CHAPTER 23

Globalization, Public Policies and Higher Education

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INTRODUCTION

Globalization and the attendant emergence of the global knowledge economy are exerting tremendous pressures on universities around the world and reshaping some of their basic assumptions and activities. Although the size and shape of higher education systems differ considerably among nations, university-based research innovation and advanced technical and professional programmes are viewed as a key competitive resource in the rapidly emerging global knowledge economy. Universities long viewed as "ivory towers" are increasingly recognized as "oil wells" of the new economy. In some respects this recognition is more strongly held within the corridors of government and the boardrooms of our corporations than it is within our own academic community. Indeed, the impact of these external pressures to serve as an engine of innovation and economic development on the integrity of the academic enterprise remains unresolved.

The combined effects of pressures to expand research capacities and to prepare human capital suitable for the knowledge economy have had profound effects on funding sources and strategies of individual higher education institutions and on the missions of the array of institutions within a nation. For large comprehensive research universities, in particular, the support of a complex infrastructure and of specialized scientific personnel incurs enormous costs, and requires multiple sources of revenue as well as decisive budget reallocations. The extraordinary level of resources needed to sustain a comprehensive research university has necessarily restricted this mission to a limited number of institutions and others have had to focus on a narrower mission and a less expensive infrastructure.

At the same time, concerns about the quality and scale of the professional and technical skills of the labour force as a whole have affected all levels of tertiary education and have created additional pressures that have increased the differentiation of institutional missions. These pressures are keenly felt in the United States, even though many elements of mission differentiation were already well established there at the end of the 19th century. It is highly likely that a range of mission specific institutions rather than a single traditional model of a university will meet the challenges of research intensification, and that some combination of public subsidy and individual responsibility will be necessary to support broad access. How these issues will be worked out will, however, vary from country to country.

This reshaping of higher education is visible in a diverse array of institutional issues and national and international policy concerns. Many national policy issues are now preoccupied with the link between the capacity and quality of higher education and international competitiveness, and higher education has now become a component of negotiations about world trade. This essay outlines the major policy issues faced by higher education in confronting the rapidly changing global landscape and in charting a course that will enable institutions to thrive in this new environment.

GLOBALIZATION AND MISSION DEFINITION

This connection between the global knowledge economy and higher education is most emphatically demonstrated in revenues, linkages and capacities of large comprehensive research universities. One of the decisive elements of their impacts and reputations is the international visibility of their faculty, students, programmes and research. For long it was assumed that most, if not all, universities would necessarily and definitively be research institutions, but the escalating costs of facilities and talent have limited in varying degrees that aspiration. I estimate that the resources necessary to support a comprehensive research university with a medical centre are now approaching $2 billion, with perhaps less than 20% of that amount derived from state tax revenues. To be sure, in the US federal research funds often account for at least 30% to 40% of their revenues, but these funds are obtained competitively, usually by individual scholars or research teams. Research universities have not only built significant endowments capable of providing both insurance and supplementation of external research funds, but they have also built and modernized their infrastructure largely with private gifts. In 2002 about 10 US universities had annual operating revenues exceeding $2 billion, about 55 exceeded $1 billion, and about twice that number have revenues of about $0.5 billion.

While I am sceptical of the value and accuracy of many rankings of research institutions, the presence of so many US universities at the top of these rank-

ings is in fact a result of the concentration of large scale research support on a small number of the total number of universities. Of course, there are many less visible and perhaps more creative examples of institutional adjustments to more limited resources by defining more strategic missions. Some universities have created their own specific niche with a more limited range of research capacities that focus on specific regional needs or a narrower range of expertise. Community colleges and predominantly undergraduate institutions are now attracting a growing share of foreign students primarily because they focus on adult students with specific needs for short-term professional programmes. The overall result is a higher education network with differentiated missions which are increasingly based on varying capacities to combine different sources of revenues to meet a defined mission. While this differentiation of mission provides considerable flexibility in responding to the needs of the global knowledge economy, it also creates both real and imagined concerns about the need for quality assurance and especially some capacity to demonstrate student achievements in a standardized fashion.

These changes in higher education have proceeded further in the US than elsewhere, but I do not assume that they will necessarily occur elsewhere. The continental scale and diversity of higher education in the US, combined with a specific and perhaps unique set of public policies, have intensified these developments. In other settings the belief that all universities should offer doctoral degrees and proclaim a comprehensive research mission makes it more difficult for them to focus resources on a specific set of institutions. While many other nations are also experiencing these same challenges of combining expanded access with enhanced research capacity, they are doing so with a much more limited range of institutional missions than in the US. The resources, rankings, reputations and unambiguous measures of research quality and productivity will continue to define a limited number of universities that will not only dominate higher education nationally and globally, but also will provide the underlying scientific structure of the knowledge economy. There will also be a wide range of opportunities for institutions with a national or regional reach and with a more modest resource base to engage in the internationalization of curricula and the global recruitment of students and staff. Certainly, the international reach of US higher education over the past half-century was built upon the availability of a range of institutional missions, and as we enter this new global role of higher education, this diversity may well continue to be an asset.

INTERNATIONAL STUDENTS

This international setting of higher education is clearly founded on a world economy that is based on technical innovation and accelerated communica-

tion. The international movement of students and scholars was the earliest expression of these conditions, and today it continues to be the most visible expression of the global nature of the higher education enterprise. The uneven capacities of different nations to provide access and enhance research has generated a rapid expansion of students seeking their education abroad. It has also stimulated a significant "brain drain" of not only students but also scholars and highly qualified professionals from developing nations to economies with higher capacity and more favourable remuneration. As part of a strategy to seek new revenues and enhance prestige, almost all research universities in developed countries (and some in less developed countries such as China) are engaged in efforts to promote and expand the number of international students. This desire to participate in the international market for students and scholars suggests that some aspects of a market based search for revenues have spread far beyond the US.

The recruitment of foreign students now represents an arena of international competition among nations on behalf of their universities. Originally, national support for international students and scholars was based upon cultural and political motives largely designed to extend knowledge about and the influence of specific nations. During the Cold War, these motives were clearly given high priority and received substantial state subsidies. Over the past decade or so, the revenues from foreign students and the economic advantages of highly qualified immigrant scholars have largely displaced the older cultural and geopolitical motives of the Cold War era.

By the end of the 20th century, there were approximately a half-million foreign students in the US representing about 4% of total enrolments, providing over $12 billion of foreign expenditures and representing the 5th largest service sector of the American economy. About two-thirds of these revenues were derived from payments from students and their families and about three-quarters were derived from outside the US. Clearly almost all foreign undergraduates and professional students were sources of revenue, but many postgraduates were supported by universities or foundations. As students, postdocs or researchers, they directly contributed to the talent pool that makes possible the ongoing information technology and bio-technology revolutions within the US economy.

Throughout the last decade of the last century, the number of foreign students in the US increased by 30%, but during the same decade a more competitive environment was created as the UK, Germany, France and Australia became leading destinations. Canada also became a major destination of foreign students, the numbers growing at a faster rate than the US and representing much larger proportions of their student bodies. Clearly, in a multi-lingual world, English became the "imperial" second language and gave English-speaking countries a great advantage in this expanding international market.

For several reasons, the geography of these international student movements has shifted, but changes in their long-term magnitudes are still unclear. Security precautions related to terrorism have certainly impacted the flow of foreign students to the US. In the short run, total student numbers did decline, but data since 2004 indicate that this trend has been reversed. Nevertheless, it is highly unlikely that the rate of growth of the 1990s will ever be re-established. Much of that growth is now distributed to other parts of the world and the increased availability of English-language programmes in continental Europe will no doubt increase Europe's attractiveness.

While national governments may continue to provide some incentives for foreign students, increasingly it is expected that universities themselves will create strategies to recruit students who will be expected to pay tuition and living expenses, while other students will be viewed as potential additions to the talent pool of the knowledge economy. Reflections on the shifts in the destinations of foreign students now emphasize variations in tuition levels. High tuition as well as visa problems are often cited as reasons why students do not choose to attend US universities. The growth of this international market may also be influenced by the development or expansion of indigenous university systems in several countries that are currently sending large numbers of students abroad. Some parts of this market will also be met by for-profit providers either by establishing commercial sites within other countries or perhaps by means of remote delivery.

CROSS-BORDER PROGRAMMES

While the movements of foreign students and scholars are well documented over the past half-century, the development of cross-border projects and programmes and off-shore campuses and instructional programmes are of relatively recent ancestry. Many ventures of this kind are short term and others are still in an experimental and innovative mode. Research and training programmes, including for example non-academic programmes such as training civil servants in the target country, are perhaps the most established and also the most ephemeral of cross-border programmes. Generally, states, foundations and higher education institutions have supported these cross-border activities for a specific purpose and for a specific time frame and they are frequently vulnerable to shifts in budgets and priorities. Nevertheless, longstanding collaborative relationships between institutions in different countries did result in the transplantation of programmes initially taught by visiting scholars from the host institutions, but later sustained by local scholars who were either trained in the host institution or were early products of the transplanted programme. Most of these projects were based on bilateral relationships between a host institution in a developed economy and a nascent organization in a developing country.

The development of off-shore campuses and degree programmes represents a relatively new form of international activity. Led by the UK, Ireland, the US and Australia, many universities offer a professional degree, often executive business administration programmes, in several countries. Indeed about one-third of all off-shore ventures offer a degree in only one subject. These programmes were developed by the sponsoring institution, often were staffed by their faculty and occasionally involved some small engagement at a partner or host institution. In some cases, qualified local professionals participated in the off-shore delivery, but for all intents and purposes, the off-shore facility was a branch of a well known institution with a global reputation. Some sponsoring institutions strategically decided to offer more than a single programme or course of study, to provide a wider curricular array of their offerings by establishing full "branch" campuses. Under these circumstances, the infrastructure and staff may be provided by local governments and/or local educational institutions creating complex partnerships that extend from bilateral collaborations to franchise type validation of instruction provided by a local campus.

In some settings where it would take several decades to develop a modern university system using only local providers, governments have provided incentives for a variety of off-shore developments. Singapore, Qatar and Dubai are perhaps the most highly publicized examples of combining local developments with imported enterprises. Government policies vary in their receptivity to off-shore investments and promotions, and India and South Africa in particular have been more cautious than China and South-east Asia. The majority of off-shore programmes are delivered in English and consequently English-speaking countries have provided the largest proportion of the off-shore developments. Of 80 ventures in place in 2006, about a half were connected to US institutions, 12% to Australian and 5% each to the UK and to Ireland. As noted, most European nations have begun to offer their home programmes for foreign students partly or completely in English in order to compete more effectively in a world in which English has become almost all nations' second language. Eventually these programmes may be as suitable for off-shore development as those with origins in the English-speaking world.

The full impact of instructional technology on higher education is hard to determine within nations and it is much more difficult to assess in its transnational or cross-border form. Distance delivery accounts for an extremely small proportion of current international delivery, but clearly has enormous potential. For-profit providers may have the largest ventures of this kind, along with the producers of standardized tests for university admission. These developments have aroused concerns about quality control and concerns about the impact of such programmes on national cultures. Over the past decade, the shift from international movements of students to the development and delivery of education both off-shore and across borders has now engaged international policy-makers.

INTERNATIONAL POLICY ISSUES AND CROSS-BORDER EDUCATION

While the scale of cross-national for-profit investments and the expansion of distance delivery across borders are still small, the rapid growth in the number of international students and the increasing complexity of educational delivery have aroused the interest of national governments and several international trade organizations. Indeed, a new language of macro-economics has gradually replaced the more vernacular language of higher education in describing the new complexity in the delivery of programmes in an increasingly internationalized higher education market. Long established movements of students, faculty and staff for the purposes of visits, exchange or even migration is described in the language of trade as "consumption abroad". The term "commercial presence" describes the physical movement of the provider to the target country, as illustrated by branch campuses or franchised agreements with indigenous universities. Remote delivery is referred to as "cross-border supply". Perhaps the significance of this new language is not in its ready or immediate acceptance, but rather in the degree to which international trade organizations have attempted to reduce these connections to a model of international trade susceptible to the same kinds of negotiation as other service sectors.

The GATS and WTO negotiations with respect to higher education have attracted the interests of UNESCO, OECD and the EU. Paradoxically, at a time when market pressures on higher education have resulted in reduced government regulation, the expansion of international markets in higher education may provoke new sources of regulation. Certainly, the major concern of trade negotiations is to remove impediments to commerce, but at the same time they raise questions of quality assurance, customer rights and transferability of courses and programmes. All efforts to manage international movements of students and of programmes will have to confront long established national differences in the delivery and funding of higher education. Issues of transferability and mutual acceptance have been mediated at the institutional level, and the value of internal student exchange was derived from differences in national experiences. In short, the individuality of higher education systems gave added value to the student exchange. Transferability and recognition need not be based solely on identical standards and procedures.

These international negotiations address critical issues and may well provide an appropriate framework for some aspects of the off-shore delivery of higher education that remains in its infancy. Direct negotiations among higher education institutions or between governments and foreign providers may also be necessary. Variations in the relationships of higher education to national governments will also complicate these efforts. These relationships vary from systems that are an integral part of a national government to those

which, like the US, are more directly connected to regional-state governments with varying fiscal policies. In some countries, universities retain considerable levels of autonomy and the national government provides legitimacy to regulatory policies that are administered by non-governmental entities. Consequently, specific trade issues may engage different negotiating entities in different countries. It is critical that appropriate representatives of higher education in different countries communicate directly with each other and with their governments on matters subject to international negotiation. This consultation is especially critical whenever the impacts of trade negotiations with respect to higher education are inextricably linked to other unrelated but strategic sectors of the economy that are concurrently under negotiation.

While there is a primary concern with quality assurance and related issues, negotiations will also need to consider the special concerns of small nations where the preservation of language and culture may be a critical function of higher education. In addition, negotiations will need to be sensitive to the fragile public higher education systems of less developed countries which will be especially vulnerable to any new external sources of competition. Certainly, the expansion of for-profit providers and the remote delivery of some programmes will make inevitable and desirable some kind of negotiated standards of quality and transferability. These complex international negotiations with respect to higher education represent one measure of the degree to which universities are viewed as instruments of national or regional economic interests whether they remain predominantly public in structure, more independent and market based in their revenues, or for-profit.

PUBLIC POLICY AND INTERNATIONAL 'COMPETITIVENESS'

It is more likely that agreements directly negotiated from within the international higher education community will influence the future directions of international linkages in higher education. Most institutions now function in a national policy environment that emphasizes the goals of facilitating access and enhancing quality. Higher education policies are now directly connected to concerns about scientific and technical capacity needed to compete in the global economy. In the US a growing sense of the responsiveness of the EU and of several Asian nations to these issues of capacity and quality has provoked sustained discussions about the needs and challenges of higher education under conditions of international competitiveness.

What was once regarded as a great success in opening college level education to the vast majority of high school graduates is now the subject of doubt and much critical scrutiny. For the past half-century, national policies have called for expanding access to higher education initially as part of an effort to "democratize" society and sustain social mobility. More recently, this drive

has been more precisely expressed as a need to create the level and kind of human capital necessary to cope with and to compete in the global knowledge economy. It is this shift of purpose that has now raised many issues with respect to the quality of expanded access.

As noted earlier, having a differentiated system of institutions helps accomplish both goals by expanding access and promoting quality as defined by institutional mission. In the US comprehensive research universities became the dominant setting for such global activities as receiving foreign students and initiating off-shore programmes. They were also the primary source of knowledge transfer and of programmes capable of providing sophisticated professional and technical practitioners. More recently, however, the need for a broader and larger supply of technically skilled practitioners has shifted attention to concerns about the uneven quality of not only secondary schools but also undergraduate programmes as well. This anxiety has focused on the pipeline of students in the so-called STEM (science, technology, engineering and mathematics) fields.

This process of widening access began earlier and proceeded more rapidly in the United States than elsewhere. The first surge of enrolments comprised service men returning from World War II who were assisted by grants in aid for tuition and expenses authorized by the "GI Bill of Rights". This commitment to expanded access was also sustained by high levels of per-student support from state taxes in order to maintain low tuition at public institutions. The availability of grants to support the total costs of higher education at both public and private institutions made it possible for students to graduate with little or no debt. These assumptions began to collapse during the past two decades as the sheer success of the access initiative created a huge entitlement obligation that conflicted with other public needs in a political environment of tax restraint. Irrespective of any need for inflationary adjustments to individual grants, the increase in the number of eligible students placed an unsustainable revenue challenge at a time when tax levels and tax reductions became a key political issue. With respect to access, the US no longer leads the way in financial aid policies, and Australia and England are currently involved in procedures more creative than those in the US.

This debate about levels of state support has coincided with concerns about the performance of higher education as a whole. While the discussion began with criticisms of the undergraduate programmes of comprehensive research universities, it is now a more general concern with the quality of undergraduate programmes in many different kinds of institutions. Policy discussions of access and quality tend to focus on the measurement of current outcomes and only rarely explore the potentialities of innovative and experimental programmes. Indeed, public policies designed to connect investments in higher education to precise and standardized levels of accountability may inadvert-

ently drive innovative and customized approaches to learning to the independent if not the for-profit sector. In the past, poorly designed instruments of accountability have discouraged experimentation, and much innovation in higher education is funded with private sources of revenue.

It is also clear that increased access to higher education results in higher variability in the time it may take students of different aptitudes to complete a programme. For many students completion of a programme may occur within the context of adult education. While minimum standards are critical to establish appropriate preparation for higher education, we should be seeking multiple models of delivery that meet a widening variety in the pace of and kinds of learning. Indeed, increased access of the magnitude proposed to meet the demands of the knowledge economy will depend on our ability to deliver high quality education in multiple ways.

NEW CONFIGURATIONS

Comprehensive research universities are without question the nodal points in the global network of higher education. Clearly national policies or market processes will place limits on the numbers of this kind of university. Formula-based state or national appropriations alone are insufficient to meet these new demands, and funding from research agencies and foundations, philanthropy and endowments are critical to sustain a comprehensive research mission. Indeed, many observers now recognize that the advantages in funding and governance of independent universities will make it possible for them to respond to global challenges more effectively than the very best public institutions. These resource advantages also make possible alliances of similar institutions worldwide, and these networks, partnerships if not eventually mergers may come to resemble multi-national enterprises so prevalent in other segments of the private sector. Alliances of institutions at home and abroad with diverse missions and limited resources will require greater ingenuity, but these more complex alliances and networks will be more critical to the resolution of many issues of access. Global research institutions will need to be sensitive to their role in meeting the needs of students drawn from all social strata and ensure that their research agenda also addresses long-term social and environmental problems.

In the past reputations were built upon place specific institutions that served hinterlands of varying sizes and complexity, but in the future networks of either similar or dissimilar institutions are more likely to be the unit of activity. Increasingly, the desire of foreign students to remain connected with the institution from which they received their degree has created a resource upon which international collaborations are built. Alumni networks have become a component in institutional international strategies. For long, the

recruitment of foreign students was largely accomplished at the department or programme level and only rarely were there institutional or inter-institutional initiatives. In a more competitive environment, there are not only state-based initiatives, but also joint efforts of the departments of State, Commerce and Education to facilitate student recruitment. Within universities the role of Deans of International Studies has expanded to embrace a more strategic approach to academic partnerships that were for long as numerous as they were fragmented. The global extent and means of connectivity of these networks remains unclear, and it is an open question as to whether traditional university structures are flexible enough to facilitate these developments.

Perhaps the most challenging aspect of these new opportunities for global connectivity are based upon the availability of "open" software and course materials as well as the digitization and ready availability of the contents of most research source materials including entire academic libraries. Place-specific or place-bound scholarship has defined higher education since the invention of the printing press, and the recent digital communications revolution has in many respects enhanced the relative advantages of the most established and successful comprehensive research universities. The next phase in the communications revolution may redefine or undermine some of those advantages and make possible the development of rival learning delivery systems.

Under these circumstances should we assume that higher education in each country is on a convergent course towards some common outcomes of structure and delivery? Like medical care, higher education has not participated in the major productivity gains of many service industries largely made possible by the information revolution. While the globalization of higher education will without a doubt be a source of convergent developments, particularly among comprehensive research universities, in many other respects, it is possible that public policies and revenue structures will vary and result in a great deal of variability in innovation.

Clearly, the demands of research capacity and human capital development have created challenges of revenue and in turn a search for alternatives to public revenues. These developments have also focused attention on the cost effectiveness or efficiency of higher education. Future debates about the funding of higher education will continue to engage both the allocation of costs and also the legitimacy of those costs and at the same time there will continue to be pressures to find new revenues. These debates about public policies with respect to higher education do seem to transcend national boundaries. International competitiveness may be the driver of the kind of innovations necessary for the fulfilment of the vision of research intensification and mass access.

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