



Education with and without the State

by
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Abstract

Since today's prosperous nations were once "developing" countries, it is useful to compare their historical circumstance with those of current developing countries. The characteristics of education in 19th century Britain (then a developing country) turn out to be remarkably similar to those now reported for countries such as Belize, Mauritius and Chile. First, the growth of education is associated with increases in per capita income; second, parents voluntarily spend more (directly from their own pockets) on education as their incomes rise; third, the growth of education combats the Malthusian specter of overpopulation. These findings appear to be independent of education being with or without the state.

With regard to higher education, it is currently observed that its rate of return is usually lower than that for elementary and secondary. It is recommended, accordingly, that spending be reallocated at the margin from the former to the latter sector. This calls, among other things, for higher college tuition fees in proportion to total costs. One important consequence of such tuition increases is growing competition between universities—this is already well in evidence in developed countries.

Competition in the delivery of education has hitherto be hindered by restrictions on entry. A new entrant without a government charter has found it difficult to compete without a government subsidy against a public university that enjoys a considerable one. But because the relative value of the subsidy falls as tuition increases, the entrant has a better chance of surviving. Evidence shows also that survival prospects are further increased when the entrant compresses a four year into a three year course. The reason is that this innovation dramatically reduces the cost to the student of foregone earnings while at college. Examples of such events are provided by the independent University of Buckingham (U.K.), Bond University (Australia), but most especially in the case of the nationally accredited for-profit DeVry Institutes in the U.S.A.

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Introduction

The impression is sometimes given that developed and developing countries occupy quite different spaces or "watertight compartments." The purpose of this paper is to demonstrate some mutual gains from constantly learning from each other. There are several instances of developing countries today that were previously classified as developed. Currently developed countries will obviously profit from careful analysis of the circumstances of the decline in these countries so as to avoid the same pitfalls. Next, take the case of newly developed countries A and B that have graduated, although at different rates, from the status of "developing country." It may be of value to emerging countries in general to find out why country B, say, developed somewhat faster than A. In eliciting any differential policy reasons for the relative slowness of country A, developing country observers may avoid what are revealed as detours from the path of optimum progress.

The second section of this paper will present an example of a developed country obtaining a richer understanding of its own educational history by studying the newly reported empirical research on twentieth century developing countries. Simultaneously, the exercise will show how some already established details of the educational history of the now prosperous country can "feedback" to the benefit of the developing sectors.

The third section of this paper treats a more specific issue. Current literature reasonably argues that, since the private and social returns to the elementary and secondary education in developing countries well exceed those from higher education, efficiency demands special economy drives in the latter sector so as to release extra resources in the former. The proposed economies in higher education, however, are somewhat sketchy. A firmer policy, it will be contended, will emerge from a closer examination of the most recent higher education events in developing countries. These events include a universal trend of increased student tuition's share in-the-total revenue of universities and the emergence of newer for-profit organizations delivering higher education at near full cost fees and supported by efficient student loan systems. This, then, is a case of developing countries looking forward to, and anticipating, changes in higher education that are already afoot elsewhere.

Developed Countries in their Developing Years

World Bank analyses of the relationship between education and economic growth have hitherto concentrated on the experience of developing countries in the twentieth century. This work can be usefully complemented, however, by studies of the past per capita income and education growth of countries that have graduated over the last century or so from the underdeveloped to the developed status.

By all standard measures used today, Britain was an underdeveloped country right down to the later part of the nineteenth century. In the light of this it is interesting, in retrospect, to compare three prominent findings concerning developing countries today. They are as follows: (i) the growth of education combats the Malthusian specter of overpopulation; (ii) education growth leads to increases in per capita incomes which, in turn, improve health and lower mortality; and since

these improvements enhance the payoff to human capital investment, the growth in education becomes cumulative or, at least, self-enforcing; (iii) as per capita incomes increase, parents voluntarily spend more on education. These findings pertain to the systematic study of the records of over 100 developing countries since 1960.¹

Nineteenth Century England and Wales

Consider now the presently developed country England and Wales in its developing years.² With a population of nearly 12 million in 1818, and no public (government) schools, about one in seventeen were attending private schools paid for largely by working parents. There were no government subsidies to private schools and no laws for compulsory schooling. By 1858 the proportion of the population found in fee paying schools had increased dramatically to approximately one in eight. And by this time the annual growth rate of the population had fallen to 1.21 (from 1.40 in 1818). This fact is consistent with the first of the three "modern" findings concerning the twentieth century developing countries reported above: the growth of education combats the threat of overpopulation. And in this case it was education without the state.

The next relevant fact from the history of British education is that the annual growth of per capita income in the years 1801-71 was just over 1 percent. Since the annual average growth rate of day scholars was well over 2 percent, this combination of circumstances is consistent with the second of the three findings from twentieth century developing countries: education growth is associated with (or leads to) increases in per capita incomes. As well it is pertinent that the years 1801-71 witnessed a drop in mortality rates, a factor that increased the pay off to human capital investment.

Finally, since this was education without the state, and especially without laws of compulsory education, we have the strongest possible support for the third finding from today's developing countries: parents voluntarily spend more (directly from their own pockets) on education as their incomes rise. Indeed the nineteenth century figures for England and Wales show that the percentage increase in parents demand for education was larger than the percentage increase in incomes (a situation that economists today describe as the presence of a high income elasticity of demand).

Literacy Growth in the Nineteenth Century

Another striking feature of British education prior to 1870 is that the record of educational outputs, such as literacy, was even more impressive than that of schooling. This fact has presented a particularly serious problem to authors of social histories who tend to downplay any type of social progress during the industrial revolution period. Mark Blaug concludes, "Conventional histories of education neatly dispose of the problem by simply ignoring the literacy evidence." Blaug

¹ Psacharopoulos, Tan and Jimenez, 1986; Becker, 1995.

² For the historical details that follow see West, 1994.

emphasizes that since it is common in developing countries for literacy to run ahead of schooling, we have to recognize the existence of numerous educational agencies in England and Wales outside formal schooling already mentioned. These included the widespread adult-education movement, the mutual improvement societies, the Literary and Philosophical Institutes, the Mechanic's Institutes and the Owenite Halls of Science. Blaug also refers to freelance lecturers who traveled the towns and stimulated self-study among the poor. As for part-time formal education, meanwhile, the Sunday Schools and adult evening schools were obvious examples, and again attendance was voluntary (Blaug, 1975).

The fluid, flexible, heterogeneous and competitive educational scenario of the pre-1870s just outlined is, ironically, the kind of environment that the more radical of reformers are now demanding over a century later. The school choice movement, it is maintained, has been to a large extent misinformed. What is needed is educational choice. "School choice has not and will not lead to more productive education because the obsolete technology called 'school' is inherently inelastic... As long as 'school' refers to the traditional structure of buildings and grounds with services delivered in boxes called classrooms to which customers must be transported by car or bus, 'school choice' will be unable to meaningfully alter the quality or efficiency of education." (Perlman, 1992). Although the argument in this quotation is perhaps somewhat extreme, it does contain a substantial element of truth. Genuinely free markets are unpredictable in terms of their unfolding supply organizations as well as in their offerings of completely new products that they constantly surprise us with.

The Beginnings of Education with the State

The nineteenth century scenario just outlined has been described as education without the state. It must be conceded, however, that some government subsidies to schools were introduced in 1833, but their aggregate value was very low (only £20,000 in 1833). By 1841, they were still so small that they amounted to a sum considerably less than that collected from parents for schooling in the City of Bristol alone. The major nineteenth century legislation, of course, came in 1870 when the Forster Act introduced government (public) schools for the first time. Yet by 1869 most people in England and Wales were literate, most children were receiving a schooling and most parents, working class included, were paying fees for it (West, 1970). The important long-term effect of introducing government schools was to "crowd out" the growth of private schools. This was done partly by eventually reducing tuition fees in government schools to zero, the ultimate consequence of which was the appearance of the system of monopoly schools that exists to this day.

In retrospect the government intervention that occurred was of two kinds, first the early policy of subsidizing private schools, second the later introduction of "free" education provided in government schools exclusively. The first policy, as we have shown, initially involved very small subsidies to private schools. By the 1860s, however, they were becoming more substantial. This type of intervention was the more efficient of the two since it was equivalent in effect to a system that delivers direct grants to schools according to their enrollment. Thus, if a parent transferred his/her child from school A to school B the subsidies would follow the student. This situation causes schools to compete for students, and has precisely the same effect as a voucher system. The

only difference is that with vouchers the government funds are channeled directly through the parents. Thus whereas the final British policy of government schooling created monopolies, the earlier school subsidy policy, if anything, stimulated competition and may well have contributed to the striking growth of schooling in the nineteenth century just outlined.

These considerations from British history suggest favorable verdicts for those developing countries today that have adopted the school subsidy method of intervention. These include Belize, Mauritius and Chile. Since reforms of 1980, Chile, for instance, has been subsidizing private schools to such an extent that they now represent one-third of total enrollments. This is a situation that encourages competition, not only among private schools, but also between them and the public establishments.

Reallocating Resources from Higher to Lower Education:

Lessons from Developed Countries

World Bank literature (Psacharopoulos, Tan and Jimenez, 1986; World Bank, 1995) recommends that developing countries adopt a policy of reducing the public cost of higher education and reallocating government spending toward those educational sectors with the highest social returns (primary then secondary). The policy focuses largely on increasing the fees of university students and at the same time assisting them with student loans. It will be demonstrated here that the policy of increasing fees has distinguished support rooted in classical economics. Secondly it will be shown that the new competition that results from tuition increases is already well in evidence in developed countries. Moreover it has such striking implications for cost cutting that developing areas should be especially impressed with the results to be reported.

Universities: The Continuing Disorders

The costs of higher education per student have been increasing rapidly over the last few years throughout the world and especially in developed countries. To many observers the main reason for the increases has to do with the inefficiency of university organizations. Although educational establishments typically maintain that they alone can eventually produce the best corrective through appropriate internal administrative reforms, Commissions of Enquiry on Higher Education are usually skeptical. The Canadian 1985 Macdonald Commission Report (Vol. II, p. 748), for instance, regretted the lack of dynamism and recovery powers in the educational establishment. In the Commission's words:

We were also concerned that representatives of the [educational] sector itself tended to deal less with how they could help Canadians adjust to a changing world than with how badly they needed more money... Any innovative ideas we did hear about post-secondary education tended to come from outside the sector. Thus we feel obliged to observe that significant problems seem to lie within the sector itself, the combination

of faculty unions, the tendency to draw administrators from within the institutions, an aging and tenured faculty, uncertainty about the role of PSE institutions in society, all combined with a somewhat defensive attitude toward the status quo does not seem to us to provide a healthy situation.

Such frustration with inadequate performance of higher education institutions is long-standing. In the 18th century the main purpose of universities was to teach religious doctrine while philosophy (or science) was taught only as subservient to theology. In the opinion of Adam Smith, the late 18th century improvements in philosophy (science) were typically made outside universities. Moreover:

The greater part of universities have not even been very forward to adopt those improvements, after they were made; and several of those learned societies have chosen to remain, for a long time, the sanctuaries in which exploded systems and obsolete prejudices found shelter and protection, after they had been hunted out of every other corner of the world. In general the richest and best endowed universities have been the slowest in adopting those improvements. (Smith, 1976).

This quotation makes almost exactly the same complaint as that contained in the Macdonald Commission Report namely that innovative ideas and initiatives tend to come from outside the university sector. But Smith goes further. He offers what can be interpreted as a testable hypothesis: beyond some point, the higher the level of endowment (= subsidy) to any university, the lower its efficiency. This hypothesis can reasonably be reworded as follows: The greater the share of the student/customers' tuition fees in the total revenues of a university, the greater its efficiency.

Smith's reasoning can best be understood by considering the consequences of introducing a policy of supplying groceries free of charge to customers while the grocers receive payment from customers as taxpayers via government. Families in such circumstances are not likely to receive their accustomed quality of service from their grocer/suppliers since the latter's incomes are now derived independently of their efforts. Similarly in education "The endowments [subsidies] of schools and colleges have diminished more or less the necessity of application in the teachers. Their subsistence, so far as it arises from their salaries, is evidently derived from a fund altogether independent of their success and reputation in their particular professions." Having attended the particularly heavily endowed Oxford University, Smith spoke from bitter experience: "In the University of Oxford, the greater part of the public professors have for these many years, given up altogether even the pretense of teaching" (Smith, 1976).

From such remarks and others in Smith's Wealth of Nations, we shall assume the following "Adam Smith test": the threshold of tolerable efficiency is reached when the share of student fees in the total operating costs of universities rises to at least 50 percent. The precise choice of a 50 percent minimum can be debated when it is compared to some higher proportion; but it is in the spirit of Smith and will be used as a rough and ready guide for now.

The New Demands of the Global Economy

The central function or philosophy of the classical university was that of providing moral leadership, and the transmission of the heritage and culture of the nation's civilization. Utilitarian instruction such as training for the professions, in contrast, was left to non-university institutions. Professional training in most developed countries today, however, occurs within the public universities. And it probably accounts for more government expenditure than expenditure devoted to the traditional subjects.

It is probably because present demands on higher education in developed countries are repeatedly expressed in terms of the need to keep ahead in the new global economy that the focus of attention has switched to the non-traditional courses in universities. Prominent among these are electrical engineering, business management, industrial management, telecommunications, marketing, computer applications for business, legal principles, financial principles, electronics engineering, digital circuits, digital systems, microprocessors, and so on. The next task evidently is to search for the most efficient method of delivering such technological courses together with professional training generally. It is pertinent, meanwhile, to bear in mind the fact that the new competitiveness in the international economy calls for competition all-round, so that it embraces the institutions that deliver higher education as well as those in other industries.

The Prospects for New Entrants

One aspect of the concept of full competition needs special attention. The term involves full freedom of entry. Suppose a new entrant appears in the form of a private (non-profit or for-profit) university and attempts to compete with state universities. By definition the private institution will be attempting to compete without a government subsidy against a public university that enjoys a considerable one. Table 1 consists of figures that are purely stylistic. The first column assumes that the annual total cost per public university student in a first degree course is \$10,000. Of this \$5,000 comes from tuition and the rest from government grants. The second column shows the total cost and contributions over the three year duration of the degree course.

In order to have a chance of surviving the competition, the private university compresses the three year course into two years. It cuts out the long summer vacation and uses its capital year round. Specific evidence that this is the emerging widespread practice by private universities will be offered below (Sometimes a 4 year course is shortened to 3 years.). The third column assumes that the real annual costs are the same for both public and private universities at \$10,000. Annual student fees are \$7,500 while annual interest on private endowments furnish the remaining \$2,500. The fourth column shows that the total tuition cost of the degree course in the private industry is \$15,000. This is the same as the total tuition cost in the public university (see Column 2). If the degrees are of equal standing it might seem that the average student will be indifferent between them. This is incorrect however because an important variable has been omitted. The public degree involves the student in 3 years of forgone earnings while the private degree costs him only 2 years of foregone earnings. The figures are admittedly crude, but they are sufficient to establish the strong probability that once the public university's tuition rises to 50 percent of annual costs (the Adam Smith test is passed), the possible threshold for new private entrants becomes much more feasible.

Table 1: A Model of Student Costs of Public Versus Private University Education

	Public University		Private University (non-profit or for profit)	
	(1) Per Annum	(2) 3 Year total (undiscounted)	(3) Per Annum	(4) 2 year total (undiscounted)
Total Cost	\$10,000	\$30,000	Total Cost	\$20,000
Tuition	\$5,000	\$15,000	Tuition	\$15,000
Government contribution	\$5,000	\$15,000	Private endowments	\$5,000

The mounting calls for improved efficiency these days are expressed in terms not only of competition but also of the need for "market incentives." The economist will have immediately in mind his/her own models of efficient organizations or firms. But can the typical university be analyzed as a kind of business firm pursuing least cost and maximum profit?

Efficiency in Organization

It is necessary now, very briefly, to apply some simple economic theory. First consider the economist's claim that typical business firms themselves can and do operate efficiently. Such organizations use inputs all of which have prices. This means that the same inputs are useful in other employments or in the hands of competing entrepreneurs. If an existing firm cannot successfully bid away the inputs from the competitors then it will have to yield to others. And if, meanwhile, the firm's output does not satisfy consumers, the latter will transfer their custom elsewhere so imposing further pressure on the firm.

But what about boards of directors and managements? Are they not able to shirk and so increase the firm's costs? For many years numerous observers complained that corporate management held power to make decisions that were contrary to the interests of stockholders. Now, however, it is better understood that management must give due regard to the interests of the shareholders or face the threat of replacement either directly or through a takeover bid. The most

successful firms, meanwhile, encourage profit sharing among top management, a practice that helps its members identify their own fortunes with those of their firm.³

It is interesting now to attempt to apply such economic analysis of the firm to the organization of a university. The moment we try to do this we become aware that the danger of the separation of ownership from effective control is far more serious in the case of the higher education institution than it is with the typical business firm. There is no equivalent, for instance, to the limits imposed on the business firm by the threat of takeovers since the modern university operates in an environment where there is no "market for university shares" a market that would allow others to purchase rights entitling them to participate in management replacements or takeovers.

Safeguards against mismanagement and inefficiency in universities are only indirect and often remote. And although in theory governing boards exist to represent the interests of taxpayer-citizens, in practice the boards of modern universities tend to "rubber stamp" policy actions generated by university administrations and faculties. In practice, therefore, there is little effective external control on the internal authorities that run the educational institutions.

When examined through the eyes of the economist, the university is thus replete with ambiguities. This fact once led two economists, J.M. Buchanan and N. Devletoglou, to conclude that the higher education industry is one in which those who consume its product do not purchase it; those who produce it do not sell it; and those who finance it do not control it. It is not surprising, therefore, these authors conclude, that the orderly processes that seem to characterize standard commercial dealings seem to break down in universities (Buchanan and Devletoglou, 1970).

In the 1990s, of course, the above conclusion needs some qualification. Thus today it is not true entirely that the students as consumers are not purchasers since they do pay tuition fees. But the sense of our two economists' statement is still well taken because, first of all, average tuition fees typically remain well below one-half of total conventional costs. This means that, in most cases the threat that a student may withdraw his or her custom from university A and transfer it to B will not create enormous injury to the losing university. The point is underlined by the observation, just quoted, that education is a service which is produced by those who do not sell it. This means that only relatively weak attempts will be made to meet the preferences of the student consumers. This being so faculties are tempted to offer the sort of product they themselves derive most pleasure in supplying, a product that, in turn, need not meet the desires of those for whom it is produced.

The Neglected Cost of Students' Time

This absence of adequate incentives to meet the ongoing and changing preferences of students is of more consequence than would appear at first sight. It is often overlooked that the cost of foregone earnings faced by students is the largest single cost item in university education (West, 1988), yet it fails to impact properly on administrative decisions in the public universities in both

³ Demsetz reports that an examination of an average of twenty firms, ten in the middle and ten at the bottom in the Fortune 500, reveals that corporate managers owned about 20 percent of outstanding shares (Demsetz, 1983).

developed and developing countries.⁴ This consideration points to another source of inefficiency and high cost in the university system, namely the excessive length of time that many students are often forced to take to obtain first degrees or diplomas.

This problem is widespread throughout the world. Efforts to combat it have not so far been very successful. The Academic Council of the Federal Republic of Germany, for instance, has recently published a report proposing a limitation with a maximum of four years in first degrees. In the Netherlands and Denmark action is similarly being taken or contemplated to reduce the length of first degree courses. But such administrative attempts at solution are not very promising. More reliable is a scenario of increased competition wherein universities have clear incentives to speed up teaching programs. Since, to reiterate, the main cost of education is that of the students' foregone earnings, it might be predicted that private universities, especially, would be better motivated to economize on students' time. Casual support for this proposition appears in Britain where the new private University of Buckingham now operates four terms a year and offers two-year degrees.

More systematic evidence of the better incentive of private universities to economize on students' time, however, has been available for some time. Sisk observes that because the U.S. government funding is linked directly to the number of public university students, university managers divert resources toward enrollment and away from instruction (Sisk, 1981). The result is larger classes, lower admission standards, and less preparation for the classroom by instructors. This implies that the average student has lowered chances of passing a degree of given standard within a reasonable time.

Using the number of student years per degree awarded, Sisk's research covered 20 private and 21 public universities, each divided into high and low quality groups. The high quality private, for instance, included Princeton, Chicago, Yale and Stanford. High quality public universities included Berkeley, Wisconsin, University of Michigan and UCLA. By any measure Sisk's results support his hypothesis. With respect, for instance, to high quality faculty in the Humanities, it takes nearly 50 percent more time for Ph.Ds to graduate in public than in private universities. The example previously quoted of England's University of Buckingham therefore does not appear to be exceptional. The fact is, meanwhile, that if changes can be made to enable students to complete their degree in 50 to 75 percent of the usual time, costs will be dramatically lowered, especially when we take into account the reduction of the students' foregone earnings while at university.

Not-for-Profit versus for-profit organizations

Readers in many countries may argue that discussion here of private for-profit enterprises in higher education is irrelevant since there are none. The next section, however, shows this not to be true. Secondly it will be demonstrated that the time appears ripe for their growth.

⁴ In his estimate of the magnitude of forgone earnings, West accepts the statistical convention that 75 percent of annual earnings are forgone by students, since they are likely to work during the summer (West, 1988).

Almost all of the private universities in Sisk's study can be classified as not-for-profit institutions. But what are their social purposes? One frequently offered answer is that the nonprofit firm is best adapted to those situations where a consumer is incapable of accurately evaluating the goods, or services promised. The consumer will find it better to deal with a nonprofit firm because it will not have the incentive to take advantage of him or her since those in charge are barred from taking home any resulting profits.

Other observers will look for more subtle ways in which self interest continues to operate among suppliers even after an organization has changed formally and legally from for-profit to nonprofit status. Officers in a firm that becomes nonprofit may, for example, still be able to enjoy much of the net revenue ('profit') that is generated. Ways of doing this include inflated salaries and the consumption of expensive work environment privileges including some leisure on the job. Such stratagems are possible because, although the law forbids formal distribution of dividends, it is not likely to check very closely the firm's reporting of its expenses. But with the consumption by officers of perks on the job, costs will increase.

Harvard University is a nonprofit corporation and its board of overseers is voted on by the alumni of Harvard. The board is obviously expected to implement policies favored by existing alumni. As an example the board can be predicted to oppose any decline in the admissions standards at Harvard because such changes could depreciate the value of its outstanding degrees, and this would reduce the lifetime income of the alumni. Similarly the board of overseers may oppose deleting an existing degree program, say in theology, even though it currently has only a few students enrolled, provided that such a program once produced many graduates.

It is arguable, meanwhile, that it is mainly the restriction on the distribution or sale of its assets that enables the nonprofit to remain viable over time and typically to outlive for-profit firms. Harvard University is sometimes quoted as an example because it began operations as early as 1636. It must be remembered, however, that Harvard college was a corporation chartered by the colonial assembly and was clearly understood to be a state-church college. It thus enjoyed a statutory monopoly on religious education.⁵ Since most such colleges received government support, they constituted a hybrid between the private and public nonprofit organizations described above.⁶

When all is said, meanwhile, the for-profit institution is disciplined by important incentives that are closed to both the public and private non-profits. Although these have already been discussed, it will be helpful briefly to repeat the three most important: (i) the constant challenge of the takeover bid; (ii) stockholding in their firm by top management; (iii) employee profit sharing schemes.

⁵ Harvard had no competition in Massachusetts until Williams College was chartered in 1793, and Yale had no competition in Connecticut until 1823 when Trinity College was chartered.

⁶ Harvard College was assigned the Charleston Ferry revenues for 200 years.

The New Corporatization of Universities: World Wide Evidence

We now come to the evidence of such corporate incentives asserting themselves in developed countries' universities. We shall focus on four examples: (i) the U.K. Polytechnics, (ii) the University of Buckingham in the U.K., (iii) the Bond University, Australia, (iv) the DeVry Institutes (in the U.S. and Canada).

The U.K. Polytechnic/Universities

The U.K. Education Reform Act of 1988 took all the polytechnics out of local control and set them up as free-standing corporations, that is companies limited by guarantee. In 1992 they were allowed to take the title of universities if they wished.

The structure of the governing bodies of the "new universities" is modeled on the business corporation rather than on the traditional university senate. It is not necessary for there to be any staff or student representation, although most of the new universities do have elected representatives from these groups. So-called "vice-chancellors" of the new universities are in effect chief executives, with far more direct powers than vice-chancellors tended to have in older universities.

University governing bodies are able to sell property, and borrow money. They are, however, companies limited by guarantee (no shareholders) and must adhere to the purpose for which they were set up—they cannot close the university down and go into an alternative business instead.

Such development certainly places these higher education establishments nearer the commercial structure of business firms. And since they now have more autonomy they are in a better position to initiate and/or withstand increased competition. The movement, however, is only half a step at most towards the incentives of the full market enterprise. The chief limitation is the absence of tradable shares. Such absence, of course, precludes any attempt by others to purchase rights of participation or management and indeed to conduct takeovers. And there is no opportunity for managers to "buy into the firm" with personal shareholdings. Meanwhile much funding still comes from the state and there are still considerable regulatory powers exercised by government.

The University of Buckingham

Buckingham University began in 1976 and was awarded a Royal Charter in 1983. It is Britain's only independent university and has never received funding from government. Students pay fees that reflect most of the real cost of their education.

Having to compete without a government subsidy against state universities that enjoy substantial ones, Buckingham had to explore every avenue to cut costs. It discovered early on that its most important innovation was its introduction of the two year degree. This is another case like those demonstrated by Sisk, mentioned above, where private universities have incentives to economize on student's time and foregone earnings. It has recently been observed that:

The two year honors degree has emerged as the truly radical and innovative feature of the Buckingham experiment. By abolishing the long summer vacation, an historical relic which has no academic justification, and replacing the three-term academic year by four terms of ten weeks' duration, it permitted the Buckingham student to cover the same ground as he or she would normally encounter in the more conventional three year program. (G.K. Shaw and M. Blaug, 1988, quoted in Clarke 1992.)

Clearly the University of Buckingham has had to fight harder to survive than have the polytechnics since the latter have been receiving central government support. But the same legal or structural limitations apply to it as to the polytechnic/ universities. Since it also is a company limited by guarantee, there are no shares and therefore no available market disciplines such as potential takeovers. As well there are no managerial incentives such as special remuneration via share allocations that give managers a stronger personal vested interest in the success of the enterprise.

Bond University, Australia

Bond University in Queensland, Australia is a private non-profit company that began operating in 1989. The land and building costs were approximately \$186 million and were covered by a joint venture between Bond Corporation and the Japanese company EIE-International. In addition some \$95 million was provided as a loan to help with fitting out, equipment and running costs for the period 1989-1992 inclusive. These funds were sourced in Japan and further flow was terminated as of January, 1993. Although undoubtedly a setback for Bond University the signs are that its reorganization and economies are now succeeding.

Almost the whole of Bond University's operating revenue now comes from student tuition fees. There is no financial subsidy from government. Enrollments, nevertheless, have reached a record in 1995. Total enrollment is now 1815 students of which 542 are from overseas. Enrollment is expected to grow to 3000 over the next five years.

Despite the relatively high tuition, students are attracted for several reasons. First, the university has among the best student facilities in the nation and the best student/staff ratio (ten to one). The university claims that, to date, the overseas students have generated more than \$34 million in export income. Another important reason for its popularity is that it works on a three semester per year system, rather than just two, as in the public universities. This allows fast tracking. Students may complete most bachelor's degree courses in two years if they so desire. The university claims that a typical Bond overseas graduate can start work 16 months before a typical government university graduate. It is also claimed that over 90 percent of graduates go straight into career employment or on to further study.

Bond University is a member of the Association of Commonwealth Universities and the Australian Vice-Chancellor's Committee. The University's courses are accredited by several professional associations.

The DeVry Institutes

With the DeVry Institutes we have the most striking example of a for-profit organization in higher education. About 27,000 high school graduates are now attending one of DeVry's 13 campuses in the U.S. and Canada pursuing associate and bachelor of science degrees. Typically they specialize in fields such as electronics engineering technology, computer information systems, business operations, accounting and telecommunications management, the very subjects that are relevant to a country's need to keep ahead in the new global economy. Another 3,000 students earn their M.B.A.s or other graduate degrees at the 17 sites that are maintained by the associated Keller Graduate School of Management.

DeVry is a publicly traded company (Nasdaq:DVRY) charging U.S. \$3,000 a semester in tuition, or \$24,000 for a B.S. This is almost half what a B.S. costs at some big U.S. state universities and about a third what it can cost at a U.S. private college. Since going public in 1991, DeVry has been entirely independent of tax subsidies and private donors. The value of its shares has risen from \$8.5 in 1991 to \$38.5 in April 1995.

Other commercial groups are not far behind. Apollo Group is parent company to the for-profit University of Phoenix, which focuses on adults who need to complete degrees or get new skills. Apollo filed for an initial public offering in September 1994. ITT's education division, which offers technical associate degrees, is also considering a public offering soon. DeVry's June 1994 fiscal year net profit was \$12.2 million, up 30 percent from the previous year, on revenues of \$211.4 million. Net income was up 21 percent in the first quarter, ended September, from last year's first quarter. DeVry's second public offering in 1994, consisted of 1.8 million shares at \$22 a share.

Until very recently in the U.S., any institution declaring itself "for profit" was automatically denied accreditation—the seal of approval required for it to receive student loans and grants. That rule has been dropped, and in 1977 DeVry's Keller Graduate School of Management received national accreditation. Accreditation for DeVry followed in 1981.

Two trends are working in DeVry's favor: demographics, and the high costs of traditional colleges. As of 1995 more individuals are graduating from high school each year, a rise that is expected to continue at least through the next decade. Like the University of Buckingham, DeVry keeps costs down by operating year round. And just as in the case of U.S. private universities, Buckingham University and Bond University, DeVry makes every effort to economize on students' time. Thus the DeVry student is able to graduate in three years instead of the traditional four. For students from families of modest means the resultant savings are substantial.

DeVry has an edge over other institutions also in its excellent record of job placement. The company's 1,900-person full-time staff includes over 100 placement officers. Employers like Hewlett-Packard, U.S. Robotics and the accounting firms Price Waterhouse and Deloitte & Touche work closely with DeVry faculty to help shape the curriculum. Ninety percent of DeVry graduates have jobs in their field within six months of finishing.

The DeVry institutes clearly pass the Adam Smith test since student tuition fees amount to over 90 percent of total revenues. And because the organization is accredited by an agent recognized by the U.S. Department of Education, its clientele qualify for government organized

student loans. Moreover the record of loan defaults among its students is well below the national average. The availability of these educational loans partly explains why the students can pay tuition that constitutes over 90 percent of the total cost of their education. The other part of the explanation, of course, has much to do with the students' saving of the considerable opportunity costs of their forgone earnings, a saving that at minimum must be about \$12,000 when a four year course is compressed to three years.

Student Loans

The need to improve the student loan system is urgent and some developed countries are now making far reaching improvements. Three countries Australia, New Zealand and Sweden have established what are called income-contingent loan systems under which the debtor is not committed to repay an open-ended proportion of his/her future income. Instead, the loan is repaid as a predetermined fixed percentage of post-graduate income above a certain threshold. Income-contingent loans thus limit the extent of debt burdens in a given year and substantially extend the repayment period compared with the 10 year mortgage type loans that have been typical hitherto. For these reasons the barriers to lower-income students are significantly reduced.

Countries with fairly long experience with student loans of the mortgage type, have found that the default problem looms large especially where governments rely mainly on banks and special departments or quasi-public institutions to monitor and police the student borrowers. In consequence, countries in the forefront of reform are now making use of the income-tax authority as the preferred loan collection instrument since it has ready information about the current location and income of each student or ex-student. These countries include the U.S.A. (partially), Canada (partially), New Zealand (fully) and Australia (fully). Meanwhile it is predictable that because short-term mortgage loans with fixed annual repayments are too inflexible for student needs, they will encourage early defaulting. For this reason the logic of the income-contingency loan principle, first advanced in the 1950s, seems now to be increasingly appreciated.

Conclusion

Our point of departure has been the urgent call, emphasized in the current debate on universities in developed countries by many contributors, for the strengthening of their role in the new global economy. It has been assumed that the areas of higher education that are deemed most relevant to this role consist of technology and professional training. On a conservative estimate these sectors currently account for over one-half of total government expenditures on universities. The remainder of the expenditures covers the traditional provinces of higher education, areas such as the arts and humanities. These have been reserved for separate treatment and discussion in the future.

Complaints about the efficiency of university education have been shown to be centuries old and indeed some of those expressed, for instance, by the Macdonald Commission in the 20th century are echoes of those to be found in Adam Smith's Wealth of Nations published as long ago as 1776.

Current demands for greater efficiency in university delivery come from several perspectives. The approach taken here has started from the basic concepts of efficiency that are familiar to economists. This has involved the comparison of the typical university with the ordinary business firm. And whereas the latter has been criticized for incurring the separation of ownership from control, the finding here is that the criticism can be more appropriately applied to government supported universities.

The opportunity has also been taken to explore the incentives facing the nonprofit private university and to examine the basic rationale for nonprofit organizations in general. And to complete the analysis, the incentives facing for-profit organizations have also been fairly thoroughly reviewed. We have demonstrated a world-wide trend in higher education towards what can be called 'corporatization'. Many faculty members in universities will, no doubt, recoil from such a term. It can be pointed out in response, however, that the world's most prestigious universities such as Harvard, Yale, Oxford and Cambridge, are private corporations and have been for a very long time.

One of the most interesting results of our search among organizational types in higher education has been the finding that higher educational establishments with no government support whatever offer degree courses that are completed in much less time than those in the public universities. This result occurs in institutions from Harvard, down to the private for-profit technological universities. Another interesting finding is that successful for-profit universities, such as DeVry, incorporate all the efficiency incentives associated with the prosperous business firm, including managerial and employee participation in stockholding and disciplines that face companies with shares exchangeable on the stock market.

The concentration of our analysis has been upon university first degrees and because such education is not typically coupled with original research, this subject has not been touched upon here. Research is, of course, an important topic and one that is also relevant to the needs of the country in a global economy. But research is, and can be, conducted in a wide variety of places. And considering that universities increasingly favor industrially sponsored applied research, they are dealing with many activities that ultimately expand the profits of the corporate sponsors. The case for taxpayers supporting such research is therefore much weaker. Moreover there is no reason why much sponsored research cannot be contracted with a variety of institutions including the for-profit universities.⁷

The evidence shows that for-profit higher education institutions can deliver their courses at much less cost than others. And despite the fact that the share of tuition in total costs is well over 90 percent, they have already succeeded in gaining a firm threshold in North America. As the fees in public universities are increasing significantly, the relative price of universities such as DeVry are falling substantially. Meanwhile, more efficient student loan systems are opening up access for a much wider set of students. It is easy to predict that the increase in access in the next few years will

⁷ About 30 percent of the graduates of DeVry university proceed to its M.A. degree program conducted in the U.S. and research is more associated with such higher degrees.

be disproportionately experienced in the for-profit sector, a sector that by all accounts here will constitute an important wave of the future.

What then, following this review, are the new "solutions" one can recommend for the developing countries? The list is as follows:

- (1) Any international assistance to higher education should create incentives to the universities to economize on students' time. This can be done for example by compressing the duration of a course from four to three years.
- (2) The for-profit structure of enterprise should be encouraged.
- (3) Tuition fee contribution to total costs should exceed 50 percent.
- (4) Occupational (job) counseling for students should be improved and this can be facilitated by closer liaison between universities and potential employers.
- (5) The collection function within student loan systems should be allocated to the income tax machinery wherever possible.
- (6) Student loans should be changed from the mortgage type to the income contingent type.

These recommendations are made in the light of the advice that developing countries should reduce the cost of higher education so as to reallocate government spending towards the primary and secondary education sectors, the sectors with the highest rates of return. But after what has been said of the advantages of competition via some sort of voucher system, or a system of subsidies to schools according to enrollment, it would be inconsistent for this paper to maintain that the expected surpluses from higher education reform should be allocated to a school system of the old sort wherein monopoly and the absence of parental choice still rule the day. Education without the state altogether might be preferable to such a scenario. Yet education with the state, where the latter acts mainly as a provider of educational vouchers to the poor, spendable exclusively on the schooling of their choice, could well be the best of all available future scenarios.

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