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China’s move to mass higher education in a comparative perspective
Qiang Zha*

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This paper analyzes how China has managed to embrace mass higher education in a short timeline, and examines how far this move has followed the existing or established patterns elsewhere through comparing its core aspects with those of four identifiable models of mass higher education: the American model, the Western European model, the Latin American model and the East Asian model. While acknowledging that the current structure of the Chinese higher education system appears to resemble the American in many ways, this paper concludes that it is fundamentally different from the American model, as well as from the Western European and the Latin American models. Largely mirroring the East Asian model, the Chinese approach features a strong sense of ‘state instrumentism’ and is also characterized by integral tensions among its various sectors, which could turn into either positive dynamics for vibrant growth or negative forces leading to serious social justice and equity issues. After enjoying an unprecedented expansion between 1999 and 2006, Chinese higher education has come to a historical juncture to reconsider its success in the light of more collaborative and normative ideologies, such as those grounded in social justice and human potential.

Keywords: Chinese approach; mass higher education; comparative study

Introduction
The last decade witnessed China’s dramatic move to mass higher education. In particular, the year 1999 saw an abrupt jump in new enrolments, with 1.59 million new students, up from 1.08 million in the previous year, or an annual increase of 47.2%! The fast expansion continued until 2004, when higher education enrolment at all levels reached 20 million, double that of 1998! After 2004, enrolments continued to rise, but at a relatively slower pace. The number of regular higher education institutions also increased dramatically over the same period of time, from 1,022 in 1998 to 2,263 in 2008, an increase of 121.4%. If the provision for students in non-formal and private institutions is factored into the statistics, China’s tertiary student population almost reached 30 million by the end of 2008, accounting for 24.2% of the 18–22 age cohort, and making China’s higher education system the world’s largest in absolute numbers. The participation rate was raised by 15% in 10 years, from around 9% in 1998. By contrast, it took the United States 30 years (1911–1941), Japan 23 years (1947–1970), and many European countries 25 years to make the same journey:

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With China’s incredibly fast move to mass higher education, a number of questions could be asked:
How did China achieve this unprecedented expansion of higher education?
Did China’s expansion of higher education follow the existing or established patterns elsewhere?
Are there any lessons learnt from China’s extraordinarily fast move to mass higher education?
Could some aspects of the Chinese case characterize a Chinese model of mass higher education?

China’s move to mass higher education: the context and strategic approaches
There can be little doubt that China’s economic success in the last two decades in the 20th century should be attributed largely to a huge pool of cheap labour and a large-scale urbanization in the country. This demographic dividend, however, will have much less impact in the new century, as the knowledge-based economy requires a labour force equipped with much better education qualifications, ideally at tertiary level. Research shows that China’s status quo of human resource development in the late 1990s was equal to the world average in 1970 (Task Force on Issues of Education and Human Resources in China 2003). Figure 1 below illustrates the mismatch between China’s economic size and higher education participation rate in 1998, relative to other comparable economic systems. The area of each circle symbolizes economic size, while its position indicates both its higher education participation rate and GDP per capita. On the other hand, the implementation of a one-child family planning over a 20-year period had brought about a transition into an aging society much sooner than expected for China. This, in turn, created pressure for a better quality labour force to manage and finance it.

Figure 1. Comparisons of major countries by economic size and PPP, GDP per capita, and higher education participation rates (1998 PPP), Source: Dahlman and Aubert 2001: 11.
In the meantime, two decades of rapid economic growth had created a cluster of middle-class families in China who had not only the ability but also a strong wish to pay for a better education for their children. As the result of the one-child policy, many Chinese parents were even be willing to sacrifice many other things to invest in higher education for their younger generation. The Confucian tradition that attaches a high value to education was a crucial factor behind the scenes, and this constantly pushed the social demand for greater access to higher education. A tension thus emerged between this social demand and the limited capacity of the higher education sector. Against this backdrop, the Asian financial crisis in the late 1990s essentially triggered China’s abrupt move to mass higher education in the early 21st century, when China’s export-oriented economy suffered heavily and there were suggestions, as a counter-strategy, to expand higher education enrolment and charge the students cost-recovery level tuition fees. This move would not only divert the huge family savings in the bank into higher education expansion, but also serve the purpose of stimulating investment in infrastructure, services and other related sectors.

The context and rationales combined to condition the strategies, which had to attend to issues of China’s global competitiveness and social demand, long-term goals and immediate effects, government capacity and market forces, even though this process was state driven. Within this context, China’s strategies for the move to mass higher education are now discussed in detail.

State policies vs market forces
In the late 1990s, China’s central government envisioned that a mass higher education was needed. In a milestone policy paper that planned China’s education for the new century called *Action plan for vitalizing education for the twenty-first century* (State Council and Ministry of Education [MOE] 1998), a goal was set to bring the gross participation rate in higher education to 11% in 2000, from around 9% in 1998. One year later, the 1999 *Decision on deepening educational reform and pressing ahead quality education in an all-around way* set forth a new goal of expansion for 2010 that 15% of the relevant age cohort would be participating in some form of post-secondary education (State Council 1999). With this goal set, China’s ambition to achieve mass higher education became deliberate, as the 15% participation rate represents an internationally acknowledged threshold of mass higher education (Trow 1973).

Nevertheless, the central government realized it did not have the capacity or ability to support a mass higher education system with the state purse. Chinese higher education had remained a centralized system until the mid-1990s. Many Chinese universities were directly administered by such central ministries as the Ministry of Machine Building, Ministry of Agriculture, Ministry of Forestry, Ministry of Water Conservancy & Power, Ministry of Metallurgical Industry, Ministry of Justice, and of course the Ministry of Education. These ministry-run institutions were supposed to cater to the human resource needs of a specific industry or profession, in the typical context of a planned economy. Despite some decentralization efforts in the late 1950s and mid-1980s, which put a considerable number of higher education institutions under the jurisdiction of local governments at the provincial level or lower, these institutions were essentially supported by the state finance through some sort of transfer arrangements. All the funds were allocated according to rigid
norms on a non-fungible line item basis. The budgetary planning horizon was usually a one-year period. The amount of funds for each institution for the current year was determined by an incremental approach, which was based on what the institution received in the previous year. The government would then make some incremental adjustment according to the needs and development of the institution and the total budget for higher education. The higher education institutions had no freedom to decide upon how to spend their budget. Instead, they had to spend funds as specified by the governmental agencies, and unused funds had to be returned to the government at the end of the year. (Min and Chen 1994; Wang and Zhou 1991)

Over the years, this tightly controlled budgetary system provided no incentive for efficiency gains at the institutional level, thus hampering any initiatives that universities or local governments might have wished to take.

Decentralization in a true sense started in 1998 when a push came from the nationwide restructuring of government. Some of the central ministries were dismantled in this process of administrative restructuring or were reduced in size to enhance efficiency. Except for the Ministry of Education, central ministries were no longer permitted to run higher education institutions. Most formerly ministry-run institutions were transferred to local administration and had to find their own means of survival. Higher education institutions have thus become closer to the provinces and more active in serving local interests, while the financial burden of the central government has been relieved. This has been made possible also due to a national tax mechanism, gradually put in place between the early and mid-1990s, which institutionalized a demarcation between central and local control of incomes and expenditures.

Another crucial policy change that propelled the massification has been the adoption of a fee-charging policy. From the 1950s up to the early 1990s, university admissions were tightly controlled with quotas set by the state, and students paid no fees and were assigned jobs upon graduation. Officially from 1997, all higher education institutions started charging student fees. The fees level has been on a dramatic rise ever since. This policy change had strong implications for enrolment. Previously, the rationale for setting enrolment quotas was to ensure that needed personnel were trained and the state had the financial capability to finance their training. Once tuition fees were charged to all students, the justification for setting enrolment quotas effectively disappeared. Instead, enrolment would be driven by the social demand for education. Shortly before this policy change, there was another change in the governmental approach to allocating recurrent funds. From the early 1990s, the incremental approach has been replaced by a formula-based approach, which is comprised of two parts – a block appropriation based on enrolment and the appropriation for special items, with the former accounting for the largest share. The major allocation parameter is now the number of full-time equivalent students. The enrolment-based approach is thought to have fostered competition among the institutions to expand their enrolment rates.

The state used also its legislative power to create mechanisms that motivated the institutions to expand. The Higher Education Law that took effect on January 1, 1999, has granted legal person status to higher education institutions. Specifically, the law entails the institutions are entitled to autonomy in the following spheres: student admission, new program development, teaching affairs, research and service, international exchange and cooperation, arrangement of the internal structure and personnel management, and property management. These spheres of autonomy and
the concomitant responsibilities have combined to create both motivation and pressure for higher education institutions to plan strategically for themselves and to respond to market needs. Thus, when the state called for a dramatic enrolment expansion in early 1999, the universities took this as a development opportunity and embraced it with enthusiasm. The initial expansion stage was characterized by stretching the enrolment capacity of existing institutions, with the aggregate total of institutions being more or less stable. Only in the early 2000s did this situation give way to the creation of new local institutions and in particular higher vocational colleges.

The expansion call came together with a cost-sharing and cost-recovery policy, which aimed to diversify the traditional mode of higher education finance in which the state was the sole patron. In general, Chinese universities today must raise an increasing proportion of their operating funds from non-governmental and market sources. In Table 1 below, it is notable that the ratio of fiscal appropriation in the institutional revenue has continued to decline significantly from 93.5% in 1990 to 42.5% in 2005. Meanwhile, the ratio of student fee contribution has been rising, from almost nothing in the early 1990s to nearly one third of the total revenue in 2005. For many local institutions, the student fee contribution has reached a level over 40% of their revenues (Kang 2007).

Table 1 also shows that a broad pattern of diversification of funding has not yet taken shape. Rather, a dichotomous pattern has developed in which fiscal appropriations and tuition fees are the main sources of revenue. This dichotomous pattern should, to a large extent, explain why the institutions (in particular the local ones that relied their revenues heavily on student fees) embraced the expansion policy enthusiastically. In general, greater size is interpreted as the enabling factor that provides more ‘slack’ resources, which permit institutions to modify their strategies, structures and products, and assist them in adapting to their environments. These approaches have enabled the state to bring policy initiatives into full play, mobilize market resources to overcome its own limited financial capacity and motivate the institutions to grow their enrolment size. Thus, while enjoying an unprecedented expansion, Chinese higher education’s share of public education expenditure has actually been going down (rather than rising) – from 24.2% in 2000 to 20.8% in 2006 (Shen 2009).

Table 1. Revenue composition of Chinese higher education institutions: 1990–2005 (%) Sources: Guo 2004; Zhang 2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fiscal appropriation</th>
<th>Non-govt. investment</th>
<th>Tuition and fees</th>
<th>Donations</th>
<th>Other 1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>93.5</td>
<td>-</td>
<td>0.5</td>
<td>-</td>
<td>6.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1999</td>
<td>62.5</td>
<td>0.5</td>
<td>17.0</td>
<td>2.3</td>
<td>17.7</td>
<td>100.0</td>
</tr>
<tr>
<td>2000</td>
<td>57.3</td>
<td>0.9</td>
<td>22.1</td>
<td>1.6</td>
<td>18.1</td>
<td>100.0</td>
</tr>
<tr>
<td>2001</td>
<td>53.4</td>
<td>2.0</td>
<td>25.0</td>
<td>1.4</td>
<td>18.2</td>
<td>100.0</td>
</tr>
<tr>
<td>2002</td>
<td>49.7</td>
<td>2.7</td>
<td>26.9</td>
<td>1.8</td>
<td>18.9</td>
<td>100.0</td>
</tr>
<tr>
<td>2003</td>
<td>46.8</td>
<td>4.1</td>
<td>29.3</td>
<td>1.4</td>
<td>18.4</td>
<td>100.0</td>
</tr>
<tr>
<td>2004</td>
<td>44.7</td>
<td>5.8</td>
<td>30.7</td>
<td>1.0</td>
<td>17.8</td>
<td>100.0</td>
</tr>
<tr>
<td>2005</td>
<td>42.5</td>
<td>6.8</td>
<td>31.5</td>
<td>0.8</td>
<td>18.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: 1This part includes research-based revenue, investment return, and sales of service etc.
Elite universities vs local institutions

Now that it has been released from its role as sole patron for higher education, the state can focus its attention and concentrate its resources on national universities, and in particular a small number of elite universities, in an effort to raise China’s global competitiveness. The national universities refer to those under the direct jurisdiction of central ministries and financed by the central government. After the restructuring of government in the late 1990s, their aggregate total has now been reduced to around 100 – down from more than 400 in the mid-1990s – including 75 administered by the Ministry of Education, and a few dozen special purpose institutions under other central ministries such as the National Commission for Minority Affairs, the Ministry of Public Security and the National Aviation Administration. Traditionally, national universities have enjoyed superior resources, whether these be those of finance or of the quality of students, and also a higher status. Now with the much reduced number, their status is further secured, and the gap between them and local institutions is much widened. Table 2 illustrates the increasing gap in terms of research funds, nowadays a crucial indicator determining institutional status. In 2002, the 72 universities administered directly by the Ministry of Education obtained research funds amounting to nearly twice the total of research funding shared among 1154 local institutions. On average, their research budget was more than 24 times higher than that of local institutions. With such advantages, most national universities have easily made their way into elite university schemes.

In the mid-1990s, the state launched two elite university schemes, Project 21/1 and Project 98/5. Officially launched in 1995, Project 21/1 expressed the state’s intention to identify and give special financial support to 100 top universities in an effort to raise them to ‘world standards’ in the 21st century. The selected elite universities have benefited from substantial additional resources and accommodate most of the graduate education programs and research activities across the country. The 1998 Action plan announced an even bolder scheme, Project 98/5, which is


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</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Education Institutions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>35</td>
<td>45</td>
<td>46</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Total Research Funds</td>
<td>2543.8</td>
<td>3548.6</td>
<td>4502.3</td>
<td>8363.9</td>
<td>9948.6</td>
<td>12164.6</td>
</tr>
<tr>
<td>Average</td>
<td>72.7</td>
<td>78.9</td>
<td>97.9</td>
<td>116.2</td>
<td>138.2</td>
<td>169.0</td>
</tr>
</tbody>
</table>

| Other Central Ministry Institutions: |       |       |       |       |       |       |
| Number                   | 310   | 263   | 202   | 44    | 39    | 39    |
| Total Research Funds     | 3466.2| 3044.7| 3287.2| 1858.8| 2578.5| 3282.2|
| Average                  | 11.2  | 11.6  | 16.3  | 42.2  | 66.1  | 84.2  |

| Local Institutions:      |       |       |       |       |       |       |
| Number                   | 675   | 759   | 823   | 925   | 1114  | 1154  |
| Total Research Funds     | 1297.6| 1902.4| 2486.3| 4670.3| 6071.3| 8049.5|
| Average                  | 1.9   | 2.5   | 3.0   | 5.0   | 5.4   | 7.0   |
named after the date in May of 1998 when then President of China, Jiang Zemin, attended the centennial anniversary of Peking University and revealed that China would aim to put forth major efforts to create world-class universities. The universities included in Project 98/5 were initially nine in number and have now expanded to 43 (Liu and Wang 2010). When other universities found their way into this elite project, the original nine members formed a coalition – nicknamed the ‘Chinese Ivy League’ – to preserve their special status. In 2009, research funds of these most elite universities averaged 1.2 billion yuan RMB,1 equalling that of the Association of American Universities membership, a group of leading research universities in the world.

The most elite universities have been protected from overexpansion so as to focus on achieving global excellence. Expansion mainly took place in the lower echelons. The local institutions, including newly developing higher vocational colleges and private institutions, have absorbed most of the increased enrolment. Notably enrolment in the national elite universities grew only in symbolic ways, mainly at the graduate level or with the development of new programs, from 1.36 million in 1997 to 1.63 million in 2005. By contrast, local institutions increased their enrolment most dramatically in the same period, from 1.79 million to 11.89 million (Ma 2009). Certainly this should be understood together with the concurrent decentralization process, which put some 200 former national universities under local control. It can thus hardly be denied that it is the local institutions that have achieved the massification of higher education. Between 1997 and 2005, they increased by 2.5 times in terms of aggregate numbers, and by 7.7 times in terms of total enrolment (Ma 2009). Now they accommodate 95.3% of all enrolments in the Chinese system.

To facilitate this situation, the state delegated to local governments at provincial level the approving authority for creating higher vocational colleges in 2000. The number of these institutions has soared ever since, from under 100 in the early 1990s to 1184 in 2008. Now they account for 52% of all higher education institutions and accommodate nearly 30% of the enrolments.

Clearly, institutional stratification has characterized the massification of higher education in China. Such a structure has been strategically established to improve China’s global competitiveness (a role assigned to the elite universities) while at the same time meeting domestic social demand, a role undertaken mostly by local institutions. With this approach, China has been able to establish and maintain the world’s largest higher education system and still nurture several dozen players at the global level. This ‘success’ is, however, at the expense of equity in terms of the institutions’ operating conditions. There is a widening gap among the institutions at difference tiers in the hierarchy and concomitant differences in students’ learning experience. As illustrated by Table 3, the average difference in institutional revenues among the core Project 98/5 universities, the other Project 98/5 universities, the Project 21/1 universities, the local universities, and the higher vocational colleges – listed in a descending order of prestige and status – showed a striking ratio of 45: 26: 10: 4: 1 in 2006.2 Notably, the research revenues of 37 Project 98/5 universities (on the 2006 list) were roughly four times as much as those of 68 Project 21/1 universities (a prestigious group itself) and 588 local universities. In the meantime, a negative correlation between institutional status and reliance on students’ tuition and fees is discernable. The higher vocational colleges and local universities are respectively 36% and 24% higher than the core Project 98/5 universities in

<table>
<thead>
<tr>
<th>Revenue Sources</th>
<th>Core Project 98/5 Universities (N=9)</th>
<th>Other Project 98/5 Universities (N=28)</th>
<th>Project 21/1 Universities (N=68)</th>
<th>Local Universities (N=588)</th>
<th>Higher Vocational Colleges (N=712)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>%</td>
<td>Amount</td>
<td>%</td>
<td>Amount</td>
</tr>
<tr>
<td>1. Appropriated revenue</td>
<td>9017.2</td>
<td>49.4</td>
<td>16289.6</td>
<td>50.5</td>
<td>15292.0</td>
</tr>
<tr>
<td>1.1 Fiscal appropriations</td>
<td>8370.9</td>
<td>45.9</td>
<td>15087.8</td>
<td>46.7</td>
<td>13513.3</td>
</tr>
<tr>
<td></td>
<td>646.3</td>
<td>3.5</td>
<td>2001.8</td>
<td>6.3</td>
<td>778.7</td>
</tr>
</tbody>
</table>

Table 2: Research Funds of Chinese Higher Education Institutions: 1997–2002 (in million yuan RMB)

| 1.1.1 Operating | 2720.6 | 14.9 | 3523.2 | 10.9 | 1640.0 | 5.3 | 1529.0 | 1.4 | 41.8 | 0.1 |
| 1.1.2 Research  | 873.7  | 4.8  | 944.1  | 2.9  | 1104.0 | 3.6 | 3956.1 | 3.6 | 1196.3 | 3.7 |
| 1.1.3 Special purposes | 590.2 | 3.2 | 1201.8 | 3.7 | 1758.7 | 5.7 | 3535.7 | 3.2 | 958.4 | 3.0 |
| 1.2 Infrastructure | 56.1   | 0.3 | 0.0 | 0.0 | 20.0 | 0.1 | 562.8 | 0.5 | 373.7 | 1.2 |
| 1.3 Tax transfer   | 4079.6 | 22.3 | 613.1 | 1.9 | 4147.0 | 13.4 | 3535.7 | 3.2 | 958.4 | 3.0 |
| 1.4 Other sources  | 1715.3 | 9.0 | 2377.5 | 7.4 | 2914.5 | 9.3 | 1341.5 | 4.2 |

Total | 18257.7 | 100 | 32284.6 | 100 | 31060.6 | 100 | 110574.2 | 100 | 32210.9 | 100 |

Mean | 2028.6 | 1153.0 | 456.8 | 188.1 | 45.2 |
terms of the ratio of income from tuition and fees in their total revenues. Put in another way, a majority of Chinese students now have to pay relatively more for educational opportunities and learning experiences of much lower quality.

Public vs private provision
Following the same rationale, Chinese government recognized that public provision alone could never meet the exploding demand for higher education. The state thus deliberately made a policy of encouraging non-state sectors to engage in education provision. On October 1, 1997, the State Council enacted the Decree on Educational Establishments Run by Social Forces, which evolved into China’s private education law five years later. In 2002, China’s national legislature, the People’s Congress, passed the Law for Promoting Private Education, which took effect on December 28 2002.

In addition, Chinese educational authorities have encouraged public universities to run second-tier colleges since 1999. These colleges were operated as private institutions that supplemented the income of the sponsoring public university. The intention was to increase higher education capacity by combining public and private resources. Given the advantages that second-tier colleges enjoyed under the patronage of public universities, particularly in the sense of guaranteed degree-conferring authority, this trend was criticized by fully private institutions, which saw it as unfair competition. After 2003, all second-tier colleges were thus required to become independent from the public patron universities that spawned them, and now are called ‘independent colleges’. Private higher education enjoyed dramatic growth over this period of expansion as well. In 1999, only 37 private institutions, with an enrolment of 46,000 students, were fully recognized by the Ministry of Education and accredited to confer their own graduation diplomas (Zha 2006b). By 2008, the number of private institutions that were accredited to confer degrees and diplomas had grown to 638, including 322 independent colleges. They constituted 28% of all higher education institutions in China, with an enrolment of four million students, representing 20% of the entire enrolment in the regular higher education sector ([MOE] 2010).

Private institutions rely on tuition and fees for 80% of their revenue while absorbing 20% of the higher education demand. In this sense, they provide considerable relief for public finance at all levels as well as meeting rising societal demand. However, this very fact has also ushered in challenges for private institutions. First of all, they all face financial constraints, which in turn impede their operating conditions. For instance, in 2008, the private institutions possessed only a share of 0.7% respectively of the aggregate fixed assets of the Chinese system and the teaching equipment assets, as well as less than 1% of the library holdings. Also, due to financial constraints, private institutions have to rely on retired faculty (from public institutions) for their course deliveries, alongside of new hires in recent years. Among 19,121 full-time teaching staff in private institutions in 2008, over 40% of full professors were 55 years of age or older. Of the 60% of their full-time teaching staff who were younger than 40 years old, close to 90% of these were at junior level, i.e., being lecturers or below. Even so, the private institutions still faced a serious shortage of full-time teaching staff and had to use a large number of part-time teachers. In 2008, private institutions hired only 1.5% of all full-time teaching staff in the Chinese system or 19,121 in absolute number, while they
engaged 21,387 part-time teachers, who were 12% more than their full-time teachers in the same year. These figures combine to cast some questions on education quality in the private institutions.

Over 80% of private institutions focus on providing vocational education programs, and vocationalization is clearly the strategic choice made by most private institutions for the sake of survival and growth. They cluster at the bottom of the pyramid-like structure of the Chinese system and are now subject to competitive pressure from the proliferating higher vocational colleges in the public sphere and the favoured independent colleges. Among 638 licensed private institutions, 369 have been accredited to confer degrees, including 322 independent colleges. This means there are only 47 truly private universities across the country. Thus, following a common typology of private higher education (Altbach, Philip, Liz Reisberg, & Rumbley 2009; Levy 1986; Levy 2002), Chinese private institutions function typically to absorb the social demand, and, like higher vocational colleges, mainly recruit disadvantaged students. Together, private institutions and higher vocational colleges now accommodate half of the nation’s tertiary student population. Despite their merit in widening access to higher education, the private institutions serve, to a certain extent, to enhance the inequity problems facing Chinese higher education in the expansion process, given that they charge much higher tuition rates but offer educational programs of much lower quality. Their resurgence was largely encouraged by the state policy aiming to absorb social demand, and their growth was mostly steered by forces relating to marketization and commercialization of higher education.

In sum, China’s move to mass higher education has resulted in not only rapid expansion of enrolment size but also systemic differentiation. The emergence and growth of private institutions and higher vocational colleges manifest the horizontal differentiation; the stratification of the system with elite university at the top characterizes the vertical differentiation. Being steeply stratified, the Chinese system now comprises one tier that is oriented toward research and selectivity and another that imparts knowledge to large numbers of students. This is often viewed as ideal and a success from a neoliberal agenda: ‘This agenda advocates for a free-market, privatized approach to higher education with a research concentration (and thus funding concentration) in a small number of elite institutions whereby small numbers of individuals may excel at the expenses of others’ (Gidley, Hampson, Wheelera, & Bereded-Samuel 2010: 133).

**The analytical framework**

Trow (1973) developed a classical framework defining higher education systems in transition, and noted that higher education systems, with few exceptions, manifested an orientation towards a ‘mixed-phase’ system, with both elite and mass higher education characteristics. He stressed that, while these forms can be seen as sequential stages, it is not inevitable that the later stages would completely replace the earlier ones. Rather, the elite functions continue to exist or are even reinvigorated when the national system as a whole moves towards massification. This phenomenon can be well explained by human capital, social and cultural capital theories. The human capital perspective sees the primary purpose for mass higher education as part of a nationalist agenda to build the nation’s labour force. ‘The rise of mass higher education since World War II has been widely viewed as the ascendancy of technical
and vocational education over liberal and general education’ (Trow 2006: 249). Thus, ‘mass higher education is centered on the transmission of skills and knowledge’, and the institutions are ‘designed to prepare students for relatively more modest roles in society’ (Trow 2006: 250).

By contrast, social reproduction theory provides some insight into the reasons that keep elite higher education in place. ‘Along with economic, social, and symbolic capital, cultural capital serves as a power resource, or a way for groups to remain dominant or gain status’ (Dumais 2002: 46). Despite the landscape and demographic changes ushered in by mass higher education, there remains a driving force for elite institutions to preserve their status. They remain – and may even grow – within a mass system, serving to stimulate ambition, and providing social, academic and intellectual support for achieving these ambitions. In a ‘mixed-phase’ system, access is more about a quantitative measurement, i.e., numbers and percentages among the relevant age cohort, but ‘does not necessarily reflect student participation or success’ (Gidley et al. 2010: 132). There is thus a trade-off between expansion and equity at the expense of a more socially inclusive egalitarian approach to higher education, which will understandably be challenged when the society in which higher education operates become increasingly democratic and egalitarian. As Trow (2006: 246) states later, ‘the higher the proportion of the relevant age group going on to higher education, the more the democratic and egalitarian concerns for equality of opportunities come to center on the increasingly important sector of tertiary education’.

Taking this discourse further, Gidley et al. (2010) suggest that accessibility is only the first step towards fulfilling social inclusion in higher education. They propose that ‘access, participation and success are ordered according to a spectrum of

![Figure 2. Spectrum of ideologies underlying access, participation and success in higher education Source: Gidley et al. 2010: 131.](image-url)
ideologies – neoliberalism, social justice and human potential, respectively – by way of a nested structure with human potential ideology offering the most embracing perspective’ (124). They use the diagram provided in Figure 2 to illustrate these different ideologies and how they frame the issues surrounding access, participation and success in higher education. Such a perspective advocates maximizing the potential of each human being, and supporting them to ‘go well beyond their role in the political economy of a nation’ (136). They argue that, first and foremost, the notion of success in higher education should be ‘uncoupled from its default neoliberal connections with global competitiveness, and reconsidered in the light of more collaborative and normative ideologies such as those grounded in social justice and human potential’ (142).

The discussion above enables the integration of a number of disparate theoretical perspectives, which in turn serve as the analytical framework for China’s move to mass higher education. Such a framework suggests that, while the ‘mixed-phase’ approach to mass higher education is widely observed and features a high level of efficiency and effectiveness in terms of provision of skilled manpower – in particular when coupled with the neoliberal agenda that is prevailing in the context of globalization – it appears problematic in the face of social justice and human potential ideologies.

**China’s massification in a comparative perspective**

Since mass higher education was first achieved in the USA in the 1940s, it has spread to many parts of the world and will continue to spread, albeit with different paths or models. Roughly, there are four models discernable: the American model, the Western European model, the Latin American model, and the East Asian or Confucian model, which have emerged chronologically over the second half of the 20th century. Given the fact that the USA was the first country experiencing mass access to higher education, the American patterns and structure served as a kind of model for many other systems when they came to the era of mass higher education, with understandable adaptations and modifications. With broad support from a consensus of interests within the wider society and within the higher education sector, the American model is a ‘culmination of private initiatives and political action at the state and local levels rather than a centrally directed initiative by the federal government’ (Bassett and Tapper 2009: 131). The smooth transition of American higher education to a mass system, and now a universal one, was undoubtedly aided by its prevalent feature of pluralism:

There were state systems that promoted a range of higher education models, private institutions that emerged from largely philanthropic and individually constructed ideals of donors and no one idea of the university that constrained the pattern of development. Among all of these institutions, there were both shared and competing ideas of the purposes of higher education, the respective roles of teaching and research in the academy, the favoured pedagogical practices and the desired relations to the wider society. (Bassett and Tapper 2009: 131).

Another important aspect of this pluralism pertains to the diversity in American higher education funding. In 2002, private and public funding for American higher education were roughly equal, accounting for 1.4% and 1.2% of the GDP respectively (Pan and Luo 2008). This pluralism is complemented by a moderate hierar-
archy (Clark 1978), with the private Ivy League universities and some public research-intensive universities sitting on the pinnacle. In general, the American system allows universities to pursue different purposes, and carries the ingrained idea of ‘individual mobility based on individual merit (for both students and faculty) through the system’. Thus, ‘the resulting hierarchy of institutions within the system is not merely acceptable but is seen as necessary to allow for the greatest breadth of choice and achievement across the system’ (Bassett and Tapper 2009: 131)

By contrast, the Western European model reflects a strong federalism. In these so-called ‘welfare states’, education has always been a public good and government responsibility. Open and free public higher education had always been taken for granted. With the rapid economic growth as the backdrop, and influenced by human capital theory, Western European national governments have tended to monopolize higher education spending, while private higher education has played a very minor role in Western Europe. Even now, private higher education grows slowly and could be seen as underdeveloped in Western Europe compared to other parts of the world, and higher education expansion counts fundamentally on public institutions and governmental finance as the main source of support. This model, however, is often confronted with insufficient funds. By the early 1970s, higher education participation rate of the appropriate age cohort in most Western European countries had reached 15%. Nevertheless, since the mid-1970s, this rate has stagnated or grown slowly in these countries and is still far from the universal phase even today. In the meantime, the idea of systematized elitism among institutions is not favoured in Western European countries (with perhaps France being an exception where the ‘old’ grand écoles are granted a status above most other universities). There is a general recognition of the need for institutional diversity, though, and there is far less consensus than in the USA about embracing the hierarchy to which such diversification will almost inevitably lead.

Expansion in Latin American higher education might have been seen to have egalitarian features in the first and foremost manner. Latin American higher education grew to a mass stage over the later part of the 20th century. For the region on average (but with variations from country to country), the gross enrolment ratio rose from 3% in 1960 to 21% in 1994 and 29% in 2003. When the expansion started, it was chiefly accommodated by enlarging the public sector, e.g. increasing enrolments in the existing public universities, creating new institutions, or establishing a public non-university sector offering shorter duration vocational and technical programs (Bernasconi 2008). In this sense, Latin American students enjoyed relatively egalitarian access to higher education, compared to other models described in this article. The public universities showed persistent adherence to certain deep-rooted elements of the Latin American tradition, including participatory governance, free tuition and institutionalized political engagement. As a result, they were seen as having some downsides, such as a lack of accountability, excessive politicization, cultural indifference to science and research, and irrelevance to economic development. Such perceived failures led to the emergence of private universities as a reaction to the practices of public institutions. They are parallel to the public sector, but pay greater attention to economic development than political change, and are more hierarchical. Notably, the private and public sectors stand parallel to each other, showing no visible hierarchical relations as in the American model and the East Asian model to be discussed below.
Finally, there is an East Asian model of massification of higher education, which features a strong sense of ‘state instrumentalism’ towards higher education: the higher education systems are ‘refashioned as quasi-markets’ and the institutions are ‘remodeled as quasi-firms while central control is maintained’ (Marginson 2011: 595). Marginson defines it quite rightly as a Confucian model, since the Confucian tradition closely articulates academia and state management. Specifically, a number of characteristics are identifiable with this model. First, higher education remains largely the state’s instrument for national development and global competition. Thus, higher education is ‘folded into the inner workings of the state in East Asia’ and the ‘[S]tate-driven momentum provides much of the capacity of the Model’ (596). Second, and related to the first characteristic, the state pushes for the ‘formation of layer of leading research universities’, focusing public subsidies ‘at the top end of the pyramid’ (594, 598). Consequently, the systems within this model tend to feature a singular hierarchical regime, ‘where all institutions are measured and positioned according to one single set of criteria’ and research qualifications become the essential condition for access to resources and prestige (Zha 2009: 463). Third, this model often entails rapid growth of higher education participation, which occurs mostly at lower reaches of the system, ‘the non-selective and vocational institutions, often commercial in character’ and ‘privately maintained and funded’ institutions. Thus, ‘[A] standard feature of Confucian systems is the long “tail” of lesser quality private institutions’ (Marginson 2011: 594–598). Last but not least, higher education growth is simultaneously accompanied by ‘a continuing increase in the proportion of tuition costs that are funded by house holders rather than the state’. In the Confucian systems, ‘more public investment is not essential to the expansion of access’ while ‘in many other nations, public investment is essential to access’ (Marginson 2011: 594, 599). Marginson attributes this paradox to ‘the long-standing family commitment to education’ (595). Indeed, the fact that the Confucian tradition attaches a high value to education has led to the willingness of most families to invest privately in higher education for their children, while the state may use the fiscal resources freed up by the private funding to support the leading research universities. By contrast, the ‘US private funding is sourced from philanthropy not households’, and most OECD European nations tend to support ‘lower status public institutions and target students from poor backgrounds’ (Marginson 2011: 597–598).

As an emerging economy in the region and the world, China has been obsessed with a kind of ‘catch up’ mentality, which in turn pushes for in the ‘state instrumentalism’ embedded in the East Asia or Confucian model. In a certain sense, this ‘state instrumentalism’ leans towards neoliberalism, despite its emphasis on central control. It shows some merit in terms of efficiency with respect to meeting the challenges of global competitiveness and an increasing social demand simultaneously.

This is clearly evident in China’s extraordinarily fast move to mass higher education and in its accelerated research performance. Since the higher education expansion started in the late 1990s, China maintained an annual growth rate of over 40% in new enrolments between 1998 and 2001 and achieved mass higher education in five years, by 2002! Currently it aims to have a universal system in less than ten years from now, as revealed by the National outline for medium and long term educational reform and development 2010–2020 (or 2020 Blueprint). On research performance, China’s output of research papers in international journals rose from 9,061 in 1995 to 56,806 in 2007, growing by 16.5% per annum, and overtaking the
UK, Germany, France and Japan recently. Now it is next only to the USA (National Science Board [NSB] 2010).

Perhaps two things may better exemplify how China has pushed the boundaries of the East Asian model. One is the Chinese government’s practice of labelling major initiatives aiming to achieve research excellence as this or that ‘project’, e.g., Projects 21/1 and 98/5. The overarching rationale behind such practices is that knowledge production can be managed by the state, which functions like a corporation in this context, and sets out goals and conditions for higher performance and efficiency. Thus the elite universities included in Project 21/1 and Project 98/5 benefit enormously from extra financial support from the state, while never being seriously challenged or required to go through a transparent competition process (Zha 2011).

The other is the introduction of independent colleges to the system. This policy initiative seemingly aimed to tap private resources into public institutions and so increase higher education supply in a more efficient way, but it is often implemented as an investment strategy by the public patron university. Operated as a private institution, the independent college often takes advantage of its patron university’s reputation and prestige to attract students while charging them tuition fees at a rate two or three times higher than those regulated by the state for the public university. With this strategy, the state openly encourages public universities to compete with private institutions for household resources. Yang (2003) argues that many independent colleges are de facto entirely publicly owned by their patron universities, yet the state regulations have made no provision for this indirect public ownership, which indicates that the state has tacitly approved this practice. Not surprisingly, public universities were enthusiastic about establishing independent colleges. Between 2000 and 2006, 318 independent colleges were established. Almost every Project 98/5 and 21/1 university has one or multiple independent colleges. Despite their short history, the independent colleges now enrol about half of the non-public student body, but 84% of their students study in degree programs, in contrast to only 10% in fully private institutions (Yu et al. 2010).

Thus, China’s success in the move to mass higher education should not be taken at face value. Judged by the analytical framework depicted in Figure 2, China’s success in terms of accessibility to higher education is largely driven by a neoliberal agenda and needs to be challenged by more embracing ideologies such as the social justice and the human potential perspectives. Indeed, the Chinese approach has started to show its inner constraints, in particular the downsides for social equity in participation and consequently in the students’ lifetime opportunities. There is also a potential for state interference into knowledge production and academic freedom. Research confirms students from upper socioeconomic status (SES) families tend to be favoured for access to more selective universities. One survey of 14,500 students from different SES backgrounds at 50 institutions across 10 provinces found that those from governmental officials’ families were 18 times as likely as those with unemployed parents to gain access to national elite universities. The only place that showed no significant difference in accessibility among all socioeconomic groups was the newly emergent higher vocational colleges, which cluster at bottom of the hierarchy. This is where those from low-SES families would most likely be concentrated. (Xie and Wang 2006) Even worse, those high achievers who, on average, take advantage of their high-SES family background, would continue to be favoured in terms of financial support after entering the selective universities. In general, stu-
Students in more selective universities receive three times as much financial aid as their peers in less selective universities and higher vocational colleges (Yang 2010). Given the enormous difference in study experiences, resulting from the huge gap in terms of faculty qualifications, research facilities and per student expenditure (widened by twofold between 1998 and 2006, according to Liu and Wang 2010) between selective and less selective intuitions, the students in the lower echelon institutions will suffer from very limited chances for mobility within the system and later in the society at large. In other words, this social inequity may accompany them throughout their lifetime.

Concluding remarks

China’s extraordinary move to mass higher education in a short timeline, together with its ambition of creating a number of world-class universities, has attracted wide attention in this globalizing world, where the notions of a knowledge-based economy and global competitiveness tend to dominate the discourse. The Chinese model, largely mirroring the East Asian model for higher education development, manifests some strength and attraction in relation to the efficiency of mobilizing and utilizing public and private resources to push for higher education growth, yet the inner constraints with respect to social equity and human potential fulfilment are serious. Put in another way, China’s current ‘success’ in higher education is limited to quantitative success in access (or the inner circle in Figure 2) while in fact it is mainly benefitting a small proportion who study in the more selective universities. The Chinese system shows a quantitative characteristic of mass access, though it continues to uphold an ideology of elitism. The 2020 Blueprint does send the message of possible gear change with the dominant ideology in favour of great equity, but it still carries a strong sense of state-driven momentum and economism. Unless the dynamism comes truly from the bottom, with universities and colleges fully enjoying autonomy and flexibility, it might be hard to see the circle ripple out to embrace and benefit more and eventually all participants in Chinese higher education.

Higher education must serve as the mechanism of facilitating upward mobility and fulfilling human potential, if it is to achieve real success. Ultimately, a vibrant higher education system should function with the consensus of interests within the wider society and within the higher education sector, and provide an ongoing critical reflexivity in relation to the social consciousness. Such a goal may present a serious challenge to the ‘state instrumentism’ that drives the current Chinese approach.

Notes

1. The official exchange rate between US dollar and RMB yuan was 1:6.8 in 2009. Yet, over the years, it has been noted that China’s currency is grossly undervalued. The International Monetary Fund estimated that, by purchasing power parity, one US dollar was equivalent to approximately 3.872 yuan RMB in 2009.

2. The ‘core Project 98/5 universities’ refers to the first nine universities included in the project in 1999 and 2000. Some more joined in this project one after another until 2009. All universities selected on Project 98/5 are the national ones, and included in Project 21/1 as well. In addition to them, Project 21/1 includes a few dozen more national and local universities.
3. China adopts mandatory retirement policy across the country and all sectors, setting retirement age at 55 for females and 60 for males.

4. Chinese higher education system uses four-level professional ranks: full professor, associate professor, lecturer and assistant lecturer, in a descending order, with Chinese lecturer equivalent to assistant professor in the North American universities.

5. Chile and Brazil were the exceptions, where the private higher education sector grew considerably at a relatively early phase.

References


Bao, Wei, and Yanhui Liu. 2009. Gongping shi jiao xia de zhongguo gaodeng jiaoyu ziyuan peizhi quyu jian chayi de shi zheng yanjiu [An empirical study on regional variations of higher education resource distribution through equity lens]. Beida jiaoyu jingji yanjiu [Economics of Education Research (Beida)] 7, no. 1.


