

CHAPTER 21

Globalization, Universities and Sustainability Effects

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INTRODUCTION

More than ever, research universities live in an environment heavily impacted by the forces of globalization. Their strategic thinking continues to be influenced by robust competition in critical areas such as funding, enrolment, recruitment and reputation, as well as by developments beyond their national higher education systems. Intensifying these abiding effects of globalization, a series of recent dramatic events, ranging from financial markets meltdown to massive cyclones, earthquakes and stricken nuclear reactors, heighten the sense of some urgency to better understand how sustainability imperatives will shape the future.

Alarm over the future of the modern research university has spawned something of a Jeremiah literature, touching on the evils of “academic capitalism” (Slaughter & Rhoades, 2004), the radical “restructuring of academic work and careers” (Schuster & Finkelstein, 2006), and the idea that “colleges are wasting our money and failing our kids” (Hacker & Dreifus, 2010). An abiding theme across this writing is the dangerous world in which universities now find themselves, although the diagnosed fault lines vary from the “blizzard of KPIs, management accounting software and the intrusion of corporate values” (Brooks, 2011) to Taylor’s (2010) argument that “as with Wall Street and Detroit”, American higher education “must be rigorously regulated and completely restructured”. Whatever the merits of either extreme, they serve to underscore a rising unease about the very sustainability of research universities, at least in their modern form.

UNIVERSITIES AND THE IDEA OF SUSTAINABILITY

In recent years *sustainability* has become something of an issue *du jour* in corporate reporting and public policy discussions. It has many subtleties, but in essence is the challenge of how to survive and thrive, while leaving future generations unburdened by our actions. The practicalities of sustainability go well beyond environmental measures, and, with increasingly sophisticated corporate reporting required in many parts of the world, public companies have developed a keen awareness of integrated performance the idea of the triple bottom line:

“The success of companies in the 21st century is bound up with three interdependent subsystems the environment, the social and political system and the global economy... in short, planet, people and profit are inextricably intertwined.” (IDSA, 2009, p. 11).

Universities are being similarly influenced, and while, globalization brings many corporate analogies knocking at their door, there are important differences. Some might even see the preservation of a *sui generis* standard as a sustainability issue in itself. In any event, for universities the idea of sustainability is best presented in two dimensions.

The **first dimension** relates to the central role of research universities in discovering and disseminating new knowledge that better informs the climate-change debate and other meta-environmental concerns. This effort ranges from “green revolution” research and teaching, embracing the basic science of climate change, through to engineering applications and on to policy development and implementation strategies. Other research contributions come from such areas as micro finance theory and application, through to national park conservation and management courses. Virtually every academic discipline can connect with the idea of sustainability, and most do.

The **second dimension** applies the idea of sustainability to the university as an institution and involves triple bottom line measurement. Here the focus primarily is on actions which serve to balance the books through time, to ensure a viable future financially as a *genuine* research university. This is not just avoiding bankruptcy, which universities seldom if ever encounter (so far!), but entails strategies designed to maintain the very DNA of a research university. Attention to sustainability brings a new awareness for universities of the need to manage operational risk, capital and budgetary risk, market risk, regulatory risk and reputational risk categories long familiar to the corporate sector, and now central to sustainability objectives in research universities as they grapple with the competitive environment engendered by globalization, the Global Financial Crisis of 2008-09 and its long echoes. Through international revenue generation, universities are even caught up now in managing risk associated with legislation covering anti-money laundering and anti-terrorism.

For a research university, sustainability means maintaining standing in the eyes of stakeholders, particularly alumni and prospective students, but donors are also important, as are international ranking bodies and credit rating agencies. This in turn raises some interesting questions: from a sustainability perspective, is a research university's standing set in a zero sum or positive sum sense? Is it relative or absolute? How will the meaning of a research university and the concept of its "standing" change over the next 25 years? What are the markers of institutional sustainability? Beyond this, many research universities now seek to be good environmental citizens, including operating with a zero carbon footprint (or some such critical environmental standard), and reporting outcomes in one of the global sustainability reporting regimes.

Looked at this way, sustainability is a well nuanced idea which invites multiple perspectives. The focus of this paper is less with the role of university research and teaching (the first dimension), and more with issues connected to institutional sustainability (the second dimension), though there are cross-over points. Particular issues to ponder are grouped under three subheadings:

1. those highlighted by the effects of the Global Financial Crisis (or Great Recession) and its continuing aftermath, especially the new funding landscape: effects arising from profound budget trauma; privatization trends; the emerging role of rating agencies and debt issuance; and the rise in Asia of cutting-edge research and universities of world standing.
2. those to do with an emerging paradigm shift in how modern research universities build international alliances, particularly through integrated branch campuses, and the active role of governments bent on nation building exercises through strategic higher education enhancement;
3. those to do with the sustainability practices of universities as institutions with a significant environmental footprint in their own right: the growing sophistication of "green and clean" campus operations; student engagement with the sustainability movement; and universities' nascent participation in public environmental reporting regimes, particularly the Global Reporting Initiative (GRI).

In each of these areas, sustainability actions and strategies inevitably impact on governance, which is taken here to mean that system of checks, balances and oversight determining legitimacy in decision-making. For a university, this involves students, faculty, academic managers and trustees. Governance operates at the level of the discipline and academic department, at the institutional level and in relations beyond the university, as with corporates, NGOs, foundations and, critically, governments and regulators. Governance effects, viewed through the lens of sustainability, are examined in each section.

SUSTAINABILITY AND UNIVERSITY FUNDING

The effects of the Global Financial Crisis (GFC) are profound, with virtually no corner of society escaping the maelstrom sweeping out of Wall Street (and now compounded by further debt drama in Europe and the U.S.) Many research universities have been hit with underperforming endowments and/or by large cuts to government funding, driven by the burden of rising State debt levels. This has come as a rude wake-up call, and, while it may be too early to be sure of the longer run implications, they are bound to carry institutional sustainability effects.

Bearing in mind that no two universities are the same, and that national contexts differ markedly, this section examines some of the possible risks and opportunities thrown up by unprecedented pressures on university financing and quite profound shifts in the funding landscape, post the GFC.

The Public Purse

A common line of response for universities beset with powerful budget problems has been to cut programs, limit faculty recruitment and increase casualization, reengineer cost structures, and sell off extraneous assets even more challenging, perhaps, amalgamate departments and disciplines internally and contemplate merger externally. But these scenarios in the past have played out in isolated institutions rather than being system wide. This time it is different, with the GFC generating far wider and deeper effects globally than anything in living memory. And looking forward, all of this is in the context of an average national gross debt burden sitting at 100% of GDP across OECD countries, compounded by ever rising government spending-to-GDP ratios: in the past decade alone, the figure for Britain rose from 36.6% to 47.2% and for the U.S. from 32.8 to 42.2%. (OECD reporting).

Looked at through the lens of sustainability, three diverse challenges can be highlighted. For one thing, presidents and their governing bodies will need to implement the more difficult vertical budget cuts to protect areas of excellence and reprioritise, rather than the easier option of spreading the pain evenly through horizontal cuts. Another challenge will be to break down disciplinary barriers and seek out new delivery arrangements. Third, the GFC has lacerated the private pension holdings of many U.S. faculty, creating some rising concern that an academy already ageing will grow even older through delayed retirements decisions. The sustainability concern is over a lost generation of younger scholars irrevocably moving into other careers.

In contrast to the U.S., U.K. and European experience, many Asian universities seem less impacted by the GFC, and in some countries, such as Singapore, Hong Kong and China, governments are actually boosting funding in line with nation building strategies. The move in Hong Kong to fully fund, for

all eight universities, a shift from a three-year British-style undergraduate program to a four-year program more common in the U.S., effective in 2012, has entailed a massive infusion of government funds. The recent report of The Royal Society (2011) highlights the rising tide of Chinese scientific research output:

“China has leapfrogged into second place behind the United States in world scientific publication rankings, having overtaken Japan, Britain, Germany and France... and is on course to overtake the U.S. within two years... China is also on course to overtake Japan in annual registrations of U.S. patents by 2028, having registered 1,655 in 2009 compared with only 90 a decade earlier.” (SCMP, 2011).

The Royal Society notes, however, these figures represent quantity and not necessarily quality, as would be reflected in the recognized benchmark of citations. Yet the trend is clear and powerful.

The obvious question to ponder is whether we are witnessing a fundamental shift in the geographic axis of leading research activity. In broad terms, this would put research universities in the East on a stronger sustainability footing, and may well see a loss in some sustainability for those in the West, in a comparative if not absolute sense.

The Private Purse

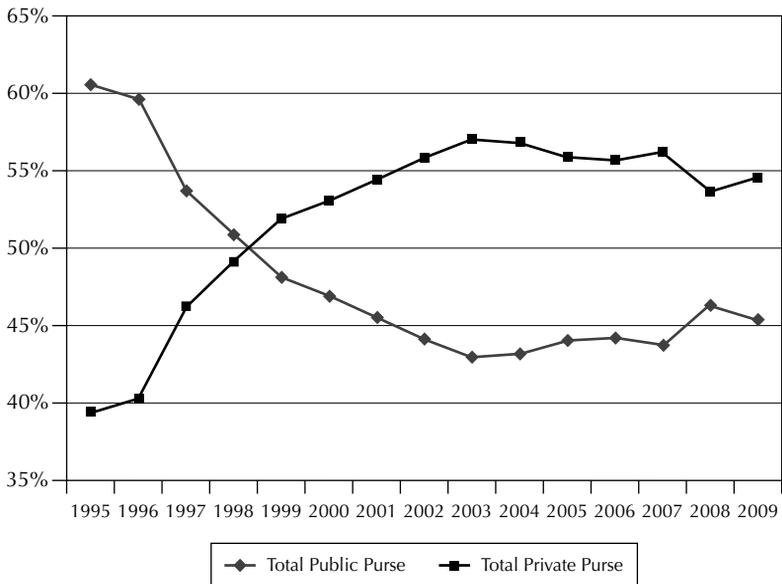
Even before the GFC, most OECD countries were searching for ways to move university funding off the public purse. This *privatization effect* reflects growing pressures on the tax dollar from other big public expenditure areas such health, community welfare and defence and national security, at a time of rising demand for student places. Given demographic effects and geopolitical reality, these pressures are not likely to lessen, and indeed are often accentuated by burgeoning public debt.

Two main non-government (or private) revenue streams are evident: *first*, a growing requirement by governments for local students to cover a significant part of the cost of their education; and, *second*, the waves of full fee paying international students driven by globalization, well evident since the 1990s, but now more intense as universities strive to keep pace with one another in a dimension important to both international rankings and credit rating exercises, not to mention funding.

Since the mid-1990s Australia has led OECD countries in developing income contingent, deferred liability student loans that enable the government to effectively shift the weight to the private side of the cost equation, for the most part without electoral backlash (Chapman, 2010). The impact of this, reinforced by the growing number of full fee paying international students, is evident in Figure 1: in 1996 the split between public and private (or

at least non-public) revenue was 62/38, but by 2009 this had reversed to 45/55. This trend is unlikely to lessen, as the leading research universities lobby the government to substantially deregulate fee setting. A similar, but more aggressive, story is unfolding in the U.K., post the Browne Report (2010). Even in California, where uniform tuition regimes throughout the State system has been traditional public policy, Berkeley Chancellor Robert Brigueau is pressing for differentiation options.

Figure 1: Proportion of Contribution to Australian Universities' Revenue by Government and by Non-Government Sources: 1995 to 2009 (constant dollars)



Source: Universities Australia data files, 2010.

The growth in international student fee income has been particularly strong, but more so in some countries than others. From just 600,000 international students in 1975 we now see “around 3.5 million students travelling abroad to study each year”, generating more than “\$35 billion a year in English-speaking countries alone” (Davis, 2010, p. 21). In Australia, about 17% of university operating budgets is contributed by international student fees, a three fold percentage increase in the past 15 years. This is more than double the OECD average, and four fold that of such countries as Sweden, the Netherlands and the U.S.

The high incidence of international study in Australia carries the implication that other national systems have some scope for expansion, should com-

petitive pressures drive policy in that direction. But there are also risks as a university drives up local tuition and extends its dependence on offshore income. These range from shifting government visa policies to foreign exchange volatility and national financial crises; from overstretched infrastructure to resentment by local citizens that their children are being squeezed out of university places; even to the proposition advanced by Peter Thiel that a bubble is building in higher education, as happened through unsustainable price and debt profiles in the US housing market (Thiel, 2010).

The Debt Purse

Globalization, with its rising competition to maintain and advance standing, changes the mental set within which university presidents and their governing bodies think about strategy. This is now being illustrated by the engagement with rating agencies, to facilitate bond issuance and secured debt. Moody's regularly reports on universities in Australia, Canada, Singapore, Mexico, the United Kingdom and, most commonly, in the United States where "universities have been accessing capital markets directly for longer than universities in other nations". Moody's rates around 500 universities and colleges in the U.S., and for public universities there, the median debt in the pre-GFC period grew from \$101m in 2003 to \$162m in 2008:

"As (U.S.) universities expanded their research, educational and student-life facilities to meet rising demand for their services, they developed more ambitious strategic and capital plans. To fund these plans, they faced strong incentives to maximise financial assets invested in high-performing endowment pools in order to increase their resources to a greater level over the long-term. Long-term investment management became, in effect, a core business line of the university because it was generating institutional resources much like private fundraising and student tuition." (Moody's, 2010).

For the United Kingdom, Standard & Poor's (S&Ps) regularly reviews the credit worthiness of leading universities, focussing on those with international reputations and placed in the top 150 in *The Times*/QS rankings: "more research intensive universities (will) benefit relative to universities that do less research" due to the effects of government funding policy on full economic costing (FEC), which are likely to help entrench their comparative advantage. Similarly, the Research Assessment Exercise (RAE) exercise can "have an added significance in affecting the reputation of a university, and therefore its ability to attract prospective students and research contracts" (S&P, 2008 October). But there are risks, and a sustainability challenge:

"Maintaining global competitiveness will continue to require investment in staff and infrastructure. For many universities, this may mean accepting greater financial risk

in the short term, in the hope of strengthening their overall competitiveness in the longer term. In this more competitive and global (and therefore less regulated) environment, we would expect the credit differentials of UK universities to widen, with certain universities ceasing to exist.” (S&P, 2008 October).

The point may be less whether universities assuming sizeable debt can service and repay it, but rather how this limits future degrees of freedom in setting priorities and budgeting. Put another way, research universities may be able to repay their debts as and when they fall due, but will they “be able to fulfil their missions at the same time?” This will be a critical sustainability issue over the next decade or two.

The rating agencies have signalled they will be alert to international student flows, measured not just in numbers, but in the academic strength of the first preference pool, hedged by a spread of source countries. This in turn will heighten the role of the university’s offshore marketing and quality control protocols. Governance structures and practices, as well as the capacity of senior management, invariably are examined. Infrastructure management and planned maintenance, and the absence of chronic internal departmental deficits, are other declared areas for attention by the rating agencies. Standard & Poor’s (2008 July) notes that even a university’s international ranking is in the mix because “somewhat unpredictable movements in league tables can also have a big impact on demand for a particular university.”

On the evidence publically available, universities issuing bonds and assuming debt do so mostly for quite strategic and competitive purposes, with an eye to sustaining and advancing their standing. Private sector joint ventures seem well suited to the planned debt issuance model now emerging. A target area for private sector capital-raising is student accommodation, which is particularly important in the competitive environment of international student recruitment. (Lucas, 2010, p. 57).

Governance Implications

The Global Financial Crisis, and enduring competition for standing and sustainability, is leading universities to think differently about funding strategies. Government is also more (not less) influential, a paradox captured by Moody’s statement in its rating of Macquarie University: “Because higher education is Australia’s third largest export and an integral part of public policy goals, Moody’s believes that the Commonwealth would likely step in to provide emergency assistance to Australian universities in a crisis situation.” (Moody’s, 2010).

It seems inevitable that as research universities strive to compete on a global front, with less base load funding support from their home governments, the work of the rating agencies will become more important (seemingly hav-

ing recovered from the reputational damage given their role in the GFC!) Their reference points and processes will come to have some influence on how research universities govern and manage themselves. Financial literacy and trusteeship values rather than representational styles are bound to figure even more prominently in a governing body's skill-mix. This, for example, was part of the thinking when the University of Hong Kong radically restructured its governing council in 2007, away from the traditional "elected" model to an "assured skills-mix" model. (Niland, 2009).

Other governance issues arise from the changing role of government. Contributions from the public purse may lessen, but this is unlikely to lighten their sense of fiduciary duty or interest in strategic oversight. As the role of the private purse increases, government will extend its orientation to consumer protection, through quality assurance bodies, and will assume an underwriter role and brand protector. Rating agencies indicate they will take into account the preparedness of government to step in and save an institution whose bankruptcy could damage the nation's higher education brand.

Other governance effects can be expected from the growing presence in public universities of students making a significant contribution to the cost of their education. The demand for support services and an involvement in shaping course structures, if not content and standards, occurs. Higher and more pervasive fee regimes is one factor in driving new course delivery modes, ranging from year-round teaching to enable faster progression and therefore earlier entry into the workforce, to some online attendance for on-campus students. Ubiquitous social media facilitates campus wide communication among students, including teaching evaluation and commentary. The combined effect is to give students a stronger presence in the informal (but powerful) governance networks of a university.

TRANSNATIONAL EDUCATION AND SUSTAINABILITY

One manifestation of globalization has been the international activity of research universities over the past 25 years, initially through the recruitment of offshore students and collaborative alliances between institutions. There were also isolated examples of cross border mobility of universities themselves. With a few exceptions, such as INSEAD in Singapore, branch campuses mostly entailed fly-in-fly-out arrangements for faculty, and physically were located in short term leased space in a partner university. Exit plans were simple, and without any major risk issues for the home campus. Now, the sheer number of branch campuses is a major marker of internationalization in higher education: The Observatory of Higher Education counted 162 international branch campuses in 2009 (up 43% from 2006), of which three quarters came from U.S. institutions, with the remainder evenly distributed between

Australia, U.K., France and India. (Hare, 2011). We also see more cases of a long term, committed presence, with governments building into their national development strategies quite targeted arrangements to attract brand-name overseas universities into deeper collaboration.

Branch Campuses and Government Mentoring

Examples of this new transnational engagement range from Carnegie Mellon's modest branch campus in Adelaide to King Abdulla University in Saudi Arabia, where the strongly state-linked institution is actively recruiting research universities to locate onto its 36 square kilometre complex. Another model is the Shenzhen Campus Project in China's Pearl River Delta, sponsored by the municipal authorities, which is drawing a significant cross border presence from six of the eight universities in Hong Kong, with that government's encouragement. Hong Kong University, whose Shenzhen campus footprint, at 100 hectares, is double the size of the home campus, will access resourcing from Chinese authorities, not just for buildings but funding for research and academic programs as well. The Chinese University of Hong Kong similarly sees its expansion into the Shenzhen project as a sustainability enhancing move: "As a leading institution in Hong Kong, CUHKU must tap into resources outside Hong Kong to scale up the research for achieving its aspiration of excellence." (CHUK website).

The world's most intense importer of higher education expertise, experience and branding is currently Singapore. There, the approach to developing sustainable research universities, often from scratch, is to build into the arrangement "strategic collaborations and symbiotic relationships with premier institutions of international standing" with strong support funding (Tan, 2008). Prominent examples include: the deep collaboration between Singapore Management University and the Wharton School at the University of Pennsylvania and Carnegie Mellon University; the Duke University Medical School at the National University of Singapore; and the mentoring of the Medical School at Nanyang Technological University by Imperial College. "Yale brings the Ivy League to Singapore" is a recent headline about the new Liberal Arts College to be developed at NUS. The new fourth university, Singapore University of Technology and Design, is essentially a branch campus of MIT in partnership with the Singapore Government. Beyond bricks-and-mortar are many traditional alliances involving joint degree programs and shared research centres. The critical point is that all this is woven into a coherent, high energy and well funded government policy of leveraging off transnational education for national development.

Singapore, to be sure, is a special case: a city-state with a highly professional government genuinely committed to building a "knowledge-based economy where ideas and innovations generate wealth". But there may well be impor-

tant sustainability implications for western research universities in this emerging new paradigm of international engagement. Are research universities becoming another category of sovereign wealth funds, and how does that affect those outside this model? How big is the risk for universities which eschew cross-border arrangements, or where the home government is either disinterested in international higher education as an economic driver, or is so hobbled by public debt post GFC, they really have little choice but to go to the global sidelines? And what are the governance implications between home and host environments?

Another sign of the changing times is that more foreign students now study for British degrees at off-shore branch campuses, than in the U.K. itself. With GBP9,000 plus per annum tuition looming, “you could go to Malaysia, live it up and get a Nottingham degree” for less than U.K.-based study, further boosting offshore enrolment for British degrees. Such a development would also lift the standing of the offshore courses. (Labi, 2011, quoting Disney).

This may be fanciful speculation, but it carries some ring of truth and does underscore just how the game is changing for research universities now facing higher levels of market volatility. Because of the competitive environment brought by globalization, and depending on the strategies they develop (or avoid), research universities can rise or fall in fame in much shorter time than was the case 50 or 100 years ago. There is little doubt, for example, that the rankings success of the Hong Kong University since 2000 (it is now a top 25 member of the QS ranking) has brought enrolment interest not just locally (although this was always strong) but from top students in India, China and beyond. High quality research faculty also become easier to recruit. While many observers may disdain the growing role of international ranking exercises (Gladwell, 2011), the fact is prospective students (particularly those from offshore) do pay attention, as do governments, governing bodies and now credit rating agencies as well. Faculty are particularly alert to institutional standing, and recruitment will become a major sustainability issue in the next 20 years, given the seriously ageing academic workforce in the West, and the surge of new, high quality research universities in the East.

Governance Implications

Offshore operations invariably raise governance issues: how much independence is assigned to the governing body of the branch campus, and in what circumstances can its decisions be over ridden by the main governing body at the home campus? who determines and monitors student admission standards, faculty promotion criteria and processes, grievance handling and scientific misconduct issues? where is curriculum set? is the branch campus expected to repatriate a dividend and if so how is this determined? does the role of the off-

shore government in the affairs of the branch campus diminish the ideal of university autonomy? These are just a few of the potential pressure points.

Funding is a major issue, highlighted by CUHK's firm assurance to the home campus community that its Shenzhen operations will be financially self-sustainable, "with no funds from the Hong Kong campus subsidising its operation." (Yau, citing Sung 2011). But the most contentious issue in recent years with offshore branch campuses has been academic freedom. A guarantee of this has been given by CUHK's President, and a similar assurance to the home campus community was needed from the Yale President, addressing reported concerns that Yale faculty risked having their freedom of speech and assembly limited in the Singapore Liberal Arts College.

These are challenges, but they will be sorted through as universities become more experienced in negotiating the cultural and political diversity inherent in branch campuses. The obvious tension is between the felt need of the home campus to shape strategy and protect brand, and the inevitable imperative at the branch campus for independence.

Another governance factor arises from the trend toward international accreditation, such as that offered for Business Schools by the Association to Advance Collegiate Schools of Business (AACSB), as those in the accrediting network influence curriculum and research standards for promotion. Other disciplines will also face international accreditation regimes in due course, most notably Engineering through the OECD's Learning Outcomes Project. In 20 years, perhaps sooner, new governance ground rules will put collegiate decisions on content and standards into a much wider context than that of a university's own academic community. Assessment functions might be outsourced. How well a university responds to these new governance ground rules may well determine which research universities maintain their place in the major league, and which don't.

THE GREEN CAMPUS AND SUSTAINABILITY REPORTING

Environmental issues resonate with the culture and values in university communities, so it is unsurprising that these communities are actively interested in the sustainability performance of their own campuses. While the impact of research breakthroughs may be more spectacular, campus sustainability policy and practice, as well as public reporting of environmental performance, has a powerful demonstration effect throughout society and carries important educational effects on new graduates as they head out into their professional lives, with the chance to influence the culture of their employing corporates and organisations.

Many, perhaps most, research universities endeavour to implement (or at least project) a green agenda for their own operations, utilising the standard

array of initiatives energy and water conservation, waste reduction and recycling, carbon management, green procurement, transport efficiencies, land-care principles, sustainable building design, and so forth. University websites these days invariably reflect an awareness of environmental concerns, and lay out policies and procedures for achieving high levels of sustainability performance. In Australia, five of the eight major research universities have signed the Talloires Declaration (although only two hold ISO 14001 Certification and can be said to provide strong sustainability governance structures for overseeing and managing their sustainability commitment).

At the Chinese University of Hong Kong, the mission includes ensuring students graduate “knowledgeable about the environment and prepared to shape their lives and professions to address issues of environmental sustainability.” (Lam 2005). At the University of Massachusetts, MBA students collaborated in the preparation of its third sustainability report to the Global Reporting Initiative (GRI). Apart from engendering a “better understanding of the whole footprint of the campus and the environmental, societal and economic impacts”, the exercise also built “some sense of belonging and loyalty to the institution and a sense of cohort cohesion.” (Mehallow, 2011). Such institutional bonding through environmental involvement may still fall well short of the role played by college sport, but it is potentially a similar phenomenon.

The Global Reporting Initiative (GRI) has become the main vehicle for organizations to publically set out their non-financial, sustainability performance (www.globalreporting.org). Since its emergence in 1997, the Amsterdam based GRI has regularly refined the suite of principles, indicators and metrics organizations may use to report their economic, environmental and social performance. The global corporate trend is clearly toward more transparent reporting of the triple bottom line. The majority of the Global Fortune 250 companies report through GRI framework. In Australia, 93 of the top 100 public companies in 2010 published sustainability related information, 40 of which structured their statutory annual reports to the GRI standard. (ACSI, 2010).

Universities’ participation in the Global Reporting Initiative (GRI) fall well short of that seen from the corporate sector: in 2010, only five universities globally were listed as GRI compliant, but the indications are that this figure will grow significantly in the next decade, if not through GRI then through internationally networked reporting regimes developed specifically by and for the higher education sector.

Although universities are seldom covered by their country’s core companies’ legislation, one effect of globalization is that standards and practices set beyond the campus have a growing habit of penetrating university management systems and governance practices. Globalization carries a convergence effect, and this is likely to be strengthened through sustainability reporting, particularly when as it moves from a voluntary to a mandatory regime.

Governance Implications

The drive for an environmentally compliant campus engages many of a university's stakeholders, but none more so than students and those contemplating enrolment. This not only immerses students in one governance stream within the university, it provides a marketing opportunity to the university in its recruitment process.

GRI reporting impacts governance in several respects. With its emphasis on transparency, it places into the public domain details about the university's operation and its various social and economic impacts, as well as environment effects. This will extend the duties (and liabilities) of university trustees as it does for board directors in the private sector. To the extent public reporting becomes mandatory, either through peer pressure or statutory requirements, governing bodies will be further guided (or constrained) by influences beyond the university. Added to this effect will be the involvement of rating agencies, quality assurance bodies and ranking exercises.

CONCLUSIONS

The idea of sustainability, with all its layers and subtleties, provides an interesting long lens through which to view the changing world of research universities. Much of the discussion here is supported by observation and experience, and with anecdote as well, rather than by formal scholarly research, which no doubt will follow in due course. This said, five summary points arise:

First, the Global Financial Crisis does sharpen the sustainability challenge for research universities in enduring ways: *unprecedented funding difficulties* will cause many to really struggle to maintain the DNA of being a research university. Sustainability often will depend on finding new horizons, both financially and geographically. More and more university budgets will draw from the private purse of international enrolments and local students alike, reflecting a new era of government incapacity to fund universities at prior levels. A distinctive development will be the international migration of universities themselves through more substantive branch campuses, both for profile building and to tap into revenue opportunities.

Second, globalization forces will continue to *reshape the stakeholder landscape* of research universities. External evaluation will continue through the role of quality assurance bodies and academic ranking exercises, whose impact will likely grow. Two new external review and audit players bringing performance pressure onto universities are the credit rating agencies, primarily Moody's and Standard & Poor's, and global environmental reporting regimes, such as GRI. Both these effects bring to university management and governance functions new standards generated within the corporate sector.

Third, we can expect to see an *intensification of the role of government*, even in those countries where public funding is in serious decline, such as the U.S. and the U.K. Here, public policy will set ground rules affecting sustainability for the research university, to provide: how students, both local and international, will shoulder the greater proportion of operating costs; how debt issuance will be regulated, and what underwriting will be extended, either formal or implied, to protect the national higher education sector's international brand. Paradoxically, the stronger the role of the private purse, particularly where foreign currency is involved, the more government regulation and oversight can be expected.

Fourth, international competitiveness among leading research universities to hold or lift their standing, and those which aspire to a place at the top table, generates *new levels of volatility in international ranking regimes*. More now hinges on the right strategic path chosen by presidents and their governing bodies: prospective international students and rating bodies do pay attention to a university's standing, and whether it is changing. In the US and the UK, which currently account for most of the top ranked 100 universities, public debt levels and other budget pressures present distinct sustainability challenges. Contrasting this, governments in the Middle East and particularly in Asia, are funding new national development strategies which place front and centre the rise of their key universities to global standing. This creates an unprecedented opportunity for universities in the East to reshape their place in world standings.

Fifth, a range of *governance implications* arise from these developments. Inevitably, the style and skill mix of university governing bodies will shift in the wake of the Global Financial Crisis. External "oversight" from rating agencies and regulatory bodies (private as well as public), together with the requirements of offshore governments in relation to branch campuses, are just some of the many forces bringing new levels of subtlety to the theory and practice of university autonomy, even academic freedom. Many would see this as the bedrock sustainability issue for the modern research university.

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