INTRODUCTION: WORLD-WIDE HIGHER EDUCATION

Higher education is situated in a transparent information environment in which words and images flow freely, borders are routinely crossed and the systems and institutions are continuously whirring. Arrangements and identities are conditioned by history and some appear more solid than others. But no project in higher education is its own final point of reference. The future has never been more open.

There has been a great change in the last two decades. It is about the global. We begin to imagine higher education as a world-wide convergence: not as a unitary 'global system' but a more complex combination of (1) global flows and networks of people and institutions, ideas, knowledges, technologies, finance; (2) national higher education systems shaped by tradition, law, policy and funding, and by equalities, competition and differentiation; and (3) single institutions operating at the same time in the local, national and global dimensions. Especially in research-intensive universities, the most globalized institutions, the ultimate horizon of perspective is the planet itself. Within that global horizon individual, institutional and systemic agency are continually being made and self-made, in encounters with diverse others and in reflexive negotiations with locality and with self.

If world-wide higher education is integrated it is an imperfect integration. There are ever-changing patterns of engagement; unevenness between sites in capacity and the use of common goods; zones of autonomy and more-or-less separation, and stable and unstable hierarchies. Relations are structured by both cooperation and competition. There are fecund mutual influences, doggedly persistent differences and often surprising similarities of approach across borders.

Bourdieu's theorisation of the 'field'. This bounded, fragmented, complex, contested, hierarchical, product-making, subject-forming, constantly transforming world-wide arrangement; with its malleable rules, discourses and exchanges; recalls Bourdieu's (1984; 1988; 1993; 1996) notion of a 'field of power'.

Bourdieu develops 'the notion of a field, understood as a space, that is, an ensemble of positions in a relationship of mutual exclusion' (1996, p. 232). A field of power is a social universe with its own laws of functioning. It enjoys a degree of autonomy, to the extent that it holds off external determinants and is driven by its own internal logic. Within the field agents compete for resources, status or other objects. There is inter-dependency between the prior positions of agents and the 'position-taking' strategies they select. 'Every position-taking is defined in relation to the space of possibles which is objectively realized as a problematic in the form
of the actual or potential position-takings corresponding to the different positions’ (Bourdieu, 1993, p. 30, his emphasis). Position-taking is the ‘space of creative works’ (Bourdieu, 1993, p. 39). This is not an open-ended free-wheeling creativity. Only some position-takings are possible, identified by agents as they respond to changes in the settings and the moves of others in the competition game. Agents have a number of possible ‘trajectories’, the succession of positions occupied by the same agent over time, and employ semi-instinctual ‘strategies’ to achieve them. Agents respond in terms of their ‘habitus’, their acquired mix of beliefs and capabilities, and in particular their ‘disposition’ which mediates the relationship between position and position-takings (pp. 61-73). Bourdieu asserts reciprocity between structure and agency. ‘Although position helps to shape dispositions, the latter, in so far as they are the product of independent conditions, have an existence and an efficacy of their own and can help shape positions’ (Bourdieu, 1993, p. 61). The scope for the self-determination of agents, ‘the scope allowed for dispositions’, is variable, being shaped by the autonomy of the field in relation to other fields, by the position of the agent in the field, and by the extent to which the position is a novel and emerging one, or path-dependency has been established (p. 72).

Bourdieu’s theorisation of ‘field’ was not prepared for world-wide higher education and does not constitute a perfect analytical blueprint. Arguably there is insufficient space for agency and especially for conscious imagining and creativity in Bourdieu’s conception. He sees freedom as mostly bound a priori by class power and resource distributions installed in the unconscious and expressed in instinctual responses in the competition game. This leads to an under-discussion of the potential for endogenous changes in the structure of positions in the field, which is mostly read as a reflection of economic and political forces outside the field. Bourdieu is too quick to universalise competitive behaviours and underplays cooperation, mutual assistance and the ‘gift economy’ (Kenway et al., 2006) which does not fit with his ‘academic capital’. There is insufficient discussion about how knowledges are constituted (Naidoo, this volume) and function as tools of differentiation and power. Above all his field of power is nationally-bounded and misses the plasticity, mobility, volatility and disjunctiveness that characterize global relationships (Appadurai, 1996; Marginson, 2007b). Nevertheless, the notions of a bounded field of higher education with a relative autonomy in relation to external influences, and the interplay between position and position-taking, are illuminating and have helped to shape this chapter. Likewise Bourdieu’s insights into the internal structure of the field of higher education, with its sub-fields of elite cultural production and mass commercial production; and his understanding of the credentialing function of education institutions and the scarce and differentiated cultural capital they create, have fed into the discussion of market competition.

This Approach of This Chapter

When surveying the complex terrain of world-wide higher education, any synthesis is partial. We choose a particular angle, or a selected and managed plurality of angles, from which to illuminate the whole. This chapter discusses higher education in terms of a new and emerging architecture of world-wide relations of power in the sector. It does so by drawing together two analytical frameworks, with origins in political philosophy and global sociology respectively. One framework is the distinction between public and private goods (Marginson, 2001a). The other is the distinction between global, national, and local dimensions of action (Marginson & Rhoades, 2002). Arguably, by synthesising these analytical elements we can more readily explore the potentials and limits of higher education in relation to both national systems and the global dimension at the same time, and grasp the transformative effects flowing between them. We can more clearly understand the setting in which each institution is placed, the changing scope for agency and self-determining action (the new field of freedom) in higher education, the new drivers and constraints, and the forms of differentiation and inequality that are produced. We can map relations of competition alongside relations of cooperation, finding that both are part of the mix: sometimes antagonistic to each other, sometimes not.

This last point provides an example of what the broader synthesis can do. In world-wide higher education we observe competition for status and power between research universities, competition for revenues between all institutions; and on the global plane, competition between institutions, and nations, for relative advantage and strategic position. In terms of cooperation, we observe freely exchanged knowledge flowing in the public domain, and networks of institutions, and research groups, and between individual collaborators. Competition and cooperation are different and opposing forms of human relation. Yet in practice the dividing lines between competition and cooperation, markets and non-market activity (and also economy and culture) are often crossed. Often we find that the opposing modes are both part of a package and their relationship is more symbiotic than antagonistic.

To anticipate the chapter’s argument, one major part of the story is that despite the emphasis on commercial science in policy discourse, research mostly continues to be produced in the form of a free public good, not as a capitalist commodity in economic markets. In fact in this more global era the scope and influence of its production and dissemination as a public good have vastly expanded. Yet basic research is also a primary good in competition between elite universities. Research outputs are a key factor in defining the value of the private positional goods produced by institutions, particularly degree programs at the leading research intensive universities. In other words one of the fecund potentials of public good research is to provide a means of defining a hierarchy of institutions, and on the global plane, a hierarchy of countries, on the basis of research performance. In a world in which capitalism is the dominant economic system, and power relations are highly unequal within and between nations, the production of public knowledge goods has become annexed to the workings of competitive markets in higher education, and also the exercise of global hegemony by U.S. universities (and to a much lesser extent those of other English language nations) in higher education. In this manner one particular kind of public good research (Anglo-American led knowledge) is complicit in the crowding out of other kinds of public goods (for example in, say, Mexico, scholarship in the Spanish language); and in smoothing the way for the commodification of teaching in place of freely accessed degree
programs (for example the growth of high fee private tuition in the private sector and the imposition of charges in place of free education in the public sector, all of which are supported by the emergence of a dominant U.S. model of the university).

"Public good" is not as simple as it seems and economic commodities rest on non-economic conditions. This apparent category ambiguity is the consequence of using a more complex, multi-dimensional-sided analysis. In this process category distinctions such as public/private and global/national/local continue to be useful. Yet at the same time many practices in higher education refuse to stay confined to single categories for very long and some always had a foot in more than one camp. Category boundaries are continually being crossed and the practical terrain covered by each category is always shifting. Boundaries and coverage vary in place as well as time. The fact that such changes and changeability can be observed is a healthy sign. This means that the analytical framework is allowing a fuller reality to come into view. This is what happens when single category reductionism is left behind: for example those one-dimensional narratives that pin all the causal blame on an abstract globalization, or pose the world of possibility in terms of either universal public goods or universal commodification. It does not mean that categories as such no longer work. It is more complexity than ambiguity, more the inability of binary categories to hold as mutually exclusive dualisms, than the explosion of category distinctions as such. After all, even if it is acknowledged that everything is historically relative, the fixed narrative certainties have gone and the future of 'The University' is wide open, there is still a need to reason and understand. And, fortunately, there are more theoretical and empirical tools (such as the data collected by international agencies) for doing this than once there were.

Nowhere is complexity and changeability more obvious than in the incessant activity on the borders between the global, national and local dimensions. Every practitioner in higher education is aware of these dimensions and knows they have different mediums of operation and points of reference. Everyone makes category separations between the three dimensions on a daily basis. And everyone finds that each of the dimensions is continually being pushed against and into the others.

**Sequence of argument.** The chapter begins by setting out the public/private and the global/national/local distinctions and briefly explores globalization in the sector. It then explores the workings of higher education markets, especially global markets, whose role is advancing rapidly on the world stage, along the way exploring also public goods in research and knowledge. (This chapter outlines the role of research-based differentiation within the larger map of power; chapter 3 explores global research and university rankings in more detail). The chapter reflects also on the wash-back effects in national systems of global competition and public goods.

Inevitably the ambitious scope of the chapter has collided with the constraints of space and it is best understood as an invitation to reflection rather than a definitive analysis. Some elements, such as the new potentials of individual and institutional agency in higher education, the cross-border practices of institutions, the character of global flows, the evolution of national and regional roles in the global setting, including Europeanisation, and inequalities between and within national systems, are merely sketched or are not discussed here. Some are developed elsewhere (for example Marginson 2007b; forthcoming; Marginson & Ordorika, 2007; Marginson & Sawir, 2005, 2006; Marginson & van der Wende, 2007; work in progress).

In this chapter higher education is discussed mostly in relation to the teaching, research, servicing and administrative activities of research universities as well as those research institutes that specialize in parallel forms of basic research.

**PUBLIC AND PRIVATE GOODS IN HIGHER EDUCATION**

Higher education produces multiple and heterogeneous public and private goods. These goods are accessible to empirical observation and expert judgement, and in some respects to numerical measurement. Public and private goods will be defined and briefly discussed in turn, with some remarks about the relations between them.

**Definition of Public and Private Goods**

There are two conflicting approaches to the distinction between public and private goods. The first notion is the juridical definition of public/private. The boundary is determined by legal ownership. 'Public' goods are produced in the government or state sector. The notion is long-standing but is not used here, for several reasons. A definition based on juridical ownership tells us nothing about the character of the goods: for example accessibility, reach and social effects, whether they constitute individual or joint benefits and how they are financed. It is ambiguous as to the role of government, which often is expressed through the regulation and simulation of market and private sector activities; and ambiguous as to the definition of 'private' which can be variously understood as the commercial sector, the domain of family, or the imagined space that constitutes personal identity. Most crucially this definition negates the possibility of global public goods. Where 'public' is defined to mean state or government sector, 'in the international sphere, where there is no government, how are public goods produced?'. (Kaul et al., 1999, 12). So how then can we discuss common international benefits and cross-border effects between one national system and another? It becomes impossible to understand global effects as anything other than 'private' and by inference, 'market', effects; and only the nation-state is capable of producing 'public' goods.

The economic definition of public/private offers a more promising approach. Following Samuelson (1954), public/private is determined by the character of the goods, in particular by whether they can be sustained by market production. Goods capable of full market production are defined as 'private'. All other goods, which will tend to be under-produced in unregulated markets, require state financing and/or provision and are at least in some respect 'public' in character. Samuelson defines public goods (or services) as goods that are non-rivalrous and non-
excludable. Goods are non-rivalrous when they can be consumed by any number of people without being depleted, for example knowledge of a mathematical theorem. Goods are non-excludable when the benefits cannot be confined to individual buyers, such as social tolerance, or law and order. Few goods are both fully non-rivalrous and fully non-excludable but many have one or the other quality in part. Goods with neither quality are classified as fully private goods. Some public goods take the form of ‘externalities’ or ‘spill-overs’, whereby an individualised good received by one person creates benefits for others that they did not purchase. For example the training of a technician in the workplace can enhance the productivity and wages of other workers; the training is partly non-excludable. Other public goods include collective benefits, for example the benefits created by enhanced communication or knowledge systems, where the benefits are non-rivalrous.

Samuelson’s definition is rarely used precisely in the economics of education. Public goods are underplayed, in part because they are not always accessible to quantity measures (Marginson, 1997). Nevertheless this definition is a useful starting point for analysing goods produced in capitalist economies. In summary:

Public goods in higher education as goods that (1) have a significant element of non-rivalry and/or non-excludability, and (2) are goods that are made broadly available across populations; and are inter-generational in that they meet needs in the present generation without jeopardising future generations.

Goods without attributes (1) and (2) are private goods.

However, when utilising the public/private distinction as a tool for the political analysis of higher education and other complex services, the conception developed in economic theory can only be applied with two caveats. These caveats shift the public/private notion some distance from the foundations of economic theory.

The first caveat goes to the social construction of higher education. Mainstream economic theory is ahistorical. It seeks to fix its descriptors in a timeless nature. As Samuelson sees it, the categories ‘public’ and ‘private’ are intrinsic to the character of the good. He considers most goods to be ‘naturally’ private and accessible to full market production. But there is nothing intrinsic about human needs for complex cultural and economic goods. Higher education, like, say, communications and health, can be organized either predominantly as public goods or as private goods. Whether universities are public, in the sense of producing non-rivalrous or non-excludable goods under-produced in markets, is determined not by nature but by public policy and social practices. Universities can be free, open to all, with little or no status hierarchy between institutions and focused on research designed to solve problems such as ecological instability. Or universities can be costly, closed, stratified and focused on privately valuable degrees and technologies sold to the highest bidder. A third possibility is a mixture of public and private goods. The public/private character of higher education is open. Higher education is policy determined, in that governments can enhance its ‘private’ or ‘public’ness, it is

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* Often economists attempt to develop economic and policy analyses of education on the basis that it is intrinsically public or private or a fixed kind of intermediate case. For example some economists argue that education is a ‘club good’, meaning that is non-rivalrous in consumption but is excludable, like a film screening (Kaul et al., 1999, p. 309). However the concept of education as a club good does not do justice to the historically variable character and also the multiple character of higher education. For example basic research is not excludable, or at least not for very long. Education is potentially rivalrous or non-rivalrous, excludable or non-excludable.
Public and Private Goods in Higher Education

Public goods produced in higher education include on one hand the ‘spill-overs’ derived from the education of each students; on the other hand collective goods such as its contributions to knowledge via the production, codification and research and scholarship; the constitution of common literacy and culture; and the formation of attributes of sociability such as cosmopolitan tolerance. Stiglitz (1999, p. 308) notes that knowledge is about as close as possible to a ‘natural’ public good. The mathematical theorem retains its value no matter how many times it is used or how many people use it. Nor can its benefits long be confined to particular individuals. Knowledge become a temporary private good via intellectual property regimes, but does not stay so confined, especially in a networked environment. Non-rivalrous and only temporarily excludable, it is always under-produced in markets. Here cultural attributes differ from knowledge. They can take the form either of shared public goods or individualised private goods as in Bourdieu’s cultural capital.

Although the social opportunities allocated in higher education often take the form of private goods distributed under conditions of competition, the function of social allocation (whatever the outcome) is itself a collective public good, and it can be tweaked so as to expand other public goods, such as the more democratic allocation of opportunity. Equal educational opportunity without regard to private finances is a good always underprovided in markets. This is a principal driver of state regulation, financing and provision of higher education around the world.¹

The most potent private goods produced in higher education are individualised status benefits or ‘positional goods’ (Hirsch, 1976; Marginson 1997). Institutions allocate scarce places that provide students selected into those places, and/or able to purchase those places, with immediate prestige, and with the opportunity post-graduation to secure superior incomes, social status and the ‘social capital’ derived from student networking. The positional good is eventually enfolded in the degree certificate, a portable currency of the claim to social position.¹⁰ The value of the

¹ Nevertheless, unless the total number of places is increased, programs that create more places for some students also subtract places from other students. Affirmative action programs have both a common public good aspect (they contribute to fairness) and a private good aspect subject to rivalry and excludability (access to scarce university places). In the USA there have been intense debates around these issues, for example in relation to the University of California system (Passer, 2003). In themselves conceptions of public/private goods cannot solve distributional policy issues. However, they can contribute to policy frameworks in which the issues are identified, negotiated and resolved.

¹⁰ Arguably, both Bourdieu’s ‘cultural capital’ and the economists’ ‘human capital’ are less explanatory of education markets than is the notion of positional goods. Bourdieu emphasises the qualities carried by individuals, with less regard to the social demand for those qualities. Although he is interested in problems of changing social valuation, arguably the concept of ‘cultural capital’ contains an implicit bias to the aristocratic. The economist makes the opposite error, calculating the value of ‘human capital’ in terms of its take-up in the occupational marketplace. This interprets social demand and the utility of credentials too narrowly, confining this to the monetary earnings benefits without regard for status or psychic rewards (for more discussion see Marginson, 1992; 1997). In other words each theorization has a one-sided perspective on the social allocation function; Grasping social allocation from both sides is the key to the unity of production, consumption and distribution.

Global public and private goods. The global dimension of higher education is also discussed further below. For the moment it will be noted that global public goods are defined as follows:

Global public goods are goods that have a significant element of non-rivalry and non-excludability and made broadly available across populations on a global scale. They affect more than one group of countries, are broadly available within countries, and are inter-generational; that is, they meet needs in the present generation without jeopardising future generations (Kaul et al., 1999, pp. 2-3).

Global public goods include collective global goods, and positive or negative global externalities. Collective global goods are obtained by nations and/or institutions from cross-border systems common to the world or a meta-national region, for example via regulation, systems and protocols; such as the Washington Accords in Engineering, and the Bologna Declaration of a common European higher education space. Global externalities arise when higher education in one nation affects significant numbers of institutions in other nations; either for better, for example the transfer of research knowledge; or worse, for example the ‘brain drain’ of talented people. Negative externalities are known as public ‘bads’. Both markets and government can constitute global public ‘bads’. Global public goods, like all public goods, tend to be under-provided in markets.

Once the global dimension is introduced, the picture becomes more complex than in the nation alone. Potential goods occur in a multitude of sites. Public goods can be common across different nations or specific to one. New cross-border and global agents come into the picture. International agencies such as the World Bank, and multilateral forums, can directly create global public goods/’bads’, particularly collective goods. Another complication is that something constituting a global public good in one nation, may be a global public ‘bad’ in another nation. Global public goods, and their ambiguities, are further discussed at the end of the chapter.
Global private goods are neither non-rivalrous nor non-excludable, and are subject to the transfer of benefits across national borders, and have value in more than one nation. In higher education one such set of global private goods is generated in commercial research and intellectual property. However the principal global private goods are degrees obtained either by students crossing national borders into the exporting nation, or programs or providers crossing national borders into the nation importing education. Foreign degrees are global goods in two senses. They are goods that are obtained in border-crossing, and can be utilised in more than one nation. Global private goods are also explored further below.

A ‘Glonacal’ Framework

In the world-wide setting, higher education is manifest simultaneously in three dimensions: the global, the national and the local.

Here the term ‘global dimension’ refers to the world level, a planetary spatiality. ‘Global’ refers to spaces, systems, relations, elements, agents and identities constituting and constituted by the world as a whole, or by large parts in pan-national regions such as Europe. It includes ‘global flows’ (Appadurai, 1996) in communications, transport and financial systems, and elements such as language and research exchange that integrate nations and agents across borders. ‘Global’ as used here rests on a particular configuration of general/particular. The ‘global’ dimension does not mean total or universal. It does necessarily include every national and local element, only that elements are part of the constitution of the world as an integrated world.11 Thus ‘globalization’ in higher education and research refers to the making or the enhancement of these global spheres of action including global spaces, systems, elements, agents, identities and practices.

This includes perspectives or ways of seeing in higher education, which are more often global than they were. National policy and institutional performance are increasingly likely to be referenced to the requirements and measures of global examples and standards. This global referencing has been encouraged by the partial liberalisation of international trade in education, global university rankings, and world-wide science, research and academic publication; as well as global parallels and convergences in policy and approaches to management. Amid the first open information environment in history, national policy and culture can only partly insulate national systems from the relentless pressures of comparison and imitation in the performance-driven higher education sector. Nonetheless the global dimension is not all-consuming, nor are global effects uniform everywhere. Many institutions have no obvious global connections and agendas and are benchmarked locally. In any case global transformations are subject to complex variations, and articulated through the differing national and local zones. Relations between the

11 The term ‘world-wide’ can be used for the totallising inclusive concept that takes in every global, national and local element.

Global Fusion of Private and Public Goods

Globalization consists of engagement, integration and convergence on the world scale, the ‘transformation in the organization of human affairs by linking together and expanding human activity across regions and continents’ (Held & McGrew, 2000, p. 54). Held and colleagues define globalization in short as ‘the widening, deepening and speeding up of world wide interconnectedness’ (Held et al., 1999, p. 2). They develop a more detailed definition specifying global transformations in space/time (see also Harvey 1990; 2006). As globalization advances cross-border interactions become more extensive, intensified, regularized and faster. Local and global dimensions are more intermeshed: local events can be transmitted everywhere and distant events have a magnified impact. ‘Globalization’ is:

For the application of this glonacal analytical heuristic see the comparison of the global strategies of national universities in Indonesia and Australia by Marginson & Sawir (2006)
A process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions—assessed in terms of their extensity, intensity, velocity and impact—generating transcontinental or regional flows and networks of activity, interaction, and the exercise of power (Held & McGrew, 2000, p. 55).

While international relations across borders might involve just two nations (international) globalization takes in many nations. It is a dynamic process that draws the local, national and global dimensions more closely together.

Though contemporary globalization is often explained in terms of single causes (market forces, neo-liberal government, American imperialism, communications technologies, knowledge-intensive production, etc.), it has more than one root; and as its variation by time and place suggests, it is also articulated by context. In many countries the context of the accelerated globalization of the last 15-20 years has been dominated by ascendant neo-liberalism in government and organizational culture (Marginson, 1997). This originated in the early 1980s, predating the 1990s Internet and the turn to the global, and has coloured the contents of globally transmitted messages and policies. The policy momentum for market liberalization in trade, signified by the neo-liberal rhetoric of World Trade Organization, has led many to conclude that globalization is simply a neo-liberal project. The fact that global people flows in higher education are partly manifest within a buyer-seller market encourages the ‘common sense’ perception that globalization in higher education is simply policy-driven capitalism writ large. But arguably, without neo-liberal policy, the Internet and the accelerated people mobility would still occur, though perhaps with different forms and contents (Rhoads & Torres, 2006).

At its roots globalization is a symbiosis of economic changes and cultural changes. It is also a symbiosis of public and private goods. On one hand it rests on the formation of world-wide markets creating private goods, operating in real time via automated processes and underpinned by the first world-wide system of financial exchange; and growth rates of foreign direct investment that far exceed capitalist growth as a whole. With instantaneous transmission of financial information the turnover time of economic capital tends towards zero (Mandel 1975); the world economy moves faster and global operations become more transformative of the localized parts. On the other hand, globalization rests on new worldwide systems of communications, information, culture and knowledge. These cultural systems, which are partly subsidized by governments as public goods (for example universities, especially in basic research) have been mobilized by national and global agencies so as to support the extension of and operations of the global economic markets producing private goods. In turn global economic forces extend and intensify cultural integration and the world tends towards a single cultural community as McLuhan (1964) predicted.

Instantaneous communications and meetings, along with complex data transfer, are implicated in most other kinds of global transformation. The Internet facilitates the evolution of unitary sets of knowledge. Information and communications technologies (ICTs) bring world-wide voices, data and knowledges to each locality with incalculable effects on the imaginings, options and identities of local agents.

Information and communications are sustaining new forms of continuously engaged inter-subjective human communities, of unprecedented scale, variety and flexibility. These technologies are at the core of global economic and global cultural change, and the junction between them. It is this element above all which constitutes what is new about contemporary globalization.

Globalization and higher education. Higher education and research are among the most globalized of sectors and enmeshed in all aspects of globalization. They are foundational to the sophisticated use of technologies and to culturally complex communities. Like ICTs higher education is formative of the emerging global environment. Research universities are intensively linked within and between the major global cities that constitute the nodes of a globally networked world. Castells (2001, p. 225) remarks that the Internet ‘allows metropolitan concentration and global networking to proceed simultaneously. The networked economy, toolied by the Internet, is an economy made up of very large, interconnected metropolitan regions’. Those regions typically exhibit a high density of higher education. Correspondingly, nations and regions relatively decoupled from the globally networked economy typically have a low density of higher education.

Higher education and research are primary elements in the capacity to be proactive across national borders. Being implicated in global transformations, higher education is itself transformed on both sides of the economy/culture symbiosis. It is swept up in global marketisation: it trains and resources the executives and technicians of global businesses; the main areas of student growth arc in business, computing and English language, the most globally mobile qualifications to have; and in higher education itself the first global markets have emerged, as will be discussed. Arguably, larger changes are happening on the cultural side, including communications, research and knowledge. Teichler (2004) remarks that ‘it is surprising to note how much the debate on global phenomena in higher education suddenly focuses on marketisation, competition and management in higher education. Other terms, such as knowledge society, global village, global understanding or global learning, are hardly taken into consideration’ (Teichler 2004, p. 23). This is ironic, given that while higher education is a second level player in the circuits of capital and the direct creation of economic wealth, it is pivotal to research and knowledge systems; in linguistic and information systems; and has thickening connections with media and communications. In a networked higher education world the potential intellectual communities multiply continually.

However, it is important to remember that national systems and institutions do not participate in world-wide higher education on the basis of equality. The length of time that more than 90 per cent of the population is enrolled in education varies from 15 years in Belgium to one year in India. The USA spends about $360 billion per year on tertiary education (OECD, 2006, Table 2.6 below) while some nations spend less than $10 million. The distribution of the competences needed to enable institutions and national systems to operate as self-determining agents in the national and global dimensions—journal access, scientific equipment, trained people, English language, stable institutions, communications infrastructure,
modernized administration, executive steering, competitive faculty salaries, the financing of student support, and so on - is highly uneven. Globalization draws nations into common systems but excludes most of them from global power.

GLOBAL MARKETS IN DEGREES AND KNOWLEDGES

Roots of Markets in Higher Education

The potential for economic markets in higher education rests on the historical and political conditions. There is nothing inevitable about these markets. For the most part education markets in national systems are constructed and managed by governments, which stratify institutions and install relations of competition, prices and economic incentives (Marginson, 1997). In this, the neo-liberal era in policy and government, the development of the market form, including fully commercial higher education (Brenerman et al., 2007), has been much advanced. Partial marketisation is a feature of many if not most national systems (Teixeira et al., 2004). In the global dimension, where there is no state, the potential for economic markets derives on one hand from national-level changes to facilitate cross-border trade, on the other hand from the enhanced global flows of people, knowledge, ideas and educational capital. But economic markets and commodities in higher education have not been entirely imposed from outside, whether by neo-liberal policy or by global convergence. They are also grounded in higher education itself.

Markets in higher education, and the stratification of the value of products and producer institutions, rest on two core functions of research intensive universities unique to those institutions. Interestingly, these unique functions do not include teaching, which is carried out also in schools, vocational training and almost every other kind of educational institution; nor occupational preparation which is shared with non higher education institutions, corporations and the workplace itself. The two unique functions are (1) advanced educational credentialing that mediates upper level careers, whether occupationally specific or not, that is, the formation of positional goods; and (2) the formation of knowledge via basic research and advanced scholarship. Knowledge production is not confined to higher education institutions; it is shared with a growing number of institutes, companies, R&D start-ups and self-employed experts. However, basic research and research training are largely controlled by the research universities and basic research institutes.

Markets in higher education are markets in positional goods. Highly sought-after universities have a scarcity of places. Valid applications exceed student places available, signifying their positional value. The US News and World Report (2007), which frames the competitive market in American higher education, uses student selectivity as one component of its index. Individual consumers express their choices in positional terms. But something else underlies those choices. In fact, different levels of student demand and scarcity of places alone cannot define the hierarchy of value, or the market would be premised on a tautology: high positional value generates high positional value. There has to be a ‘gold standard’, external to the positional goods themselves, that defines value in the positional market.

Inherited status distinctions play a role, but are not decisive: they must be sustained by contemporary drivers of reputation. The ‘gold standard’, at once both traditional and modern, is comparative performance in research and scholarship. Research and scholarship are largely non market goods but accessible to various output measures and/or informed judgements. We know that the world’s elite universities are elite not because of the earning power of their degrees (which is rarely measured) or the networking benefits of attendance (real, but subterranean to the public gaze) but because they produce most of the world’s basic research and award the most prestigious doctoral degrees. Research output, and the reputation it generates, function de facto as the generic standard of ‘quality’ in higher education.

High quality research universities produce what are seen as high quality degrees. This, not the episodic role of research in pedagogies, is the teaching/research nexus foundational to higher education. Markets in higher education are a symbiosis of economic elements conditioned by cultural elements, similar to globalization as described above. The production of private positional goods is underpinned by the production of public knowledge goods. Basic research with its open-ended social potentials is harnessed to the noble missions of status accumulation, product differentiation and competition gaming. Much of the creative potential of research and scholarship remains but it is shaped and limited in material terms by the role of knowledge as measure of status. Scarcity of status is mirrored by the concentration of research. Even at the other end of the market, where institutions rely on teaching and commercial service, focus on student numbers and revenues and ignore knowledge formation, their lesser status is defined by the absence of research. With the exception of selective islands of occupational training in certain countries, higher education without the kudos of research tends to have low positional value.

Positional Competition in Higher Education

Positional competition in higher education is more widespread than the presence of economic mechanisms such as prices. It turns on the comparative reputation of institutions. Whether the national culture emphasises capitalism or social egalitarianism, as long as there is an inequality between institutions in resources, functions and social regard, so that it is possible to secure a private advantage by attending one institution rather than another (that is, as long as there is a hierarchy of value in private goods), positional competition will be found. The positional competition is more or less intense depending on the steepness of the hierarchy between institutions and the scope for choice-making.

Prospective students do not always have a choice of institution. But they do choose in most nations, and where they do the positional aspect - though it is not the only consideration - is normally important. It is usually more important than teaching quality. Institutional reputation is known, teaching quality most is not. The acid test is that when faced by choice between a prestigious university with
known indifference to undergraduate teaching, and a lesser institution offering
better classroom support, almost all students opt for prestige. This does not sit well
with the ‘student-centred’ pieties of quality assurance but it is confirmed by
research. Moogan et al. (1999) find UK students are more influenced by university
prestige than measures of program quality. In Australia, when discussing factors
influencing the choices of prospective undergraduates, James et al. (1999, p. xvi)
note that ‘applicants focus on broadly conceived course and institutional
reputations when making their selections’; and that ‘course entry scores, and by
implication “university scores”, serve as a proxy for quality in prospective
students’ eyes’. Applicants were making individualised choices, and saw higher
education as a competitive market. But they did not focus much on teaching, or the
lifetime rates of return imagined by human capital theory. Something older was at
work, based on instinct not calculation: relative advantage. Relative advantage was
grounded in comparative reputation, with student selectivity as its proxy.

In Social limits to growth (1976) Hirsch analyses the dynamics of positional
markets. The related argument by Frank (1985; 2001) on ‘winner-take-all’ markets
discusses status competition in American higher education, as does Geiger (2004).
Whether or not full price tuition is charged, positional competition does not
function in the manner of a conventional economic market. Hirsch emphasises the
zero-sum character of positional competition. Elite degrees and other positional
goods confer advantages on some by denying them to others. ‘What winners win,
losers lose’ (Hirsch 1976, p. 52). Within a single higher education system there is
an absolute limit on the number of positional goods at a given level of value. The
number of such goods cannot expand without reducing unit value. For example
everyone can enrol in Medicine and become a doctor, Medicine ceases to be a high
income high status profession. Given the absolute limit on the number of high
value positional goods, there is an absolute limit on the number of high value
institutions, and on the size of individual institutions within the prestige group.
Elite doctoral universities cannot expand their production to meet full potential
demand, becoming ever larger, like a Sony or a Starbucks, without crucifying their
raison d’etre. They need revenues, and arrange their tuition regimes in profitable
configurations, maximise philanthropic and research funding, and sell non-core
services. But revenues are a means to the real end, which is academic and social
status, signified by consumer preference and underpinned by research reputation.
In tuition-based systems such as United States’ higher education, reputation
is confirmed by a ‘sticker price’ which capitalises status as well as value:

Prestige ought to reflect quality, but far more is involved. As a function of
consumer awareness, prestige is affected by the entire manner in which
selective institutions market themselves and how they are treated in the
media. Specifically, rankings advance their own definition of prestige,
creating a ‘positional market’... The positional markers in this competition
... are measures of selectivity, costs, or rank (Geiger, 2004).

In a positional market there is both competition between producers and competition
between consumers. Producer universities compete for the custom of preferred
‘customers’, students with the highest entry scores. Student ‘customers’ compete
for entry to preferred institutions. Prestige sustains high student scores, competition
drives them higher, and their very scarcity reproduces the prestige of the elite
universities, in the kind of circular effect that always drives the reproduction of
hierarchy. Positional markets in higher education are a matching game in which
the hierarchy of students’ families is synchronised with the hierarchy of institutions.
The peak group in each hierarchy is steeped in the habit of sustaining the other.
Wealth follows prestige. Bright students are mostly also students from affluent and
powerful families. Wealthy families invest in high value education to maintain
their own social and professional leadership; and in so doing they sustain the
universities that educate them as engines of status for both family and institution.

At the peak of the positional hierarchy research performance and positional
advantage feed each other. Again, under the sign of status we find the characteristic
inter-dependence between status generation and revenue generation. High research
performing universities with leading academic staff attract bright students and their
(mostly affluent) families. These institutions accumulate prestige which is cashed
out as tuition revenues and further leveraged to raise public and private monies that
buy high-cost faculty and sustain research programs. Measurable research
performance (publications, citations, grants, star professors) attracts more research
talent and enhances capacity in cooperative projects, competition for grants, raising
donations and drawing good quality foreign doctoral students. Well-funded
research infrastructure allows universities to deploy their best performing staff so as
to concentrate areas of strength, and to secure intellectual leadership at both
national and global levels. Research supplies both the practical know-how and
symbolic capital that helps keeps the research university at the cutting edge.

Unmodified positional competition becomes more intense over time as
demonstrated by the history of higher education in the United States. More and
more bright students press for entry into the top institutions, the gateway narrows
and ‘failures’ accumulate. Modest institutions are emptied of custom and dignity.
The downside is not just an unequal distribution of social opportunities (Teese,
2000), but the isolation of many of the fruits of intellectual life in a handful of
hard-to-enter institutions. Former Harvard President Derek Bok talks about ‘powerful
elites who are insulated from competition and able to set their own terms
in a world increasingly unrestrained about inhibition about greed’ (Frank & Cook
1995, p. 5). The steeper the distance between elite universities and others, the more
that society values elite universities and the less it sees of their benefits.
Skyrocketing tuition prices, permitted by monopoly status and fed by wasteful
competition for signs of prestige, reinforce the social closure. Scholarships for
needy students are never on a scale sufficient to reassert equality of opportunity.4

4 This is the logic of a winner take-all market (Frank, 2001). In the USA the proportion of the top
scoring students applying to the elite sector continues to grow, so they become more concentrated,
segregated from the also-rans who are crowded out (Frank & Cook, 1995, p. 12). The American
winner-take-all market spreads across the globe, like the markets in film/television or popular music.
When high value becomes centralised and concentrated in a small number of products, price
differentials lurch upwards. Elite universities are caught in a wasteful ‘positional arms race’ in
argues that the field is structured by a polar opposition. At one end there is the sub-field of restricted production. Each sub-field has a distinct principle of hierarchization. In the aristocratic elite institutions, which shape the high value products, the principle of hierarchization is cultural status, autonomous and specific to the field. In the mass or 'popular' institutions hierarchization is shaped by economic capital and market demand, and the institutions are heterogeneous; though from time to time mass institutions renew themselves by adapting ideas from the elite sector. Between the two sub-fields lie a range of intermediate institutions which combine the two opposing principles in varying and unstable degrees. This polarity is readily seen in national higher education (Naidoo, this volume) where it is explained of system tension and differentiation.

Vertical segmentation of institutions is inevitable under conditions of positional competition. Likewise, it is inevitable that upward mobility will be constrained. At the top the production of positional goods combines competition with oligopoly and market closure. The laws of a conventional economic market cannot operate. Status, mediated by cultural distinctions, is dominant. In elite institutions, the more intense is consumer competition for entry, the less the university finds it necessary to court the consumer in the conventional manner by dropping prices or providing more and/or better services. As long as prestige is sustained the consumer will follow. For every student who becomes dissatisfied with the cursory feedback for their work or the star professors they never see, there are half a dozen other potential students waiting at the gate. Marketing, which is often under-stated, focuses on signs of venerability (gothic buildings, scholars); though in a consumer culture it also resonates with student-centeredness. (It is here that the sensitivity of elite institutions to their 'customers' is expressed). Once a university obtains elite status, where the competition is fierce but closed, and status itself helps to recycle student custom and research resources, the reproduction of the standing of the university requires no more than ordinary prudence.

which their costs are escalated by bargains with star professors and spending on visible signs of prestige (twenty-first century sandstone). When the stakes in such contests are high, each contestant may face irresistible pressures to make heavy investments that in the long run may not be offsetting (Frank, 1985, p. 136). Hirsch argues that in a status market 'the connection between individual and aggregate advance is broken' (Hirsch, 1976, pp. 5-8). Adam Smith's invisible hand fails to maximize the general welfare. On the contrary, many elite institutions take 'quality' on the high-prestige universities where research is conducted and high value positional goods are secured. High classroom quality in teaching-only institutions is over-determined by low social status.

Intermediate institutions, combining some scarce high value places and some low value access places, find it hard to move up because in a positional market the number of prestige producers is strictly limited. They become 'second choice' producers, or specialists. Newer research universities struggle hard to break into the upper echelon, imitating its programs and ethos, but mostly fail. Often they provide openings for young academics and innovative programs only to see people drop out. Yet, often, they force young academics and innovative programs only to see people drop out. Yet, often, they force young academics and innovative programs only to see people drop out. Yet, often, they force young academics and innovative programs only to see people drop out. They ensure that high value positional goods are secured. High classroom quality in teaching-only institutions is over-determined by low social status.

Regardless of whether the system is a high tuition high aid regime, or a free tuition regime, the positional hierarchy in higher education is remarkably stable over time, compared to market leadership in other industries. Australia's leading institutions are all pre-1958 foundations. In the USA they mostly date back to world war 1.

In the lower echelons the laws of competition are different. Positional power falls away to nothing and higher education is more like a conventional economic market. In the sub-field of mass higher education, institutions whether non-profit or for-profit struggle to fill their places and secure revenues. Once achieved success remains provisional and contestable. Such institutions do not have the resources to build a major research effort. Their core business is vocational learning and often (whether or not it is designated as such) basic literacy. At best, when public funding cuts, hyper-marketing and competitive efficiencies do not place severe limits on programs, teaching is of high quality and programs for social groups traditionally under-represented in higher education are successful. But mass institutions never receive full recognition for their best quality work. In a positional market the upper echelon is a joint education infrastructure that is designed to benefit all. When social interaction of this kind [positional competition] is present, individual action is no longer a sure means of fulfilling individual choice; the preferred outcome may be obtainable only through collective action (Hirsch, 1976, p. 5).

Table 2.1. Typical segmentation of competition in national higher education systems

<table>
<thead>
<tr>
<th>Segment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Aspirant research universities</td>
<td>Struggling to live as Segment 1 but unable to break in. Tendency to brain drain of best students and researchers to Segment 1. May engage in selected commercial activities to generate revenues, but not so efficient in commercial terms. Resource scarcity. Semi-open.</td>
</tr>
<tr>
<td>3. Teaching-focused universities or public sector operations with a large commercial component</td>
<td>Student volume and revenue driven. Some are private for-profit institutions, some are public sector operations with a large commercial component, tending to expand. High resource scarcity. Hyper-marketing and shaving costs/quality under market pressure. Open.</td>
</tr>
</tbody>
</table>

THE NEW HIGHER EDUCATION LANDSCAPE
governments, often produced in quasi-commercial or commercial markets, and marked by place-filling, expansionism and low unit positional value.

In the absence of egalitarian policy, over time scarcity and exclusion drives further vertical segmentation. Stratification is played out in the tense middle zone: in Table 2.1 the subordinated research universities. These are over-determined; not only by insufficient and insecure status but by revenue hunger in a partly entrepreneurial setting. This steers research and scholarship away from long-term inquiry to immediate and saleable applications (Marginson & Considine, 2000).

Stratification is both formal and informal, varies by nation, and can be more complex than the Table suggests. Geiger (2004) cites seven segments in the USA. There can be horizontal variants, such as the differing paths to elite formation complex than the Table suggests. Geiger (2004) cites seven segments in the USA.

In the absence of egalitarian policy, over time scarcity and exclusion drives further vertical segmentation. Stratification is played out in the tense middle zone: in Table 2.1 the subordinated research universities. These are over-determined; not only by insufficient and insecure status but by revenue hunger in a partly entrepreneurial setting. This steers research and scholarship away from long-term inquiry to immediate and saleable applications (Marginson & Considine, 2000).

Nevertheless, the encounter between commercial and quasi-commercial markets and other professional practices is not pre-determined. In many institutions where the role of market competition is growing, semi-independent academic cultures, and restraint on growth as a brake on free-wheeling entrepreneurialism. Revenue is unambiguously supreme in fully capitalist institutions. As Marx put it: 'Trade always has, to a greater or lesser degree, a solvent effect on the pre-existing organisation of production, which in all their various forms are principally oriented to use value. But how far it leads to the dissolution of the old mode of production depends first and foremost on the solidity and inner articulation of this mode of production itself' (Marx, 1981, p. 449).

The Formation of Global Markets

The cross-border mobility of people and ideas in higher education has a long history. Greek, Latin, Sanskrit and Chinese were global languages of scholarship long before English. Through much of the twentieth century there was significant migration of European academic labour into the U.S. universities; after world war two scholarships for students from emerging nations came to constitute an important component of foreign aid by English-speaking and European nations; and private student traffic also increased. By 1975 approximately 600,000 students were enrolled outside their country of citizenship (OECD, 2006, p. 286). But it is only in the last two decades or so, the period of accelerated globalization, that a clearly identifiable global market in higher education has emerged; and only since 2003 has the global market been rendered ultra-visible to all in the form of global university rankings (SJTUHEE, 2007; Times Higher, 2007; Chapter 3 this volume).

The formation of the global market has been driven by four factors. First, the expansion of cross-border mobility in the workforce; due to the increasing interpenetration of economies by foreign capital, the growing number of products and production chains for which the world is a single market, the expanding middle classes in China, India, Korea and other Asian nations (which fosters demand for global products and enlarges the pool of potential global students) and the growing economic scope for bi-cultural skills. These factors have increased the scope and value of portable qualifications, especially in business, technologies and scientific research. This has markedly expanded the scope for the production of global private goods in higher education. The dominance of English in technologies and business (not to mention consumption and entertainment) feeds into the demand for English-language degrees and immersion in English-speaking countries during the period of study. In developing and emerging nations, in which the quantity and/or quality of higher education is constrained and there is a lag before an education and research system of scale can be created, many governments see foreign education as a useful adjunct to national capacity (OECD, 2004a). Often foreign study is used to differentiate the career structures of government and national education systems. Where offshore places significantly extend national capacity and individual choice in importing nations, this cross-border education constitutes not just private goods for the students who study abroad but global public goods in the nation; though high private costs may tend to reduce the distributional 'publicness'; and in nations where a foreign degree carries higher prestige than degrees obtained at home, the cross-border education of some might devalue the local private goods of others.

Second is the equally rapid growth of a commercial industry in cross-border degrees. British and Australian institutions have led the way here. The international agencies have expended much energy in policy discussions designed to facilitate cross-border trade, especially the World Trade Organization through the General Agreement of Trade in Services (WTO/GATS, 2005), the World Bank, and the OECD (2004a; 2004b). Global positional competition has been partly economised. Private investment has grown; and many producers expand places, minimise costs and maximise revenues and market share as in capitalist business; though commercialism remains a minority approach in the USA and Western Europe.

Third, and decisively, there is the formation of the worldwide information and communications system. Electronic networking has broadened the scope of both national and global status markets, enhanced the visibility of producers and concentrated superior prestige on a small number of market leaders. As Frank and Cook (1995) note in relation to the American domestic market, the emergence of a single networked system on a larger scale increases the relative rewards to leading institutions and staff and reinforces the tendencies to market segmentation inherent in status competition. Demand for Ivy League institutions grows and these become more visible and less accessible. So it is in the global market.

The fourth factor is a technology conditioned by this world-wide communicative space: global university rankings, which as noted codify and legitimate the global market and normalize the global dimension as the horizon of comparison.

In the manner of all global phenomena the global market in higher education extends not to the totality of higher education but to the cross-border aspects. It is a market in mobility. Global positional goods are foreign degrees, accessed across borders and capable of use in more than one nation, including foreign doctoral training which takes place largely in the USA and underpinned by the most globally integrated aspect of higher education, research. The global market does not absorb the place-bound national markets in higher education, though it
Nevertheless in global higher education the polarity between the two principles of hierarchization works somewhat differently to the market in art outlined by Bourdieu (1993). The elite sub-field in higher education is more robust than elite cultural producers, and more closely integrated with economic and political power. For the most part the super-league universities are economically stronger than the mass producers. Further, in higher education the tension between Bourdieu's two principles of hierarchization is absorbed not just between different types of university but also inside the elite universities, for example in research that is alternately fundamental and commercial in temper, as in biotechnology (Bok, 2003); and in non core profit-making businesses untethered into core operations. At the same time Bourdieu is right to argue that the more autonomous that universities become, the less they are commercial in temper. The ultimate rationale of the global Super-league is not revenues but imperial prestige and knowledge power. The drivers are knowledge production, and the reproduction of social position. By sustaining themselves at the peak of the American domestic market the leading US universities can exercise global leadership without much additional effort. US hegemony in higher education is further explored in the final section of the chapter.

DATA CONCERNING GLOBAL MARKETS

The political economy of global educational markets is a novel area. Data in three areas can facilitate understanding: cross-border student movement into educational programs; short and long term movements by academic staff and doctoral students; and the differentiation of cross-border markets within institutions (and nations); including the distinction between the two sub-fields within the global market.

Cross border Student Movement

There are many forms of student mobility and cross border access, ranging from foreign experience acquired as an adjunct to home-based study in short stays of half a year or less; to 'twinning' programs whereby the student does part of the program in home country and the other part in a partner institution in the exporting country; to movement into the exporting country for the full length of the program, the principal form of cross-border education in terms of numbers; to cross-border education acquired from within the home country as distance education, or from a foreign campus on home soil operated either by the foreign institution or a partner organization; 'Branch campuses' play a growing role, with policy cooperation from the importing nation, in Singapore and Malaysia, and to a lesser extent in China. Cross-border distance education is mostly provided online, often with links to locally-based study centres. Global 'e-U's' have not grown as rapidly as many English-language universities and e-learning corporations expected, in part because ICT capacity is narrowly distributed outside in the developing world; in part because the export nations have yet to design curricula linguistically and culturally tailored to non English speaking populations, in part because online degrees do not

overshadows and affects them. Like them it is a market in positional goods. Its hierarchy of values derives from the hierarchy of institutions. This is shaped by four elements: the distribution of research capacity, which is even more important in the global market than the national markets because inherited tradition plays a lesser role; the hierarchy of nations, in which developed economies have a decisive advantage; the global dominance of English which has become the one common language in education and research as well as business and government; and above and beyond these factors the special and overwhelming hegemony exercised by research universities from the United States, particularly the private Ivy League, the University of California system and the other major state universities.

Structure of the global market. The polarity Bourdieu that identifies in national educational and cultural systems shows itself more clearly in the global field. At the elite end of the field is the 'Global Super-league' (The Economist, 2005): Harvard, Stanford, MIT, Yale, Princeton, Caltech, Chicago, Pennsylvania, Berkeley and other leading lights of the University of California system, the large mid-west universities and others in the United States, plus a handful in the UK led by Cambridge and Oxford. These universities, which constitute the sub-field of elite universities in their own nations, have concentrated knowledge power and hence status power not just on the national scale but on the world scale. With their 'brands' recognized everywhere they have become universal objects of desire and universal magnets for talent. At the opposite end of the global field are institutions focused on revenues, cost management and expansion in the manner of commercial companies. As noted, the sub-field includes not only the for-profit University of Phoenix and the global e-learning enterprises, but also many non-profit universities where they provide international education on a revenue-raising commercial basis.

In the intermediate zone between the sub-fields lie universities that vary in the extent to which they practise global research and status-building, and/or understand the global dimension simply as a field of business opportunities (Table 25 below).

The polar nature of the field of global higher education powerfully reinforces the global hegemony of United States' doctoral universities, predominantly located in the global sub-field of elite university education and research. The Bourdieuan theorisation of the field helps to explain why the American universities sustain a dominant global position without aggressively building their global operations as others do. They do not need to work hard to sustain the status of elite, which rests ultimately on American economic, technological, cultural and political power and is reproduced as a matter of course as U.S. universities go about their daily domestic business. The Bourdieuan bimodal also helps to explain why the global rankings systems have thrown up the techniques they have, including rankings of research performance and indicators of reputation and 'internationalisation'. Research rankings identify and service the elite sub-field. Reputational rankings construct a hierarchy of positional standing across the whole global field, taking in both the elite sub-field and the mass commercial providers. Quantity indicators of 'internationalization' service the mass market in foreign degrees (see chapter 3).
have equivalent status with face-to-face degrees. However, this medium will become more important in future (Marginson, 2004; OECD, 2005a).

Data concerning cross-border student movement are collected and published by national agencies and standardised by the OECD (2006). There are problems of category ambiguity and incompatibilities between national collections. Data do not always distinguish short-term from medium-term mobility. Free movement within the European area makes it impossible to use visas as a tracking device (OECD, 2006, p. 285). No country collects data on foreign distance education accessed by its citizens. A key difficulty is that only some countries collect data in relation to foreign students who cross into the country for educational purposes. Other nations distinguish citizen students from non-citizens but the latter may include students from families resident for a long time without citizenship, such as guest worker families in Germany (Kelo et al., 2006; p. 3). The OECD distinguishes 'international' border crossing students from 'foreign' students (OECD, 2006, p. 285). Another problem is that not all nations identify cross-border students who subsequently become migrants. Fortunately, the principal target of educational migration, the USA, has an exemplary data base in this area (NSB, 2006).

The OECD data indicate that in 2004, 2.7 million students enrolled outside their country of citizenship, compared to 1.9 million in 2000. Of the 2.7 million students in 2004 just over half were from Asian nations, including 381,330 (14.4 per cent) from China and 129,627 (4.9 per cent) from India. A further almost one quarter of all cross-border student movement took place between European countries.

In higher education the rhetoric of 'internationalisation' in the exporting nations norms global engagement as a two way flow premised on mutual cultural respect. Although the reality is different, global competition in degree courses takes the form of an export-import market in positional goods, characterised by unidirectional student flows and asymmetrical cultural transformations. Some nations are primarily exporters, others are primarily importers. A small group including Japan, Malaysia and parts of Europe exhibits a more balanced two-way exchange. Table 2.2 lists the larger national higher systems that produce global positional goods (the exporters), and the nations of origin of the students that obtain those goods (the importers).

The data in the table are shaped by three factors. First, two-way student movement in Europe, mostly consisting of short-term visits by students that return to their countries of origin. Intra-European traffic, enhanced by the ERASMUS program, is now underpinned by the momentum of Europeanisation. Second, the leading role of English language nations in export. These countries command almost half of the world-wide total (46.8 per cent) between them. In 2004 the number one destination country was the United States with 572,509 students, 21.6 per cent of the total. Note also that France, special export role in relation to Francophone Africa, led by Morocco and Algeria (25,783).

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Table 2.2: Principal export and import nations in the education of foreign students, 2004

<table>
<thead>
<tr>
<th>Export nations</th>
<th>incoming students</th>
<th>proportion of foreign students</th>
<th>Import nations</th>
<th>outgoing students</th>
<th>proportion of foreign students</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>372,509</td>
<td>21.6</td>
<td>China</td>
<td>281,330</td>
<td>14.4</td>
</tr>
<tr>
<td>UK</td>
<td>300,086</td>
<td>11.3</td>
<td>India</td>
<td>129,627</td>
<td>4.9</td>
</tr>
<tr>
<td>Germany</td>
<td>260,314</td>
<td>9.8</td>
<td>Korea</td>
<td>98,193</td>
<td>3.7</td>
</tr>
<tr>
<td>France</td>
<td>237,587</td>
<td>9.0</td>
<td>Germany</td>
<td>61,845</td>
<td>2.3</td>
</tr>
<tr>
<td>Australia</td>
<td>166,955</td>
<td>6.3</td>
<td>Japan</td>
<td>61,437</td>
<td>2.3</td>
</tr>
<tr>
<td>Canada</td>
<td>132,982</td>
<td>5.0</td>
<td>Morocco</td>
<td>58,038</td>
<td>2.2</td>
</tr>
<tr>
<td>Japan</td>
<td>177,903</td>
<td>4.4</td>
<td>France</td>
<td>57,211</td>
<td>2.2</td>
</tr>
<tr>
<td>Russian Fed.</td>
<td>75,796</td>
<td>2.9</td>
<td>Turkey</td>
<td>54,381</td>
<td>2.1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>68,904</td>
<td>2.6</td>
<td>Greece</td>
<td>51,138</td>
<td>1.9</td>
</tr>
<tr>
<td>South Africa</td>
<td>49,979</td>
<td>1.9</td>
<td>USA</td>
<td>40,547</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td><strong>2,651,144</strong></td>
<td><strong>100.0</strong></td>
<td><strong>total</strong></td>
<td><strong>2,651,144</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: OECD, 2006 and OECD data base.

Third, the importance of Asian source countries that constituted four of the five largest importers. Global competition in degree courses is largely centred on the movement of Asian students to the Anglophone zone and Western Europe. As well as China, India, Korea and Japan, the importers include Malaysia (42,054), Hong Kong China (36,186), Indonesia (33,877), Thailand (24,671), Singapore (21,163) and Vietnam (17,089). These students are mostly self-financed, with the notable exception of those at doctoral level. In much of Asia the habit of private investment is entrenched. In Korea 70 per cent of local expenditure on tertiary institutions is privately funded, in Japan and Indonesia each 56 per cent, China 41 per cent (OECD, 2003).

In the Asia-Pacific region there is much potential for the further growth of education as a global positional good. These nations have well over half of the world's population and ten of the 16 cities with over ten million people, immense concentrations of present and future demand for education. Table 2.3 (over) lists the growing mega-cities. China has seen two decades of high economic growth and produced one fifth of world GDP by 2050. Although domestic participation in higher education has tripled since the mid-1990s foreign education will continue to constitute positional value in China, especially in internationalised sectors such as finance and tourism, and open migration routes abroad. Parallel cases Korea and Japan have enough good quality tertiary places but positional demand for foreign education continues. Further, unmet demand will continue to be a factor in some regions in China. Thailand and Indonesia are likely to see growing unmet demand.

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*For more discussion of the different modes of cross-border education, and issues of trade and mobility regulation in the importing and exporting nations, see among others OECD, 2006a, McPhunie & Ziguras, 2006; Sidhu, 2005.

17 Once the acquisition of foreign education becomes a normal practice of middle class families in parts of mainland China and Southeast Asia, it becomes not so much a method of gaining a special
European and Asian nations offer selected English-medium programs to complement for these Asian students, especially Denmark, Finland, the Netherlands, Sweden and Malaysia (OECD, 2006, p. 291). However, on the whole the English-speaking countries retain a global advantage via a vis other export nations because they provide immersion in an English setting on a daily basis, thus allowing for significant opportunities to skilled migrants, encouraging foreign students to pay for education after graduation (Trembaly, 2005). A clear-cut migration route substantially enhances the private value of cross-border education as a positional good. When citizenship in the country of education also opens the way to easier deployment in other sought-after jurisdictions – for example entry to Australia via initial entry to New Zealand, entry to the USA via Australia or Canada – the positional good constituted by cross-border education gain still further in value.

Table 2.3. Cities projected to have more than 10 million people in 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>2002</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia-Pacific countries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mumbai, India</td>
<td>16.1</td>
<td>22.6</td>
</tr>
<tr>
<td>Calcutta, India</td>
<td>13.1</td>
<td>16.7</td>
</tr>
<tr>
<td>Delhi, India</td>
<td>12.4</td>
<td>20.9</td>
</tr>
<tr>
<td>Dhaka, Bangladesh</td>
<td>12.5</td>
<td>22.8</td>
</tr>
<tr>
<td>Karachi, Pakistan</td>
<td>16.0</td>
<td>16.2</td>
</tr>
<tr>
<td>Shanghain, China</td>
<td>12.9</td>
<td>13.6</td>
</tr>
<tr>
<td>Beijing, China</td>
<td>10.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Tianjin, China</td>
<td>9.2</td>
<td>10.3</td>
</tr>
<tr>
<td>Tokyo, Japan</td>
<td>26.4</td>
<td>27.2</td>
</tr>
<tr>
<td>Osaka, Japan</td>
<td>11.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Jakarta, Indonesia</td>
<td>11.0</td>
<td>17.3</td>
</tr>
<tr>
<td>Metro Manila, Philippines</td>
<td>9.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Other countries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York, USA</td>
<td>16.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Los Angeles, USA</td>
<td>13.2</td>
<td>14.5</td>
</tr>
<tr>
<td>Sao Paulo, Brazil</td>
<td>18.0</td>
<td>21.2</td>
</tr>
<tr>
<td>Rio de Janeiro, Brazil</td>
<td>10.7</td>
<td>11.5</td>
</tr>
<tr>
<td>Mexico City, Mexico</td>
<td>18.1</td>
<td>20.4</td>
</tr>
<tr>
<td>Buenos Aires, Argentina</td>
<td>12.0</td>
<td>13.2</td>
</tr>
<tr>
<td>Lagos, Nigeria</td>
<td>5.7</td>
<td>16.0</td>
</tr>
<tr>
<td>Cairo, Egypt</td>
<td>9.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Istanbul, Turkey</td>
<td>9.6</td>
<td>11.4</td>
</tr>
</tbody>
</table>

Source: ADB, 2003

Dynamics of the market. Table 2.2 is limited as a guide to the market. It does not demarcate commercial cross-border education from subsidised forms. Numbers are growing most rapidly where cross-border education is a commercial venture with full-price tuition; in the UK, Australia and New Zealand, Malaysia (30,407 foreign students in 2004, mostly in the private sector), Singapore, China and India are emerging commercial exporters. In Australia, New Zealand and the UK, full fee foreign students are enrolled alongside subsidised domestic students in non-profit institutions, so that the commercial business is an island within the larger setting. Here the production of global private goods rests on the sunk capital and reputation of the public university, derived in large part from its long-standing and continuing function as a producer of public goods. It is another example of public/private symbiosis. However there can be tensions between the logic of the business, which tends to standardise mass-market quality and economy out costs and complexity, and the requirements, rhythms and cost structures of bundled non-profit teaching and research. Further, if commercial full fee education becomes too dominant within the mix, to the extent of say a third or a half of overall student enrolments, the public good reputation of the institution begins to corrode. There is the danger of killing the goose that lays the golden eggs.

At the same time capitalist economic competition is not the only potential driver of growth in cross-border education. Europe shows this. The cultural momentum of Europeanisation (more solidly entrenched in education than in government and politics) sustains a common education policy framework that fosters large scale, growing and reciprocal flows of students and also staff. Likewise, though Japanese higher education is highly competitive and also privatised the Japanese government emphasises foreign education as a means to learning and to internationalisation; that is, as a national and global public good not a revenue-generating business. The government subsidises student flows in both directions. No other government in Asia fosters student mobility on this scale and cooperative regional schemes remain modest or embryonic. In other cases non-commercial mobility is associated with modest growth rates. In the U.S. doctoral sector, France, Germany and much of Europe the great bulk of foreign students continue to access the exporting country on a non-commercial basis. In parts of Europe, such as the Netherlands and Denmark, the commercial component is increasing though provision is mostly non-commercial. The USA enhances the public good component of cross-border education by treating it as an arm of strategic international policy and in part as foreign aid. Interestingly, it is unlikely that relatively generous access conditions provided in particular national systems such as Germany and the USA reduce the potential value of foreign education as a private good, because this is determined primarily by the relative prestige of institution and nation of education, not price.

Table 2.2 does not differentiate between elite provider institutions and providers of mass higher education to foreign students. However, the OECD data make it possible to identify or approximate the degree to which national systems are affected by cross-border flows, and also provide detail of the character of intakes as to level and field of study, both of which have some bearing on the question of elite versus mass provision. International students form a high proportion of total

and usual advantage, as a 'defensive necessity' (Hirsch, 1976) for reproducing social position and sustaining the effectiveness of family business activities.
student enrolments in Australia (16.6 per cent), the UK (13.4 per cent), Switzerland (12.7 per cent) and Austria (11.3 per cent). Additionally, foreign student as a proportion of enrolments exceed 10 per cent in Canada, France, Germany and New Zealand (where the ratio is 28.3 per cent). In the largest exporter, the United States, international students constituted only 3.4 per cent of enrolments in 2004 and were relatively marginal in most institutions. The largest cross-border enrolment was in the University of Southern California which nevertheless had less than 7000 international students. On the other hand the American doctoral sector enrols a proportion of academically elite students which is exceptional by international standards. Nearly one third of foreign students are at doctoral level (IIE, 2006).

This points to the overall global role of the United States as an elite provider (discussed further below), though some U.S. community colleges engage in volume building mass provision.

The cross-border mission of the U.S. doctoral universities contrasts with their Australian counterparts. In Australia international students were 16.6 per cent of enrolments and a low 3.9 per cent of those students entered advanced research programs, signs of a nation predominantly committed to mass production of global private goods as its principal international strategy, except at the flagship research university, the Australian National University (Marginson, 2007c). In 2005 in Australia seven universities enrolled more than 9000 international students, led by Monash University at 17,168. In Australia in 2005, 15 per cent of higher education revenues came from international students fees. The highest was 46 per cent of all income at one institution, Central Queensland University (DEST, 2007), where the identity of the original public sector domestic university has been partly displaced. In 2007 it faced bankruptcy after fee-paying numbers dropped by almost 3000. At that level of commercialisation, not only is the tail (the commercial business) wagging the dog (the public university), it has started up a second line of barking.

In the UK there were 300,056 international students in 2004, sign of a mission that is mass and commercial in character, but 11.5 per cent of international students were in advanced research programs in the UK. The UK provides for both Bourdieusian sub-fields of the global market (OECD, 2006, pp. 303 & 310).

Mobile Researchers

Data on academic staff movement. Luijtjen-Lub et al. (2005, p. 157) remark that 'there are not many secure data on staff mobility'. For OECD Mahroun (2001, p. 220) notes that 'the proportion of overseas members of academic and scientific staff in national research institutions', that is, long-term academic migrants, is a useful indicator but 'is often neglected due to the lack of consistent, comprehensive and internationally comparative data'. However, there are better data on academic and researcher mobility in the areas of short-term visits and doctoral education.

The overall trend is one of increase in cross-border movement for research collaborations, conferences and short exchange visits; recruitment into academic posts – though the picture is uneven, systems ranging from relatively open, to closed to foreign entrants - and doctoral programs (OECD, 2004c; Enders & de Weert, 2004; Marginson, 2008). Mobility has a long-standing place in the culture of research-intensive universities, though this varies by nation and by discipline. Research is often the medium for mobility because of the universal character of many knowledges especially the sciences. Teichler (2004) remarks that 'most academics hold cosmopolitan values in high esteem' and internationalizing one's knowledge base is a relatively 'safe' method of intellectual growth engaged selectively and at will (Teichler, 2004, p. 111). Aveduto's (2001) study of faculty and doctoral students in six Italian universities found that 'overseas experience is rated by the vast majority of professors and students as highly desirable and is often cited as a value per se'. Only 26 per cent of the students had studied abroad but 96 per cent of those who had not wanted to do so (Aveduto, 2001, p. 233). For many non-American researchers a period of international doctoral study or post-doctoral work, particularly in the USA, can both open up opportunities abroad and enhance the positional value of qualifications and vitae at home. This does not mean that the American or other foreign labour markets constitute a unitary global labour market that is subsuming the national academic career structures and labour markets.

National labour markets remain robust and distinctive as to informal and formal rules, salaries and conditions of work, especially in larger national systems such as those of the UK, Japan, France and Germany (Musselin, 2004, 2005; Marginson, 2008). It is only in the market for highly paid high performing labour in scientific research, and in the market in doctoral education (see below), that specifically global markets have decisively subordinated national markets.

The USA, followed by the UK, draws the most visiting faculty. In the USA between 1994-1994 and 2004-2005 the number of international scholar visitors rose from 59,981 to 89,634 (49.0 per cent); though, similarly to the foreign student intake, it faltered temporarily after 11 September 2001. Within Europe the main receiving countries for researchers are the UK (30 per cent), France (15 per cent), Germany (10 per cent) and the Netherlands (10 per cent) (Luijtjen-Lub et al., 2005, p. 157). Most European nations report growth in short-term faculty visits. One such case is Norway where 'there has been a substantial increase in all types of journey from 1981 to 2000', about 20 per cent (Smeby & Trondal, 2005, pp. 456-457). Different types of international travel are interrelated and mutually reinforcing (p. 456). In the 1990s visits related to cross-border research collaboration increased more rapidly than any other category (p. 457).

The global doctoral market. There has been a parallel increase in doctoral student mobility. Many governments subsidize foreign PhD experience, while 'universities that once largely recruited doctoral candidates locally are increasingly active on the national and the international market' (Enders & de Weert, 2004, p. 146).

On the provider side, world-wide doctoral education is dominated by the special global role of the United States. It is in doctoral education, where, ironically, cross-border student mobility is less commercial in character than in first degree and Masters education, that the first unitary global market has emerged. Whereas the cross-border market in first degrees and business Masters functions as an adjunct to the national markets of many exporting nations, being both marginal to those
nations and to some extent fragmented between them, the cross-border market in doctoral degrees is both dominant vis-à-vis national markets outside the United States and a coherent, unified primary market in its own right. This arises from the concentration of much of the world capacity in basic research in the United States, and a deliberate U.S. policy of opening U.S. universities to foreign talent. The USA has over half of the top 100 research universities (see below) and provides a comparatively broad field of career and employment opportunities. In other words, the American brand of doctoral education is notably superior as a positional good compared to doctoral studies elsewhere. The outcome is that the American doctoral market functions as the global doctoral market. Other national doctoral markets are adjuncts to this global (American) doctoral market. It is an imperial relationship.

In the USA in 2004-2005, 18.1 per cent of foreign students in higher education were at doctoral level, and 30.8 per cent in research-intensive universities. Whereas in 2003 the UK had 23,871 foreign doctoral students, Spain 11,765 and Sweden 3205; in 2004-2005 the American doctoral sector enrolled 102,084 foreign doctoral students. Almost three quarters received scholarships or other subsidies, mostly from their American universities (IIE, 2006). The foreign-born proportion among doctoral graduates rose from 13.5 to 28.3 per cent between 1977 and 1997. In mathematics and computing it rose from 20.2 to 43.9 per cent, in engineering 32.1 to 45.8 per cent (Guelluc & Cervantes 2002, pp. 77-78). It is a positional "winner" for both parties. The American economy and research system is boosted by foreign talent, helping it to sustain global leadership. Foreign entrants have a range of opportunities unavailable anywhere else. During their studies foreign students make a key contribution to American universities as research and/or graduate teaching assistants. Between 1985 and 1996 the number of foreign students primarily supported as research assistants rose from 2000 to 7600 (Guelluc & Cervantes 2002, p. 89). Later the U.S. immigration regime placed a Green Card within reach. Growth in the number of foreign doctoral students and their share of American PhDs has been matched by the growth in their propensity to stay. From 1987 to 2001, the stay rate for foreign doctoral graduates rose from 49 to 71 per cent (OECD 2004c, 159). Stay rates are particularly high for doctoral graduates from China, India, Israel, Argentina, Peru, Eastern Europe and Iran, and also for some developed countries including the UK, Canada, New Zealand and Germany. In 2003 three quarters of EU citizens who obtained a US doctorate said they had no plans to return to Europe (Tremblay, 2005, p. 208). Not all foreign PhDs go on to work in higher education but between 1975 and 2001 there was a sharp rise in the foreign born with US doctoral degrees as a proportion of academic labour, from 12 to 21 per cent (NSB, 2006, p. A5-45). American universities are more flexible and open than the academic labour markets of most other nations. Maintaining this flow of talent is a high priority despite post-2001 hiccups in the visa process. 19

At postdoctoral stage the USA offers the majority of posts worldwide. There is an outflow from American doctoral study to post-doctoral positions, and a further group of people enter the U.S. for the first time after completing a doctoral degree elsewhere. Whereas recent studies in Europe suggest postdoctoral mobility is stable (Enders and de Weert 2004a, pp. 146-147) an increasing proportion of postdoctoral personnel holding US doctoral degrees are foreign born; between 1985 and 2001 this rose from 21 to 41 per cent (NSB, 2006, p. A5-47), indicating growing movement into the United States.

Other foreign doctoral graduates from American institutions return to the nation of origin or migrate elsewhere, most of them carrying a degree of commitment to American norms in higher education and research, 20 often taken into positions of governmental or institutional leadership in the home country. Thus American knowledge goods and models of higher education and research have continuous effects in most other national systems. However, the reverse is not the case.

Differentiation of the Map of Institutions

Like the positional value formed in national competition, global positional value combines degree/brand status with research performance/reputation. As noted, even more than at national level the means of differentiating institutions is research status. Strong research universities are strong attractors of cross-border students. Research status is primarily determined by the quantity and quality of publications and citations — which assists the relative position of English language speaking institutions because English is the sole global language of research publication and research-related income and success in the struggle for competitive grants.

In 2003 the Shanghai Jiao Tong University Institute of Higher Education (SJTUHE) issued the first authoritative worldwide survey of universities based on research performance. The SJTUHE ranked institutions from 1 to 1,500. Place-by-place rankings were provided for the top 100 and the five top fifties and hundreds. These rankings have since been issued on an annual basis. In 2007 the SJTUHE also issued discipline-based rankings in physical sciences, engineering, life sciences, medicine and social sciences. The SJTUHE uses a composite index based on the university of education of winners of Nobel Prizes and Fields Medals in Mathematics, the university where the prize winners currently...
work, publications in discipline-based journals, publication in Science and Nature, citations, the number of HiCi researchers (in the top 250-300 in the field) in the institution, and a final component that consists of these measures aggregated and expressed per head of academic staff. The measures favour large comprehensive research intensive universities that are very strong in science-based disciplines.21

Table 2.4. The world’s top 50 research universities, based on measured performance, 2006

<table>
<thead>
<tr>
<th>institution</th>
<th>pts</th>
<th>institution</th>
<th>pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Harvard USA</td>
<td>106.0</td>
<td>26 University Coll Lond UK</td>
<td>42.2</td>
</tr>
<tr>
<td>2 Cambridge UK</td>
<td>72.6</td>
<td>27 FIT Zurich Switzerland</td>
<td>41.2</td>
</tr>
<tr>
<td>3 Stanford USA</td>
<td>72.5</td>
<td>28 Washington, St. Lou USA</td>
<td>40.4</td>
</tr>
<tr>
<td>4 UC Berkeley USA</td>
<td>72.1</td>
<td>29 New York USA</td>
<td>38.4</td>
</tr>
<tr>
<td>5 Massachusetts IT USA</td>
<td>69.7</td>
<td>30 Rockefeller USA</td>
<td>38.2</td>
</tr>
<tr>
<td>6 California IT USA</td>
<td>66.0</td>
<td>31 Duke USA</td>
<td>38.2</td>
</tr>
<tr>
<td>7 Columbia USA</td>
<td>61.8</td>
<td>32 Minnesota, Twin Cit USA</td>
<td>37.8</td>
</tr>
<tr>
<td>8 Princeton USA</td>
<td>58.6</td>
<td>33 Northwestern USA</td>
<td>37.6</td>
</tr>
<tr>
<td>8 Chicago USA</td>
<td>58.6</td>
<td>34 Colorado-Boulder USA</td>
<td>36.4</td>
</tr>
<tr>
<td>10 Oxford UK</td>
<td>57.6</td>
<td>35 UC Santa Barbara USA</td>
<td>36.1</td>
</tr>
<tr>
<td>11 Yale USA</td>
<td>55.9</td>
<td>36 British Columbia Canada</td>
<td>35.6</td>
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<td>12 Cornell USA</td>
<td>54.1</td>
<td>37 U Maryland Coll PK USA</td>
<td>35.4</td>
</tr>
<tr>
<td>13 UC San Diego USA</td>
<td>50.5</td>
<td>38 Texas, SW Med C USA</td>
<td>35.2</td>
</tr>
<tr>
<td>14 UC Los Angeles USA</td>
<td>50.4</td>
<td>39 Texas, Austin USA</td>
<td>34.6</td>
</tr>
<tr>
<td>15 Pennsylvania USA</td>
<td>50.1</td>
<td>40 Utrecht Netherlands</td>
<td>33.4</td>
</tr>
<tr>
<td>16 Wisconsin/Madison USA</td>
<td>48.8</td>
<td>41 Vanderbilt USA</td>
<td>33.2</td>
</tr>
<tr>
<td>17 Washington, Seattle USA</td>
<td>48.5</td>
<td>42 Pennsylv State, U PK USA</td>
<td>32.7</td>
</tr>
<tr>
<td>18 UC San Francisco USA</td>
<td>47.7</td>
<td>43 UC Davis USA</td>
<td>32.7</td>
</tr>
<tr>
<td>19 Tokyo Japan</td>
<td>46.7</td>
<td>44 UC Irvine USA</td>
<td>32.6</td>
</tr>
<tr>
<td>20 Johns Hopkins USA</td>
<td>46.6</td>
<td>45 Paris 06 France</td>
<td>32.2</td>
</tr>
<tr>
<td>21 Michigan-Ann A USA</td>
<td>44.5</td>
<td>46 Rutgers State, N Brun USA</td>
<td>32.1</td>
</tr>
<tr>
<td>22 Kyoto Japan</td>
<td>43.9</td>
<td>47 Southern California USA</td>
<td>32.0</td>
</tr>
<tr>
<td>23 Imperial College UK</td>
<td>43.4</td>
<td>48 Karolinska I Stoc Sweden</td>
<td>31.9</td>
</tr>
<tr>
<td>24 Toronto Canada</td>
<td>42.8</td>
<td>49 Pittsburgh, Pittsburg USA</td>
<td>31.9</td>
</tr>
<tr>
<td>25 Illinois, Urbana-C, USA</td>
<td>42.5</td>
<td>50 Manchester UK</td>
<td>31.7</td>
</tr>
</tbody>
</table>

Source: SJTIHE, 2006

Of the leading 500 research universities in 2006, the USA had 167. Other major systems were the UK (43), Germany (40), Japan (32), Italy (23), Canada (22), France (21), China (19), Australia (16), the Netherlands (12) and Sweden (11). Only 21 of the top 500 universities are in nations where per capita GDP is below $9420 (World Bank, 2006): 14 in mainland China, excluding Hong Kong, four in Brazil, two in India and one in Egypt.

The centralisation and concentration of research capacity is greatest at the top. All but seven of the top 100 research universities were in nations with per capita incomes of over $15,000 in 2005. The USA dominated with 54, including 17 of the top 20. The UK had 11 of the top 100, including Cambridge and Oxford in the top 20; the English speaking countries between them commanded 71 per cent. The relatively small national systems of Switzerland (four) and Sweden (three) are strong in the top 100 group. Canada, France and the Netherlands were in the top 50 (Table 2.4). Figure 2.1 shows the global strength of U.S. basic research.

Figure 2.1. The world’s top 100 research universities, based on measured performance; distribution by nation

The leading research universities concentrate to themselves prestige, financial resources, human talent, research infrastructure and knowledge production; and each form of concentration tends to produce the others. Of the HiCi researchers in the top 250-300 in their fields, 3835 are located in the USA, almost nine times the number in any other country. The UK has 443, Japan 216, Germany 242, Canada 174, France 157, Australia 102, Switzerland 102 and the Netherlands 92. In the U.S. Harvard has 160 HiCi researchers, more than all French universities put together, Stanford 135 and UC Berkeley 82. There are 44 at Cambridge in the UK (Thomson-ISI, 2007). Where research capacity is concentrated, there knowledge flows are generated. In 2001 U.S scientists and social scientists published 200,870 papers in major journals. Indonesia with two thirds the U.S. population created 207 papers (NSB, 2006). Not much knowledge flows back from Indonesia to the USA.22

21 Of the 736 Nobel Prizes awarded up till January 2003, 570 (79 per cent) were to people from high-income countries, the majority to the USA, with 4 per cent from Russia/Soviet Union; Eastern Europe and 5 per cent from emerging and developing nations (but note that nearly all the last group were working in the USA, UK or Europe when they did their Prize-winning work). People from emerging and developing nations have their best prospect of winning a Nobel Prize in Literature (17 per cent) or Peace (20 per cent) but these are excluded from the SJTIHE index (Bloom, 2005).

22 The volume of papers from Japan was 57,420, the UK 47,661, Germany 43,623, France 31,317 and China 20,978 (NSB, 2006).
Yet research performance, while the strongest single element in comprising the global positional market, is not the only element. Above and beyond differentiation on the basis of research performance, institutions from the United States and to a lesser extent the UK enjoy a special global status. The universities from Canada, Japan and Western Europe in the top 50 are less known and less sought after. As noted, the global power of American universities is grounded not just in their intrinsic academic merits but also on broader American power, including its wide-ranging, flexible and well paid career opportunities. U.S. institutions also benefit from the manner in which they are portrayed through the world in American films and television. Is it possible for a European university outside the UK to be unequivocally ranked in the Global "Super-league"? Probably, more so if it became Europe-wide in identity, but only with difficulty and after much preparatory work. Is it possible for a university from Japan or China to be so ranked? It would be harder, because of linguistic and cultural distances from the hegemonic case. One suspects the Universities of Tokyo or Peking could become world-wide household names only if the nation started to cut into the global role of the United States.

The other end of the global field. The mass and commercial sub-field is less readily identified than the 'Super-league'. The structural coherence of the market is limited. Cross-border education operates on the margins of most national systems; and far from being a common pool of activity it is fragmented between countries. What partly holds it together is that in the process of choice-making, students and their families can imagine a world-wide set of provider nations, institutions and places to live (an imagining powerfully assisted by global university rankings, not to mention the travel and tourism industries). Cross-border education is also partly unified by the practices of educational agents, who often work across several national jurisdictions and in relation to many institutions; and it is unified culturally by isomorphism in recruiting strategies and the provision of similar curricula in many countries in globalised fields such as technologies and business.

The mass and commercial grouping is a heterogeneous amalgam of institutions, with varied status at home within the domestic systems of the exporting countries but a more flattened status vis-à-vis each other in the trading environment. Precise gradations of position between institutions have less meaning than does national identity. Studies of student choice-making repeatedly confirm that below the top tier, students choose between one or another national system rather than identifying individual institutions (OECD, 2004a, p. 266); though if an institution is so fortunate as to figure well in university rankings it will use that in its marketing. In the mass and commercial sub-field, whereas on the demand side the driver is the desire for positional goods, on the supply side it is not institutional prestige but revenues. Between 1995 and 2003 average public funding per student fell 30 per cent in Australia and 12 per cent in the UK (Table 1.3 above). Between 1990 and 2005 the number of international students in Australia multiplied by 20. The commercial market expands in capitalist fashion because below the globally elite universities, an expansion in the number of places does not affect the unit value of each place.

Global segmentation. Table 2.5 summarises the segmentation of higher education when the global and national dimensions are both included.

Segment 1 is the elite sub-field of the global market, the 'Super-league'. The mass and commercial sub-field of the global market is split between segments 2 and 3. Institutions in segment 2 often experience internal tensions as to their cultures and missions. One example is those British and Australian universities competing in the global research stakes while at the same time building high volume concentrations of full fee-paying international students to plug the hole left by reductions in the government funding. When universities with high domestic status operate also in the mass international market they exhibit a Jekyll and Hyde personality, maintaining scarcity and hence positional value in the domestic intake, while expanding cross-border students in the manner of a business.

The attempt to play both sub-fields at once. But there are limitations to capitalist growth; the need to sustain a homogenous educational environment to protect domestic prestige (for example relatively high English standards for cross-border entry), and to maintain primacy of the research mission. If the commercial operation absorbs too much in development spending (for example in offshoring research performance will fall away. Teaching-only institutions can be fully commercialised but basic research producers cannot. Beneath that group in global status are ostensibly teaching-research universities for whom a research mission is useful in securing their marketing position but is is decisively subordinated to chancing cross-border revenues. Other national research universities located in segment 4, especially those located outside the English speaking world with less
commercial opportunities in cross-border education, take the opposite tack. They continue to operate as elite universities but fall below the Super-league in research and have no presence in the global market for students.

Though the mass and commercial producers in Segments 2 and 3 may have lesser status than the Harvards and Oxfords, in the developing and emerging country contexts these institutions mostly enjoy a high status that is instrumental to the workings of the market. For foreign graduates returning to Thailand or Tajikistan, all reputable foreign degrees have positional value. All education export nations enjoy a generic positional advantage on the global scale. They benefit from the absence or weakness of higher education capacity in emerging nations, and the deflation of the value of higher education places in those nations by global referencing and foreign intervention. Without these factors students would have less opportunity to secure positional advantages through cross-border mobility. There would be less scope for the production of cross-border commodities, and a much smaller global economic market in mass cross-border higher education.21

NATIONAL DIMENSION AND GLOBAL DIMENSION

National and Global Markets

Global market and national markets are heterogeneous to but closely implicated to each other. The global market is not grounded in a global nation-state, or a global consciousness. Nor (with the marginal exception of the e-U’s) does it offer global degrees. It offers the national degrees of one or another export nation. A cross-border degree is an American degree, an Australian degree, a German degree, a degree from Singapore. Especially in the USA, the main business of global provider institutions is not global positional competition but national positional competition. The national status they carry, and the status they confer on graduates in national markets, underpin their global value. But this is not to say that the global market is a weak epiphenomenon of the national market and still less that the global dimension is reducible to the national dimension. In all nations apart from the United States, the global hierarchy washes back into the national dimension and transforms and subordinates the national positional market.

There are two kinds of wash-back effect from the global dimension at national level. The more minor one is the impact of cross-border student populations on status, revenues, programs and the academic and organizational cultures. These students have differing implications for institutions compared to local students. In the national market, domestic students who are socially and academically selected augment the positional status of the institution. Attracting such students is a

21 The greater the extent of global inequality and educational backwardness, the greater the gains made in border crossing and the more the potential for export profits. As Marx notes: Capital invested in foreign trade can yield a higher rate of profit ... because it competes with commodities produced by other countries with less well developed production facilities, so that the more advanced country sells its goods above their value ... (Marx, 1981, pp. 344-345).

principal strategic goal of middle and upper status institutions. Cross-border students have mostly been socially selected; the average cost of tuition and living expenses in the U.S. state university is six times the per capita income of China (IDP, 2001); and they are often academically selected, particularly those that enter American universities. But with the exception of good doctoral students, cross-border students do not create status benefits additional to the revenues they generate.24 The societies in which their families enjoy power and status are unknown to the domestic systems in which their cross-border education takes place. Even though it has become de rigueur for elite universities to be globally engaged, they are often surprisingly indifferent to the cross border students in their midst. In the English speaking countries the flood of cross border students on the whole has failed to trigger transformations in teaching and learning, for example culturally hybrid pedagogies and curricula. In Western Europe, the main effect has been to hasten the introduction of more English-medium programs. On the other hand cross-border students are often seen as a significant source of revenues.

The more important wash-back effect is the transformation of national positional markets. As noted, inside the USA global competition in higher education has little effect as such. Global competition is American competition and vice versa. But outside the USA there is a new global map of opportunity and this has remade the strategic terrain on which each national competition and each institution operates.

The global market does not replace the national markets. Rather, it subordinates them (again, except in the USA). Though the national and global hierarchies are imperfectly integrated they constitute a single set of possibilities for a growing number of students and families (they were long seen this way by academic staff and doctoral students). As Table 2.5 shows the effect is to layer on top of each national positional market a stratum of student places with superior positional value to all places created at the national level. The fact that a few students from the nation will access cross-border places and much fewer will reach the Super-league does not matter. A market is an imagined field, and the global layer is now readily imagined. Few people know much about higher education in other nations but the peaks of global status are visible to all. Above the national hierarchy in every nation now looms the American doctoral sector and the leading UK universities. Global engagement varies from university to university but the potency of global referencing does not. In other words, once the point of reference is global rather than national, a university’s national position is ‘over-determined’ by the global position occupied by its nation within the global higher education environment.

Paradoxically, the institutions that have most to lose are those historically strongest at the national level: those that educate the social elite, and the research intensive universities (often but not always the same institutions). The institutions that service the social elite, once unchallengable positional leaders in their own domain, suddenly look less attractive and more vulnerable. The nation is no longer

24 There are other exceptions to this generalization, in those elite institutions or units that specialise in educating foreign students, such as the London School of Economics, and in a lesser extent the Kennedy School of Government at Harvard.
solely their domain. They cannot compete with the charms of Oxford or Stanford. There are sudden leaks in the circular reproduction of status. Some of their treasured clients are crossing borders and slipping from their grasp. For research universities the problem is if anything worse, because it is almost impossible to compete with the American sector. Metrics and rankings are pitiably transparent. Suddenly, local research performance becomes less worthy, and more specifically, determining of status. This affects leading universities in nations such as Western Europe or Australia, which at least have the potential to become global players in their own right; but it is worse for the leading universities in emerging nations with less geo-strategic power, where even the elite institutions lack the capacity in research and communications technologies necessary to be globally effective.

This weakening of leading national institutions creates both 'public bads' and 'private bads'. On the public side it deforms national capacity in higher education. On the private side it subordinates at the global level the local elites left behind in the national institutions. Nevertheless, the 'wash-back' effects of global positional competition on national competition and national policy are no more equal or uniform than is the global market that generates them. Some local traditions are more robust than others, some nations and some institutions are more open to global influences than are others; and the capacity to pursue a proactive global strategy is unevenly distributed. Here national governmental strategies have a potential to affect the outcome. Some governments underpin the forward strategies of their leading institutions in the global setting (the wisest policy). Some offer domestic protection from those same global market forces. Some unwisely leave it to the market to sort it out. Leading institutions still hold more cards than the others, even in developing nations. They can shore themselves up to some extent by working the national political system. The difference is that they no longer set the horizon of possibility. The ultimate constraints are now set by global segmentation.

So far this suggests that self-determination has been reduced. On the other hand, global competition offers all institutions whatever their domestic status a new set of strategic options, identities and development paths. They can create international research partnerships (if they have research capacity), double-badged degrees with foreign providers, ICT-based linkages, revenue raising cross-border programs, set up off-shore and/or develop a more cosmopolitan curriculum. Operating in more than one national sphere they can use the outcomes of strategies in one sphere — resources, networks, reputation — as inputs in the other. (They also face new tensions between domestic investment and global investment options). Some non-elite universities that are locked out of the elite segment of their national systems position themselves as providers of high value positional goods for students from elsewhere. Others build a new domestic status on the back of internationalized operations. At the same time, the national zone continues to be partly determining of global fortunes. Revenues continue to be sourced largely from national and local sources. Even Australia derived only 15 per cent of university revenues from teaching foreign students in 2005 (DEST, 2007). Offices and campuses established off-shore tend to lose money. Research universities spend more on globally-linked research activity than they generate in cross-border research funding.

The new salience of the global dimension also feeds into a changing distributional politics of higher education in many countries (OECD 2004a, pp. 241-248). It problematizes traditional national conceptions of equity policy. It is difficult to monitor equality/inequality of opportunity among the citizens of national education systems when there are leakages to foreign providers abroad and growing numbers of non-citizens at home. How can equity be established between domestic students attempting to access scarce places in national universities (for example professional training in Medicine or Law), and students who 'queue jump' by accessing such programs offshore, and cross-border students who enter the programs by different routes to domestic students? There are also questions about the social, cultural and gender composition of mobile student populations. What is the role of parental income and social status in determining effective access to sponsored schemes, and to full-cost foreign places? What are the longer term effects of differentiating access to foreign education among students in emerging nations, in the formation of societies in those nations?

The Hegemony of the United States

Globalization in higher education is what America does to the world not what the world does to America. It is the virtue of global hegemony (if virtue it is). American hegemony is exercised without entrepreneurial marketing. United States universities do not have to adjust their programs or their cultural ambition to attract international support. Few offer even a partly internationalised curriculum. Rather, they offer themselves as the global standard. Cross-border flows into the United States would be much greater if the U.S. doctoral system was a more vigorous recruiter at first degree and Masters level. The overwhelming majority of prospective international students exhibit first preference demand for U.S. institutions, especially for the elite institutions (for example Mazzarol et al., 2001).

But the USA is concerned less with numbers than with the quality personnel needed to reproduce its global role. This already rests on a massive material base. The USA has the world's third largest population; its GDP is largest and GDP per head exceeds $40,000. Japan has less than half the population, one third the GDP and a per capita income of just over $30,000. The USA spends more of GDP on tertiary education than any other nation, 2.9 per cent, amounting to about $360 billion in 2005 (OECD, 2006). Japan spent $51 billion. In other words, the United

29 In many countries, protecting the strength of leading institutions is a key objective of policy. Those institutions can be shored up by intensifying their national positional value via competitive entry, strong government investment in the science-based disciplines: both of these factors apply in the national universities in Japan. In Malaysia, despite the high reliance on foreign tertiary education, an undergraduate level the nationally dominant bumiputra are channelled into the leading public universities. This maintains the prestige of those institutions. The Chinese and Indian families make heavier use of undergraduate foreign education. The bumiputra benefit from government-funded scholarships for foreign education at postgraduate stage, offered to university academics and public servants marked out as future leaders.
States invests more than *seven times* the whole of the rest of the OECD region. This is on par with the American global supremacy in military weapons and in film and television. It is not surprising the US has most of the top research universities. Table 2.6 compares the US to the next ten OECD countries and other large nations.

United States universities also dominate the institution-to-institution networking which structures the communicative field of global competition and enables it to be imagined. Universities in the different world regions normally have partial linkages with other regions but are always linked to universities in the United States, which is the global communications and business hub (Castells, 2001). Yet those same U.S. universities scarcely imagine the global field. With the national market also the top echelon of the global market they do not have to look further. There is intense domestic competition for top students, academic staff and research reputation but global competition does not generate a parallel vigour. Non-American universities carry little weight, and the dynamics of globalization, including the effects of U.S. universities abroad, are largely invisible.
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<td>12,409.5</td>
<td>41,854</td>
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<td>1056.1</td>
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<td>30,120</td>
<td>1.4</td>
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<td>1061.2</td>
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<td>25</td>
<td>175</td>
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<td>1.1</td>
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<td>15</td>
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<td>10,209</td>
<td>1.3</td>
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<td>Spain</td>
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<td>1133.5</td>
<td>26,125</td>
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<td>China **</td>
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<td>0.7</td>
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<tr>
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<td>3842</td>
<td>0.3</td>
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* PPP = Purchasing Power Parity, Investment in tertiary education in dollar estimated using 2005 GDP data and the 2003 proportion of GDP allocated to tertiary education. ** includes Hong Kong, excludes five universities from Taiwan. *** proportion of GDP spent on tertiary education is 2002 for India and Indonesia. n.a. = data not available.

American ‘exceptionalism’ in higher education is constituted not only by material weight but also by indifference. In scholarship, others cite Americans. Americans agree. The USA produced less than a third of the world’s scientific articles in 2001 but accounted for 44 per cent of citations in the world scientific literature (Vincent-Lancrin, 2006, p. 16). The Carnegie cross-country survey of the academic profession found that while over 90 per cent of scholars from other nations saw it necessary to read foreign books and journals only 62 per cent of American scholars agree. Despite the fact that many American scholars have exemplary engagements with foreign work this was much the smallest level among developed nations. Altbach remarks that though U.S. scholars are ‘at the centre of the world academic system’, ‘the American research system is remarkably insular, especially when compared to scientific communities in other countries… The American system accepts scholars and scientists from abroad, but only if they conform to American academic and scientific norms’ (Altbach, 2005, pp. 148-150).

**Potentials for Pluralisation of Capacity**

It is unlikely to stay this way for ever. The global hierarchy in higher education is subject to continual movement and flux. It is more unstable, more changeable, than national positional hierarchies in the industrialised nations; though as in the case of national competition the elite segment is more stable than others. The development of capacity in the emerging nations, especially research capacity, has the potential to modify the pattern of global asymmetries and uni-directional transformation. European collaboration could alter the global picture in the longer term, given the research strength of several West European nations. Though it remains to be seen how those separated strengths will coordinate and accumulate, the Bologna declaration and the European Research Area provide favourable conditions for the concentration of capacity (Marginson & van der Wende, 2007). The more striking development is the rise of new science powers in East and Southeast Asia. Between 1985 and 2001 the number of scientific papers increased sharply in Korea (1332 per cent), Singapore (535 per cent), Taiwan (472 per cent) and China (354 per cent) (NSB, 2006). Singapore shows that an emerging nation can not only reverse the brain drain but can transform the global role of the nation by investing in globally focused education and research. The National University of Singapore became one of the world’s leading universities. China is rapidly creating a layer of top research universities. Research capacity in Hong Kong and Taiwan is at European levels. The long start of U.S. research universities, their control of the material means (research infrastructure, electronic publishing, journal production), and their capacity to co-opt foreign talent via hirings and collaboration, ensures their leadership of global knowledge flows for the foreseeable future. However, it is likely that an increasing number of researchers and scholars will move back and forth between systems during their careers and many will hold joint appointments so that increasingly the American doctoral and post-doctoral experience will feed into capacity building back home, and more nations will build research systems capable of self-reproduction. Greater mobility and pluralisation of research capacity opens the way to a partial pluralisation of global status and in the longer term, the evolution of a more plural set of models and norms of institution in a more cosmopolitan higher education landscape (Marginson & Ordorika, 2007).

The key is the role of public investment by the nation-state. Public investment is the driver of change in China and Singapore and the mainstay of European research strength. Though the dynamics of global competition can only be modified by policies coordinated across borders; this is, global public goods; all nations have partial autonomy and scope for self-determination in the global setting (though the larger and wealthier nations, and universities, have more independent agency freedom than others). The effects of global competition in national systems in part can be modified by national government actions. By investing in global competence and strategies, nations and institutions are able to expand the range of possibilities. In essence, the more that global and national developments are driven by endogenous market competition in the sector, the more the outcomes of that competition will intensify the prior hierarchy of institutions and nations; and the less likely that new concentrations of research capacity and educational status will appear. Targeted public investment is the circuit breaker.

In general, developed nations have a superior capacity to access both global private and global public goods in higher education. They contain more people with the ability to pay for global private goods as foreign degrees or commercial intellectual property. They also have research infrastructures and trained personnel able to turn the public goods created by research into both more basic research, and technology transfer. In contrast, less developed nations benefit more from global public goods than global private goods. Higher education and research are integral to nation-building and to modernising strategies able to secure purchase in the global setting. They can make their optimum contribution to national capacity building when domestic infrastructure is already strong, the national innovation system is a magnet for diasporic investment, and the nation maximises ‘brain return’, as in Korea and Taiwan, making better use of its foreign-trained nationals. However in less developed nations, the cross-border education of nationals in the market for private positional goods is associated with brain drain, while PhD graduates who return often lack opportunities to work in their area of training. Cross-border education is less valuable to those nations than growth in higher education capacity at home. This, more than foreign education augments the pool of professional skills and the capacity of national research and knowledge systems, creating multiple long-term potential for national private and public goods.

Public investment is most vital in nations that are currently positioned altogether outside the research university circuit. Higher education should be provided as public goods in situations of market failure; and/or to increase the elements of non-rivalry and non-excludability in production and distribution; and/or to evade the opportunity costs and direct costs of marketing and competition (Singh, 2001). 28

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28 Pusser notes: ‘The fundamental arguments for public supply [i.e. non-market production by government agencies] are that it offers the most direct utilisation of public subsidies, and that it is the organisational type best suited to the rapid expansion of higher education… there is no diversion of the public subsidy to profit, hence more of the subsidy goes to the production of preferred goods’ (Pusser, 2002). The argument is strongest if ‘preferred goods’ are externality or collective goods.
Experience suggests that in the poorer nations the mechanisms of competition and markets will not deliver (Taskforce, 2000; OECD, 2004b). There is insufficient domestic private capital and its distribution is uneven. Only a small fraction of the population can access higher education via the private capacity to pay and such families typically move offshore for university education if not before, failing to contribute to a common national infrastructure. In these nations the way forward is to produce higher education as a predominantly public good, financed by state funding and aid monies under national/local control. This enables higher education and research to be mobilised for state-building and nation-building projects, while fostering spaces in which autonomous intellectual cultures can emerge.

The growth of the commercial cross-border market, in the context of neo-liberal policies, has been associated with a decline in foreign aid for higher education, especially aid from export nations such as the UK and Australia (OECD 2004a, p. 284-286). Developing nations have been rendered less aid-dependent and more market-dependent. Arguably, this has been exactly the wrong way to go.

By way of conclusion: Global public goods. As noted global public goods include both collective goods and positive global externalities (negative global externalities are 'public bads'). In extensively and intensively networked sectors such as higher education and research potentials for global public goods and 'bads' are enhanced. The most important global public goods are knowledge in the different fields, incorporating the potential for diverse collaborative conversations. At best doctoral universities function as highly cosmopolitan communities with many potential spin-offs for both the nation of education and for all nations. Higher education is a fecund site for association, linking not just members of kinship and affinity groups but erstwhile strangers. To borrow a term from the social capital literature, it creates 'bridging' relationships (Woolcock, 2001) across traditional social and cultural divisions. However higher education does not always function at its best. When annexed to hegemonic relations of power the leading research universities tend to impose a linguistic and intellectual mono-culture, crowding out research and scholarship in the other, non-dominant languages and traditions. For subaltern universities it is empowering to connect more effectively to the global mainstream but de-powering if the price is a reduction in self-determination.

A good example, noted above, is the spread of English as a research language. Having a common language favours the rapid transmission and sharing of knowledge; but to the extent that it displaces knowledge created in other languages, its effects outside the English-speaking world are mixed. Global public goods can be exclusive as well as inclusive. Another public good flowing freely in the global setting, and mobilised for projects of cross-border control and transformation, is the Americanised model of system and institutional organization. When enfolded into the policy templates of global lending agencies, these models can undermine viable local traditions in education (Bensimon & Ordorika, 2006; Marginson & Ordorika, 2007). In other words, what constitutes a national and global public good from the viewpoint of the dominant nation or nations, might constitute public 'bads' from the subaltern viewpoint. The question to be asked is 'whose public?'

and 'whose global?'. Another example is the cross-border mobility of people. This is a global collective good (in that it augments the common regime of choices and the stimulus of diversity), and a public good in those countries that benefit in net terms from the flow of talent. It is a 'public bad' in countries where the brain drain is increased. Global relationships are very different depending on whether they embody a singular national/imperial configuration of power, or a multilateral configuration of power. In a multilateral framework the potential for 'win win' global public goods is maximised. This points to the potential importance of multilateral agencies as embryonic global policy sites and to the need to ensure that these agencies are genuinely independent of individual nations and constitute a common space. This can help to overcome the principal difficulty in augmenting global public goods, which is the relative invisibility of those goods.

Here there are untapped potentials in the world-wide higher education setting. The Bourdieuan global market does not contain or exhaust all of the possibilities. By way of concluding remarks the chapter now moves from its primary focus on 'what is' in world-wide higher education to a consideration of 'what might be'.

Despite some discussion of issues such as recognition regimes and brain drain, global public goods in higher education are scarcely visible or understood; being under-recognised compared with national public goods, and global private goods generated in multilateral trade. The starting problem is that public goods can only be effectively considered and regulated in a policy space, and there is no such space ready-made for higher education. Higher education sits in a world that is increasingly inter-dependent yet defined by a zero-sum legal and geographical alignment, a world of autarkic and contesting states with no intrinsic incentive to cooperate despite accumulating problems with downstream effects (global climate change, ecological sustainability, water, population, urban crowding, rural poverty, epidemic diseases). There is a 'jurisdictional gap', a 'discrepancy between a globalized world and national, separate units of policy-making' (Kaul et al., 1999, p. xvi). This again points to the need for multilateral processes, in two respects.

First, 'governments must assume full responsibility for the cross-border effects that their citizens generate' (Kaul et al., 1999, p. xxi). This suggests units within each national government that take responsibility for positive and negative global externalities, and negotiate cost sharing with other governments. Second, there is a need for an inter-governmental space focused on higher education where the costs and benefits of global externalities are defined and managed, national governments are encouraged to incorporate cross-border externalities and prices into their routine national decision-making; and collective goods to be negotiated and developed, for example means of lowering barriers to global mobility. Such a global policy space might also consider issues of balanced global development, including the building of national educational capacity in the developing world, and the augmentation of cultural diversity in educational and linguistic contents. Such a process can be seen in embryo in UNESCO's discussions of quality assurance and in the OECD (2005) project on internationalisation in higher education. In Europe collaborative policy is more advanced. It is a sign of what collective action can achieve in higher education and research, if the will is there.
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