisia--a system dominated by public institutions of higher education and very nominal fees. Users contribute less than 1% to the cost of their education, creating a regressive pattern in which the highest-income population groups benefit the most from contribution of the taxpayers.[15]

In Latin America, the only country which recovers a large portion of its student costs through student fees is Chile. The Chilean government launched a comprehensive series of structural and financial reforms in 1981. Fees were introduced in public institutions and the number of private colleges charging fees also increased sharply; in the rest of the continent, however, fees in the public higher education system continues to be almost nonexistent. According to the 1995 Higher Education law, in Argentina, it is up to the universities to decide whether or not they want to charge fees. A great majority of the students enrolled does not pay fees but some universities charge fees at the post graduate level.

[13] Robert D. D. Blair (1992) *Financial Diversification and Income Generation in African Universities*. World Bank AFTED Technical Note No. 2.
[14] Saint W.S. (1992) *Universities in Africa: Strategies for stabilization and revitalization*. World Bank. Washington DC.
[15] Benoît Millot (1997) *Republic of Tunisia Higher Education: Challenges and opportunities*. Human Development Group. Middle East and North Africa Region. The World Bank, Washington DC.

In Northern Mexico, the rector of the University of Sonora started a consensus-building exercise with his staff and students in 1993 to propose that students would contribute a little to the cost of their education. While any attempt to introduce cost-sharing has been fiercely resisted in other Mexican public universities, especially at the UNAM, an agreement was reached in Sonora on the principle of a direct contribution by students to generate supplementary resources and on the process for allocating them to quality-improvement initiatives. Since 1994, students have been paying a yearly contribution of about $300 for that purpose. A joint student/faculty committee administers the funds which are used to upgrade computer labs and purchase scientific textbooks and journals. A poster is prepared every year to disseminate information on the use of the money collected during the school year.[16]

Economies in transition are also opening up to the market forces and are facing similar crises with regard to fiscal deficits in tertiary education and revenue diversification. Russia and most of the other countries of the former Soviet Block are blocked by their constitutions from implementing tuition, but are finding loopholes. The 1992 Higher Education Law stipulated that tuition was to be free under the constitution only to first-time students admitted by competitive entrance examinations within the "regularly-admitted" quota. But tuition had been approved in Russia for some time for "juristic persons"--that is, enterprises and organizations--although not for "real persons." A governmental decree in April 1994 made tuition charges legal to "real persons," provided they were within the constitutional loophole. The State Committee for Higher Education recommended that fee-paying students not exceed 10 percent of total admissions. In 1994-95, Russian (public) universities enrolled 46,000 fee-paying students, for 9.6 percent of their total new matriculates.[17] The door is clearly open.

The Polish Rector's Conference is reportedly "…lobbying the parliament to interpret the new constitution in a way that would legalize tuition." Like Russia, the constitution calls for higher education "without payment," but with a similar loophole, allowing tuition for other than regularly admitted students. The University of Warsaw was reported in 1997 to be earning nearly 12 percent of its annual budget by classifying as many as 40 percent of its students as "evening" or "extramural," thus allowing them to be charged tuition.[18] The issue in Poland, as in Russia, seems to be not whether tuition or cost sharing is "good" or contributes toward either efficiency or equity, but how soon tuition can come "out of the closet," and be applied with some openness/ evenness, and be accompanied by thoughtful financial assistance policies.

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[16] Jamil Salmi (1998) *Strategy for Higher Education Development in Latin America: Executive Summary.* The World Bank, Washington DC.

[17] Bain, Olga (1997) "Cost of Higher Education to Students and Parents in Russia: Tuition Policy Issues." [unpublished.]

[18] Burton Bollag, "Poland Considers whether Universities Should have the right to Charge Tuition." *The chronicle of Higher Education*, December 5, 1997.

Introduction of cost recovery in post-liberalization Hungary

As Hungary opted for economic liberalization, the important concerns facing the higher education system were: a lack of responsiveness to the market economy; inefficiency; and an inequality within the system as the public sector was financing all the costs, with little contribution from the actual benefactors.[19] For example, in 1993, Hungarian public expenditure on higher education per student was 86% of per capita GDP, compared to an average of 45% for the OECD countries, and 30% for Germany. This called for making more efficient use of public expenditures and transferring costs to private beneficiaries wherever possible. As an outcome, in 1995 tuition was introduced in the public higher education institutions at a monthly rate of HUF 2000 per month. Tuition generally applies to all full time students in undergraduate and doctoral training. One fifth of the students are granted partial or full waivers based on academic merit or financial need. Part time students are charged a supplementary fee of up to HUF 8000 per month. Revenue from tuition has increased to HUF 7 billion, which is equal to 20% of the higher education revenue and covers about 7.5% of the higher education expenditure.

China has implemented universal university tuition, declaring the practice now to be quite in accord with the evolving market-sensitive ideology of Chinese Communism.[20] Starting in the late 1980s, Chinese universities were allowed to charge fees to students admitted "outside the state plan"—that is, sponsored by enterprises, or self-financed or scoring just under the examination cut-off score for regular university admissions. In 1994, the law was changed to prepare students and families for universal tuition beginning in 1998-99, set at Y 1300 (about $888) a seemingly modest sum, but not unlike the US average public comprehensive college tuition in terms both of the percentage of operating costs to be recovered (about 20 percent) and of the median Chinese family income.[21]

3.1.2. Grants and Loans. Means-tested financial assistance and loans are being introduced in order to maintain accessibility in the face of increasing costs borne by students and families in the form of tuition and fees. As no country seems to be either willing or politically able to shift cost onto students and families without some measures to preserve accessibility and equity, financial assistance in the form of grants and/ or loans becomes part of the revenue supplementation reform agenda. To the extent that the shift

[19] Fredrick L. Golladay, Ilona E. Szemzo (1998) *Higher Education Reform Project: Republic of Hungary*. Staff Appraisal Report. Human Development Unit. Europe and Central Asia Region. Report No. 16536-HU. p 5-7.

[20] See Central Educational Science Institute (1990) *Education in Contemporary China*, p. 72. Also, D. Bruce Johnstone (1996) "Some Principles of Tuition, Fees, and Student Financial Assistance Applicable to Chinese Higher Education" State University of New York at Buffalo [unpublished.]

[21] World Bank, *China Higher Education Reform*. Report No. 15573-CHA, China and Mongolia Division, pp. 53-56. Also, Hong Shen, Tuition Reform in Chinese Universities: From 'State Dominance' to 'Cost Sharing.'" Paper presented at the Annual Meeting of the Comparative and International Education Society, Buffalo, March 19-22, 1998.

of cost burden is to be from taxpayers to parents, then some way must be found to measure family "need" or "means", which is not easy for most developing nations.

An alternative to recovering expenses from parents, even with means testing, is to recover them from the student with some form of *loans* or *graduate taxes*, to be repaid as the student becomes employable and productive. Although student loans are found in increasing numbers of countries they are not all equally effective in shifting costs from government (or taxpayers) to the student. The effective recovery on student loans depends on the rate of interest, the repayment period, the rate of recovery (i.e., the prevalence of non-payment, or defaults), and the cost of servicing accounts. Loan systems that are "generally available" without requirement of co-signatories (thus frequently incurring significant default rates), and that carry low rates of interest and long repayment periods, are able to recover only very small portions of the original amounts lent.[22] Such systems are largely ineffective in shifting significant higher educational cost burden from governments, or taxpayers, to students. Tilak[23] has discussed the benefits to and problems in introducing student loans in a developing country like India.

An increasing trend in student loans

In the recent years the World Bank has supported student loans projects in several nations. For example, starting 1992, the Bank signed a loan to assist in the conversion of the Venezuelan Scholarship Foundation, Fundayacucho, to a student loan institution. In 1996 a second Student Loan project was signed in Jamaica; and in 1998 a student loan project has been negotiated in Mexico[24]. In 1997 a national student loan guarantee program was conceptualized in Hungary, in order to bring about revenue diversification and autonomy, and to make higher education more equitable. Two of the largest commercial banks have expressed an interest in originating and servicing education loans with guarantee of repayment from semi-private, autonomous agencies. However, the mechanisms and details still need to be finalized in order to make the process functional--with regard to assessing student need, screening, repayments, etc. [25]

The Mexican government's long term goal is to achieve the required increases in the tertiary enrollment rate in addition to improving access. In this context, the Mexican government is very keen to increase demand-side financing--that is, financing students rather than institutions, to improve access to higher education, particularly for

[22] See Adrian Ziderman and Douglas Albrecht (1995) *Financing Higher Education in Developing Countries.* pp. 62-90.
[23] Tilak.J.B.G. (1992) "Student loans in financing higher education in India". *Higher Education* Vol. 23(4) pp. 389-404.
[24] Jamil Salmi (1998) *International experiences with student loan schemes: The World Bank perspective*. (Unpublished Report) The World Bank, Washington DC.
[25] Fredrick L. Golladay and Ilona E. Szemzo (1998) *Higher Education Reform Project: Republic of Hungary.* Staff Appraisal Report. Human Development Unit. Europe and Central Asia Region. Report No. 16536-HU. p 5-7.

academically qualified but financially needy students; and to develop more effective and financially sustainable student loan institutions.[26]

In China, student loan schemes have emerged as a part of the student aid package associated with the introduction of tuition in all public universities in 1997. Students are now expected to contribute 10% to 25% of unit cost by way of fees. Several universities provide interest-free loan schemes with funds from both the central government and the local authorities, to help students cover living expenses. However, there exist some difficulties with regard to the Chinese loan system, viz., a cultural reluctance to borrow money, defaults resulting from the requirement that students repay loans by the time they graduate, lack of funding, etc.

Improving the efficiency and viability of existing student loan programs while broadening their coverage is a major challenge for developing countries. Despite the poor performance of many systems, the positive experience of countries like Columbia and the Dominican Republic, for example, show that it is possible to design and administer financially sustainable programs if effective collection programs, appropriate interest rates, and income contingent schemes, can be made operational.

The mere introduction of fees, scholarships, and loans, assures neither cost recovery for the government, nor equality of access for the students. Each of these reforms must consider both the real ultimate shift in the cost burden, as well as the consequences (especially to enrollment behavior) of that shift. For example, Vietnam introduced fees in higher education in 1989 varying more by field of study and the particular institution attended than by family income.[27] Presumably, the intent was as much to shape enrollments by sector and field of study and to maximize the student and parent contribution as to maximize accessibility. Loans were introduced in 1994 and scholarships are also in place--and here again access to disadvantaged students remains an issue. What is needed in a system like this, therefore, is a coordinated system that is transparent, equitable and targets financial assistance effectively on the basis of family income.

Loan mechanisms can also be improved with measures like: (i) charging more nearly market rates of interest—as Germany has proposed for the repayable portion of the BAföG; (ii) improving collections, by holding the originator, the university, and the servicing agency, each partially responsible for repayment, thus providing a real incentive for collections; (iii) arranging collections through a government tax, withholding system--as in the case of Ghana with the national security system; (iv) employing private collection agents as in Venezuela and Jamaica; and (v) switching the cost recovery scheme from a concept of a loan that has to be individually repaid (whether conventionally or on an income contingent basis) to the concept of a *graduate tax*, by which the student incurs

[26] Jamil Salmi (1997) *Mexico-Higher Education Financing Project.* World Bank, Washington DC Report No. PIC5094.

[27] Maureen Woodhall (1996) *Vietnam higher education project: Managing resources and finance of higher education.* Working group 2, Report III. The World Bank, Washington DC.

an obligation of a surtax on his or her income without regard to any amount individually owed.

In a graduate tax, however, there is no immediate relief to the Government's current cash obligation for the support of the universities or the students, even though the government secures a stream of future income surtax payments, of highly uncertain present value, but that are collectively (potentially) substantial. The students continue to get their usual subsidies in the form of low or no tuition and perhaps living grants. However, they incur obligations for greater income tax payments than would have been the case in the absence of their higher educational experiences. The effect is a shift in ultimate cost burden, but without an immediate reduction of the government's need for taxpayer or borrowed revenue. Thus far, no country has successfully adopted a pure graduate tax, although the Australian Higher Education Contribution Scheme is close. The applicability to developing countries depends largely on the degree to which there can be confidence in any income tax system. With a stable income tax system, a politically acceptable graduate tax might support the government's ability to deficit finance in the worldwide capital markets, with the future graduate tax obligations serving as a kind of collateral.

As of the late 1990s, it is unclear how much relief can come in the developing countries—to the universities and/or to the government treasuries—through recovering higher educational costs from students via either loans or graduate taxes. There have been many loan scheme failures, and it is not apparent that large scale, generally available lending will support a significant shift of costs from taxpayers to students. Nevertheless, at a more modest level, some forms of delayed cost recovery schemes will continue to be important for countries to establish, partly in support of the larger goal of securing more cost-sharing from students and their families by whatever combination of policies and programs.

3.1.3. Private sectors. Private sectors have played an important role in the provision of tertiary education in Asia, and Latin America, and increasingly in the former Soviet Republic and Eastern Europe, and even in parts of Africa and the Middle East. Nowhere in Eastern or Central Europe has private higher education developed more rapidly than in Romania--a country with no history of private university education prior to 1989. A law in 1990 made it possible for 70 non-governmental and private institutions to be created--almost all of them claimed university status and house a third of the total higher education enrollment.[28]

Private enrollment in higher education has grown most rapidly in Latin America; the proportion of students attending private institutions' has more than doubled over the

[28] Maurice X. Boissiere (1996) *Memorandum and recommendation of the President of the IBRD to the Executive Directors on a proposed loan to Romania for a reform of higher education and research project.* The World Bank, Washington DC. No. P6882-RO.

last 15 years, which reflects not only the growing demand for tertiary education and diversification, but also some disenchantment with public universities--due to political turmoil and poor academic quality. In Argentina the number of students in the private sector has increased 76% between 1985 and 1994.[29] China and India are also allowing and/ or encouraging private educational institutions in order to meet the differentiated and growing demand for higher education. In Kenya the function of private educational institutions is not so much to absorb excess demand, as it is to enhance quality.[30]

The role of private higher education institutions in Chile

Prior to the reforms in Chile in 1981 there were less than ten public educational institutions catering to the demand for higher education. In 1981 the government launched a comprehensive series of structural and financial reforms. Higher education was stratified into universities, professional institutes, and training centers. Not only did the number of fee-charging private colleges increase, but several public institutions also started charging fees. In 1990, 52.4% of the total enrollment was provided for by the private institutions with no public funding[31]; also, by 1990 the state financed 27% of the costs, down from 100% before the 1980 reforms.

While the increasing number of private colleges helped meet the swelling demand for higher education, provided access to many more students, and created diversity--all at no cost to the government; they also brought with them the ills of high tuition, falling quality, and an uncontrolled increase in their number.

[29] Carlos Marquis (1998) *Recent changes in Argentine university policy.* Paper presented at the Training Session. The World bank, Washington DC. June 22, 1998.
[30] Thomas Owen Eisemon (1992*) Private initiatives and traditions of state control in higher education in sub-Saharan Africa*. PHREE Background Paper Series. Education and Employment Division. Population and Human Resources Department. The World Bank, Washington DC.
[31] Laurence Wolff and Douglas Albrecht (1992) (Ed.) *Higher education reform in Chile, Brazil, and Venezuela: Towards a redefinition of the role of the state*. Human Resources Division, Technical Department. Latin America and the Caribbean Region. The World Bank.

A new reform is now being proposed[32] in order to curb the problems associated with Chilean higher education. The main areas where the reforms are being proposed in the private educational institutions are regarding: improvement of quality and relevance; financial policy and regulatory framework; and increasing access to the disadvantaged students with the aid of better targeted loans, and an improved scholarship scheme to cover a wider network of educational specialization's. The key point to be made here is to use privatization as a tool of increased access where required and/or beneficial. Also, the government should continue providing regulatory services for all educational institutions.

Private forms are much criticized for their alleged lack of quality, and questionable long run sustainability on tuition funds alone, without substantial direct and/or indirect public subsidization. With regard to the issue of financial viability, an interim report to the International Finance Corporation and the World Bank by a team from the University of Manchester (UK) reported preliminary findings that "…there are schools, colleges, and universities in developing countries which are profitable (or make a surplus), are financed totally (or almost totally) from student fee income, and which charge modest fees.[33]

Private higher education undoubtedly exhibits great unevenness. But it is not clear that this is necessarily indicative of low quality. In fact, it is quite unclear what standards ought to be employed in judging the quality of an institution or a program of study, and how the question of efficiency and productivity ought to enter in. The Inter-American Development Bank's 1997 "Strategy Paper for Higher Education for Latin America and the Caribbean" (in the part of the world where private higher education has probably played its "demand absorbing" role the longest) found little difference between the private and the public sectors on measures of academic quality except for the very top rank, where the publics predominate. The report adds:

> Even the academically mediocre to weak institutions feature aspects of the modernization agenda: i.e., institutional differentiation, private funding, vastly improved scores on standard efficiency measures, limited political conflict, new forms of choice and accountability, and some greater sensitivity to the job market than much of their public competition displays.[34]

An important point to be noted in this regard is that quality is not determined by an institutions' being "public" or "private" --a distinction which is often very blurred--but is based on whether or not it accomplishes, cost-effectively, the goals that it has

[32] Lauritz B. Holm-Nielsen (1998) *Chile: Higher Education Reform Project*. PAD. The World Bank, Washington DC.
[33] Institute of Economic Affairs and Nord Anglia Education PLC, University of Manchester, "Investment Opportunities in Developing Countries," Interim Report to the International Finance Corporation, 24 November 1997, p. 4.
[34] Inter-American Development Bank, Sustainable Development Department, "Higher Education in Latin America and the Caribbean: A Strategy Paper," nd [1997] p. 6.

established for itself, or which have been established by some legitimate public authority. Hence, the role of the government is to make transparent these standards and put in place adequate mechanisms to assess them, to accredit new institutions, and to maintain quality. Accreditation mechanisms can be framed by a governmental institution, an autonomous body created by higher education institutions themselves, or by the professionals in various sectors of the economy. For example, the World Bank is helping set up various accreditation mechanisms and projects in countries like Argentina, Romania, and Chile.

3.1.4. Entrepreneurial Activities. Tertiary education is becoming increasingly diverse and several vocational institutions are building strong partnerships with potential employers--leading to technology transfer, dual forms of training, apprenticeship schemes, etc. Also, universities are unequivocally more entrepreneurial than they were only a few years ago. In Russia and the newly independent states of the former Soviet Union, the entrepreneurship features training in languages and new fields such as management and information systems that are demanded by the new and would be business class. In Russia and China, institutional entrepreneurship extends to the factories, farms, and firms that were owned and operated by the institution for the state, or that have been started in joint ventures with foreign interests or new native capitalists. Whereas the producing unit once had an integral relationship to the training being offered, the new ventures seem more for the purpose of revenue supplementation.

Among Mexican universities there is an increasing realization that regular operating subsidies from the government will not grow. Hence, they must be entrepreneurial, earning extra income and involving faculty and students in this effort. Some of the departments are beginning to generate income on their own through the sale of services, specialized courses, etc. Even in disciplines where this was once unthinkable, it is happening by imitation. Departments have an interest in this because they keep 80 percent of all the locally generated income. But they are also working on a set of rules for cross-subsidizing so that departments with low entrepreneurial potential are not left behind.[35] In Argentina also the resources generated by the universities themselves increased between 1991 and 1996 from 7% to 14% of the total budget. This is very significant given the fact that during that period state funds increased 52%. This reflects that universities in Argentina have made an effort to increase their budget by generating resources of their own.[36]

Some African universities are also beginning to take similar initiatives. The University of Zambia and Eduardo Mondlane University in Mozambique have generated significant benefits in enhanced capacity, information, and income, by establishing

[35] see Rollin Kent (1998) *Institutional reform in Mexican Higher Education: Conflict and renewal in three public universities*. Technical Study, Inter-American Development bank. Sustainable Development Department, Education Unit. Washington DC. p 17.
[36] Carlos marquis (1998) *Recent changes in Argentine university policy.*

internet nodes linked to local electronic networks which sell subscriptions to non-university business, organizations, and individuals. Ghana and Nsukka have been fairly successful in their initiatives.[37] Ghana indicated a profit of 9% on a total income of US$22700 in 1991. Its policies and method of operating the consulting center are very popular and might prove to be a useful model for other universities. Nsukka claimed a profit of US$35,238 through its' consulting activities over the period 1982-1991, on a turnover of US$90398, with the consultants receiving 50% of the profits, and the university and department receiving 30% and 20% respectively. While survey reports have concluded that consulting activities are minimal and are mostly concentrated in a few fields, on closer observation a very contrary picture emerges, with a fairly large number of faculty involved in consultancy and not adhering to any specific rules or criteria. Hence, while consultancy can prove to be beneficial, it also needs to follow certain guidelines.

Given the trends of fiscal austerity and need for revenue diversification, such a trend seems to be both unavoidable and indispensable. And while it has its' share of problems, there are also several benefits to entrepreneurial activities within the university framework. It helps introduce a market sensitive institutional culture; relevant training experience is introduced for students; cooperative links are established with business partners who might become involved in curriculum guidance, work placements, and part-time teaching arrangements, etc., all of which helps enhance quality of higher education and monetary inflow. Most shortcomings and risks associated with entrepreneurship can be overcome/ minimized by legalizing the entire procedure of entrepreneurship in tertiary education in developing nations, and supplementing it with the aid of good management, transparent procedures, clear rules, and discipline. However, such measures need to be treated with caution and should not compromise on: the proper utilization of resources, teaching and research; and the personal, departmental, and institutional canons of academic responsibility and integrity.

In the more industrialized countries of the OECD, entrepreneurship seems more oriented to the emerging concept of university service and as a laboratory for teaching and applied research--although the activities are still mainly self-supporting and occasionally bring a profit. Burton Clark studied the Universities of Warwick (England), Twente (The Netherlands), Strathclyde (Scotland), Joensuu (Finland), and Chalmers University of Technology (Sweden) for evidence of the positives and the negatives of university entrepreneurship. He writes:

> The entrepreneurial response offers a formula for institutional development that puts autonomy on a self-defined basis: diversify income to increase financial resources, provide discretionary money, *and* reduce governmental dependency;

[37] Blair, Robert D.D. (1992) *Financial diversification and income generation at African universities*. AFTED Technical Note No.2. Technical Department, African Region. The World bank. Washington DC.

develop new units outside traditional departments to introduce new environmental relationships and new modes of thought and training; convince heartland departments that they too can look out for themselves, raise money, actively choose among sustainable specialties, and otherwise take on an entrepreneurial outlook; evolve a set of overarching beliefs that guide and rationalize the structural changes that provide a stronger response capability; and build a central steering capacity to make large choices that help focus the institution.[38]

Entrepreneurial initiatives in China

The reforms in China have given higher education institutions more autonomy to generate their own revenues. In 1992, 14% of the income was generated by the higher educational institutions themselves from various sources, when compared to 4% in 1978. In Shanghai 50% of the higher education institutions operated about 700 enterprises in 1992, the total business volume of which was Y 1 billion. Providing commissioned training for enterprises is the second largest share of independent revenue (2.3% of the total higher education revenue). For example, the Department of Law of Peking University generated much income by running short-term training courses on the large number of newly adopted laws to employees in state-owned and joint-venture enterprises. Income from research and consultancy accounted for 1.3% of total revenue in 1992. The annual income from research in the 36 national key universities was Y 1.12 billion, compared with their state allocation for recurrent expenditure of Y 1.17 billion in 1993. Universities are also able to charge an overhead ranging from 5 to 15%, depending on the nature of the research and the source of funding.[39]

3.1.5. Philanthropy. Philanthropic giving to tertiary education is yet another supplement to public, or governmental, revenue. Many developing nations like India, Argentina, and China exhibit a tradition of philanthropy, but they tend to be more supportive of charity or religion than of institutions of higher education, or even of students. There are exceptions: Beijing University, for example, has received 10 million dollars from Hong Kong tycoons to build the largest library in Asia. Furthermore, governments are becoming aware of the need for tax breaks, even at the cost of some lost tax revenues. But the high level of philanthropic giving of higher education in the US-- an estimated $14.25 billion in 1995-96, with eight of the top 20 recipients being public universities--is unlikely to be achieved in most other countries.[40]

Successful philanthropy requires a tradition of philanthropy—along with a favorable tax treatment of charitable contributions, which shifts some of the effective

[38] Burton R. Clark (1998) "The Entrepreneurial University: Demand and Response" *Tertiary Education and Management*, Vol. 4 No. 1, p. 14.
[39] Hena Mukherjee (1997) *China: Higher Education Reform*. A World Bank Country Study. The World Bank. Washington DC. Report 17138.
[40] *The Chronicle of Higher Education,* Almanac Issue, 44:1, August 29, 1997, p. 30.

burden of such philanthropy onto the government in the form of lost tax revenue. This tradition does not come easily or quickly. A culture that supports giving to one's religion, or to the truly needy, does not necessarily support charitable contributions to institutions like public universities, which is thought of in most countries still, to be the responsibility of "the government." For example, philanthropic support of colleges and universities in the US was once virtually restricted to the private sector until around the 1970s, when state public revenue support began to wane, and public college presidents discovered philanthropy. Still, it may take decades before a public college or university has a critical mass of alumni who have accepted the notion that they should give back some of the support that they had enjoyed in their college years--and who have also acquired sufficient wealth to make significant contributions. It also takes years, and a large financial investment, to compile the updated alumni addresses, the alumni associations, the volunteers, and the initial experience with fund drives to begin making any net revenue.

In short, philanthropy is appropriately on the list of reforms as a further source of non-governmental revenue. However, while a few philanthropists might help initiate new high quality private universities--that may provide significant models of management as well as academic quality[41], it is unlikely that philanthropy will play a major role in the near future in most countries in the general supplementation of governmental revenue for publicly-supported higher education. And this is all the more true for developing nations with their limited wealth. Yet, to the extent that this source can be tapped, with the aid of tax incentives, it is a good alternative for additional revenues.

3.2. Reform of public sector financing

The financing of most higher education will remain substantially dependent on public revenues. Even in countries, like the United States, where private higher education is very developed, both private and public universities receive public aid. An important part of higher education's reform agenda seeks a more efficient use of these public revenues. Among the most important are *devolution of spending authority* from the central government ministry to regional units of government to the higher educational institutions and *budget reforms*, especially the introduction of performance and other forms of more incentive-sensitive budgeting.

3.2.1. Devolution of management and spending authority. Devolution of management and spending authority from the center to the regions (province, state, Lander, Oblast, etc.), and to systems and/or institutions of higher education themselves, is high on the worldwide finance and management reform agenda. As long as the players know the rules and as long as there is proper control over the procedures, the system can be very

[41] Bilkent University in Turkey, founded and supported by Ihsan Dogramaci, or Charles University in Budapest, founded and supported by George Soros, come to mind.

efficient. However, the ease of such a transformation varies with nations. Effective reform is not as simple as loosening or weakening the control of the central ministries. Autonomy, deregulation, and privatization by themselves do not assure an optimal distribution of institutional missions and structures. One consequence of a lessening of governmental authority can be increased "institutional isomorphism," or convergence of institutional forms and missions, generally in the direction of the classical research university, rather than a more appropriate widening of institutional differences. Or, the consequence can be a bimodal differentiation, with those institutions that are financially able (for whatever reasons) drifting in the direction of the classical university, and with the rest becoming increasingly market responsive and low cost, but of dubious quality--and with little in the middle range of responsive, cost-effective, quality higher education. In short, autonomy, deregulation, and privatization are not incompatible with an important continuing quality control and "steering" role for government. For the establishment of overall institutional missions, new program approval in accordance with those missions, setting certain principles of academic governance and responsibility, program and degree accreditation, and some form of overall assessment, responsibility, and authority must remain substantially centralized.

Expenditure reforms are making headway especially in the OECD countries. Like in many industrialized countries (US, UK, Sweden, Denmark, the Netherlands, Belgium, Australia, New Zealand, etc.) some developing countries are also evolving a system of a “lump sum” budget. By this reform, a total budget is given to institutional management according to some system (whether performance-based or the more traditional enrollment-based), and management then makes all allocation decisions. A lump sum budget is thought to be a “reform” because it is assumed that institutional managers, at least under ideal conditions, are likely to make better resource allocation (and reallocation) decisions than are distant and possibly disconnected ministerial bureaucrats, or than politicians responding to constituency pressures.

Formula based funding mechanisms do reflect several positive aspects. They allow a more rational (and non-political) distribution of funds among higher education institutions and between disciplines; they correct major inefficiencies in the system; help in improving innovativeness and reducing costs. However, it would be wrong to conclude that more institutionally parochial decisions, such as might be made by the rector and/or the university senate, are necessarily better decisions according to principles of public welfare maximization. Institutional politics—extending to rectors making political promises to the faculty in a bid for election—can be as inefficient, short sighted, and self-serving as the supposedly more intrusive decisions of elected or appointed officials. Probably the best compromise is a reform that moves most decision-making to the institution, but that also: strengthens institutional management so that it can better act on behalf of a public interest that may not be in the interest of the faculty or other politically powerful constituencies; maintains certain institutional activities that are in the clear public interest (but that may not be in the interest of the faculty or even the rector) to

keep as line items in an earmarked, governmentally-determined budget; and insists on the principles of transparency and accountability to minimize mistrust and encourage some risk-taking.

A very crucial element of public sector financing reform is to efficiently manage the resources at the university level. This can be accomplished with the help of sound decisions regarding budgets, and personnel employment and compensation.

3.2.2. Budget reforms. A popular budget reform goes by the label "performance budgeting." This reform assumes that institutional management (principally rectors, presidents, and deans) are rational actors, and that they maximize whatever is rewarded. A subtle difference needs to be noted here between *performance funding* and *performance budgeting*--the two methods used for state budgets, based on performance. "Performance funding ties special sums directly to results on specific indicators. In performance budgeting, governors and legislators consider reports of results on performance indicators as a factor in the total funding of public colleges and universities"[42]. Proponents of performance budgeting believe that the conventional budget "driver"—essentially, full-time equivalent enrollment by field and level—is a wrong, or at least an insufficient, incentive. Budgeting by enrollments can lead an institution to "over-enroll" to the detriment of quality. It can lead to the maximization of "student seat time" to the neglect of good teaching--and more egregiously, to the neglect of good learning. It can lead to the concentration only on those programs that are the most popular and/or that can be taught most cheaply. Particularly if the applicant pool is deep, the enrollment-driven budget, it is alleged, can lead to excessive dropping out, because the new students can actually be taught more cheaply.

"Performance budgeting," on the other hand, drives public revenues by criteria other than, or at least in addition to, enrollments. These criteria may be, e.g., degrees awarded, degrees awarded in particular fields, average time to degree completion, performance of graduates on post graduate or licensure examinations, success of faculty in winning competitive research grants, or peer-based scholarly reputation of the faculty. However, proponents of "performance budgeting" are discovering that institutions of higher education need to balance multiple, difficult-to-measure, and not always compatible goals. For example, maximization of student accessibility, or of "learning added," which would probably encourage the acceptance of some promising but less well-qualified students, is incompatible with maximization of completion rates or with postgraduate student examination performance.

Much of the budget reform agenda in developing countries is the movement away from negotiated budgets—where university budgets are set in accord with their real or

[42] Joseph C. Burke and Andrea M. Serban (1997) *Performance funding of public higher education: Results should count*. Public Higher Education Program, Rockefeller Institute.

perceived political strength--to some system that is reasonable and likely to be perceived as fair and transparent. It is at least arguable that the real reform--to the degree that there were to be changes in budgeting procedures--would be not so much the perfection or rationalization of the incentive system, as it would be an end (or a significant diminution) in the practice of negotiating budgets, and the adoption instead of a budget system that forces institutional management to make the difficult decision to reallocate resources within the institution.

A case for performance based funding mechanism in Argentina

The 1995 Higher Education law set up a wide reform agenda to (i) provide universities with full autonomy over their administration, internal resource allocation, staff management, and student access--offering the possibility for universities to diversify their resources; (ii) establish a common framework for private and public institutions through the creation of the National Commission for University Evaluation and Accreditation (CONEAU) and (iii) improve the governance of university by allowing greater participation of teaching staff.

As part of the financial reform, the Secretariat for University Policy is progressively increasing the budget traditionally negotiated in Congress to allocation mechanisms based on performance criteria.[43] In 1997, 13% of the total budget of $1500 million was distributed through the new scheme; $ 20 million was distributed through a funding formula (based on unit cost per student in each discipline); $ 20 million to an infrastructure program to build new capacities and rehabilitation; $ 70 million for salary incentives to professors during research; $ 50 million for research programs, and $ 6.8 million for scholarships. The objective is to reach 40% of the total budget by the year 2000.

In addition, a World Bank project supports a Fund for Enhancement of Education Quality (FOMEC) of $ 240 million-- as a competitive and transparent investment fund to finance quality and efficiency improvements at the undergraduate and graduate levels through providing technical assistance for curriculum changes, supporting visiting professors, providing scholarships, and financing teaching equipment, laboratories, and libraries. The FOMEC finances 70% of the total cost of the projects and 30% is financed by the university beneficiaries.[44]

While various kinds of "performance budgeting" will undoubtedly remain on the higher education reform agenda, the real reform may be more in the acceptance of three principles: (i) that university leaders, faculty, and government officials at various levels are all in their ways "rational actors" who respond to incentives; (ii) that the "rules of the

[43] William Experton (1998) *Argentina: Higher Education Reform Project*. The World Bank, Washington DC.
[44] Carlos Marquis (1998) *Recent changes in Argentine university policy.* William Experton

game" for the receipt of public revenues constitute a powerful and exceedingly complex system of incentives with different impacts upon institutional leaders, the faculty, and different level of government; and (iii) that the difficult academic and resource allocation decisions at the institutional level are facilitated most by a set of government budget rules that are generally sensible, fair, transparent, and most of all stable.

3.3. Radical change (Restructuring) of Higher Education Institutions

Restructuring in higher education has taken place for different reasons in various countries. On the one hand it can be an outcome of grave concerns regarding financial constraints, and on the other hand it can also be undertaken to merge institutions, consolidate tertiary education, and to promote inter-institutional economies of scale.

A radical change in any organization affects its' mission, skills and other attributes, as well as the number of workers employed. Radical change, or restructuring, of an institution of higher education means either fewer and/or different faculty, professional staff, and support workers. This means lay-offs, forced early retirements, or major retraining and reassignment, as in: the closure of inefficient or ineffective institutions; the merger of quality institutions that merely lack a critical mass of operations to make them cost-effective; and the radical alteration of the mission and production function of an institution—which means radically altering who the faculty are, how they behave, the way they are organized, and the way they work and are compensated.

The universities of Russia have clearly "suffered," in the sense of undergoing painful financial down sizing, including the erosion of real faculty compensation, the demise of some entire departments and degree programs, and the superimposition of a range of entrepreneurial activities involving both faculty and facilities. At the same time, many of the changes in the Russian universities seem to be less fundamental, and more designed to cope, or survive. Such changes are probably less lasting, lacking the shared acceptance of a new institutional mission or changes on professorial and professional work styles that should accompany a fundamental restructuring.

Radical change tends to be resisted by workers and management alike, quite apart from the need for, or appropriateness of, the change itself. Restructuring is exceptionally difficult because public sector employees tend to be either civil service employees or to be political appointees or at least politically active, and they are difficult to persuade. In the case of public universities, the faculty have additional means with which to resist threats of radical change and job loss: the idea of the university as a proper and necessary bastion of continuity and tradition; the tradition of academic freedom; and the army of students, former students, and would-be students, most of whom are articulate, energetic, politically volatile, and generally able to be enlisted in the cause of opposing the government's efforts to radically alter *their* university.

Yet, while public universities resist radical change, they are not immune to the loss of large amounts of public revenue occasioned by the forces listed above. In fact, the very short-term robustness of the university—its seeming ability to "make do" with larger and larger classes, or part time, low-paid lecturers, or without replacing laboratory equipment or replenishing the library, or by admitting more fee-paying students, or by diverting faculty energies to entrepreneurial activities—may be its worst enemy in the competition for increasingly scarce public revenues. These short-term "fixes" sometimes allow the government or the ministry to cut the funds to the public institutions without coming to grips with the need to close down inefficient campuses, or lay off faculty no longer relevant to the needs of the students, the economy, or for that matter of the university.

3.3.1. The impact of technology. An important reform concern that many developing nations are facing today is the impact of technology, and whether they can be redesigned and be made more cost effective with technology. Technology has both a positive and a negative element associated with it. While it can help organize higher education better, and can reduce costs with the help of open universities, distance education, etc., it can also deter developing nations from competing with the industrialized nations due to the high cost of technology. This impacts financing to a very large extent. However, it is important to note that universities in the future will have to be more diverse and more willing to share knowledge innovatively if they want to maintain a fair share of the market and not get marginalized.

The rationale for using educational technologies is different for developed and developing countries. Developed countries have well established schooling systems and high enrollment levels. They primarily use technologies to improve the effectiveness of teaching and learning, to individually tailor instruction, and to provide specialized education to small groups of learners. In developing countries, on the other hand, where good schools are affordable only for a relative few, policy makers seek alternatives that make significant improvements in educational and research effectiveness, while at the same time increasing access to education, particularly at the secondary and post-secondary levels, at lower cost per student.[45]

[45] Bojana Boh (1994) *Interactive educational technologies in higher education*. ESP Discussion Paper Series. The World Bank Advisory Service, Washington DC.

Educational Technology and Differentiated Education in developing nations

Among all regions of the world Asia has the most extensive and most effective differentiation efforts. In the last two decades distance education has rapidly expanded in Bangladesh, China, India, Indonesia, Korea, Pakistan, Sri Lanka, the Philippines, and Thailand. For example, China has set up a network of provincial universities and a television university for distance education. India has 3 million part-time students enrolled in correspondence courses, in addition to the 4 million regular full-time students. Thailand has established 2 open universities and several regional universities to augment Bangkok's four prestigious national universities. Distance education and open learning programs can be effective in increasing access at modest costs, especially for the underprivileged groups that are usually poorly represented in university enrollments. They can also be designed with a regional or multinational clientele. For example, UNISA, the Open University of South Africa, draws 15,000 of it's 120,000 students from neighboring countries.[46]

It is important to avoid the easy confusion of that which is technologically possible with that which is desirable, necessary, and/or likely. In the case of universities, it is especially easy to get excited with the potential of technology to radically change the nature of the university. Only consider: digital information transmission for electronic mail, internet access to information and data bases, and the capability of broad bandwidth, multi-way transmission of full motion video; sophisticated interactive software in connection with personal computers; and ubiquitous televisions and videocassette players. Such technology gives rise to possibilities such as: multi-way interactive video capability for synchronous distance education; internet libraries and data bases; self-paced, asynchronous instruction via videocassettes and video- and audio-enhanced computer software. Some are predicting the end of the university as we have known it, and the virtual irrelevance of such familiar elements as campuses, classrooms, libraries—and even the tenured professor.

What of all this will actually be adopted, in what countries, and for whom? The answer depends neither simply on the pedagogical potentialities, nor on the costs and benefits of technologically enhanced teaching and learning. The likelihood of adoption depends in large part on where a country may be in its progression toward mass higher education and reform. Current students or young people anticipating full-time student life in residence on or near a campus are not likely to accept a new version of "higher education" that features professors only by e-mail or video, virtual classrooms," and higher education interspersed with part- or full-time employment. Nor, of course, will the professorate, counting on his or her campus, library, light teaching load, and tenure. For the present, then, in the most economically and educationally developed countries,

[46] World Bank (1994) *The Lessons of Experience*. pp. 29-34.

strong forces are likely to hold much of higher education--and particularly the traditional university-- in largely conventional pedagogy. Financially, most technology has thus far *not* been employed to substitute for faculty--which is the traditional source of productivity gains in industry. The technology has been largely an additional expense, perhaps bringing additional output of learning or scholarship, and thus additional productivity, but not offering diminished unit costs in the way costs are calculated in the academy.

Where the growth of higher education—in some form—lies mainly ahead, and where the massification of higher education simply cannot occur with the physical campuses, faculty-student ratios, libraries, and laboratories that even the OECD countries are no longer supporting, cost-effective, technologically-mediated instruction, with opportunities for self-paced learning must remain high on the reform agenda.

4.
Conclusions: The Status and Consequences of the Conventional Finance and Management Reform Agenda

As a result of the massification and diversification of Higher Education, governments are progressively implementing a Finance and Management Reform Agenda: supplementing governmental revenues (in important part from those students and families who can pay), differentiating institutions, encouraging private sector initiatives, and loosening governmental regulations. This has been generally accepted, in principle, throughout most of the world and is supported by the World Bank in countries at vastly different levels of economic and higher educational institutional development.

Significant progress in implementing this reform agenda is seen in the following. The costs of higher education are increasingly being shared with students and families via tuition and full cost recovery fees. Means-tested grants and student loans are available in many countries, and are on the public higher education policy agenda of many others. Private sectors continue to grow where not prohibited by law, and cost-effective, market-responsive learning is occurring in these institutions, though often, or so it seems, of uneven quality. The financing of universities is taking into account measurable output indicators, and devolving expenditure authority to the universities. Technology—particularly electronic telecommunications—is being incorporated in universities all over the world, giving instant access to other scholars and to libraries and other information. And entrepreneurship—on the part of institutions, departments, and individual faculty—is growing almost everywhere, for the most part adding revenue to the institutions and benefit to societies.

On the other hand, parts of the generally accepted reform agenda have progressed very unevenly. For example, public higher education sectors in most countries (most significantly Russia and the newly independent states) continue to have great difficulties

restructuring and closing inefficient and outdated institutions. Means testing for the purpose of subsidizing selectively those students in greatest financial need has proven difficult in countries where tax compliance is uneven. Loans have not, in most cases, shifted cost burden from the government, or taxpayer, to the student, due mainly to insufficient interest rates, collections, and targeting upon students whose access depends on the loans. "Performance" and other new forms of public budgeting have been accompanied, in many instances, with unintended and sometimes unwanted consequences--like attempts to exaggerate any performance criteria in order to secure more resources. The quest for productivity and efficiency is dominated by cost side considerations rather than by outputs or learning--universities throughout the world continue to neither measure the learning added by the institution, nor to maximize learning in ways that have been proven to be effective. There is a risk that technology continues to be incorporated by individual faculty, mainly as "add-ons" to conventional teaching and curricula, without the accompanying changes in the instructional production function that are required to realize useful productivity gains. Finally in the devolution of authority between government and institutions there is a need for clarification of what authority and what operating decisions belong to institutions of higher and which belong to the government.

In conclusion, there continues to be an open debate in most of the countries between the centralized and decentralized frameworks, the relative importance of the public and the private, about the role of the government, and the autonomy of the university. The challenge to public policy is in combining the efficiency and flexibility associated with diversification and privatization with the continuing responsibility of governments with a view to guide, regulate and subsidize. The main aim of such guidance and reforms being the provision of minimal standards of quality and consumer protection, appropriate academic coverage for the needs of the economy and society, and assurance of access for those of high ability and motivation, from families otherwise unable to pay.

References

Bain, Olga (1997) “Cost of Higher Education to Students and Parents in Russia: Tuition Policy Issues.” Buffalo, NY: The Center for Comparative and Global Studies, State University of New York at Buffalo [unpublished paper.]

Bain, Olga (1998) “The ‘ABCs’ of University Autonomy: Reflections about Russian Higher Education,” paper presented at the Comparative and International Education Society Annual Meeting, Buffalo, NY March 18-22, 1998.

Barr, Nicholas (1993) *The economics of the welfare state*. Second Edition. Weidenfeld and Nicholson. London. pp. 106, 345.

Barnes, John and Nicholas Barr (1988) *Strategies for higher education: The alternative White paper*. The David Hume Institute. The Suntory-Toyota International Center for Economics and related Disciplines, LSE. Aberdeen University Press. pp. 3, 6-9.

Blair, Robert D. D. (1992) “Financial Diversification and Income Generation at African Universities.” AFTED Technical Note No. 2. Washington, DC: World Bank

Boh, Bojana (1994) *Interactive educational technologies in higher education*. ESP Discussion Paper Series. The World Bank Advisory Service, Washington DC.

Boissiere, Maurice (1996) *Memorandum and recommendation of the President of the IBRD to the Executive Directors on a proposed loan to Romania for a reform of higher education and research project*. The World Bank, Washington DC. No. P6882-RO.

Bollag, Burton (1997) "Poland Considers whether Universities Should have the right to Charge Tuition." *The chronicle of Higher Education*, December 5, 1997.

Burke, Joseph.C. and Andrea M. Serban (1997) *Performance funding of public higher education: Results should count*. Public Higher Education Program, Rockefeller Institute.

Clark Burton R. (1998) "The Entrepreneurial University: Demand and Response" *Tertiary Education and Management*, Vol. 4 No. 1, p. 14.

Eisemon, Thomas Owen (1992*) Private initiatives and traditions of state control in higher education in sub-Saharan Africa.* PHREE Background Paper Series. Education and Employment Division. Population and Human Resources Department. The World Bank, Washington DC.

Experton, William (1998) *Argentina: Higher Education Reform Project*. The World Bank, Washington DC.

Experton, William (1998) *Argentina: Higher Education Reform*. Project Status Report. The World Bank, Washington DC.

Golladay, Fredrick L. and Ilona E. Szemzo (1998) *Higher Education Reform Project: Republic of Hungary*. Staff Appraisal Report. Human Development Unit. Europe and Central Asia Region. Report No. 16536-HU. p 5-7.

Guadilla, Garcia (1996) *Situación y principales dinámicas de transformación de la educación superior en América Latina.* UNESCO.

Holm-Nielsen, Lauritz B. (1998) *Chile: Higher Education Reform Project*. PAD. The World Bank, Washington DC.

Institute of Economic Affairs and Nord Anglia Education PLC, University of Manchester, "Investment Opportunities in Developing Countries," Interim Report to the International Finance Corporation, 24 November 1997, p. 4.

Inter-American Development Bank, Sustainable Development Department, "Higher Education in Latin America and the Caribbean: A Strategy Paper," [1997] p. 6.

Johnstone, D. Bruce (forthcoming 1998) "Financing Higher Education: Who Should Pay and Other Issues" in Philip G. Altbach, Robert O Berdahl, and Patricia J. Gumport, Eds. *American Higher Education in the 21st Century: Social Political, and Economic Challenges.* Baltimore: The Johns Hopkins University Press.

Johnstone, D. B. (1996) "Some Principles of Tuition, Fees, and Student Financial Assistance Applicable to Chinese Higher Education." State University of New York at Buffalo [unpublished]. Paper presented at a *Collaborative Seminar on Higher Education Financial Issues,* sponsored by the China Center for Education Development Research and the Carnegie Foundation for the Advancement of Teaching, Beijing and Xiamen Universities, April 6-9, 1996.

Johnstone, D. B. (1993) "The Costs of Higher Education: Worldwide Issues and Trends for the 1990s" in Altbach, P. G. and Johnstone, D. B., *The Funding of Higher Education: International Perspectives*. New York: Garland Publishing.

Johnstone, D. Bruce (1992) *Learning Productivity: An Imperative for American Higher Education*. Albany: The State University of New York.

Kent, Rollin (1998) *Institutional reform in Mexican Higher Education: Conflict and renewal in three public universities*. Technical Study, Inter-American Development bank. Sustainable Development Department, Education Unit. Washington DC. p 17.

Leno, Janet L et al. (1995) *Education sector: Strategic issues and policy options*. Informal discussion papers on aspects of the economy of South Africa. South Africa Department. The World Bank, Washington DC.

Marquis, Carlos (1998) *Recent changes in Argentine university policy*. Paper presented at the Training Session. The World Bank, Washington DC. June 22, 1998.

McMahon, Walter. (1988) "Potential Resource Recovery in Higher Education in the Developing Countries and the Parents' Expected Contribution," *Economics of Education Review*, 7 (1)

Millot, Benoît (1997) *Republic of Tunisia Higher Education: Challenges and opportunities*. Human Development Group. Middle East and North Africa Region. The World Bank, Washington DC.

Mukherjee, Hena (1997) *China: Higher Education Reform*. A World Bank Country Study. The World Bank. Washington DC. Report 17138.

National Center for Education Statistics (1997) *Digest of Education Statistics* 1997. Washington DC: NCES.

Rumble, G., (1997) *The Costs and Economics of Open and Distance Learning*. London: Kogan Page.

Saint W.S. (1992) *Universities in Africa: Strategies for stabilization and revitalization*. World Bank. Washington DC.

Salmi, Jamil (1992) *Higher education and economic development: Strategies for reform--A policy brief*. Paper presented at the Senior Policy Seminar on Enhancing effectiveness and efficiency in African Higher Education. The World Bank, EDI, march 1992, Harare, Zimbabwe.

Salmi, Jamil (1997) *Mexico-Higher Education Financing Project*. World Bank, Washington DC . Report No. PIC5094

Salmi, Jamil (1998) *Strategy for Higher Education Development in Latin America: Executive Summary*. The World Bank, Washington DC.

Salmi, Jamil (1998) *International experiences with student loan schemes: The World Bank perspective.* (Unpublished Report) The World Bank, Washington DC.

Salmi, Jamil and Gabrielena Alcala (1998) *Opciones para reformar el financiamiento de la enseñanza superior*. CUADERNOS DEL CENDES (Centro de Estudios de Desarrollo, Universidad Central de Venezuela). No. 37, January-April.

Sanyal, B. C. (1995) *Innovations in University Management*. Paris: UNESCO Publishing [International Institute for Educational Planning].

Shen, Hong (1998) *Tuition Reform in Chinese Universities: From 'State Dominance' to 'Cost Sharing.'* Paper presented at the Annual Meeting of the Comparative and International Education Society, Buffalo, March 19-22, 1998.

Skiback, M., Wagner, A. and E. Esnault (1997) "Thematic Review of the First Years of Tertiary Education: Comparative Report [Draft]." Paris: UNESCO Directorate for Education, Employment, Labor, and Social Affairs Education Committee.

Sundt, M. (1993) Postsecondary Education Financing: International Comparative Models" in *National Commission on Responsibilities for Financing Postsecondary Education, Background Papers and Reports*. Washington DC: National Commission on Responsibilities fort Financing Postsecondary Education.

The Chronicle of Higher Education (1997) Almanac Issue, 44:1, August 29, 1997, p. 30.

Tilak.J.B.G. (1992) "Student loans in financing higher education in India". *Higher Education* Vol. 23(4) pp. 389-404.

Trow, Martin (1974) "Problems in the Transition from Elite to Mass Higher Education," in OECD, *Policies for Higher Education*, Paris: OECD.

van Vught, Frans (1994) "Autonomy and Accountability in Government/University Relationships," in Jamil Salmi and Adriaan Verspoor, Eds. *Revitalizing Higher Education.* London: Pergamon Press.

Wagner, Alan (1998) *Costs and financing of tertiary education: OECD trends and new perspectives.* Paper presented in the Training Session. The World Bank, Washington DC. June 22, 1998.

Wolff, Laurence and Douglas Albrecht (1992) (Ed.) *Higher education reform in Chile, Brazil, and Venezuela: Towards a redefinition of the role of the state*. Human Resources Division, Technical Department. Latin America and the Caribbean Region. The World Bank.

Woodhall, Maureen (1995) *Higher Education in Asia: Education in Nine Countries* 1960-1991. London: Pergamon Press.

Woodhall, Maureen (1996) *Vietnam higher education project: Managing resources and finance of higher education.* Working group 2, Report III. The World Bank, Washington DC.

Woodhall, Maureen (1997) "Public Versus Private Education: Changing Perceptions of Boundaries and Roles." Aberystwyth: The University of Wales, Department of Education, (unpublished.)

World Bank (1996) *China Higher Education Reform*. Report No. 15573-CHA China and Mongolia Department.

World Bank, East Asia and Pacific Region Country Department (1996) *Vietnam: Education Financing Sector Study: A Sector Report.* [VEFSS]

World Bank (1994) *Higher Education: Lessons of Experience*. Washington, DC: The World Bank.

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