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Research universities for national rejuvenation and global influence: China's search for a balanced model

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Abstract The search continues for a Chinese research university model that can balance quality and quantity in research and teaching. This paper argues that finding one depends upon deepening internationalization, defining educational sovereignty, and expanding university autonomy. The paper does this by examining selected aspects in the development of the research university systems of the Chinese mainland and China's Hong Kong, particularly with respect to the governance of research and teaching.

Keywords China · University · Research · Teaching · Governance

Balancing quantity and quality in teaching and research

Thirty-five years after the launch of its economic reform and opening to the outside world, China finds itself inching closer to become the world's largest economy (Jacques 2009; Beardson 2013; Telegraph 2014). To sustain the pace of economic growth, higher education is increasingly expected to play a more powerful role in China's rise (Postiglione 2011a). It already has the largest system of higher education and more scientific publications than any other country except the USA (University World News 2007; Guardian 2011; Royal Society 2011). Moreover, it bodes well for the university systems that secondary school students in the largest city outperformed their counterparts in the 60 countries involved in the Program for International Student Assessment of mathematics and science achievement (OECD 2013). Yet, the search continues for a Chinese research university model that can balance quality and quantity in research and teaching (Liu 2010; Kirby 2014). This paper argues that finding one depends upon deepening internationalization, defining national sovereignty, and expanding university autonomy. The paper does this by examining selected aspects in the development of the research university systems of

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the Chinese mainland and China's Hong Kong, especially with respect to the governance of research and teaching.

A unique China model?

Beyond the race to excel on international indicators of success is the longstanding aim of national rejuvenation and restoration of China's status in the world. China has long sought to learn how to effectively borrow and adapt, not copy, from advanced systems without muting the influence of its ancient culture. Interest never ceases about how indigenous ideas and principles can guide university education. It is common to credit scholars of the classical era, such as Confucius and Mencius, Sunzi and Mozi, and later Wang Yangming and Zhu Xi. In the modern era, Hu Shi is well known, but others such as Cai Yuanpei, Liang Shuming, Ye Yangchu, Mei Yiqi, Jiang Bailing, Yan Fu, Tao Xingzhi, and Pan Guangdan remain influential (Yang 2003; Hayhoe 1996). Educational leaders like Cai Yuanpei, an early president of Peking University, understood the German, French, and English traditions of higher education and considered how these could be brought together with the spirit of Confucianism and other historical traditions. In short, there is a lingering concern that university education has not been sufficiently shaped by indigenous ideas (Yang 2013).

For this reason, China's emergent role on the world stage comes with a concern about what principles and ideas should drive a delicate balance between quality and quantity in research universities. This is echoed in a question posed by a Hong Kong Chinese scholar: "Will Asia be just producing more of the same of the Western-originated contemporary higher education model, or will it be able to unleash a more critical understanding and practice of higher education, a cultural and epistemological reflection of the role of universities as venues of higher learning?" (Cheung 2012: 186).

Many agree that China forged a unique model of economic development (Ramo 2004; Huang 2011; Williamson 2012). But unlike economic institutions that make financial gain an end itself, the success of research universities is measured by the creation and transmission of knowledge, not the accumulation of wealth. Nevertheless, Marginson (2011) sees a China model with a strong nation-state, an inclination toward universal higher education, national examination that drive competition and family commitment, and government determination to invest in research. Altbach (2011) believes that China has not, and will not in the near future, develop a university model to challenge the international status quo model.

An indigenous model would be rooted in the Chinese academy, the 書院 *shu yuan*, which predates the four historically sacrosanct Western institutions of higher learning, namely Bologna, Oxford, Cambridge, and the Sorbonne (Hayhoe 1996). Yet, investiture of such a hallowed tradition in the contemporary university can be enormously complicated for China. While it is questionable how it would boost global competitiveness, it may enliven the intellectual climate, especially as it aligns, however ambiguously, with the growing experimentation with liberal studies curriculum borrowed and adapted from Harvard and other overseas universities. It may be wishful thinking but as Harvard's Vogel (2003) observes: "The result of China's opening and reform for higher education has been an intellectual vitality that may be as broad and deep as the Western Renaissance."

At the end of the day, China does not yet possess a unique university model that challenges the so-called Western one. As the international popularity of the university ranking framework developed by the Shanghai Jiaotong University makes clear, China's

universities are almost singularly focused on racing toward, rather than away from the Western model as it aspires to match the technological superiority of the West.

Transition to mass higher education and building research universities

The economic reforms and opening to the outside world that began in 1979 lead to a recovery in higher education. Intellectuals were rehabilitated and "sent-down youth," formerly at school before the cultural revolution, began to return to urban areas. University entrance examinations were reintroduced, and academic standards were strengthened. By 1985, there were 1,016 institutions of higher education and about 2 % of the 18–22 age groups attended university. There was also a shift in the direction of overseas study as capitalist economies in Europe and North America became favored study destinations.

Expansion of all forms of higher education

Between 1985 and 1998, the Ministry of Education was upgraded to an Education Commission, and universities were given some autonomy in matters of curriculum, staffing, and student selection. Enrollments grew little though and after the period of student demonstrations in 1986 and 1989. By the late 1990s, economic globalization put China on a course of unprecedented expansion of university enrollments. By the end of the twentieth century, a knowledge economy discourse signaled a determined shift from elite to mass higher education. While only about 4 % of the 18–22 age group was involved in higher education in 1995, the 2005 figure had surpassed 20 % (NCEDR 2000–2009).

The Asian economic crisis in the late 1990s led to faster expansion of higher education as a way of delaying entry of secondary school graduates into the labor market, and as an economic stimulant—families willingly opened their bank accounts and spent more money on university fees and expenses. By 2010, about 30 % of 18–22 year olds—roughly 30 million students—were enrolled in 2,263 colleges and universities, including 1,079 universities and 1,184 higher vocational and junior colleges (Cheng et al. 2011). The largest city had a gross enrollment ratio exceeding 60 % (Shen 2003). Between 2010 and 2020, the gross enrollment rate of higher education was set to exceed 40 %, and from 2021 to 2050 to reach at least 50 %.

The reform of research universities

One of the boldest efforts to reform research universities was the so-called Peking University Personnel Reform (Rosen 2004, 2005). This reform of the faculty appointment system aroused strong feelings on and off campus and became a controversial social issue. It called for external competition in hiring and a "last ranked, first fired" practice for academic staff. In the mid-1990s, salaries of Hong Kong university staff were said to be nearly 99 times that at Peking University. From 1982 to 2000, salaries grew by 101 %. Thus, to maintain academic quality, the income of university teacher salaries in higher education was sharply increased. The average university teacher salary was said to be higher than that of other professions. Yet academic salaries in 2010 remained the lowest of the BRIC countries.

Expectations were raised for establishing a system of world-class universities in 1998 when President Jiang Zemen addressed the audience, me included, at the Great Hall of the

People to mark the 100th anniversary of Peking University. Government support, as indicated in the so-called 211 and 985 initiatives, provided major financial backing to top institutions with high levels of academic promise (Zhou 2006: 36–46). Enormous attention was directed at both the international rankings of top universities and the questions of how to establish and maintain a world-class university. Under the so-called "211" and "985" projects, Beijing pumped investment into the elite, with the aim of creating internationally competitive universities. The 211 project provides extra financial support for 112 universities selected to spearhead national economic development, while the 985 project aims to transform 40 top institutions into world-class universities.

Flagship institutions—such as Peking and Tsinghua in Beijing, and Fudan and Jiaotong in Shanghai—jockey for position in world university rankings. In 2010, two mainland Chinese universities were ranked in the top 200 globally in the Shanghai Jiaotong AWRU ranking, and six in the Times Higher Education ranking (AWRU 2013; THE 2013).

Chinese universities climbed the global ranks by boosting their presence in scientific publications. In 2008, they published 204,000 papers in peer-reviewed journals, raising their share from 4.4 % in 1999 to 10.2 % in 2008 (Royal Society 2011). Only the USA had a higher share. China's proportion of GDP for research and development grew from 0.7 %, 1998, to 1.5 %, 2005, and has since risen to almost 2.0 %, making it the third largest R&D spender worldwide (in purchasing power parity terms) after the USA and Japan. By 2010, it spent nearly 10 % of the world total (Hu 2011: 95–120, OECD 2012). However, the high numbers of scientific publications cannot mask the fact that quality remains a problem. This is reflected in the low frequency with which the world's scientists cite China's scientific publications—only 4 % of the time compared to 30 % for the USA, placing China sixth in the rankings. Research funding has rapidly increased, but most goes to projects proposed by senior members of a department or those who are politically connected.

Research universities began to change as they deepened their international engagement. By the end of the first decade of the twenty-first century, some research universities become unrecognizable from their former selves. Hardware infrastructure began to rival research universities in advanced countries. Yet, the software side remains weak as they struggle to improve the quality of teaching and research, and address problems such as academic corruption, and relevance of university graduates for a rapidly changing workplace.

Balancing institutional autonomy, state sovereignty, and internationalization

At the very least, national rejuvenation is bringing the global academy more understanding of historical legacy, one that goes beyond a preoccupation with the imperial examination system, and the accompanying view that it still shapes a style of learning anathema to drive creativity and innovation (Kissinger 2011; Vogel 2013; Hu 2011). Scholarship about historical struggles, developmental experiences, and institutional renovation may also be seen as a creative resistance of Western domination (Jacques 2009; Schell and DeLury 2013, Shambaugh 2013). However, to avoid this kind of scholarship becoming superficial will require a feisty defense of academic freedom and institutional autonomy. Otherwise, it risks floundering as official lip service to nationalism without a critical intellectual bite.

As the research universities continue to deepen their engagement with overseas counterparts, an array of possibility opens. Already, international cooperation has led to new curriculum models, funding formulas, personnel reforms, performance measures,

instructional technologies, institution building strategies, and innovative experiments in learning, all of which have led toward a more open, though still "quality catch-up" learning environment.

The top-tier universities are increasingly coming to resemble their OECD counterparts, but they are more than state universities or state-steered. State governance of the academic system finds itself caught between the goals of internationalization and safeguarding national sovereignty. Government encourages Sino-foreign cooperation along with stern warnings of its dangers.

Meanwhile, the leadership wholeheartedly supports the race for world-class universities. With capital expenditure that is the envy of other university systems in developing (and some developed) countries, national leaders expect to shortcut the process of a few hundred years that other leading international universities underwent. And to some extent, the leadership may be correct. Globalization has compressed time scales. China's Hong Kong University of Science and Technology (HKUST) managed to rocket up the global rankings in a decade (Postiglione Postiglione 2011b). Yet, as the case of the Chinese mainland's fledgling, South China University of Science and Technology has shown the lack of institutional autonomy from government stifles vision and innovative (Xin 2012).

Amid the transition to mass higher education and the aim to improve quality, the call continued for more international cooperation in higher education. By 2013, there were 1,060 approved Sino-foreign joint ventures in higher education with 450,000 students involved. Since 2003, there have been 1,050,000 from higher education institutions (Lin 2013). Sino-foreign cooperation in higher education comes with stern warning about risks to Chinese sovereignty, as a minister of education remarked: "Tough tasks lie ahead for China to safeguard its educational sovereignty as it involves our fundamental political, cultural, and economic interests and every sovereign nation must protect them from being harmed" (Chen 2002, p. 5).

The 2003 law on educational joint ventures opened the floodgates to hundreds of partnerships between Chinese and foreign universities. Reforms are underway at top Chinese colleges to copy, adapt, and innovate on models of liberal higher education customary abroad. Attention is building about whether foreign-partnership campuses can have a significant impact on China's current higher education system. These collaborations and partnerships constitute one type of laboratory for innovative formats in higher learning. While the jury remains out on long-term sustainability of cross-border campuses, both host and guest universities will learn a great deal from cooperation in the running of partnered colleges and universities (Wildavsky 2012).

The majority of international university programs are taught and run by foreign academics, at a substantial premium, within Chinese universities. They are popular with middle-class parents because they give their children the cachet of a foreign education without the cost of studying abroad. In a few cases, foreign universities have gone one step further and set up full campuses with Chinese universities. Nottingham University has a campus in Ningbo; Shanghai Jiaotong and the University of Michigan run an engineering institute in Shanghai; and Xi'an Jiaotong and Liverpool University have established an independent university in Suzhou. In 2013, New York University, which already has overseas study programs in 10 countries, opened a new campus in Shanghai with East China Normal University. It will conduct integrated classes in humanities and social sciences, with an equal number of Chinese and foreign students. Duke University has also established a campus in Kunshan in partnership with Wuhan University (Redden 2014a).

Others American universities with similar aspirations include Keane University and University of Montana (Redden 2014b).

The rise in Sino-foreign joint ventures has led to more discussion about sovereignty in higher education (Postiglione 2009). An influential scholar of Chinese higher education cautions that permitting foreign entities to hold a majority (more than 51 %) of institutional ownership can lead to an "infiltration of Western values and cultures at odds with current Chinese circumstances" (Pan 2009:90). The Vice-Director of Shanghai Education Commission, Zhang Minxuan, makes it clear that a Sino-foreign venture in running an educational institute has to "make sure China's sovereignty and public interests are not harmed" (Zhang 2009b: 33). To do so, at least half of its board of directors have to be Chinese citizens. Zhang Li of the Ministry of Education points out that China's commitment to provide access to its educational market is larger than any other developing country, and therefore, "we must safeguard China's educational sovereignty, protect national security, and guide such programs in the right direction"(Zhang 2009a: 19).

The sovereignty issue has obvious implications for the governance and institutional of a Sino-foreign campus on Chinese soil. A different model is offered by the recently established South China University of Science and Technology (SCUST). Headed by Zhu Qingshi, past president of the China University of Science and Technology, SCUST aimed to be the first university on the Chinese mainland to secure independence from the higher education bureaucracy—although the result thus far has not been as expected (Science 2012). SCUST is not a Sino-foreign campus but it has tried to follow the lead of the Hong Kong University of Science and Technology which became world ranked within a decade of its establishment (Postiglione 2011a, b). SCUST enrolls students not only on the basis of the national college and university examination—a terrifying exercise in rote learning and regurgitation known as the *gaokao*—but also on the basis of their creativity and passion for learning. SCUST faculty members are not given administrative ranks, in the hope that professors will concentrate on teaching and research rather than climbing the greasy pole (Li 2011). These experiments in new educational models are encouraging, but do not seem to have led to larger reforms in Chinese higher education. Meanwhile, Sino-foreign ventures continue to be fringe experiments.

Thus, the debate about the establishment of universities with Chinese characteristics is embedded within an unambiguous paradox, namely the incompatibility of three elements within its university system: internationalization, institutional autonomy, and educational sovereignty. While any two are achievable, handling and attaining all three simultaneously remain a work in progress. To get a fuller picture, a perspective on the reform era and transition to mass higher education is useful.

The main challenge: Make research and teaching drive creativity and innovation

Despite having the world's second largest economy, there is widespread concern that universities produce fewer independent thinkers than its competitors (McFarlan et al. 2014). As the labor cost advantage is lost, maintaining the country's economic ascent depends on boosting the quality of its higher education system. Generating new products and services will require universities to foster creative and innovative thinking, in addition to carrying out cutting edge research. China's higher education system has expanded to widen student access, but the focus is turning to the reform of university governance, enlivening academic culture, and better aligning university teaching to the needs of the workplace.

A major challenge is to raise the quality of higher learning after the expansion that began in the late 1990s, when China shifted from elite to mass higher education. While the

top tier of 76 universities are administered by the State Ministry of Education, most higher education institutions are under local government control (MOE 2014). Teaching is still relatively weak, and universities have a poor record of producing employable graduates. Before graduation in May 2013, only about half of the seven million graduates to be had signed job contracts.

Economic globalization has led to concern about the current system ability to compete. As Richard Levin, president of Yale University and frequent visitor to China, stated what is increasingly driving higher education: "As never before, universities become instruments of national competition as well as instruments of peace" (Levin 2006). Chinese businessmen and scientists alike bemoan a lack of entrepreneurial spirit among graduates. Qian Xuesen, the father of Chinese rocket science, sees universities as failing to encourage creativity, multidisciplinary breadth, and innovative thinking: "…none of our institutions of higher learning is running in the right direction of cultivating excellent talent and is innovative enough" (Zhao and Hao 2010).

Meanwhile, both domestic and foreign firms are ratcheting up demand for more broad-based skills than those provided by narrowly focused degree courses. Critics also included former premiers Zhu Rongji and Wen Jiabao, who acknowledge that the ability of the higher education system to enhance economic competiveness will depend on fostering more creative, independent thinking (SCMP 2011a, b). I heard a similar comment from Jack Ma of Alibaba, when I facilitated a discussion for the Clinton Global Initiative in Hong Kong in 2008. Lee Kai-fu, former head of Google China, said "The Chinese education system isn't as well connected to the marketplace. So if you take a college student and drop him into a start-up, there are so m any errors he could make, whereas people in the US, they are more independent thinkers who are able to solve problems on the fly and are more suitable as entrepreneurs" (SCMP 2013).

Several top research universities responded to these criticisms. Peking University's Yuanpei program is an experiment with liberal arts education, modeled on Harvard's. It aims to foster creativity, multidisciplinary thinking, and leadership. Tsinghua University intensified the degree of student engagement in learning by introducing classes in group problem solving as well as improving the quality of communication between students and teachers (Hennock 2010).

Other top-tier institutions are experimenting with models of learning that break away from the lecture, textbook, memorization, and exam cycle that is still so common in many universities. Below the top tier of 985 and 211 universities, most colleges and universities still operate with fewer resources, less qualified academic staff, and less attention from the central government. Policy levers without financial support are less effective for improving the responsiveness of the larger higher education system.

The expansion was so rapid and extensive that policy makers become consumed with handling the burgeoning numbers of students without a sufficient reform of teaching and learning. The promulgated National Outline for Medium and Long-term Education Reform and Development (2010–2020) targets a higher education enrollment rate of 40 % by 2020, by which time 20 % of the working-age population should have university degrees (MOE 2011). Given the demographic profile, the country must spend the rest of the decade fostering talent in the shrinking proportion of youth who will have to support an increasingly aging population in the future. That should mean shaking up the current system and encouraging greater independence among both professors and students. A national evaluation of undergraduate teaching was undertaken, but it is driven by the Ministry of Education in a typically top-down manner. This contrasts with the best

international universities, which have the autonomy to design, implement, and take the major responsibility for their own success or failure (Jiang 2009; Ross and Cen 2000).

Tendencies for standardization sometimes stifle the dynamism that can emerge naturally out of diversity. The basic government–university relationship has loosened somewhat but the practice of autonomy remains in its infancy. There is far less autonomy than is found among counterparts in developed economies. Rigidity in the system sometimes prevents the free flow of information, essential for world-class universities. As Jamil Salmi of the World Bank noted: "[The] rule of law, political stability and the respect of basic freedoms are important dimensions of the political context into which high quality universities operate" (Salmi 2011:339).

Government is aware that over-administration is an obstacle to achieve greatness in higher education, and it has committed itself to relieve universities of some of their bureaucratic load. But there are many doubts about the extent to which this can be achieved. It is not only a matter of the state granting autonomy to universities: To improve the quality of higher learning, universities have to be ready and willing to take greater responsibility for their own governance. Many university chiefs maintain a close relationship with government, and many remain more interested in retaining their civil servant rank than breaking the pedagogical mold.

China has most of the essential ingredients to build great research universities: the aspiration, plenty of brain power, and sufficient government support. The cultural tradition values education, and academic staff are increasingly qualified enough to improve the quality of learning on campus. But university governance needs an overhaul whether China is to obtain a better balance of quality and quantity in research and teaching. With academic tenure and promotion now dependent on churning out strings of articles, teaching plays second fiddle to often dubious research. The pressure to produce has also fueled a wave of academic corruption: Plagiarism is rife. The quality of much teaching and research will remain an issue for some time.

Yet, there may be good reason to be optimistic about the future array of possibility open to higher education in the Chinese mainland. China's Hong Kong with a population of 7 million, has more top-ranked universities than any city in Asia. The reasons may yield useful insights for the future of research universities in the Chinese mainland and also for Sino-foreign cooperation in creating improved environments for balancing research, teaching, and learning.

China's second system: inverted academic culture and governance

Thirty-five years ago, Hong Kong was relatively poor with two undergraduate institutions, and a reputation for trade, small manufacturing, and commerce, but not for higher education. The Research Grants Council was only established in 1991 with funds totaling HK $100 million (US$25 million), but twenty years later, it increased to HK$1 billion. Hong Kong had only two universities until the mid-1990s. It now has three universities ranked among Asia's top ten and the world's top 50 (23, 33, and 40) (QS 2012). All eight universities are academically sound and highly respectable, and five of the top eight are in the top hundred worldwide (QS 2012). Among the reasons, Altbach and Postiglone (2012) proposed academic culture and governance as well as their major instructional language (English), internationalization, leadership of administrators, and the qualification of academic profession of research universities in Hong Kong.

Steering and autonomy Hong Kong's government, through the Research Grants Council and the University Grants Committee, provides overall direction to the higher education sector; prioritized funding, combined with performance guidelines, shapes university policy. At the same time, the universities have almost complete internal autonomy and self-management.

Effective governance The University of Hong Kong stems from the British academic tradition, and the Chinese University brought American missionary and Chinese traditions into Hong Kong's colonial framework. The Hong Kong University of Science and Technology added the American research university model and academic governance to the mix, without assaulting the status quo. All three have strong international governance arrangements that emphasize control by the academics, while at the same time strong administrative leadership. The universities do not get bogged down in endless academic bickering, nor are they ruled autocratically.

Integrated scholarship is valued Aside from research productivity, Hong Kong's academic profession places a relatively high priority on teaching in comparison with counterparts in countries with advanced university systems (CAP 2007). Performance reviews combine teaching, research, and knowledge exchange dimensions. Moreover, the Universities Grants Committee requires Teaching and Learning Quality Process Reviews. All reviews are made public and include possible effects about funding to ensure follow-up by institutions.

Two systems of academic governance of teaching and research at research universities

Finally, with respect to university governance and academic culture, the picture painted above of Hong Kong's advantages, although widely accepted, is not reflected in the views of its academics on the basis of empirical data from the international survey of the Changing Academic Profession (2007).

The results confirm that university governance is far more top down in the Chinese mainland bottom up in Hong Kong. When asked who has primary influence on approving new academic programs, evaluating teaching, setting internal research priorities, evaluating research, and establishing international linkages, the results are consistent with few exceptions. Hong Kong academics generally see primary influence ascending (government, institutional management, academic unit, faculty committee, and faculty member), while for Chinese academics, the direction is inverted. Yet, academics on the Chinese mainland do not appear to be as troubled by their top-down form of university governance to the same extent as their Hong Kong counterparts (Figs. 1, 2, 3, 4, 5). Mainland academics are surprisingly less prone than Hong Kong academics to view their universities as more top down in management style. They also indicate, more so than their Hong Kong counterparts, that there is better communication between academics and management, and more collegiality in decision making at their universities (Table 1). Likewise, they indicate that their university administrators have a more supportive attitude toward their teaching and research activities, and a less cumbersome administrative process (Table 2). Even more surprising, mainland Chinese academics view themselves as more influential than their Hong Kong counterparts. Despite a high degree of transparency in operations at Hong Kong's research universities, academics feel less informed about what is going on at their institutions and less prone to view administrators as providing competent leadership.

Yet, Hong Kong academics view their universities as having a stronger performance orientation. This confirms that Hong Kong has a far more efficient and meritocratic system

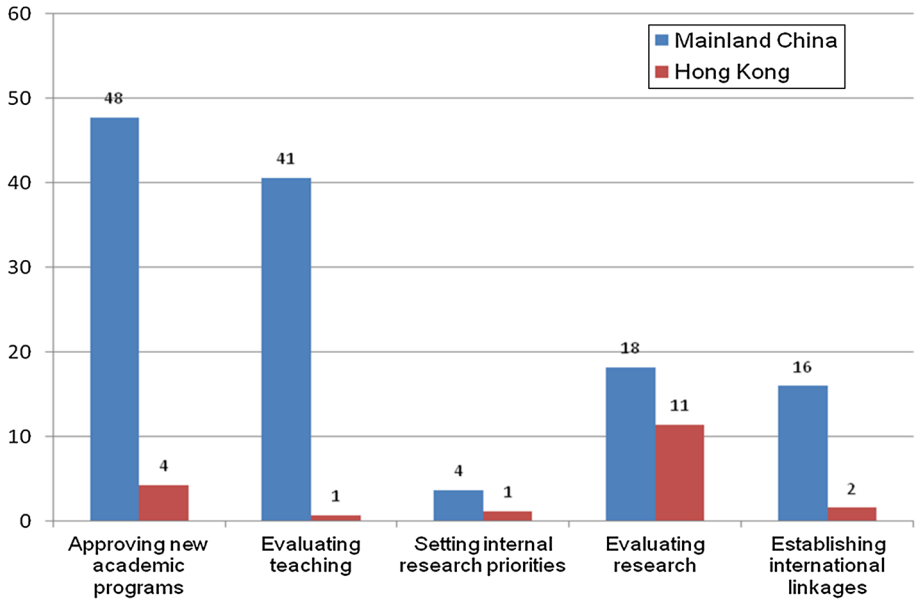

Fig. 1 Percentage of academics agreeing that government has the primary influence. At your institution, which actor has the primary influence on each of the following decisions? (%)

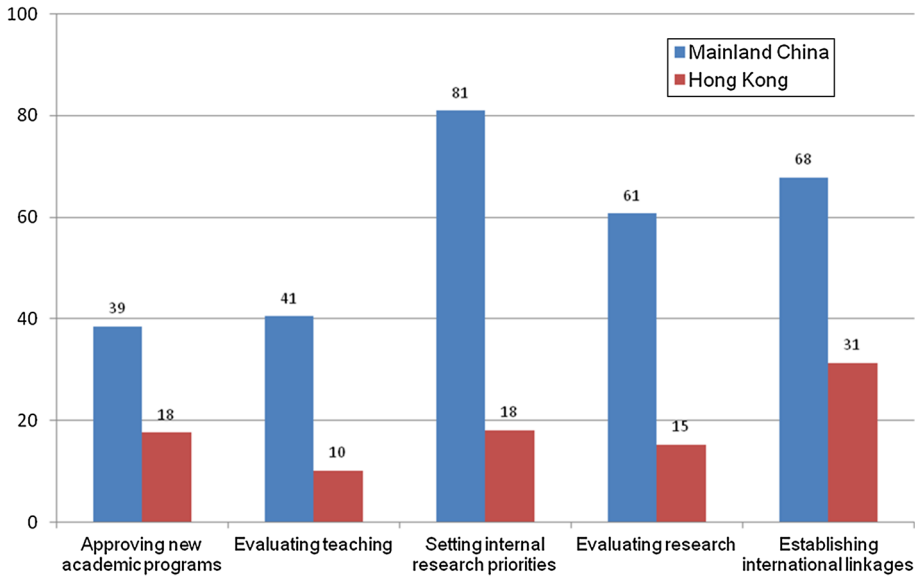

Fig. 2 Percentage agreeing that the institutional management has the primary influence. Source: The Changing Academic Profession, 2007

of research universities. Mainland universities would be hard pressed to institute a Hong Kong system of academic performance reviews when only about 15 % of academics in higher education have a doctorate. While universities on the Chinese mainland search for

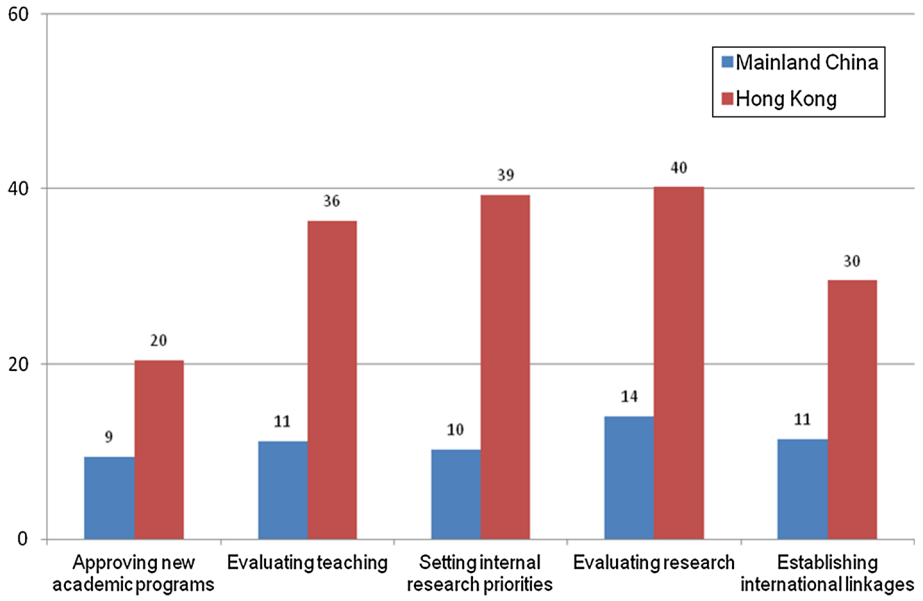

Fig. 3 Percentage agreeing that the academic unit managers have the primary influence. Source: The Changing Academic Profession, 2007

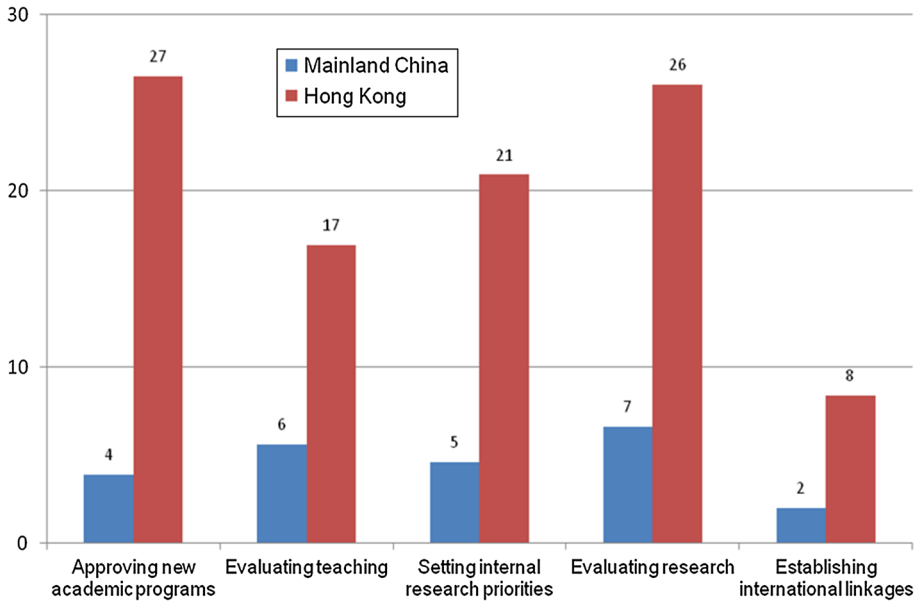

Fig. 4 Percentage agreeing that the faculty committees have the primary influence. Source: The Changing Academic Profession, 2007

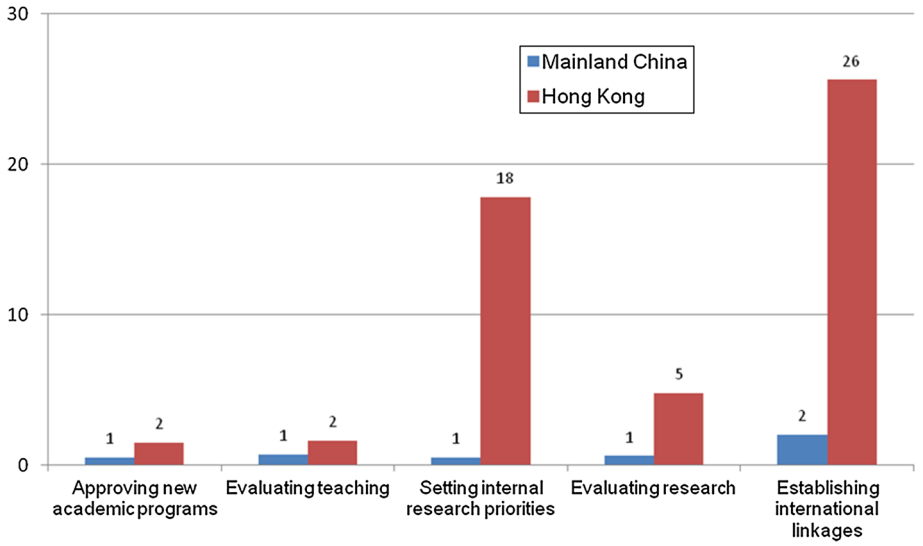

Fig. 5 Percentage agreeing that the individual faculty member has the primary influence. Source: The Changing Academic Profession, 2007

Table 1 Views about institutional management and administration: % agreeing or strongly agreeing

	Mainland China	Hong Kong, China
A top-down management style	46	74
A strong performance orientation	60	65
Cumbersome administrative processes	54	62

Source: The Changing Academic Profession, 2007

Table 2 Views about institutional management and administration: % agreeing or strongly agreeing

	Mainland China	Hong Kong, China
Good communication between management and academics	34	25
Collegiality in decision-making processes	36	23
I am kept informed about what is going on at this institution	44	36
Lack of faculty involvement is a real problem	52	40

Source: The Changing Academic Profession, 2007

an indigenous model that can balance quantity and quality in teaching and research, it will be difficult at the current stage of development. This is not to say that the bulk of the academic profession on the Chinese mainland would be willing to go full throttle to embrace the Hong Kong model, especially if salaries and conditions matched international standards for research universities in advanced economies. However, the resistance of

Table 3 Average age of academic staff in 17 jurisdictions

Country	Average age
US	51.8
Japan	51.7
Italy	49.6
Mexico	48.2
Canada	47.4
Australia	47.1
Norway	47.0
Argentina	47.0
Hong Kong	46.4
UK	46.3
Korea	46.1
Germany	45.3
Brazil	44.3
Portugal	43.4
Finland	43.3
Malaysia	39.5
China	38.8
Total	45.5

Source: The Changing Academic Profession, 2007

academic staff to the Peking University Personnel Reform Plan indicates—otherwise—that the Western model for academic personnel was highly unpopular.

Conclusion

For there to be a renaissance in Chinese research universities, the viewpoint of the academic community must reach a critical mass toward a change in governance and academic culture. This does not seem to be the case at present. The slow, though growing, trickle of returnees from overseas has only slightly fostered change. A more significant factor may be found in the demography of China's academic profession. It is younger than many other leading academic professions around the world (Table 3). Growing up in a market economy, young academics find their salaries inadequate for their academic lifestyles. They see many others with far less education become more prosperous. In fact, China's academic salaries are lowest among other BRIC countries, and many academics have taken second jobs to raise their income (Altbach et al. 2012). This may be one reason why mainland academics indicate that a lack of faculty involvement at their universities is a real problem.

Unlike the Chinese mainland, Hong Kong has managed thus far to successfully attain three key elements: a high degree of university autonomy, a high degree of internationalization, and the preservation of Chinese sovereignty as set out in the Basic Law of the Hong Kong Administrative Region of the PRC (Postiglione 2013). The Hong Kong case indicates what inhibits the potential of the Chinese mainland's research university system. While the latter's investment in the facilities and world-class hardware in its top research universities has been highly impressive, the soft elements of the academic system, namely institutional governance and academic culture, are less able to drive a better balance between quality and quality in research and teaching.

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