The Impacts of Globalisation on China’s Higher Education: Opportunity or Threat?

Lingyu Hao

Submitted for the Degree of Master of Philosophy

Department of Political, International and Policy Studies
School of Arts
University of Surrey

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ABSTRACT

Ever since the nation's economic resurgence in 1978, continuous efforts have been made from the Chinese government on higher education reforms to improve the quality of human resources for the country's sustainable development. The dilemma between the increasingly diminished financial support from the central government and the intensified public demand for more and better services necessitate innovative means to fit the national higher education provision to the changing environment. The international context of globalisation and new public governance conceptions of Economy, Efficiency, and Effectiveness have even speeded up the process. Breaking away from the early year's hierarchy where educational provision and development was entirely under the control of the central government, current reform and attempts are inspiring a sweeping practice of diversification and decentralisation in educational service provisions, particularly in higher education. From the multi-funding strategy to the market-oriented service reconstruction, higher education reforms in China have been tumult and dynamic. This research examines how the flourishing trend of globalisation and concept of new public management has been affecting China's higher educational development. Grounded in document discussion and analysis, this study aims to provide a fair picture of strengths and weaknesses of China's post-1978 higher education reconstruction and readjustment in terms of the history, the socio-economic background, as well as the development and implementations of the major policy and reforms. Research and analysis focuses on three areas: the changing relationships between universities and the State, the multiplied financing strategies, and the diversified approaches in instructional program designs. Particular attention is given to what has been involved in and motivated the marketisation process in the context of China's unique social-economic culture.
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### ABBREVIATIONS AND ACRONYMS

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<tr>
<td>ADC</td>
<td>Academic Degrees Committee</td>
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<tr>
<td>CAS</td>
<td>Chinese Academy of Sciences</td>
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<td>GATS</td>
<td>The General Agreement on Trade in Services</td>
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<td>CCP</td>
<td>Chinese Communist Party</td>
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<td>CD</td>
<td>Curriculum Division</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<td>HECS</td>
<td>The Higher Education Contribution Scheme</td>
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<td>HEI</td>
<td>Higher Education Institution</td>
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<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
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<td>MOE</td>
<td>Ministry of Education</td>
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<td>MOF</td>
<td>Ministry of Finance</td>
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<td>MTM</td>
<td>Market Type Mechanisms</td>
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<td>NAEA</td>
<td>National Academy of Education Administration</td>
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<td>NPM</td>
<td>New Public Management</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>PRC</td>
<td>People’s Republic of China</td>
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<td>SEdC</td>
<td>State Education Commission</td>
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<td>SOE</td>
<td>State-owned Enterprises</td>
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<td>SPC</td>
<td>State Planning Commission</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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### CURRENCY EQUIVALENTS

(2006)  
Currency Unit: Yuan (RMB)  
US Dollar 1.00 = RMB 7.8
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1 INTRODUCTION

1.1 Globalisation and Trade Liberalisation – Opportunity or Threat?

Globalisation, in a simple term, refers to the process whereby countries become integrated via the movements of goods, capital, labour, and ideas. The liberalisation in the world’s trading system, currently acting as the major channel through which globalisation is occurring, allows the competition cross borders and accumulatively leads to each country specialising in what it does best. In addition, the lightning advancement in Information and Communications Technology (ICT) has both facilitated and been facilitated by the increasingly integrated cooperation and exchange in world’s manufacturing and trading sectors.

The radical expansion of the trade and exchange in capital, labour, production, consumption, information, and technology in the last two decades of the 20th Century has been imperceptibly changing the way global economic activities are carried out, and is having a more fundamental effect on the ideologies for broader social, political, and cultural status at the start of the 21st Century. Mark Olssen et al. (2004), in Education Policy: Globalisation, Citizenship & Democracy, define the Globalisation in terms of two interrelated phenomena:

I. as a high degree of global interconnectedness, being the consequence of changes in science and technology; and
II. as a discursive system, pursued at the policy level by powerful states and international capital.

The definition indicates the different characteristics during the process of globalisation in human economic activities. “Globalisation I” concentrates on the technological advances that have made the international transactions in both trade and financial flows easier and quicker; and “Globalisation II” demonstrates a more profound influence of neo-liberal orthodoxy on government policy and social administration systems (Olssen et al., 2004). In the higher education sector, countries have been confronted with unprecedented opportunities and threats from the trend of international integration. Recognising the growing potential of knowledge and technology for today’s economy, more and more countries are involving into the
competition for “best and brightest” students. National boundary is no longer the constraint for students making their own choice on higher education.

Today, higher education, for its role and contribution to knowledge innovation and technological advancement, is playing an important role for the developing world to benefit from globalisation. So far, most technological advances have been borne in the developed world: home to just 15% of the world’s population, developed countries take the possessions of over 90% of global patents granted (Dixon & Dogan, 2005). Based on the advanced technologies from the developed world, the research and development in higher education institutions can be a fundamental instrument for speeding up the process of the developing country’s knowledge and technological transformation, and the transfer of technology into productivity finally brings along the development in socio-economic sectors as a whole. Besides, the highly developed education system and advanced technological standards can also help the developing country attract foreign investment and participate more effectively in international affairs given the technical demands of diplomacy, international commerce and global governance.

The sweeping trend of globalisation, as well as its effect on the country’s higher education system and standards offers huge potential to promote national economic and technological development, and in this way finally to improve people’s living standards. In China, for example, the internationalised communication and cooperation has played a key role to help the country in building up the Information Technology (IT) industry for its own. Prestigious IT companies like Microsoft, AT&T, Google and Cisco Systems have all set up research centres or established links with the local firms, through which they can take advantage of China’s supply of well-trained computer graduates. Moreover, these blue-chip engineers have also been playing actively in founding and developing China’s own IT companies. HUAWEI, now a world leading networking and Telecom Company, is a typical example of huge success.

Similarly, the well-managed integration into the global economy, in turn, can boost the national economy through promoting foreign investments, creating jobs, and
enabling countries to benefit from the enhanced and up-to-date knowledge and technologies from the higher education system (Brown, 1995). In the 1980s when China’s open door policy was still in its early ages, one of the striking issues was that many young people graduated from higher education institutions, but got no jobs to go to. Rigid labour markets and narrowed connection to global trade routes have led to relative isolation and economic stagnation in many areas. This situation has been significantly changed with the development of globalisation, as the national economy is much developed, and the foreign investments have been creating huge job opportunities for domestic graduates.

In addition to the contribution to the technological advances and internationalised cooperation and exchange, globalisation has some deep impact on the operation and management within the higher education system itself. Students’ access to a “global marketplace” has been challenging the traditional philosophy for the national education system. Despite the rapid development in China’s higher education system, the gap in quality and technology with its counterpart in European and North America is still very large. As a result, more and more Chinese students seek to study abroad for various higher education degrees. Even the most prestigious national institutions such as Tsinghua University and Peking University have found it increasingly difficult to retain world-class faculty members in the face of attractive offers from foreign universities, research institutes and multi-national corporations. However, on the other hand, the trend of pursuing higher education overseas brings various opportunities for China to benefit from. Experts coming back with valuable skills and years of overseas studying/working experiences can be the unique assets for the country’s construction and development, especially when the economic and social political system is open to reform and readjustment.

Faced with both opportunities and threats from global integration, some major reforms on the traditional higher education system are required in the way the universities are structured, funded and regulated. Closer links between the industry, especially the growing technology-based sector, and universities have been developed, which requires a new, globe-oriented, entrepreneurial style of leadership. In this sense, globalisation has provided China’s higher education with a great chance to
emerging with a stronger, better, and more globally competitive higher education system and opportunities for students.

1.2 Themes and Research Questions

The current trend of globalisation and trade liberalisation in higher education offers great opportunities for China and other developing countries to benefit from, and it also helps the country to catch up with the global development. However, the traditional higher education delivery in much of the developing world proves more and more unsuitable for the demands of globalisation. The rigid, highly centralised administration system in public sectors satisfies neither the requirements of the global labour market nor the domestic social and economic needs (Chen, 1998). Against this context, different approaches have been under discussion and experiment, searching for better performance in the public sector. Some fashionable terms like “excellence”, “increasing competitiveness”, “efficiency”, “accountability”, and “devolution”, together with different strategies such as internal audit, quality assurance movement have been introduced to improve the 3Es (Economy, Efficiency and Effectiveness) in public sector management. Education, being one of the public services, is not immune to the tidal force of “marketisation” and the prominence of “economic rationalism” (Walsh, 1995). In China, efforts and reforms have been attempted to explore a new higher education system with enhanced efficiency, flexibility and responsiveness to the economy. This remarkable trend is the focus of this report.

The principal purpose of this study is to explore the meaning of globalisation and its implications for the work carried out in the context of China’s higher education sector. Over two decades of China’s economic reform towards decentralisation, marketisation, and privatisation have witnessed significant influences on public sector restructuring; and the market/customer-oriented approaches result in the proliferation of changes and reforms in the higher education system, as well as its management and funding structures and curriculum setting systems (Chen, 1998). The review of existing literatures shows that the current movement towards the government decentralisation and quasi- or comprehensive marketisation in higher education has both strengths and deficiencies from international perspectives. Few studies, however, has been conducted to offer a specific focus on China’s reform in terms of the
government ideological transformation and the consequential public policy initiations and implementations in the field. This research is expected to provide an in-depth understanding on the interfaces in policy making and implementation process, and in this way to contribute to the further improvement in institutional management and policy-making in higher education.

This study argues that for China, globalisation has both costs and benefits, and that the role of the State is vitally necessary in steering and controlling the globalisation process. Though reduced in the power over the day-to-day operation, the function of the government’s governance is actually strengthened and ultimately essential in guiding, supervising and exerting central control over the process. Under the general aim stated above, this study sets its research questions in the context of globalisation, focusing on the reform and changes in the government conceptions on public sector governance and related policy makings, and the consequential changes in higher education management and operations. Research and discussions are carried out on:

- What are the rationales in government statements/policy documentations in justifying the reform?
- How are the public policies on national higher education shaped to meet the new challenges of socio-economic contexts?
- What are the interest parties (university officials, faculty members, students, and other related outside parties) perceptions for the transformation and how their changed roles in the system are defined?
- What are the expected changes/benefits from the reform?
- What are the limitations and issues that need further improvement?

Further issues will be discussed on the implications of the future strategies through which higher education can receive tangible benefits from globalisation and marketisation, but still retain its traditional function in developing and transiting knowledge, with commitment to cultural values. The information and discussions are grounded in document analysis, and cases of some major universities are demonstrated as exemplars.
1.3 **Organisation of the Study**

Over the past two decades has seen the continuous efforts from the government of different countries in experimenting with programmes of introducing market mechanisms into daily public sector operations in response to the global context of openness and integration. These approaches and others have been generating some profound influences, not only within these sector themselves, but also to the broader social, political ideologies (Walsh, 1995). To examine the impact of this process on China’s education development, Chapter two critically scrutinises the current literatures on this global trend towards integration and its impact on the traditional ideology and operations in socio-economic sectors. Central to the adoption of marketisation in the running of public services is the fundamental change in the philosophy of governance, shifting from the traditional paradigm of “public administration” (Chai, 1997). It represents the shift from the monopoly of the central government in social provision to a more “management-oriented” approach that centres on the notion of “economic rationalism”, which embodies a universal model of rationality in refashioning social policy (Le Grand & Bartlett, 1993). Similar to other public service providers, universities today have more constraints on “autonomy, disputed ends and values, political interference and scrutiny, increasing public accountability, and changing performance expectations” (Walsh, 1995). The emergence of “internal markets” and the prominence of “economic rationalism” in the educational sphere becomes the feature of global agenda (Chai, 1997). It is under this wide policy context that the study examines how educational development has been influenced by strong market forces in the post-Mao China.

Focusing upon China’s Higher Education Institutions (HEI) and university sectors, which have a combined enrolment of close to six million students, the research describes how this large system has been constructed and restructured during the past five decades since the foundation of People’s Republic of China (PRC) in 1949, to meet the demands of the changing economic and social environment, and in particular to assist in the development of the emerging market economy in China. The research centres on the strategic higher educational management with entrepreneurship and market-orientation in essence, and explores the specific issues, which have affected the role, the structure and the focus of the system. The study is based upon literatures on the changes of governmental conception, public policy, and central governance.
structure in higher education, and conducts the critical analysis grounded in document evidence and international debates. Topics on research framework and techniques are discussed in details in Chapter three.

Education plays an essential role as the government’s contribution toward “meeting the economic, political, and legitimate needs of the policy” in order to “preserve the process, context, and legitimacy of the capital accumulation process and its continued expansion” (Chen, 1998, p72). Chapter four outlines the process of China’s higher education development, from the establishment of new country in 1949 and afterwards, and explains the current national administration system. Since the foundation of the PRC in 1949, the country’s education system had been under the tight control from the central government, markedly characterised by the notion of “bureaucratic centralism” (Xiang & Gu, 1996). It was not until the mid-eighties that the Chinese Communist Party (CCP) began to diversify educational services, allowing and encouraging the structural reform within the system. The findings on different educational adjustment and reforms starting from 1985 are explored and discussed in Chapter five and six on the financial and curriculum systems in higher education. The motivations and process are analysed in the context of China’s unique political culture.

Based on the overview of education as a public service universally considered being essential to human development, Chapter seven examines whether the traditional social and cultural functions of national higher education can be maintained and protected during the process of marketisation. The research and analysis intend to provide a critical view on the changes in government conceptions and public policy set-ups in national higher education system, and its relationship with and position in the country’s socio-economic construction process. Despite an on-going effort toward the marketisation of higher education in China, with respect to the education market, both policy and mechanism are either under developed or their effectiveness is questionable. The emerging market-driven approaches developed from late 1980s are still the mainstream around the national higher education system, and it now needs to identify a clear and distinct range of issues for the future sustainable development. Benefits gained and lessons learned during the previous reforms will contribute as the guidance for future adjustment.
2 LITERATURE REVIEW

2.1 The Impact of Globalisation and the Changing Philosophy in Public Sector Management – An Overview

The past two decades has seen a sweeping trend of globalisation in economy across all nations. The influence is not only confined to economic sectors — the trend of globalisation has been making an even more significant impact on the social development in many countries. The growing demands and pressures generated from external environments are threatening the traditional conception on the role of nation states in economic, social and cultural fronts (Mok & Chan, 2002), and accumulatively resulted in the re-examination of the existing structure, and the re-establishment of the new order towards, as some suggested, the “world ethics” and a “cosmopolitan culture” (Smith, 1995, p8), and homogenisation (Fukuyama, 2001).

In defining “Globalisation”, Sklair, in *Globalisation* (1999, p321), refers it as a complex set of processes, which results from social interaction on a world scale, such as the development of an increasingly integrated global economy and the explosion of worldwide telecommunications (Sklair, 1999, p321).

When talking about the impact of globalisation on each individual nation, Giddens (1999, p4) points out that beyond the transformation of ideology and operation in economic front, “globalisation is restructuring the ways in which we live, in a very profound manner”. Later, Mark Olssen et al. (2004), in the book *Education Policy: Globalisation, Citizenship & Democracy*, further argues that the neo-liberal orthodoxy is exerting a stronger influence on government policy and social administration systems. By this, they all indicate the era in which traditional philosophies of nation-state in socio-economic life experience a fundamental change — apart from the nations’ central authorities, more and more external forces and factors are seen to be playing enhanced roles in influencing and shaping the national and local politics and social developments (Smith, 1995).
Many important stands have emerged during the period on the governance debate. At the heart is the alteration in the conventional relationship between the state and governance. Weber’s classic mode of government and bureaucracy is being challenged with the new model of hierarchy that involves both state and non-state actors into public processes. Debates are focused on how the transformation should be done from the traditional “big government, small individual” to the new model of “small government, big individual”, and also what is the possible implications to the social development (Flynn, 1997). Under the increasing pressures from global environment and competitions, concerns are more attached on terms of “better performance”, “increasing competitiveness, efficiency, accountability and devolution”. This is not only the story happening in private, economic sectors; it also becomes more and more popular in the public sector (Mok & Chan, 2002).

Although the changes occur differently in countries to respond to the new context, the reform and transformation in public administration and management do demonstrate some similar ways. Baltodano (1997, pp623-626) sums up these as the “institutionalisation of the global economy”, the “imposition by the international organisations”, the “increasing interconnection, both formally and informally”, and the changing of “the values of both bureaucrats and policy makers”. He finally concludes that by a “competitive state” in the context of globalisation, the “selection of management practices is shaped increasingly by globalisation, trans-nationalisation of the nation as apparatus” (Baltodano, 1997, p626). For the role of government in this context, Jones (1998, pi43) suggests that:

In a New World Order, much of the globalisation process came to be dependent on the adoption of reduced roles for government, not only as a regulator but also a provider of public services.

National government, in this sense, is acting more as an instructor and stimulator rather than a provider for social provisions; market/consumer demands and choice are given more concerns in socio-economic operations.

Changes in government conceptions of public sector management and the resulted reform towards decentralisation and marketisation among global institutions have sparked a heated debate in the academic world. In the following section, the review will be focused on literatures of the transformation in higher education management.
2.2 Literature Review: From Government to Governance – A New Model in Higher Education Management

Early in the middle of the 18th Century, Adam Smith, in his book *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), argues that institutions should charge fees for their services, and competing for students would create incentives for academics to produce high quality teaching (Smith, 1994). However, it is not until the 1980s and 90s that a remarkable and consistent transformation has been arising in higher education management under the world context of globalisation. Programmes of introducing an internal market-oriented system into public sectors have been widely experimented with in many governments. Among these practices, the application of “quasi-markets” is the biggest change, having far reaching significance to the social development of many individual countries (Le Grand & Bartlett, 1993).

One of the most crucial forces driving this strong trend of reforms in public services is the popularity of “economic rationality” in social acceptance. It is generally believed that economic factors are the most important ones in social lives, and that it is the economic considerations that drive the individual behaviour and choice, and shape up the social and public policy. Debates are mainly focusing on the inefficiency and unresponsiveness of the traditional large-scale, centrally-planned management styles in public/social sectors. Reformers argue that the quality of public services can be greatly enhanced through: 1) “a more competitive, quasi-market mechanism for resources collection and allocation in service provision”, and 2) “the increasing range of citizens’ choice over types of services” (Bevir & Rhodes, 2003a, p47). Along with the introduction of concepts of “free market” and “individual choice”, the role and function of the government is decreased, given the ideology emphasising “marketisation” as inherently more economically “rational” (Grace, 1994). Based on this transformation, the delivery of educational services is believed to be more efficient and thus a higher quality of education could be achieved by means of “market principles” and the introduction of competition to the educational sector.

Adhering to a “positivist” view in economics and perceiving “economics” as a science, a new econometric rhetoric of individual rights, “efficiency” and “choice” becomes more fashionable in the current literature of public sector management (Pusey, 1991).
The ideological commitment to “economic rationalism” has exerted a significant impact on the public education system and lead to a driving wave of a new style of management to mass higher education. It is against this background that the idea of New Public Management (NPM) is introduced into higher education operations.

2.2.1 Marketisation in Higher Education – An Alternative Way to Public Welfare Marketisation in Higher Education

Although Araujo (2001) once suggests that the reforms and changes be conducted differently from country to country, the practices of NPM in the world-wide public services are argued to be similarly “focused upon management, not policy, and on performance appraisal and efficiency” (Bevir et al., 2003b, p1).

New public management is conventionally understood as a recipe for correcting the perceived failings of traditional public bureaucracies over efficiency, quality, customer-responsiveness and effective leadership. Public-management reform is often presented as a functional response to such shortcoming. (Hood, 2000, p6)

Based on the assumption that “competition squeezes slack out of slacky organisations” (Christiansen, 1998, p283), NPM defines its guiding principles as efficiency and effectiveness, and clearly identifies the governance mode toward markets and market type mechanisms (MTM) as one of the most essential hierarchies in this transformation (Jackson, 2001; 2005). Supported by the leitmotiv of “getting prices right” (Jann, 2003, p104), typical policy instruments of NPM, according to Bevir et al. (2003b, p13), are the “marketisation” or outsourcing of particular services, the market-testing of public agencies (i.e. public agencies compete with private enterprises), the privatisation of state-owned firms (a rather recent phenomenon), and the further disaggregation of departmental structures into service agencies, each responsible for a specific product.

In short, the basic objective of marketisation is to change the situation that the government uniquely offers public goods and services, and to provide diverged provisions of public service. Concerning the relationship among the government, the market, and the consumers, it aims to break the monopoly of the government over public goods and services; instead, by introducing market mechanisms in public
sector management, the theme is to provide the formerly government controlled sectors through group selection (i.e. public choice), and also to introduce market mechanisms in government management. The ideology behind this is the suppositions that 1) markets are more efficient; and 2) markets are more responsive to consumer demands, and therefore, allow institutions and public activities to better adapt to changing environments.

In higher education, Salminen (2003) sums up eight most common factors cited in recent literature in pushing university towards marketisation:

- the spread of market discourse and the use of the economic market as a model for political and administrative relationships;
- the massification of higher education;
- the increasing number of private providers of HE and research;
- the rise of a global market for education and research;
- the rising costs of expanded tertiary education systems;
- the changing balance of private and public funding;
- the pressure for management efficiency in the face of widened access and reduced resources; and
- the increasing regulatory and policy pressures.

He also suggests the preferred ways proposed in existing literatures in universities’ promotion of marketisation into daily practices. Centered on privatisation, deregulation and liberalisation, the techniques for the modernisation of current higher education system are indicated as:

The professional management in the public sector; standards and measures of performance; output controls; emphasis on the shift to desegregation of units in the public sector; competition; private sector management practice; and stress on discipline and parsimony in resource use (Salminen, 2003, p67).

2.2.2 The Impact on Institutional Behaviour

Along with the wide discussion on the theory and practices of NPM, studies on universities’ responses to the call for marketisation and customer orientation are rife in recent two decades of literatures of higher education policy and management. As what William discussed early in 1984, one of the central themes of the economics for
higher education institutions is that different sources of costs and revenues, funding mechanisms, and resource allocation processes have a significant influence on the behaviour of institutions of higher education, and the actors within them. Recent debate on universities’ reform and changes is from Raines and Leathers (2003), who describe the universities’ behaviour as the pursuit of self-interest by individuals in positions to influence decisions related to goals, academic policies, funding, and internal resource allocations.

In Continental Europe, Clark (1998) has conducted his studies in five European higher education institutions, and illustrated the universities’ trend and experimentations of commercialising the educational services into the market competition. In this report, he sent his message clear out that against the global context of the call for better and for competition; entrepreneurial approach should be embraced into management style to ensure the higher education’s access to the wider pool of private sources. Peters and Roberts (2000, p129) claims that the approach of marketisation and introduction of competition into universities highlights the role of education in producing “human capital” and new knowledge, and

as the production and dissemination of knowledge remains central to university work in this ‘new economy’, its value is legitimated increasingly in terms of its attraction to and service of global corporations (Peters & Roberts, 2000, p129).

The study is not only Europe-wide, Leslie and Slaughter (1997), in their research on the reforms and changes in U.S.A. universities in the 1980s and 90s, put forward the term of “Academic Capitalism” in describing the institutional efforts of introducing market mechanism to raise funds in the context of diminished government support. They based their work of academic capitalism on Pfeffer and Salancik’s theory of resource dependence in economy literature to analyse the effect of the sourcing for external funding on institutional behaviour. According to Pfeffer and Salancik (1978), when organisations depend upon external resources for their survival, their behaviour is then shaped by the demands and pressures from those who provide the resources. Based on this theory, Slaughter and Leslie (1997) explain the behaviour of universities primarily in reference to external actors and the dramatic changes in academic work, as the discipline of the market supplants the discipline of the profession. They finally conclude that when the financial environment of universities changes, educational institutions will change in response.
However, criticisms are raised in recent literatures on Slaughter and Leslie’s application of pure economic view into educational studies. Different from those in economic sector (as where the Pfeffer and Salancik’s theory was applied), higher education institutions, as organisations based on knowledge, are argued to be structured inherently with the centre on the academic life. When changes arise, they are intended to respond to the internal dynamics in academia with new research findings and new theories on the nature of teaching and learning (Ding, 2001). Other views are concerned about the idea of the “organised anarchies”, where “decision-making is a non-rational process in which participants, problems, solutions, and choice opportunities are loosely connected through coincidence in time” (Salminen, 2003, p70). In both cases, academic activities may respond superficially to changes in the financial environment, but its essential core will remain unchanged.

Attentions have also been called to the possible “less benign” implications of universities’ dependence on private resources. In America, David Kirp (2003), in his book *Shakespeare, Einstein, and the Bottom Line* concludes his case studies of American universities as that they have all forgotten that “they are not just businesses” (Kirp, 2003). Likewise, Bok (2003) warns the process that he calls as the commercialisation of higher education is risking overshadowing the social and academic aspects of the institutions. In the U.K., universities are increasingly criticised for their embraces of “the business model of competition almost without questioning the appropriateness of the tools it uses”, and for the resulted creation of “‘McUniversity’, with standardised modules served up by ‘have a nice day’ automatons to increasingly instrumental customers” (Gibbs, 2002, p325). Gibbs finally points out that the neo-liberalists’ emphasis on “free market” and the “intrusion of business practices” into public sector management will increasingly “divest universities of their ‘public-good’ functions, reduce their institutional autonomy and threatens their forms of democratic governance” (Gibbs, 2002). Despite the critical and doubtful voices, the reforms towards decentralisation of marketisation in public sector management have been gradually practiced in most of the world.
2.3 Recent Reform Agenda in Higher Education – A Global Review

2.3.1 Context for Trade Liberalisation: Experience of GATS

Trade rules, formerly designed to enhance trade of goods with the focus on the lowering of tariff and quotas for goods or service exchange, are now seeking to encourage international competition in a vast range of service sectors. The General Agreement on Trade in Services (GATS), as one of the most important agreement for the World Trade Organisation (WTO), is the first and the only set of multilateral rules in extending the multilateral trading system to services. Aiming at reducing or eliminating barriers to cross-border trade in services, the agreement claims its benefit for countries in economic performance, development, customer savings, faster innovation, greater transparency and predictability, and technology transfer. Service sectors included in the this trade agreements range from banking, telecommunications, postal services, tourism, transportation, waste disposal, oil and gas production to electricity. Today, such rules have even expended to those services universally considered to be essential to human health and development, like healthcare, education and drinking water.

It is the tradition of many countries that governments have provided the services themselves as their fundamental function to ensure and protect citizen access to essential services. Not thought of as primarily profit-making operations, many essential services such as health care and schools actually have proved highly profitable when privatised and freed from public interest regulation. For corporations, health care and education represent a combined £3 trillion market worldwide, and the new trade agreements like the WTO and GATS are increasing their access to that market. In the educational sector, the introduction of GATS and the challenges from the global competition catalyse the countries to re-examine their higher education policy and whether the necessary national, regional and international education frameworks are in place to deal with the implications of increased cross-border education, including commercial trade.
Changes

Current process of liberalisation in trade of education services promoted by GATS has been leading to a number of significant trends in higher education:

- New for-profit education providers have emerged, typical example being private education institutions;
- The higher education system has been reformed to reflect the requirement of the labour market;
- The international academic mobility of students, professors and programs has been increased intensively;
- Both domestic and international growth of alternative electronic delivery has been developed;
- The limited budget capacity (or political will) of the government to meet the increasing domestic demand for higher education.

With the expansion of business in cross-border delivery of higher education services, the GATS aims to capitalise on this potential market and promote further international trade in education services by establishing rules and procedures to eliminate barriers to trade. As a result, an exciting but rather complex picture of higher education provision is emerging. It has been pointed out that the demand for higher education has been steadily increasing for years. Especially the augment of academic mobility of students, scholars, teachers and knowledge has intensified this demand. Moreover, it is also important to notice that not only are more people moving, but academic programs and providers are also moving across borders today.

In short, under the global context, the business or commercial side of education, especially the higher education, is growing. Although issues have been arising in recent years in the progress of promoting the trading liberalisation into global higher education sphere such as regulating the cross-border providers, quality assurance and accreditation and ensuring of student access, economic rationales and benefits are still the major stream, and driving a increasingly important part in the international or cross-border supply of education. In each country, this profit motive is a reality today for both private and public providers in the education sphere.
2.3.2 Recent Reform and Practices

In a global view, the consideration on the impact of GATS on different countries is always the fundamental issue of their capacity to fit themselves effectively in liberalised higher education trading systems. The practices of decentralisation of government control and the adoption of free market mechanisms and commercial ideologies in public sector management started from the middle of 1970s. Pioneered by the United Kingdom and the United States of America, a series of radical reforms has been introduced to some key parts of the welfare state in the last few decades (Johnson, 1990). All these reforms centre on the decentralisation in decision-making and competition in the provision of social services.

To improve the delivery of educational services from the public sector, authorities have been attempting to offer more choices and options to students through varied educational programs. Besides, "competitions", for resources and students, are widely practiced in service provisions among institutions. During the 1990s, universities around the U.K. were urged to make significant reductions in their reliance on government funding provisions and to diversify their financial resources through active cooperation with outside organisations, trusts, or industries, for instance (Walsh, 1995). In order to assure the "quality control" in service delivery, auditing systems, justified by the quest for quality, efficiency and effectiveness, has been established in the country, with evaluations shifting from initially self-monitored, unthreatening internal needs to more formal and external audit. Those external assessments of teaching have undoubtedly brought about financial consequences and have had some important resource implications. Drawing upon Ritzer's notion of the "McDonaldisation of Society", Hartley (1995) argues that higher education in the U.K. has been undertaking a similar process of "McDonaldisation", which emphasises efficiency, calculability, predictability, and control.

Elsewhere in other major industrialised countries like U.S.A. and Australia, the domination of economic rationality has also affected and even shaped educational policies. In U.S.A., the increasing diversity in education provisioning results in the growing competition among different programmes and among different institutions (Grace, 1994). Meanwhile, some measurements like the "Total Quality Management", "Statistical Processing Control", "Employee Involvement", and "Just-in-Time
"Production" have been widely applied into both private and public sectors to assure the quality standard for the services across the nation (Brown, 1995). In Australia, on the other side of the globe, educational policy is likewise dictated by the "logic" of economy and efficiency, thus encouraging the competition and choice in the running of higher education. Such a process referred to as "rationalisation" has caused many teachers to be sacked and schools to be closed because of their low competitiveness. With more weight given to the "quality" measured by crude performance indicators such as research output and teaching performance, educational practitioners and academics in Australia feel very much demoralised and substantially depersonalised (Welch, 1996).

It is worthy mentioning that the ideologies of "individual choice", "efficiency" and "quality" are gaining attention not only in developed countries but also in developing countries (Bray, 1999). Hood (1991) reveals an increased participation of private providers into the social services in Latin America, and points out that these private schools are beginning to challenge the monopoly of public schools and this trend tends to become dominant in the society. Meanwhile, increasing empirical studies reveal that the share of private sector is becoming even more significant than the public and state run education wide in the third world, regardless of their levels of development. Bray’s (1999) work on the education financial in East Asia reveals that while the state has gradually withdrawn from the frontier of educational provision, parents and local communities have played a more important role in financing of education. Similar experience is also reported in mainland China, leading to a new definition of the social relationship and public / private boundaries (Cheng, 1995).

However, despite the development, increasing access to higher education has led to growing pressure on all parts of the system; universities are confronted with severe resource constraints and the demands for higher quality of services and accountabilities for resource consumptions. The situation is even more complex when taking account the rigidities of China’s centralised higher education bureaucracy, the political pressures on higher education institutions from regional stability, and the growing problem of corruption in various aspects of university life (e.g., admissions, examinations, promotions) (Ouyang, 2004). In this context, how can reforming efforts possibly be effective? Three related issues widely discussed today will be
further explored in the research: policy reform, school-industry partnership, and the university innovation and leadership.

In short, unlike the traditional notion of education which was dominated by the public sector, the emergence of "internal markets" and the prominence of "economic rationalism" in the educational sphere seems to have become a feature of the globalisation agenda. Next section illustrates the global practices based on the six common themes recognised for today's reform in higher education.

2.3.3 Themes of Recent Reform in Higher Education

During the worldwide reform on higher education financial and management launched from 1980s, countries, in spite of the heterogeneity in their political-economic systems and education traditions, have restructured their higher education systems after the models of Continental European, British, American, Soviet, or eclectic models (Chai, 1997). The study will analyse this global reform agenda on the following aspects: publicness, expansion, market orientation, financial retrenching, accountability, and quality control. These features are generally viewed as the common themes shared among countries in the agenda (Walsh, 1995).

Publicness
The reform is considered "public" as it deals with universities and institutions that are subject to public policies and regulations, regardless of whether their ownership is legally "governmental" or "private", and are substantially reliant on the public revenue. The public revenue comes either from the national taxation revenue or from the general consumers through the effective confiscation of purchasing power by deficit-generated inflation. The reform reflects public purposes and demands for higher education, which indicate its unique role in social, cultural, and economic perspectives for a country as a whole, and represent the realisation of collective aspirations (Grace, 1994). Finally, only through the tools of public policy process can the reform be achieved to change the faculty, students, and administrators' behaviours in higher education. The process often involves the issue of laws and regulations, and requires a large amount of effort and actions from public department or bodies like executives or legislators or government elites, or those in positions of power who
influence them. In some areas, it may also need more direct governmental controls in
the senior level appointment or removal or direct government management over
expenditures, faculty appointments and promotions, or even of the curriculum.

Expansion
The 20th Century, especially the last thirty years, has seen a dramatic growth in the
participation of higher education in the world. The expansion is largely driven by the
huge demands of the growing population and of the increasingly competitive,
technologically sophisticated economy, and as Grace (1994) suggested, typically
features in:

- the expansion of knowledge itself and the growing demand for the skills and
  competencies from a modern, global-wide competitive economy;
- the need for continuing professional upgrading;
- the expansion of education service for its increased recreational functions in
  more affluent economies.

In the beginning of the 20th Century, only a tiny fraction of one percent of college-
aged people, that is about 500,000 in the global perspective, could receive higher
education; by 2005, this number has grown to approximately one hundred million,
representing a proportion of 20 percent of the relevant age cohort worldwide
(UNESCO, 2005). Though varied in economic and political conditions, the expansion
has occurred in every country ever since the 1970s. In industrialised societies, it is
now common for more than half of all young people to receive some post-secondary
schooling, with numbers surpassing 80 percent in a few countries (UNESCO, 2005).

In education, especially higher education, the traditional elitist model of “restricted
growth” gave way to the new ideology of mass higher education. In the U.K., the
intake of college students had been more than trebled over the binary period: the
number of full-time student reached 457,000 in 1970/71 and 717,900 in 1990/91. The
population of full-time students in higher education reached 1,131,000 in 1997/98,
accompanied by another 506,600 part-time students. The higher education Age
Participation Index (API*) grew from 7.2 in 1962 to 13.7 in 1984, and to 23 in 1992. The growth after the 1997 election has been arising along with an increasing number of 18-year-olds in the population. To the year of 2004/2005, the figure of full time students in the U.K. higher education has reached 1,969,140, with 1,151,215 full time and 817,925 part time students. Developing countries where only five to ten percent of secondary school graduates are able to pursue higher education even have a more enormous expansionary potential compared to the developed countries like U.S.A., Japan, and much of Western and Northern Europe, which typically send on one-third to one-half of secondary school graduates to universities. This rate is also influenced by several other factors, including tradition, urbanisation, and affluence, as well as the degree of current saturation.

Apart from the traditional “formal” higher education, the demand for the continuous professional upgrading also largely extends the period people receive the college education in forms of tertiary and life-long education. In many industrialised countries, by the 1990s, the so-called “college-age cohort” had extended well into middle age for the purpose of professional upgrading, retraining, or even adult recreational learning.

Besides, apart from the expansion in sheer size, higher education has also expanded in scope and professions. The American diploma of the “MBA” (Master of Business Administration), as a typical example, has become a global symbol, produced by a rapidly growing global system of business schools (Mazza, Sahlin-Andersson, & Pederson, 1998).

The expansion and diversification of higher education services bring about a societal transformation in the structure of labour market and the processes of elite production. Breaching the traditional elite model, education becomes the flexible, life-long training for every social participant, which enables the movement of professionals and the development of a common world culture and effectively offers supports for many forms of globalisation.

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* This refers to U.K. domiciled young people, aged below 21, who are first-year entrants to full-time and sandwich undergraduate courses of higher education as a proportion of the average of 18-19 year olds in the population.
Market orientation

The reform for better educational services is featured with the orientation to the market economy and free choice as opposed to the public ownership or governmental planning and regulation. According to Grace (1994), the market orientation implies:

- charging tuition fees and other income-making activities through cooperation and outsourcing, as a significant source of revenue for supporting instructional costs and fees, as a major source of revenue for supporting non-instructional costs such as institutionally provided room and board, as well as the sale of research and instruction via grants, contracts, and entrepreneurial training;
- regional decentralisation, through the distribution of authority from the central government to the regions;
- institutional autonomy, as well as the devolution of authority from government, at whatever level, to institutions.

Table 2-1 illustrates the situations with respect to tuition fee policies of some major developed countries.

Table 2-1 Tuition fee policies and selection procedures for five countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Tuition fees</th>
<th>Selection of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>differentiated, centralized</td>
<td>Yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>Zero</td>
<td>Yes</td>
</tr>
<tr>
<td>the Netherlands</td>
<td>uniform tariff</td>
<td>Limited</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>uniform tariff before September 2006; variable up to £3000/year after September 2006</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Differentiated, decentralised*</td>
<td>Yes *</td>
</tr>
</tbody>
</table>

* Some public schools (community colleges) do not charge tuition fees and have an open admission policy.
In the U.K., the setting of tuition fees for regular full-time European Union (EU) undergraduate students used to be uniform and centrally controlled by the government. Starting from September 2006, the new policy allows universities charge variable tuition fees up to £3000 a year to full-time degree level students from the U.K. and the European Union. The policy for non-EU students stays unchanged, by which individual higher education institutions do have the freedom in charging fees to those students. Similar to the situation in the U.K. before 2006/07, the level of tuition fees, in Netherlands, for regular full-time university students are centrally determined by the central government, with some freedom being granted to universities on the determination of tuition fees for part-time and external candidates.

Denmark is among the countries that are still maintaining the free higher education policies. In contrast, the U.S.A. has the most liberal higher education in terms of tuition fee deregulation: even the public institutions (except the two-year community colleges which are not allowed to charge any fees) are free in pricing for the fees and costs for education services.

Australia reintroduced the charge of tuition fees into higher education in 1989, through the Higher Education Contribution Scheme (HECS). The level of university fees is centrally determined and varies in different subjects. The major considerations in deciding the index are on the costs of each training program, together with the expected future earnings for the graduates.

Underlying these orientations is the domination, almost worldwide, of the market capitalism and the principles of neo-liberal economics. The charging of part or nearly full costs for higher education services and its reliance on market signals on the interest rate of student loans indicates a transformation in decision making towards more joint effect of central authorities and universities/institutions, the faculty, the customer/client including students, outside business and social public (Jin, 2000). Higher education, no longer as a closed system for self serving, is now looking more on the “private” practices in profit making, market position, product diversification and social accountability.
Financial Retrenching

Global higher education in the 1990s suffered from severe financial crisis, as declared by the World Bank (1994). Basically, there were three major factors that caused this crisis, and each of them may have different levels of impacts on different countries. Firstly, the radical reduction from public revenue accounts as a major reason for higher education’s pervasive condition of austerity in most of the world. The competition for the government funding from other public sectors, such as compulsory education, public infrastructure, health, etc, are increasingly intense due to their comparatively more politically compelling nature. This is even been intensified seeing many of them lack alternatives to public funding that higher education seems to enjoy (Fang, 1996).

What’s more, there is a significant gap between the new economic theory and the traditional highly centrally controlled financing policies. A striking example is the states from the former Soviet Union, where most of these countries relied heavily on taxes from state-owned industries or natural resource extraction to satisfy claims on resources for public purposes. Privatisation of the economy makes such taxes problematic in these countries. Even countries with most advanced market economies like in Western Europe and North America are finding the increasing resistance from those personal and corporate income, personal estates, and commercial transactions to taxation and for some even prone to “escape” to lower tax jurisdictions (Kirp, 2003). And the “fall back” practice of deficit financing is increasingly discouraged by the convertible currencies of the global economy and by the fiscal discipline forced upon governments by international monetary and banking arrangements (Hartley, 1995).

Last but not least, the higher education system is suffering from the pressure from growing public demands of participation. Especially in many developing countries, despite the rapid growth in the national education system, its capacity cannot yet match the growing population of the secondary school leavers who would like to receive further education in universities and colleges.
Accountability

The fifth theme underlying the reform agenda is a widespread perception of higher education (especially the former classical and public university and institutions) as unaccountable, either to government, to students, or to the broader public.

Costs are said to be unconnected with benefits, and the civil service and/or tenure charged for protecting the inept and the slothful. Politicians and bureaucrats alike are thought to seek the maintenance and expansion of their public organisations for the sake of organisational perpetuation, rather than either efficiency or the maximisation of the organisation’s mission (Bray, 1999).

Government and higher education institutions are exposed to the increasing pressure to make better usage of public funds and resources, and be subject to more accountability to the social public.

Although similar criticisms have been raised around the classical Western university for nearly a century and it is surely the fact in some perspective, the cause and possible solutions are far more than simple. The last twenty years has seen a proliferation of the instruments for research and teaching evaluation in many countries. The principal factors driving this lie in the introduction of competitions into university/research funding allocation and the increased requirement for accountability of public expenditures. At the global level, it shows different pictures for countries in the extent to which the performance and evaluations count for the funding allocation and development. The following presents different approaches of countries’ efforts in related institutional services and performance into funding allocations:

- (Partial) allocation on the basis of research performance indicators, either directly (Australia, Poland) or via an informed peer review process (U.K., Hong Kong);
- Allocation on the basis of university size (numbers of students and staff), either completely (Germany, Italy, Norway and Sweden) or in combination with a small part that is based on performance (Denmark and Finland);
- Allocation on the basis of negotiation with the relevant ministry, either without any research evaluation (Austria) or with the use of information from research (and teaching) assessment (France);
- Allocation on the basis of small adjustments to historical patterns (the Netherlands). Although research assessment is carried out, it is not linked to funding decisions.

The U.K. is one of the typical cases in implementing an output-based funding system on the research activities of universities. Since 1986, the research and achievement of British universities have been evaluated every four to five years under the Research Assessment Exercise (RAE) scheme. Till now, five nation-wide university research evaluations have been conducted in 1986, 1989, 1992, 1996, and 2001, and the results played a key role in deciding the government allocation of higher education research funding by three U.K. higher education funding councils (for England, Scotland, and Wales) and by the Department of Education for Northern Ireland. The proportion of the research funding from government for each university is largely bounded with the output or the achievement of the university's research activities. Table 2-2 shows an overview of the funding mechanisms and assessment methods applied in U.K. system.


|----------------|------|------|------|------|
| Funding period | 90/91 - 92/93 | 93/94 - 96/97 | 97/98 - 00/01 | 01/02 - ...
<p>| No. of subject areas | 152 | 72 | 69 | 68 |
| University system | binary (55 institutions) | unitary (170 institutions) | unitary (191 institutions) | unitary |
| Funding of teaching and research separated? | No | yes | yes | Yes |
| Staff assessed | all staff | research active staff (selected by the institutions) | research active staff (selected by the institutions) | research active staff (selected by the institutions) |
| Separate ratings for researches? | No | Yes | No | No |</p>
<table>
<thead>
<tr>
<th>No. of quality categories</th>
<th>5</th>
<th>5</th>
<th>7</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget per subject area</td>
<td>set before exercise</td>
<td>set before exercise</td>
<td>endogenous</td>
<td>Endogenous</td>
</tr>
<tr>
<td>Research output per researcher assessed</td>
<td>not specified</td>
<td>Two publications &amp; two other output &amp; other research info</td>
<td>best four</td>
<td>best four</td>
</tr>
</tbody>
</table>

Source: http://www.rae.ac.uk.

Before 1996, the Exercises only applied to the distribution of funds within a subject; since 1996, the results have been also suggested to influence the distribution of the total budget between subject areas.

However, despite decades of discussions and practices, the accountability of a public university is still particularly problematic because the benefits are (appropriately) multiple and notoriously difficult to measure. Attempts to rectify an alleged unaccountability are particularly prone to the problems of unintended and unwanted consequences (Bray, 1999). For example, if faculty are somehow to be made more accountable for their teaching, a solution would seem to be to alter the reward system. But if the output or product for which the institution or the faculty are to be rewarded is the number of students taught, then the result may be more students “processed”, but with less actual learning. If the “output” to be measured and rewarded is the percentage of time the faculty spend on teaching as opposed to research, then the result may well be a more teaching-oriented faculty, and may result in a diminution of institution’s scholarly reputation and thus a diminution of the status — and thus the worth of the credential. Or, if the institution and the faculty are to be held accountable for greater student performance, then it may lead to a much more aggressive approaches in student selection for only the most able and motivated students to admit in the first place. But again, this may or may not have been the desired outcome of those who called originally for the greater accountability.
Quality

While the thrust of this report is on the reform agenda of higher education administration, the discussion should not be divorced from the assessment of the quality of services delivered. Indeed, policy makers in some major industrialised countries are increasingly viewing the need for greater productivity as the highly demanding aspect both to inputs, or costs, as well as to outputs, or learning and scholarly quality (Smolicz, 2000). According to the perspective of learning productivity (Xiong, 2001), for example, the principal higher educational productivity problems (at least in the United States, but almost certainly extending to virtually all countries) lie not so much in excessive costs, but in the insufficient learning. The reform agenda for enhancing productivity, then, must give attention to:

- effective teaching, not only including good instructional techniques, but also requiring appropriate instructional resources such as libraries, laboratories, scientific equipment, computers, and internet accessibility;
- an appropriate curriculum, including content that is intellectually challenging, up to date, and appropriate to the mission of the institution; and
- effective learning, including appropriate student time-on-task, as well as the ability to focus and concentrate (Xiong, 2001).

The World Bank’s report of Lessons of Experience identified some severe quality problems resulting from overcrowding with the extension and expansion of the demand for higher learning from general public, from the insufficient control over the quality or behaviour of the teaching staff with the generally low level of pay and status, or from inappropriate curriculum, which is unrelated to the needs of the emerging economies. The Bank’s agenda for enhanced quality in the early 90s, then, included the attention to such reforms as improving the qualifications of teaching staff and the quality of their instruction, the appropriateness of the curriculum, improved student assessment and selection, and the extent and quality of facilities such as libraries, computers, and equipment (Min, 1999).
2.4 Challenges and Implications for Practices

As discussed before, under the context of global trends in trade liberalisation, the practices of decentralisation and marketisation in higher education provision become one of the fundamental components in countries' process of new public management. Today, market principles, as one of the most popular alternatives in provision of education, especially higher education, services, is widely accepted to improve the efficiency and quality of public services. Private investment on education is encouraged so as to alleviate the burden of the government and offer more chances for selective and high-quality education. However, with the number of developments being introduced and practiced into higher education management, the idea of markets, unsurprisingly as referred to the discussions on the possible threats to the ideology of education illustrated before has brought about a variety of consequences for countries' higher education systems. Universities are now confronted with increased output steering, lump-sum funding and attempts to strengthen the relationship between higher education institutions and their environment, i.e. students, industry, etc. (Ouyang, 2004). From the perspective of the government, the mechanisms of competition among a variety of providers effectively enhance the quality and flexibility of education services delivery. On the other hand, as far as the private education provision is concerned, as its basic objective being to seek the maximisation of profit, the realisation for achieving the public welfare is far more than certain. The function for social welfare of public education services has being under an unprecedented challenge.

With the invasion of market-driven managerialism in the educational sphere, voices have become loud on how to judge the success of the practices of marketisation in higher educational services. The belief that the adoption of efficient management can solve almost any problem and that private sector management practices is appropriate for the public sector has provoked a wave of debate (Bok, 2003). Two major issues are noted in current literatures when the implementation of reforms and market mechanisms into education delivery has been under consideration. Firstly, higher education differs from other service enterprises mainly in its social responsibility and the context in which decisions are made due to the ownership of the government. Hartley (1995, p420) also concerned about the “McDonaldisation” of education,
which he suggests has sacrificed professional autonomy and “democratic accountability in favour of financial efficiency and instrumental purpose”. Further issues are suggested on the aspects in the universities’ behaviour of profit-making in education provision, the government’s role in providing a benign environment for fair competition, and in the functionality of public policy in securing the balanced development of education itself and maintaining its primary responsibility to provide citizens with quality education.

Secondly, education is argued to be an intellectual process rather than a technological product (Hood, 1991). Not merely a technology, marketisation is also an ideology which can lead to social and economic inequalities and significantly undermine social solidarity and integration. Collecting funds from elsewhere and passing responsibilities from the state to individuals, local communities and other non-state sectors, the particular “efficiencies” of certain services may be increased at human and social costs. More severely, when social, cultural and political problems are converted into technical or management problems, the complexity of the problems can be overlooked and the costs for human well-being neglected. This is particularly true when too much emphasis is attached to market principles and economic paradigm, and the central government/policy makers are losing their steering capacities to impose overall coherence of the development for the society as a whole. When managers endeavour to orient their products towards stakeholders/market demand, education would then fail to fulfil its noble ideal (Walsh, 1995).

2.5 Summary

In conclusion, the issue of further liberalisation of educational services towards privatisation and marketisation is complicated in that it not only inevitably involves the technical and legal aspects for admission, financing, quality, accountability; more importantly, in choosing between “public goods” or “market commodity”, the larger moral issues on the role and objective of higher education need to be highlighted. Past practices have led to the call for re-inserting the “public good”, confidence, trust and cooperation into higher education reform and rebalance of public and private factors in higher education practices in more recent years (Pusser, 2002; Singh, 2001). The thing that is certain though, is that a new style of governance has been gradually
formed up in the global higher education sector, featured with the interactive governing in terms of co-management, co-steering and co-guidance. Further efforts are required in exploring the way to achieve a benign, inter-constrained and inter-supportive hierarchy among central authorities, institutions, social forces and groups, and public or semi public.
3 METHODOLOGY

3.1 Summary of Research Aims and Methodologies

Set out under the China context, the study aims at reviewing the meaning of globalisation for China as the world's largest developing country and exploring its implications on the work carried out within the national higher education sector. Beyond the economic sector, the process of commercialisation and marketisation has been transforming the ideologies and practices in public sector governance and resulted in the gradual decentralisation in higher education management, as well as the proliferation of instruments for profit making and quality evaluation. This research pinpoints the reform and changes in the government conceptions on public sector governance and in related policy makings, and the consequential changes in higher education management and operations. Focuses are on the reform and transformation in three major areas: the decentralisation of central governance, the multiplication of funding resources, and the diversification curriculum settings.

Research and studies are under the guideline of the following questions:

- What are the rationales publicly stated in government statements or policy documentations in justifying the reform?
- How are the higher education policies shaped to meet new challenges of socio-economic contexts?
- What are the stakeholders' (university officials, faculty members, students, and other related outside parties) perception for the transformation and how their changed roles in the system are defined?
- What are the expected changes/benefits for the reform?
- What are the limitations and issues for further improvement?

This study is based on document analysis. Exploratory research is used to provide insights and understanding (Malhorta, 1999); and in the context of this research, information and analysis presented to address these questions is grounded in a systematic examination of government policies statements and relevant documentations.
Critical analysis is conducted on both opportunities and threats brought about by this educational restructuring and its impacts on the future economic development and social equalisation. The cases of major national universities are supplemented as an exemplar.

### 3.2 Sources and Data Collection

The data, for the study with the general aim and specific questions stated above, are gathered using a combination of both quantitative approaches (in providing an overview of the changes in terms of facts and figures), and the qualitative approaches (in collecting document and policy resources for the in-depth information and analysis). Other existing researches and literatures are also presented as they give the background information on the work and studies that have already been conducted, what they found, as well as any suggestions they may have made in terms of recommendations for further research.

Data are mainly obtained in the following forms of written documents:

- documentations, speeches and policy statements, directly addressing the issue of higher education changes and reforms;
- documentations, speeches and policy statements on China’s economic reform and consequential changes in public sector governance and ideology;
- documentations, speeches and articles from the central government (the CCP and the MOE), discussing China’s position and future strategies in global integration and competition, and the implications on higher education development (especially with China’s entry into WTO, the liberalisation in higher education becomes a key issue in internationalising the trade of public services within the framework of GATS); and
- journals and detailed reports on previous researches, which are linked to the globalisation and marketisation in national higher education.

Together, they either explicitly or implicitly reveal the transformation of government conceptions and style of governance, and the public policy set-ups in China’s higher education system, which consequently leads to the comprehensive reform and changes in institution/university management and operations.
In addition, internet web sites also provide good access to a range of literature and information, especially in the recent development and research. The information searched from the World Wide Web (WWW) and online databases gives the attribute of ease of use because they are up-to-date, easy to access and give the scope to search many sites at once, which reduces the total time spent searching for data.

Quantitative data is obtained from the reports of internal sources, including statistics from central admissions and logistics department, information from the Career Advisory Service and figures from marketing and Admission Units within universities taken from records and reports.

To ensure the appropriateness of the data collected, the filtering process is applied to make sure that each piece of information is relevant and particularly useful for this research. The process also helps to ensure the accuracy and relevance of the data that is referred to in this research and that the information and the commentary are objective.

Data was collected in 2004/05 and was updated in 2006. Placed against the background of the structural change in higher education as provided by the Ministry of Education, the data and information are analysed critically to give a comprehensive picture of the various strands. Research data and findings, based on information collected through techniques described above in general, were also reviewed with the particular universities in China to ensure that the findings represented a fair and reasonable picture of how universities cope with various structural change issues.

3.3 Data Analysis: The Coding Scheme for Document Analysis

On document analysis in social science research, McNamara (2002, 1996) calls for the attention of the role the application of coding principles plays in achieving an effective search and analysis within the framework. The code and labels cover the questions on the principle purpose of the document, how the relevant parties are using it, and how it is (or is not) contributing to the changes. McNamara (1996, p251) also suggests a practical guideline in reading through the document:
- start with evaluation goals;
- read all the documents;
- label ideas (e.g. instances of one type of teaching approach) as you go along;
- organise ideas by similar content and identify repeating ideas; and
- identify themes-patterns or associations and causal relationships among repeating ideas.

According to this guideline, table 3-1 pictures the analytical encoding approach applied in this study for document coding and analysis.

Table 3-1 Framework for document coding and analysis.

<table>
<thead>
<tr>
<th>Code of Each Category</th>
<th>Perspectives on policy making</th>
<th>Guiding Questions for Coding and Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decentralised Governance from Central Authority</td>
<td>general description of background</td>
<td>What is the broad social and economic context for decentralisation in national higher education?</td>
</tr>
<tr>
<td></td>
<td>the rationale of the reform and policy</td>
<td>What are the purposes and objectives of the particular reform/policy for decentralisation? How does the notion of economic rationalism affect the policy making in higher education?</td>
</tr>
<tr>
<td></td>
<td>the intended area of change</td>
<td>What are the target areas that the policy intends to change? Are they relevant to the profit making of university?</td>
</tr>
<tr>
<td></td>
<td>the strategies for implementation</td>
<td>What strategies does the policy take in order to pursue their objectives? Do the strategies enforce universities engage in profit making activities?</td>
</tr>
<tr>
<td>Multiplied funding collection</td>
<td>general description of background</td>
<td>What are the social and economic factors that influence the manner in which the model of multi-funding system is constructed?</td>
</tr>
<tr>
<td>Diversified curriculum and programmes</td>
<td>general description of background</td>
<td>What is the history of China’s higher education curriculum development? What are the major factors that influence each construction and reform?</td>
</tr>
<tr>
<td>--------------------------------------</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>the rationale of the reform and policy</td>
<td>Does the policy making in curriculum design and construction in higher education reflect and serve for the economic and social demands?</td>
</tr>
<tr>
<td></td>
<td>the intended area of change</td>
<td>In what area does the reform intend to achieve the change in curriculum design and setting?</td>
</tr>
<tr>
<td></td>
<td>the strategies for implementation</td>
<td>What are the strategies and approaches adopted in each reform to realise the policy goals and objectives?</td>
</tr>
</tbody>
</table>

In this research, three fields in China’s higher education are studied, which, therefore, form up the three major policy areas in document coding and analysis. They are briefly described as the *decentralised governance from central authority*, the *multiplied funding collection*; and the *diversified curriculum and programmes*.

The *decentralised governance from central authority* pinpoints the policies and documentations that involve both the reduction of the government’s role in public administration and the inspiration of the increasing participation and contribution from individual institutions and other social parties. The essence of this area is the permeation of business practices, ideas and values into public sector management and
operations. Cases include the impacts of economic reform on management conceptions, the search for more effective and efficient ways of doing things, and the setting up of new forms for university management.

The second area, the *multiplied funding collection* covers the documentations on both the government’s changed notion of higher education institutions as profit-making units and the policies applied in the practices to stimulate and assist institutions’ engagement in profit-making activities. This area involves the cases that universities seek out new, multiplied approaches for wider pool of financial resources via the practices such as the fee charging system, and university affiliated enterprises and other policies in commercialising the research activities and outcomes.

The final one, the *diversified curriculum and programmes* is comprised of the policies and documentations related to higher education curriculum reform. This area contains the changing ideologies and practices in transmitting the new values to academics, either in teaching and learning activities or in institutional research activities. Attempts in adjustment of existing curriculum and the introduction of new professions to meet the market demands are the major cases for this area.

Under each field, document reading and analysis are encoded into four categories, the *general description of background*, the *rationale for reform and policy*; the *intended area of change*; and the *strategies for implementation*. Each individually intends to answer a certain group of guiding questions; together, they offer a whole picture for each of the three fields for China’s reform.

The descriptive information for the first category, the *general description of background* on facts and development outlines the background of the reforms in each field. They are mostly from the survey results conducted and revealed from the MOE and other existing studies, and are mostly at the national level for the specific purpose of this research.

The *rationale for reform and policy* suggests the identified ends for particular policy set-ups. They are either explicitly referred in the policy and documentations as the intended objectives to be attained, or implicitly indicated under the title of “the
demands for reforms/changes", or the "further considerations". The latter requires more relevant evidence and documents to support and is attached more concerns in the process of encoding.

There exists a wide diversity on the focuses and concentrations for each policy setting in higher education. Some concentrate on the governance; others may attach more attentions to funding, assessment, admission, or research and development. The category of intended areas of reform indicates in what field the policy focuses on in its process of reform and changes, and reflects the major concern of the certain policy and document.

The strategies for implementation reviews the tactics of actions and practices applied in realising each policy objectives. It is the final end of the reform and changes, and is, to some degree, the principal in evaluating the education policy.

The coding scheme explained above builds up the logic framework for investigations in reading, encoding, and analysing the documentations, which intends to offer the review on issues of in which ways and to what extent public policy making from the central government influence and impact on the process of marketisation in China’s higher education.

3.4 Summary and Limitations

Since the data are mainly collected from the central government statement and statistics, they are restricted to what already exists in published national survey and studies in general. In addition, documents or materials may be incomplete or missing. In this case, research findings might not be all-inclusive. The actual results and patterns of the reform might slightly differ in regions. Besides, as more attention is attached on government and institution perspectives, less evidence is collected in respects of student/customer opinions, needs or satisfactions and market responses. Given all these limitations, these data still offer a roughly complete depiction and basis for the analysis of the reform and changes in China’s higher education system as a whole.
4 CHINA’S HIGHER EDUCATION SYSTEM UNDER REFORM

4.1 Current Management and Administration System of China’s Higher Education

Administration Authorities and Their Occupation

With government being the major investor and social partners being co-investors, China’s education system is under the administration of authorities at different levels, and subject to the unified guidance from the central government. Regular public universities and colleges, amounted to 1,080 around the country, are under the jurisdiction of and obtain their funding from one of the following three administrative authorities: State Education Commission (SEdC) in the central government (Ministry of Education), central ministries, and provinces and municipalities.

The State Education Commission is the central organ for discussing and setting up the general guidance and public policies for the country-wide education system. Ministry of Education (MOE) is the supreme administration body, with the major role of carrying out related laws, regulations, guidelines and policies of the central government, planning development of education sector, integrating and coordinating educational initiatives and programs nationwide, and manoeuvring and guiding the education reform countrywide (Feng, 1996). While the central and provincial government is dominant in both the policy formulation and implementation, local governments play a key role coordinating different forces for regional education development, and ensuring the policy and regulation implemented into local education sectors.

In the education budget, financial allocation from the central/local government is still the major source. The figure from the Ministry of Education shows that the proportion of the Chinese government’s education expenditures to the Gross Domestic Product (GDP) stood at 3.41 percent from 2002, up from 2.55 percent in 1998; China will
gradually increase annual government expenditures on education to 2010 to the proportion of 4 percent to the GDP (MOE, 2005).

It should be made clear that governments at all levels have the responsibility to provide public education, as well as support the development of the private education sector (read the Guidelines for the 11th Five-Year (2006-2010) Plan for National Economic and Social Development).

Apart from the government financial input, the involvement of social partners including industrial organisations, businesses and public institutions is playing a more and more important part. At present, out of the total 1,080 higher education institutions across the country, 11 percent, i.e. 36, are national key universities which are funded by SEdC; 34 percent, i.e. 331, are ministry-funded institutions; and 55 percent, i.e. 713, are provincial and municipal institutions. Of the total student body in these public institutions, 52 percent enrols in degree-earning undergraduate studies, 44 percent in short-cycle, non-degree programs, and 4 percent in postgraduate studies.

Laws and Regulations
Since 1978, the government has promulgated a set of regulation in order to define the role of different parties regarding the national education system. This includes: the Degree Statute of the People’s Republic of China, Law of Compulsory Education of the People’s Republic of China, Law of Teachers of the People’s Republic of China, Law of Protection over Juveniles of the People’s Republic of China, Education Law of the People’s Republic of China, Statute for Teacher’s Eligibility and Law of Higher Education of the People’s Republic of China (MOE, 2005). Meanwhile, more than 200 sets of administrative rules and regulations have been issued by SEdc, identifying the rights and responsibilities of national higher education by law and orders, its positions in social context, and its relations and interactions with other social and economic sectors (MOE, 2005). The continuous adjustment and perfection in Law and Orders in education sphere have been significantly facilitating the development of education of different natures and adjusting the national education systems into the changing socio-economic context and demand (Ouyang, 2004).
4.2 The Social and Economic Background for Reform

The People's Republic of China was established in 1949. The successive national socio-economic reconstruction in its early years showed a contradiction between the desire of the Chinese leaders for economic modernisation and the reluctance to abandon the Confucian pattern of political order (Chai, 1997). The system of national higher education has been under profound influence of the social, political and philosophical context for each period. The review of the country's socio-economic history, in this sense, is essential for the better understanding of its education system.

4.2.1 Political Movement from 1949 to 1978

The establishment of the new country in 1949 leads China into a completely new start: it puts an end to the imperial colonisation and the successive civil war, and terminates the domination of the feudal regime over national social, political, and economic aspects for over 3000 years. Masterminded by the Marxist-Leninist ideology, the Chinese Communist Party (CCP) flags the comprehensive abolishment of the semi-feudal and semi-colonial system from all walks of people's life and builds up a self-chosen Communist society for all social citizens.

However, internally, to the end of 1949, after eight years of the War of Resistance against Japan (1937-45) and three years of civil war (1946-49), the long-term fragmentation of political and economic state was reflected in all walks of social life. The country was in an extremely anarchic state, with each sector and each region operating in its own way. The society was calling for a unified and centralised leadership for the economic recovery and national construction.

Due to the international political climate of those days, the leadership of the newly formed government followed the social and economic pattern of Soviet contour during the first ten years. Both the parties in power pursued the same communist ideology and executed the same social systems. Such relationship became especially close after the outbreak of the Cold War and the China's involvement in the Korean War from October 1950 to 1953. Outstanding as in the socialist bloc, China was repelled by and isolated from the western world headed by U.S.A. and western European countries. All communications in political, economic, social, and
educational sectors were completely sealed through sanctions. The hostile international environment bogged down the country’s development in a quagmire and limited the government capacity to manoeuvre. As a result, China decided to simulate the Soviet model and confined its communication to the Eastern bloc only, and repelled any experience of Western societies.

This position lasted throughout the 1950s until the Soviet leader, Khrushchev’s trip to the United States. By the summer of 1960, China’s refusal to align itself with the Soviet Union had erupted into wide rift between the two countries, and led to the withdrawal of all Soviet experts, as well as the cancellation of a large number of contracts and projects (Whiting, 1984). However, even with the break-down of the relationship, the Soviet model of leadership and administration ideology and system had influenced all sectors of the society, which bore a strong Russian imprint in the 50s and 60s.

4.2.2 Evolutionary Transition of Social-economic Structure Since 1978

The national socio-economic development stagnated during the ten-year Cultural Revolution (1966-76): the left-wing’s domination in leadership and the politically class-struggle movement led the country’s socio-economic development to the edge of collapse. The Chinese government came to realise that the highly centralised leadership under Soviet Model had severely hindered the country’s socio-economic construction and the welfare of wider population. In December 1978, the Third Plenum of the Eleventh Central Committee of the Communist Party was held in Beijing. At this event, the Party summarised the past experiences and lessons, and re-established a set of more pragmatic policies and programmes for national economic construction. Centred on the modernisation of national economy being the major strategy for further development, it set forward a comprehensive internal development and open door policy to the advanced capitalist world.
Aimed at reconstructing the nation with modernised agriculture, industry, science, and technology, the reform was referred to as marketisation, commoditisation, and socialisation. The market-oriented system has been gradually established to replace the planned economic system, the economy has grown at an astonishing annual rate of nearly 10%.

China’s fast economic development is viewed as a big miracle to the world: it not only survived the most disastrous “Culture Revolution” (1966-1976), but also successfully solved the problem of food shortage by feeding 22% of the world’s population with less than 7% of the world’s land. During the over twenty-year growth, the market economy in China has maintained a steadily fast growing pace. In 1988 and 1993 the annual GDP growth rate was 11.8% and 13.4% respectively. The speed of the growth was slowed down purposely after that to achieve a healthier development: in 1997 the annual GDP growth rate was 9.0% and in 2002 it decreases to 7.8%. The average growth rate for the last 25 years was at a robust aggregate of 9.4%.

It has been a very interesting topic on investigating the reason why China was able to maintain this extraordinary developmental pace. A comparative study conducted by Joseph E. Stiglitz, the Nobel laureate in economics and Chief Economist and Senior Vice President at the World Bank, revealed some useful information. He found that China has focused on the creation of new enterprises other than the privatisation of existing enterprises (Stiglitz, 2002). In effect, Stiglitz’s conceptualisation of China’s economic reform is accurate: in order to maintain the sustainable economic growth, not only talent and courage but also strategy is required. In the economic sector, this Communist country has abandoned the massive debates on the differences between socialism and capitalism as it used to emphasise, and opted towards a market-oriented strategy to achieve its economic goals. Different from the attention to the property rights in the rest of the world, China put more emphasis on competition, which, as Stiglitz (2002) finally concluded, embarked on an evolutionary transition and transformed much of the existing institutional structure.
The reforms in the economic world, particularly the transformation toward the multiplied ownership system and the implementation of market economic principles to realise the goal of modernisation, have fundamentally changed the national economic system and accumulatively results in dramatic changes in other sectors of Chinese society. It is against this background of reform that the reconstruction of China’s higher education has been staged.

Reform Setting afoot from Countryside in 1976

Due to the fact that people living in rural regions amounts to about 80% of China’s population, the comprehensive restructuring of the national economy began with the farmers and focused on self-sufficiency. China’s economic reform originated from the countryside, where the agriculture operation had been subject to the tight regulation of the central government for nearly 30 years of collectivism. Under the highly centralised policy, farmers had no autonomy of the choice of what to grow and the market behaviour of what they produced. They were assigned a fixed amount of production for each period and gained a fixed return from the government to keep their daily maintenance. This system had dominated China’s agriculture industry since the establishment of the new country in 1949 until one day in 1976, in a small village of Anhui Province, a farmer secretly signed an agreement to lease the land to others. According to the agreement, apart from a certain fixed amount of the grain required for the lease, the leaseholder could keep the extra for themselves, regardless of how much they produced. This “extra bonus” greatly stimulated the farmers’ enthusiasm to improve productivity, and in the next year their production was more than doubled. For the very first time, these farmers had more than enough to eat. This simple but effective mode of land leasing greatly increased agricultural productivity and was soon spread throughout the Province and thence nationwide. The policy of leasing public land to farmers, without any doubt, is considered as an initial step for individual self-reliance.

Meanwhile, another massive transformation was also occurring in the rural regions of the country. Policies came out to set up some new type of rural, non-agricultural sectors and transfer the labour forces from the agriculture-based industries to local community enterprises. These enterprises are mostly involved in the light industry and service industry. This transition was developed so rapidly that during the 1980s, the
rural non-agricultural sectors became the most dynamic component of the Chinese economy. As what Samuel Ho (Ho & Kueh, 2000) noted in discussing the economic development in Jiangsu Province, South of China, “millions of rural workers have shifted from farming to non-agricultural activities and in the process have transformed the structure of Jiangsu’s rural economy”.

The practice of land-leasing and the promotion of rural decentralisation proved to be very successful in stimulating people’s enthusiasms and creativities in mass production. For the first time since 1949, the country began to export some crops besides of having enough for its own people. Up to the year of 1983 when it came to the fifth year of the reform, China shared about one percent of the total United States imports, and in 1984 the foreign trade of the country was over US Dollar 25 billion. It might not mean much purely from the figures; some was even regarded low compared to the worldwide level. But for a country which is under the pressure of the world’s population, and which, at the time, just recovered from the Cultural Revolution, the success provided necessary underpinnings to build upon — China was on its way to compete on a global level.

**Reform Spread around Industrial World**

The nation-wide economic reform, initiating from rural areas, then to the urban, commenced throughout the country in the following years, covering the areas in industry, trade, transportation, tax and personnel systems. In the year of 1984, the promulgating of *The Decision on Economic System Reform* initiated the nation’s transition from the central-planned to market-oriented mode for economic development. Planning and control began to be combined with and somewhere even replaced by local, enterprise initiatives and a certain degree of market regulation (Cheng, 1998). Since then, China started to implement new state policies of economic reform and a political restructuring in a gradual and cumulative process. As Falkenheim (1989, p61) describes, “the CCP relaxed its repressive controls and abandoned a revolutionary and mobilised style of leadership for a more laissez-faire posture”.

The policy of decentralisation would be carried out in all round of the society, but first in economic sectors:

The political climate had been so relaxed and liberalised and the nation was so engrossed in the economic programs since 1980 that these general and elusive political exhortations were more or less reduced to mere rhetoric, evoking little more then lip service (MOE, 1999).

Following the prosperous promotion of de-collective approach in the countryside, comprehensive reform in employment and personnel management in the industrial sector started in the early 1980s. The reform was first started with the policy called as “smashing ‘Iron Rice Bowl’”. The “Iron Rice Bowl” is a metaphor used to indicate the employment condition before 1978 when a job in the industry would be secured permanently like an iron bowl that could not be broken regardless of the employee’s productivity and creativity. This is one of the typical feature for the former highly centralised style of governance, which was set up in the social background whereby Effectiveness, Efficiency or Creativity were all defined as key features for capitalised economy, and was definitely against the ideology of communism.

The situation changed dramatically when the government’s attention shifted to economic construction. The idea of productivity and efficiency was gradually accepted around the society as core elements for economic growth. The practice of separating the Party functions from day-to-day operation to the macro-governance was adopted to raise the efficiency. Recently, some western scholars have used the term “recentralisation” to describe the nature of the evolutionary reform in different sectors in China. But what should be recognised is that whether it is decentralisation or recentralisation, the administrative structure at the local- and central-governmental level has already experienced a significant transition.

The process of decentralisation from the central government has been involved into different aspects in the country’s economic reform. First, higher priorities have been assigned to the development of light industry and services other than traditional heavy industry. This adjustment soon proved to be a vital action in improving the overall quality of life at a national level. Those people who visited China in the late 1970s may still remember that everyone on the street wore grey, which indicated a life plain and simple (Min, 1999). Lack of supply was a common problem, and even in the early 1980s, one had to use coupons for every-day maintenance. However, since the mid-
In the 1980s, coupons were gradually phased out in public consumption, and to the early 1990s all coupons had vanished. With the prosperity in light industry development, China entered into a completely new stage when the supply of most goods is sufficient for consumers.

In addition to the efforts in diversifying state-owned industries, the CCP started allowing and promoting the establishment and development of private sectors/providers in the early 1980s as a supplementary for economic activities. As Deng later said in 1992 in defining the role of “public” and “private” in economic constructions, “no matter white or black, the cat that can catch mice is the best”. Thanks to Mr. Deng’s new economic policy, for the first time in China’s grocery market, one could develop private business, to rent a corner or simply put a table on the street to sell boiled-eggs or “big-bowl tea”, for example, without being criticised for carrying out capitalism (Chen, 1998). With the development of the private sector in business and industry, there was also an effort to transform state-owned industries and enterprises by contracting the national firms to the “trusted individuals” for daily operations in order to improve efficiency and increase productivity. In industry, business, and later in some public sectors, top administrators have been entitled with the right of hiring and firing, an authority that had never been granted before. Nevertheless, despite its feasibility, this type of transformation still has various problems in practice. How to deal with low-performing workers was the biggest concern for social stability (Chen, 1998).

Apart from the internal decentralisation, following the enforcement of China’s “Open-Door” Policy, foreign individuals and businesses were allowed and even encouraged to invest and stimulate the national economy. By 1993, China’s cumulative foreign investment summed up to RMB 2,623 billion (US Dollar 333.29 million) in contract terms and 1,109.2 billion (US Dollar 140.91 million) in actual utilised terms (Chai, 1997). The number of foreign-invested enterprises in China had reached 168,000, including 108,000 joint ventures, 26,000 corporations, and 34,000 purely foreign-owned firms (Hawkins, 1999). Foreign investments and businesses have been playing a key role in the development of China's economic revolution. When McDonald’s opened its first restaurant in Beijing in 1992, it not only brought to Chinese people hamburgers and Coca-Cola, an exotic food that Chinese people never tasted before,
but also set up an example to the Chinese food industry on how to run fast food restaurants to meet the changing pace of life.

However, the radical reform and promotion of decentralisation have given occasion to enlarging discrepancies between the generalisation of marketisation and free competition, and the traditional value systems for egalitarianism. A crisis has been emerging in the Party’s leading ideology of Marx-Leninism and the Socialist Equalitarianism. In 1992, Deng Xiaoping, the leading figure in China’s 1978 economic reform, visited some major cities along the south-east coast line. During this trip, he addressed an important speech, in which he critically clarified the relationship between the Socialist development in ideology and the market-oriented economy in practice. “Whether white or black, the cat that can catch mice is the best” was spread across the nation. “Market Economy” is not exclusive for the Capitalism, but an approach of the economic advancement for any social configuration. Marketisation and competition are not necessarily face-off for social equalisation and welfare; the government and the establishment of social welfare system should play their roles in social equalisation and welfare. It was this speech that pushed China’s economic development into a new stage and definite the direction of the further social construction to a society of “a socialist market economy with Chinese characteristics”. China has set up a route of public sector self-regulation system under the macro control from the central government.

The prosperous development of the economic reform brings about a deep impact on the national higher education system. It brought in the unprecedented employment opportunities for young graduates, as well as great demand for personnel with competence and versatile skills. There arose a great need for knowledge and technology acquisition to further innovation.
4.3  China’s Higher Education – A Historical Review

For the better understanding of the policy context behind each education reform and restructure, five periods are identified for the analysis on China’s higher education development from a historical prospective.

**China’s Higher Education History: the Pre-1949 Period**

Education has been an endeavour in China for over two thousand years. Nevertheless, before the 20th Century, students studied mainly on Ancient Chinese and Classics, especially on Confucian Classics. “Modern education”, generally practiced two hundred years ago in the West, was not only introduced and developed in China until the beginning of 20th Century, one hundred years later than in the European countries (Xiong, 2001). In 1949, when the People's Republic of China was founded, there were only 117,000 college students (against the national population of 583 million at the time) and 207 institutions of higher education in China. Out of this figure, 41 percent of the enrolled students were centralised in six big cities — Shanghai, Beijing, Tianjin, Nanjing, Wuhan and Guangzhou (Hu & Seifman, 1950). There were few, or even no, institutions of higher education in some less developed provinces.

**Restoration of Higher Education: 1949-1966**

After 1949, the new government resumed the jurisdiction over the national education sector, and took over all universities and colleges, including both public and private institutions as well as those subsidised by foreign investment/sponsorship. Similar to what happened in other social sectors, China’s higher education in the early years manifested strong imprints of the Russian model, and took the absolute priority to the training of scientists, technicians and teachers, and the development of “comprehensive university” and technical colleges (Price, 1987, p166).

The early construction of the national education system featured with a highly centralised administration hierarchy in funding, admission, assessment, and administration, and centred on the primary goal of training purpose to meet government and social demand for national construction. In 1952, the country completed its first round of disciplinary readjustment in liberal arts and sciences; fourteen comprehensive universities were established anew. Meanwhile, over two
hundred technical colleges were also set up as the supplementary for special training demands for industrial and agricultural developments of the new established nation (Bray, 1999). From 1949 to 1953, the proportion of students assigned to humanities and social science studies to the total university/college attendees reduced from 33.1 to 14.9. More participants were trained in applied subjects such as engineering, polytechnics, or agro techniques, and assigned to the frontline of industrial and agricultural construction (Ouyang, 2004, p141). It was a period of the restoration of a centralised system into national higher education, featuring with the rapid growth in the number of higher education institutions and enrolments.

Resume from Political Movement in 1976

The new era of China’s higher education development was marked with the political and economic reform initiated in 1978 under the leadership of Deng Xiaoping. In that year, the Chinese government decided to shift its focus to economic construction, implementing a policy of reform and opening-up to the outside world in a way that would transpose China into a powerful nation with modernised agriculture, industry, science, and technology (Chen, 1999).

To facilitate the nation’s political and economic reform, higher education was given the top priority in its education and training function for the advancement of specialised human resources. Along with the comprehensive structural reform originated from rural agriculture, and then expanded to urban industry, the nation has recognised the role of science and technology in facilitating the sustainability of the country’s economic development. The first movement in higher education after the ten-year Cultural Revolution is the resuming of the National College Entrance Exams in 1977. In the following year, the national conference of science and education was held in Beijing, setting forth clear the goals of education development. Largely consulting from the historical documentations before 1966, i.e. the Decision on Unifying Management in the Higher Education System, and the Sixty Articles of Higher Education, the Chinese government reset its regularisation decree in higher education for the unified academic standards, and empowered the Ministry of Education as the central authority and facilitator. Besides, the conference calcified the role of higher education in the professional training of experts needed for socialist construction.
The following years saw a remarkable expansion in higher education: between 1978 and 1985, the enrolment grew from 625,319 in 1977, to 1,703,115 in 1985; and by 1985, the number of institutions of higher learning had raised to over 1,000, excluding institutions for continuing education, TV and Radio universities, and institutions of corporations. Of these, 36 were under the direction of the State Education Commission (SEdC), 316 under the ministries of government, and 664 under provincial governments (MOE, 1985).

**The Structural Reform: 1985-1992**

In spite of the rapid expansion in higher education, there have been little changes in the management and administration structures. Old patterns still dominated the whole system, where the central government and related provincial governments maintained excessive control over higher education functions, including financing, admission policies, instruction design, curriculum, and leadership assignment (Lin, 2001).

Under the context of the cross-nation economic reform from 1978, the highly centralised system in higher education began to prove more and more inefficient to fulfil its function for social, political, and economic modernisation. The Chinese leaders represented by Deng Xiaoping began to explore a new way in which the national education could make real contribution to the national goal of Four Modernisation (i.e. the Modernisation in Industry, Agriculture, Science & Technology, and national Defence). Deng’s remark represented a new era for China’s higher education, which transformed the goal of national education from serving political ideology and stability to facilitating the socio-economic development, and sparked a number of policy initiations and set-ups to enhance the position of education in socio-economic progress. As what was re-defined in *the Law of Education for the People’s Republic of China* (the first constitutional document for education in China), promulgated in 1985:

> Education is the basis of socialist modernisation, and the State shall ensure high priority to the development of educational undertakings. The whole society should be concerned with and support the development of educational undertakings.
The following years saw a series of Laws and Regulations issued to assist the transformation, of which the most fundamental one is *the Decision of the Chinese Communist Party Central Committee on the Reform of the Educational System* published in 1985. It is later regarded as the definitive reformulation of the later decrees. As the guiding document for reform and change, *the Decision* initiated some fundamental changes on the gradual decentralisation in higher education system. Based on the 1985 *Decision*, the Central Committee of CCP and the State Council issued *the Program for Education Reform and Development in China* in 1993. The document stipulates that the national policy is to actively encourage and fully support social institutions and citizens to establish schools under the law and to provide right guidelines and strengthen administration. On the administration of education, the Article 14 of *the Law of Education* states:

> The State Council and local people’s governments at all levels shall guide and administer educational work according to principles of management at different levels with suitable division of responsibilities [...] Education at the second school levels or lower shall be administered by local people’s governments under the leadership of the state council. Higher education should be administered by the State Council and the people’s governments of the provinces, autonomous regions, and municipalities directly under the Central Government.

The new system first introduced a three-level hierarchy in higher education administration. It, in turn, represented a central, a provincial, and a municipal level of governance for different functionalities. The central government was no longer the only body of administration responsible for higher education. Universities were delegated with the authority to make decisions regarding the instruction and curriculum setting, as well as with the freedom to make admission policies for the students outside the state plan but financed by enterprises or by themselves. From then on, higher education institutions began to be inducted to generate a certain amount of funding through private sources rather than on the single government allocation.

Apart from the issues on administration and management, *the Decision* also suggested the diversification in the system of higher learning and encouraged the development of the three-year specialised colleges, two-year community colleges, and adult education as an important supplementary to the normal baccalaureate institutions in
meeting the demands for different levels of skilled human power. From 1985 to 1992, China’s higher education experienced a period of fast expansion and diversification.

The Re-adjustment after 1992

Ever since 1992, China has been gradually tightening the policy for the invariable wide expansion in higher education. Provided the decelerated economic situations and increasing constraints on higher education budget, the central government and the State Education Commission, launched a series of evolitional reforms to improve and reconfigure the structure of the system (MOE, 1993). The reform from 1992 marks a new era for China’s higher education history towards decentralised governance ideologies and style, which result in the diversification in higher education funding and management. Rather than piecemeal solutions, these strategies and policies started with the system change which aims for the overall efficiency in the operation. The national higher education system is intended to be organised in a new hierarchy, which embodies with a coordination and combination of forces from the government, the institutions, and the market with each acting different role in the system operation.

4.4 Policy Adjustment and System Realignment: 1992 to Present

The social requirement for highly skilled human capital is now well understood by most developing countries around the world. They are facing the question of their future capability to develop the skills required for the 21st Century and to compete in the new knowledge economy. Instead of the concentration on factories, land, tools and machinery, knowledge, skills and resourcefulness of people have been turning increasingly critical to the world economy. Having experienced a dramatic increase in the rate of their young people receiving higher education, most industrialised countries turn to regard education as a major public policy priority. Higher education is developed to involve different social forces in financing and management, and showed a varied modalities to achieve the education goals: apart from traditional degree system, tertiary and lifelong education provide the training of advanced skills and command a premium for adjusting workers to the rapidly changing economies. The transfer of research outcome into production and the cooperation with outside
industries inspires the wide research activities and bring about incredible incomes for institutions.

4.4.1 The Motives: Higher Education Expansion and Economic Reform

In China, the fundamental change of economic structure from 1978 marked the new era for China’s education system. In the winter of 1977, the National College Entrance Exams was first resumed after ten years suspension due to the “Culture Revolution”. In that year, only 4.8 percent out of 5.7 million people who sat for the exam were admitted to the higher education. In spite of the very low rate, the hope for the improvement of their future lives still greatly encouraged millions of youth, whose lives were stagnated on the labour farms and in the countryside because of the ten years of political movement.

The overall restoration of higher education since late 1970s also sent out a message to the whole country that economic development should first start from the preparation of human capital and knowledge should be recognised as important. The Report to the 16th Convention of the CCP had the clear stipulation for the role of education in the new Socialist market economy:

> Education is the basis for developing science and technology and preparing talents, playing a leading and comprehensive role in modernisation. It must be placed in a strategic position and given priority in development [...] Education must adhere to serving the construction of socialist modernisation and the people, combine with productive labour and social practice, and prepare socialist builders and successors who have developed morally, intellectually, physically and esthetically (Jiang, 2002, p4).

As Hartley once noted, the reform in the educational systems has accompanied the economic and political changes throughout the former state-socialist world. The changes have been tailored largely to “respond to market needs” (Hartley, 1995). In responding to the market needs, China’s higher education first experienced a system-wide expansion. After ten years of suspension, universities were reopened with a different student selection system, either by appointments or tests, and a shortened curriculum in combination with a strong ideological element in 1977.
The educational goal in the 1978 reform was for the people’s training. With the further economic reform of Open-Door Policy in 1978, there existed a pressing demand for the reconstruction and expansion of higher education for training the leadership with both specialised knowledge and political trustworthiness. Corresponding to this, the upgrading of colleges into universities and the adjustment of disciplines and curriculum designs became a popular phenomenon in the early 1980s.

A three-year traditional Chinese medicine college was upgraded into a four-year university and a two-year vocational school in engineering was upgraded into a three-year professional college. During 1976-1985, such institutions in total of 618 were upgraded into colleges or universities. In 1985, the total number of public higher institutions was 1,010 (Xiang & Gu, 1996). Most of the upgraded colleges and universities specialised in medicine, law, economics, science and technology. For example, in 1977 there was only one institute in economics and finance, in 1987 there were 74. In 1977 there was only one university of politics and law, and by 1987, there had been 25 such universities (Xiang & Gu, 1996). The annual enrolment of higher education has grown from 1.69 million in 1998, to 2.2 million in 2002, and in 2005, this figure has rose to 4.13 million (MOE, 2005).

However, following more than a decade’s rapid economic growth, the consumer market in China reveals a lack of driving power after 1990, which is in contrast with the fast growth of investment. The economy has showed the signs of stagnation since mid-1990s when the overall public consumption began to decline while extra productive capacity was on the rise (Fan et al., 2001). At the same time, the repercussion on the environment and natural resources as the result of the rapid economic growth made it clear that China could no longer afford to grow in the old manner (Fan et al., 2001). It is against this background that the idea of knowledge-based economy hit home with many Chinese scholars and government officials.

Current issues
Ever since the mid 1990s, the role of science, technology, and education (STE) has increasingly become prominent for China’s economic reform. In 1995, the idea of “Reinvigorating China through Science and Education” has been formally promoted
by the central government as one of the two major development strategies. The fever on “knowledge-based economy”, which has been sweeping China since 1997, further confirmed the role of STE in China’s future development (Chen, 1998). In June and August 1999, the central government held two separate national summit conferences, one on education and one on technological innovation. This education summit approved an Action Plan to Reinvigorate Education in the 21st Century, while the innovation summit issued a policy decree on strengthening technological innovation, developing high-tech, and promoting large scale of technology commercialisation.

Underlying the enthusiasm on STE is a search for new knowledge-based power to propel China’s reform and growth:

Only by relying on scientific and technological progress can a sustained, rapid and sound development of the national economy be realised. In this way, many problems can be effectively solved, the irrational industrial structure, backward technological level, low labour productivity and low quality of economic growth, thus accelerating the strategic shift of national economic growth from the extensive mode, featuring high input, high consumption, high emission and low efficiency, to the intensive mode (Chai, 1997).

While there is still a debate on the concept and its implications for China, the government wasted no time in embracing its basic principle and took actions on several fronts in the hope that China can steer a new course of knowledge-based development in the 21st Century. The movement requires higher education authorities and institutions to achieve a new balance between higher education and the demand of the changing society, and to redefine the knowledge specialisation in a broader way for socialist economic construction. Issues in adapting the existing higher education system into the national cultural, political and economic needs are crucial to the long-term success of the open door policy.

Issue 1: Centralisation — the government role in higher education

Like the situation of most public sectors in China, the administration hierarchy for national higher education is highly centralised. Provisions of educational services were largely delivered through the central or local governments and directly under their administration, with the state undertaking high responsibility for the day-to-day operation of the system. The metaphor used to describe such a shared administrative
system is a net, with the "vertical stripes" or tiao, which refers to ministries, and the "horizontal pieces" or kuai, which refers to local governments. Colleges and universities in such an administrative net, affiliated to the "strips" or "pieces", have different functions and responsibilities (Fang, 1996). What should be noted is that this highly centralised system is effectively the product of the former planned economic system in the early years and had made great contribution on protecting the stability and development of the new regime. However, with the country's transformation to the market-driven economy, the centralised system could not meet the requirements for further development.

With universities and colleges being administered by different divisions of governments and fulfilling different missions, the overall system was decomposed into small fine-grained closed systems (Ying & White, 1994). In such closed systems, many small-sized colleges and universities were established, focusing on a single area of study and serving the interests of a specific department or profession. Since schools were only confined to the specific roles defined by the needs of their affiliated departments, the graduates' knowledge and skills often proved to be relatively narrow in scope and they found it difficult, or even unable to adapt themselves to the broader needs of the society. Meanwhile, due to the disconnection by the "vertical stripes" and "horizontal pieces", the cross-ministry intercollegiate coordination was missing. The split of "stripes" and "pieces" had led to massive redundancy and overlapping in colleges and universities as well as in their programs (Chen, 1998). As a result, resources could not be shared and utilised efficiently.

Furthermore, the rigid hierarchy lacks the flexibility and autonomy of individual institutions' response to the changing demand from the society. All the policies and strategies for higher education development were designed by the central government, while individual universities were left no space for self-planning and for taking the initiative to make proper adjustments in the content and form of their programs in response to economic and social requirements from the labour market.

Finally, regular higher education institutions were once established with the aim of meeting the personnel requirements for a centrally planned economy and were funded under the rigid State planning. Graduates from colleges and universities, under this
system, were all assigned a fixed position by either the central government or relevant bureaucracies according to the respective needs of the country. This was all quickly changed when the labour market was gradually opened up with more foreign investment, joint venture business and minying (people-operated or privately owned) firms. Facing expanded job opportunities, graduates were no longer satisfied with the guaranteed but highly centralised policy in job assignment. In many cases, they were unwilling to accept pre-decided employment. The fact of the government’s job assignment was that the graduates were more likely to be sent to the most needed organisations in the public sector. There they often got lower paid compared with those positions offered by private businesses and also required to do the job which have no direct relation with what they were trained for at the institutes.

The reform on the role the government plays in the administration of higher education system has therefore become an important issue to be dealt with. The increasingly retrenched financial support from the government and the intensified public demand for more and better services necessitate the introduction of some innovations to maintain the working order of the system and provide the educational services that meet the public demands. The role the public administrator is now required to play is an entrepreneur, a risk taker, and an innovator, as well as being assumed with the added responsibility of finding alternative sources of revenue.

**Issue 2: Financial retrenching from government allocation**

After 10-year stagnation of the “Culture Revolution”, China’s higher education entered into a fast phase of rebuilding and expansion in the following ten years. From 1978 to 1988, the total number of higher education institutions rose from 598 to 1,075 (Ding, 2001). However, to the early 90s, problems emerged with increasing financial issues, which were caused by several factors. First of all, the national education system, especially the higher learning, expanded so fast that the increase of state appropriations for higher education could not catch up with the pace of the fast growing cost. The national enrolment increased by 148 percent from 0.86 million in 1978 to 2.16 million in 1990, but the median enrolment of individual institutions rose only 61.6 percent during the same period, due to the limited capacity in teaching and facilities (Hawkins, 1999). Additional enrolments had to be accommodated through the establishment of new institutions, a costly strategy compared to the expansion of
existing institutions. Hence there was an urgent need to enlarge the capacity of institutions so as to accommodate the rapid growth in higher education participation. However, at the same time, the total expenditure on the higher education expansion increased at a rate much higher than the rise of the total government revenue in the early and mid 1980s. Especially with the government encountering with the low tide of economic development in late 80s, the rate of the growth in higher education investment began to drop down dramatically, and this is especially the case in 1990 and 1991 (Min, 1991).

Besides, the rise of inflation also exacerbated the financial situation faced by higher education. The official retail price index was 118.5% and the cost of living index was 120.7% in 1988 compared with 101.5% and 102.0% in 1983 respectively (Xiong, 2001). The high inflation rate reduced the purchasing power of the institutional budget. Moreover, the actual amount of resources available to the higher education system also declined.

Apart from the financial constraints, the inefficient consumption of resources made the situation even worse. The rate of classroom utilisation and laboratory utilisation was as low as 47% and 62% respectively in some regular higher education institutions (World Bank, 1986). Another factor that hampers the operation efficiency lies in the over-specified setting of courses, which resulted in problems like low utilisation of specialised equipment, low teaching loads for faculty members, and relatively low student-teacher ratio. Improper system expansion with low utilisation of resources not only led to low internal efficiency, but also resulted in low external efficiency.

**Issue 3: Diversification of financing higher education**

With more and more people being welcomed with the opportunities of higher education, a large gap existed between the rapid growth in higher education participation, i.e. the national higher education enrolments, and the capacities of individual institution with limited expansions in 1970s. As the total budget from the government revenue for higher education on a ratio of GNP was continuously declining from 32.2% in 1978 to 21.8 % in 1985 and to 17.2% in 1992 (Zhongguo Jiaoyubao, 1994, October 6, p1), it is getting harder for the government to afford building new institutions than to increase the capacity of existing institutions. The financial constraint is a major driving factor for a
shift towards institutional consolidation and co-operation with the intention of achieving cost-effectiveness and optimisation of resources.

Free higher education had been in practice during the first 30 years from the establishment of PRC. Due to the limited number of institutions, limited enrolment and a planned economy, only a small proportion of population could get the chance to receive a higher education. But once passing the extremely competitive National College Entrance Exams, one would be guaranteed an education, totally free of tuition charges. Moreover, admitted students also received a government subsidy for living expenses and under the centrally planned system.

However, with the system expansion and the development of modern technology, higher education became more expensive than ever. The establishment of high-cost teaching and research labs in university campus with hi-tech facilities only amplified the situation (Fang, 1996). Under these circumstances, it became apparent that higher education could not always remain free of charge.

**Issue 4: Lack of qualified faculty**

At the same time when both the students and institutions were supposed to benefit from the expansion and upgrading, it is revealed, gradually, that academic and scholarly work could not be upgraded by good intentions overnight. The lack of qualified faculty to fill the teaching and research positions became the number one issue for institutions to offer a quality education. Apart from the unbalance system expansion, other factors affected the recruitment policies in the traditional system. After the restoration of the country's international contacts and intercourse, young Chinese have been provided with increasing chance to study abroad. Between 1980 and 1998, there was the phenomenon called *chu-guo-re* (the enthusiasm for studying abroad). In about 20 years, 300,000 Chinese studied overseas, and a large number of them were young faculty from universities.

In addition, no longer satisfied with the stable but low treated professional position, many young staff in the 1980s and 1990s left their faculty positions to look for more challenging opportunities in business and international trade. A new term for describing the phenomenon called *xia-hai* was used, indicating that many educated
young men and women jumped into the sea of (private) business with uncertainties. Of course, to those youth who did join the business sector, some were very successful while some others failed.

In order to keep those promising graduates to teach in colleges and universities, many universities offered a kind of on-the-job training program for employees to acquire master’s degrees. By this route, young instructors could start their master’s degree program as an instructor with a part-time teaching position for one or two years to finish the course work and a full-time teaching position while writing their thesis. At the same time, special policies such as university-provided accommodation and research funds were introduced to encourage students abroad to come back after finishing their studies. Some universities even offered with the “leave with pay” for up to four years for faculty studying abroad in order to attract them back. Initially, this type of bonus was not attracting enough, for example, the return rate was only one-third in 1999. However, this situation has been significantly changed in recent years.

Issue 5: Resetting of programmes

As mentioned earlier, in 1992 and 1993, foreign investments in China broke its record in height. The growth of foreign investment and international trade, the expansion of joint ventures and private enterprises not only changed the country’s economic structure, but also the national labour market. How to efficiently utilise these investments and who should manage them are problems needed to be addressed immediately. In education, some professions that were traditionally considered to be unnecessary now became very important. When Zhu Rong-ji, the Premier of the State Council at the time, delivered his speech at the Massachusetts Institute of Technology in 1998, he emphasised that China’s policy is “to invigorate the country with science and education and between science and education, education is the base.” He also mentioned that China is in great need of highly qualified personnel, especially in management.

In this context, the issue for future higher education development is not simply to expand the system and to enlarge the number of students in colleges and universities. Though higher education had continuously expanded, there was still a shortage in supplying suitable educational programmes to meet with both the individual need for
higher education and the market need for qualified personnel. What is more obvious is that there was a mismatch between the current programs available in universities and the dynamic needs of a market-oriented job market. What kind of curriculum is necessary for the new market are two essential issues policy-makers must consider. When a businessman from the city of Shenzhen, one of the leading coastal cities in the new market economy, conducted his interviews for employees in Beijing, he was disappointed that none of the interviewees seemed to be qualified. At first, someone thought he was too picky. But when one carefully examined the existing university programs and curriculum, he/she discovered that though the labour market had changed dramatically, universities tended to lag behind with little or nothing new to offer.

Problems also exist in the setting of professions. Even though the number is small, students with a philosophy degree always have difficulties in finding jobs. As an alternative, many students in philosophy choose to go to graduate school. Then there is the question about what university should do with less wanted disciplines in social science and humanities. As it is commonly accepted, a prestigious university should always have a balanced development in all fields and areas of study. But actually it is not the real story, even in very famous universities in China, philosophy and history departments have a hard time finding the right fit for their current students striving to advance in a market-oriented economy.

To facilitate the training of professionals, the State Council, in 1991, launched a series of experiments in some major universities to offer the professional programs in law, business, public administration, agriculture extension, medical program, education, architecture, and vet medicine. In 1992, Peking University first established Guanghua School of Business Management in China and initiated the professional-level of training in business management. Now 56 universities in China are offering the Master of Business Administration (MBA) programmes, 22 universities can offer master’s education in law, 29 universities have established professional programs in education, and 12 universities have professional programs in architecture.

Even till now, there are still some debates in China’s top universities like Peking and Tsinghua about the university’s role in professional training. Critics argue that these
well-known research-oriented universities should put higher priority in scientific research activities, e.g., to develop the research programs in training scientists and leaderships rather than wasting limited resources on developing professional schools (Lin, 2001). In a given context, the criticism seems to be reasonable, but if people look at the development of Chinese professional schools from historical perspectives, they may find out that these universities have made the right step. Both universities have developed very strong Ph.D. programs in almost every discipline, except for agriculture and physical culture. Both universities are the first to offer Ph.D. degrees in China in the 1980s, when the regulation for degree programs was published, and thus, from this perspective, have not only the academic but also the commercial capacity to attract international human resources to open those professional schools in new areas.

In addition to formal degree education, there exists a large shortage in the provision of vocational education. This is especially the case when the country sees a prosperous development in the IT, the automobile and the service industries. The growing demand for qualified technicians and specialists in service industries has even worsened the situation. Take the health services for example. The world average doctor/nurse ratio is 1:2.7, while in China the figure is currently 1:0.61. The country needs at least 2.2 million well-trained nurses to reach to 1:1 by the year of 2015 to care for its 11 million bedridden elderly (MOE, 2004). It is under increasing pressure to accelerate the development of vocational higher education in the future.

**Issue 6: Enrolment rate**

Ever since 1977, more than 10 million college graduates have entered the labour market. Many of these graduates currently hold important positions at middle- or upper-level management in private, public, and joint venture organisations. But putting Chinese higher education in a larger perspective, one finds that Chinese higher education is still a relatively elite system. In 1977 nearly 6 million young men and women took the National College Entrance Exams, and only 273,000 students were lucky enough to be admitted into colleges and universities for further education. Despite the system expansion and diversification, the gross enrolment rate was only 5% in 1988 and 9.7% in 1998 of the total eligible population (Cai, 2002). This elite system has deprived many intelligent youth of higher education.
Due to the fierce competition among high school students to get access to higher education, many "college-track" schools and "college-track" classes in ordinary high schools have been showing a prosperous growth. Following the school programs, weekend programs and summer sessions were added into the already over-loaded secondary school curriculum. All of these extra-curriculum academic programs were geared toward preparing those high school graduates to score high in the National College Entrance Exams. To restrain this abnormal phenomenon and to alleviate the high load of school students, the Ministry of Education began to take some measures, banning these programs officially. However, with the unchanged fact of the highly competitive university entrance exams, these programs cannot be totally banished, but altered themselves into a form of underground education.

With the increasing internal pressure for accessibility and the international trend of mass higher education for the promotion of comprehensive quality of social labours, the state Ministry of Education started to enlarge the college and university annual enrolment by 30%. For a century, China's gross enrolment rate for higher education had never reached 10% due to political and economic reasons (Wu & Wu, 2001, p197), and at the end of the 20th Century, the rate was still lower than the average of the developing countries. The average schooling of citizens above 15 was 8 years; only 18% of the employees have received senior high school education, and 5% of them with higher education background. The comprehensive expansion in higher education starts from 1997, when the country introduced the fee-charging policies to subsidise the financing for higher education expansion. From 1997 to 2002, the gross enrolment rate of higher education students in the age of 18 – 23 rose from 9.1% to 15%, and to 2004, it reached 19% (MOE, 2005, p45). The total annual enrolment grew from 1.08 million in 1998 to 1.69 million in 1999, and in 2004, the enrolment reached to 4.13 million in total (MOE, 2005). Table 4-1 illustrates the China's education enrolment changes throughout the 1990s to 2002.
## Table 4-1 Gross enrolment ratio* (%) of China’s education, 1990 – 2002.

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary</th>
<th>Junior High School</th>
<th>Senior High School</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>According to provincial entrant age</td>
<td>Age 12 - 14</td>
<td>Age 15 - 17</td>
<td>Age 18 - 22</td>
</tr>
<tr>
<td>1990</td>
<td>111.0**</td>
<td>66.7</td>
<td>26.0</td>
<td>3.4</td>
</tr>
<tr>
<td>1991</td>
<td>109.5</td>
<td>69.7</td>
<td>28.4</td>
<td>3.5</td>
</tr>
<tr>
<td>1992</td>
<td>109.4</td>
<td>71.8</td>
<td>26.0</td>
<td>3.9</td>
</tr>
<tr>
<td>1993</td>
<td>107.3</td>
<td>73.1</td>
<td>28.4</td>
<td>5.0</td>
</tr>
<tr>
<td>1994</td>
<td>108.7</td>
<td>73.8</td>
<td>30.7</td>
<td>6.0</td>
</tr>
<tr>
<td>1995</td>
<td>106.6</td>
<td>78.4</td>
<td>33.6</td>
<td>7.2</td>
</tr>
<tr>
<td>1996</td>
<td>105.7</td>
<td>82.4</td>
<td>38.0</td>
<td>8.3</td>
</tr>
<tr>
<td>1997</td>
<td>104.9</td>
<td>87.1</td>
<td>40.6</td>
<td>9.1</td>
</tr>
<tr>
<td>1998</td>
<td>104.3</td>
<td>87.3</td>
<td>40.7</td>
<td>9.8</td>
</tr>
<tr>
<td>1999</td>
<td>104.3</td>
<td>88.6</td>
<td>41.5</td>
<td>10.5</td>
</tr>
<tr>
<td>2000</td>
<td>104.6</td>
<td>88.6</td>
<td>42.8</td>
<td>11.5</td>
</tr>
<tr>
<td>2001</td>
<td>104.5</td>
<td>88.7</td>
<td>42.8</td>
<td>13.3</td>
</tr>
<tr>
<td>2002</td>
<td>107.5</td>
<td>90</td>
<td>42.8</td>
<td>15</td>
</tr>
</tbody>
</table>


Changes have also occurred in promoting learning environment and facilities in higher education institutions. According to MOE (2004), the campuses occupied an area of 1.36 billion square meters by 2003, which is 5 times that of the year 1980; the construction area increased to 382 million square meters, 2.5 times that of the year 1998. All the campuses can access the internet. On average, the student/computer ratio is 10:1, and the university’s spending on facilities is from RMB 3,000 to 5,000

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* Gross Enrolment Ratio (GER) = number of total actual students enrolled at each level of education (regardless of age) / number of the population of official school age for that level.

** The gross enrolment ratio can be greater than 100% as a result of grade repetition and entry at ages younger or older than the typical age at that grade level.
per student, depending on the types of subjects; and the accommodation area per student is 6.5 square meters (MOE, 2004).

It is always a good thing for the nation to have more students educated; how to reform the secondary education curriculum, as well as to support for the increasing accessibility to higher education, are questions frequently discussed nationwide. But there does not seem to be a feasible solution to accomplish these goals without the government’s increasing investment. Actually, the government’s spending on higher education has decreased from 1992 in comparison with GNP growth, a point that will be discussed later. The fee-charging system has been practiced nearly a decade, and during the past ten years contributed to a tremendous national higher education development. However, the resource is far from sufficient considering the dramatic decline of the government support. When colleges and universities were ordered to take more students without proper extra funding for facilities and spaces, dormitories and classrooms became even more crowded. Ever since the mid of 1990s, China’s government has been confronted with increasing pressures to explore new approaches and measures to fit its higher education system into the changing context.

4.4.2 Trend and Impetus for Change

China’s higher education institutions play two key roles in sustaining economic growth rates and in facilitating socially and environmentally responsible development in the country. It achieves the major contribution on preparing citizens to fulfil the high-level scientific, technical, professional and managerial positions in the public and private sectors. In addition, by acting as a repository, a generator, and a communicator of knowledge, the higher education underpins the internal technological advancement, particularly in transforming research and development results into industrial productivity, and provides access to and adaptation of ideas from elsewhere in the world (Flynn, 1993). These tasks of educating the leadership and generating/utilising knowledge for China’s development effort present major challenges.
Can higher education function in a centralised way to perform itself effectively and efficiently under a decentralised economic environment? The answer is out of the question. Calls from economists for the marketisation of China's higher education system have become louder now that China stands at the threshold of the trade club. Dilemma between the rapid expansion of higher education and the intensified financial constraints has attracted rising attention to the demand for an improved efficiency in better utilisation of resources and a comprehensive reform in the higher education financing model. Given the inadequacy of the government investment, new resources need to be explored. Marketisation and diversification in operation was first put forward as solutions for education: economists are confident that China is now ready for marketising its education system (Cui, 1999). First, there shows a huge and growing demand for higher education. China has a total of 2.6 million secondary school graduates each year, of which only 1.4 million can, potentially, enter tertiary institutions (Ouyang, 2004).

Secondly, the waste in education, particularly in the higher education sector, is surprisingly high. Both personnel and material resources are often left unused. However, On the other hand, it shows growing interests from different social groups in the potential of commercial potentials for the higher education services and products. An official from the State Planning Commission recently described the contemporary higher education as one of the rare markets in China that represents a good investment and potential economic growth zone (Zhongguo Jiaoyubao, 2001). Headed by Wu Jinglian and Mao Yishi, some well-known scholars in economics are highly critical of the fact that education is still burdened with central planning, which, according to their studies, has restricted the sustainability of the growth and expansion of national higher education system. They openly express their views that education in China should be on the process to commercialisation by applying a more effective, efficient, and economic model in operation, which they argue is the effective way to make China's higher education system capable to meet challenges of a knowledge-based economy-more accessible to the public, flexible enough to respond to the changing market needs, and highly efficient to provide good educational services at low cost.
However, the solution is never that straightforward. Directed towards the existing management system, specific issues for this transformation, according to Cui (1999), can be summarised as followings:

- lack of clarity regarding respective roles and powers of State Education Commission (SEdC), central ministries, and provincial and municipal governments;
- ineffective management and administrative structures and processes;
- inefficiency in the use of scarce resources for qualitative improvement and quantitative expansion;
- inappropriate resource allocation system for improving operational efficiency and institutional quality;
- difficulties relating to a balance between market-oriented programs of study and basic disciplines; and
- uneven distribution of managerial, financial, academic, and technical capabilities and capacities among regions, provinces and institutions.

In talking about the possible routes for higher education commercialisation, Hawkins (1999) suggested a useful definition that is appropriate for the China case: “Decentralisation is defined as the transfer of decision-making authority, responsibility, and tasks from higher to lower organisational levels or between organisations.” Three essential elements are identified for this decentralisation, which refers to: Deconcentration (transfer of tasks and work but not authority); Delegation (transfer of decision-making authority from higher to lower levels, but authority can be withdrawn by the centre); Devolution. Privatisation is another form which, however, is not always decentralised. As Bray (1999) has noted, in general, there are no clear examples of completely decentralised educational systems, but rather some mixtures of centralisation and decentralisation. As we will see later, in the case of China, several of these exist at the same time. The processes are fluid and in motion and change over time.

Apart from the decentralised governance from central authorities, the economic diversity also brings about some key transitions in the internal management for university itself. With the tumult and dynamism under the market-oriented environment, university administrators cannot rely primarily on student recruitment
for success. The primary challenge for today's institutions is their strategy and capability to adjust them to a more open labour market as well as to a more open society. Overall, the entire system in the country might be shifting from an input- and supply-driven model to an output- and demand-driven one, involving an adaptation of a strategic marketing approach and management activities (Fang, 1996). These could cover a wide range of changes in management, faculty, students, and academic programmes.

The reform endows the higher education institutions with the unprecedented autonomy in operation, but is challenged with the question of to what degree the autonomy can be executed in higher education system. The concept of autonomy could take on a different meaning in different contexts. Even under the same context, autonomy itself could mean different things. For example, in Robert Berdahl's definition, there are two kinds of autonomy: substantive autonomy and procedural autonomy (Hawkins, 1999). Substantive autonomy refers to the power of the university or college in its corporate form to determine its own goals and programs. It indicates "what of academe". Procedural autonomy refers to the power of the university or college in its corporate form to determine the means by which its goals and programs will be pursued. It relates to the "how of academe". Regarding China's context, the situation is more with Berdahl's procedural autonomy. While the goals and missions of higher education are clearly defined by the central government, how to carry them out should be the decision of universities.

Under the general strategy of the decentralisation from the central government, SEdc (MOE, 1998; 9th National Peoples Congress 1999, and 2000) has identified four core themes crucial to the decision-making and the implementation throughout the reform:

- the changing role from the central government in relation to higher education institutions;
- the implications of reforms for institutional management;
- the diversification of structure and sources of financial support and its utilisation; and
- quality improvement in higher education with particular emphasis on staffing and curriculum issues (Identification of core themes is guided by SEdc's verification of the issues).
Five main issues based on these themes, including both internal and external reforms, will be considered one by one: together they reflect the focus of marketisation reform of the state higher education system in China particularly since mid 1996, which has been to develop a modern, competitive and market driven higher education system capable of educating students to meet the requirements of the emerging market economy in China (MOE, 1998; 9th National Peoples Congress 1999, and 2000). The various issues are as follows:

- The old system in which the state undertook the establishment of all HEIs has been broken, and a new system in which the government takes main responsibility with active participation of society and individuals has been taking shape. The development of HEIs financed and run by social and private forces are fully encouraged and supported, so that the government is no longer the only provider for education delivery.

- The relationship among universities, government and society has been gradually smoothed out by various ways such as joint establishment, adjustment, cooperation and merger. A two-level education provision system has taken shape in which the central and local governments will take different responsibilities to provide education with the former responsible for the overall planning and management. At the same time, the government streamlined the administration and delegated more power to the HEIs, expanding their autonomy of providing education for the society through adjustment of existing law and orders regarding the provision of education services. With enterprises groups and research institutes taking part in higher education provision, the relationship between HEIs and the society is strengthened and the over capacity of schooling of HEIs is increased.

- The old system in which the funding of higher education depended only on the government has been changed and a new system capable of financing from diverse channels has been gradually established and perfected.

- A new system of fee charging has taken shape. Sticking to the ideology that all citizens enjoy the legally equal right of receiving higher education, the new system implements the policy that all the consumers of education services, that is the students, pay reasonable contribution to their own higher education.
A scholarship system for excellent students has been brought into common practice, as well as a loan, stipend and taking part-time jobs system for students with family economic difficulties, ensuring that no students will drop out of school because of economic reasons.

The personnel and allotment system has been reformed. Working achievements are emphasised concerning the personal income allotment, which strengthens the encouragement mechanism in allotment and mobilised the enthusiasm of the teaching (Xinhua, 1999).

4.5 Summary

In conclusion, government approaches of decentralisation in China’s higher education sphere have led to a dramatic transformation in public sector management. This is especially the case when taking account of its complex and dynamic political and economic context. In the academic world, the effectiveness and accountability become two key words in current studies on higher education. Hot topics cover the issues of governance, management, funding, institutional scales and enrolment of higher education. However, accompanied with the arising of living standard, families’ high expectation on their only child, and the added commercial value on higher learning around the whole society, the demand for higher education far exceeds the current capacity of the institutions, both in its financial and in its educational functionalities (Cheng, 1998). The concern that the country’s sustainability for further and greater social and economic development relies much more on its human capital and thus the educational functionality has attracted much attention in the social and economic studies. Current researches stress the higher education’s achievements and special role in the socio-economic transformative process of such a country with the population of over 1.4 billion. This transformation is an evolutionary process of the reforms from “making use of law of value within a planning economic system” to “combination of planning economy and market adjustment” to “state controlling market and market guiding enterprises”, and to “socialist market-oriented economy” (Chen, 1999).
5 THE REFORM IN FINANCIAL SYSTEM

5.1 The Changing Structure of Financing in Public Institutions: A Multi-funding Model

Investment in education is the key in improving social productivity: the value of promoting national education development reflects not only in its contribution to economy’s stock of knowledge and productivity of its labour force, but also in universities representing a significant proportion of national income as well as an important share of public sector expenditures (Tao & Zou, 1998). For most countries, financing of higher education is always among the most essential issues considered in public policy making process. Today, the wave of the “New Public Management”, which has been sweeping across the world since 1980, calls for a more active role the individual institution plays in fiscal aspects. More attention and efforts are required to identify new strategies and approaches for fiscal management.

In China, higher education is faced with growing pressures from the shrinking of the public provisions, which are measured in low and declining per-student expenditures and seen in overcrowding, low-paid faculty, lack of academic equipment or libraries, and dilapidated physical plants. Funding allocated from the central government, during the past two decades, has been reduced from the previously almost 100% down to around half of all the revenues for universities/colleges. Specifically, in 1978, 95.9% of the total revenue of higher education institutions came from the central governmental budget, while in 1992 this figure dropped down to 81.8%. In 2002, the allocations from central and local governments only counted for 52.9% of the total revenue in public higher education institutions (Cai, 2002). Searching for wider pool of financial resources became the top agenda for higher education institutions from mid-1980s.

During the 1980s, the discussions on what should be the most appropriate approach considering the nation’s specific context, and how it could be efficiently fused into the existing systems turned into the critical issues for achieving sustainable growth.
Among these approaches, the ascendance of market orientations and solutions for non-governmental revenue has had some more profound impacts on the financial management (the funding collection and allocation) in national higher education. Despite the fact that the progress of comprehensive marketisation in public sector is still at its early stage as the competition, the distribution of information and the presence of external benefits has not been fully developed, universities and colleges are starting their attempts for a varied style of fund collections. Their steps towards a more entrepreneurial-like approach are speeded up when, in late of the 80s, the central government finally made it clear that the institutions themselves should take the responsibilities for funding collections, and the government budget would no longer be the sole provider for higher education operations.

The Decision on the Reform of the Educational System, promulgated in 1985 from the CCP, sparked the process of decentralisation in China’s higher education system. In the following years, the Central Committee of CCP and the State Council published the Program for Education Reform and Development in China, which clarified the decentralised role of the central government to only provide "the guidelines" and set up national policies to encourage the establishment of schools and institutions by wider social forces. Regarding the administration in higher education, the Program introduced a three-level hierarchy of governance: higher education management and administration is decentralised into central, provincial, and municipal level of governance with different functionalities. In provision of national higher education services, the Program states:

In light of the need of economic and social development, the State formulates plans of development of higher education, runs higher education institutions and promotes higher education in various ways. The State encourages all sectors of society, including enterprises, institutions, public organisations or groups as well as individual citizens, to run higher education institutions in accordance with law and to participate in and support the reform and development of higher education (CCP, 1993).

Breaching out of the traditional frame of governmental budget as the sole input, more approaches have been attempted in the higher education fiscal operations and gradually substituted the leading role of government in financing from 1990s.
Funding for higher education now emanates from a variety of sources, with major approaches including:

- student fees;
- central, provincial and municipal Government sources;
- fees for service training programs conducted for State Owned Enterprises;
- as above for private companies (Sino and/or foreign), and joint ventures;
- commercial activities such as university businesses and corporations, and consultancy programs.
- grants particularly from overseas Chinese but also from local Chinese;
- aid funding; and
- attraction of fee paying from overseas students (Mok, 1997).

In brief, following the dramatic decline in financial provision was the wide decentralisation of administrative functions from the central government. Higher institutions and sectors are taking increasing responsibilities of generating funding to improve their financial stability on the one hand, and are entitled with more autonomy of institutional operation and resources allocation, on the other. Confronted with the reduction of governmental investment, the overall revenue of the national higher institutions increased drastically during the 1990s, thanks to the varied financing routes. In 1998, the total income of national higher education institutions was RMB 54.5 billion (US Dollar 6.925 billion) and this figure grew to 148.8 billion (US Dollar 18.91 billion) in 2002. Details of attempts and reforms of China’s practices are discussed in the following sections. It is also noticed that the fresh financial models and the growing interaction with outside parties, meanwhile, results in the increasing demand for greater quality and efficiency on behalf of students, employers, and those who pay, as well as for greater accountability on the part of institutions and faculty (Fang, 1996).

In sum, higher education in China has experienced a gradual process from centralisation to decentralisation. Accompanied with the structural realignment, new mechanisms and approaches are introduced into fiscal management to adjust the traditional public functions to the changed economic environment. The following sections review the previous reforms in terms of fiscal management, and examine
how these policies reflect a changing priority of higher education in public policy making.

5.2 Decentralisation in Public Provisions

Before 1978, China’s central government executed an overall command over the national higher education operations, with the control covering from admission policies, curriculum and instruction, to the managerial level appointment and faculty employment. The financing and management were of no exemption from this top-down administration. Within an input-based fiscal system, funding from governmental budget used to be the primary and only one resource for all university running. The budget calculation and allocation from the central government was on the basis of a funding formula that combined enrolment figures and unit costs (Wu & Wu, 2001).

Nevertheless, in context of the growing domination of open-up reforms and market economy, the highly centralised system showed the increasing incompatibility to the development of the whole society. Although the input-based funding system may essentially compensate the institutions’ expenditure, the rigid collection and allocation mechanisms failed to provide sufficient incentives for institutions to improve the quality of their programs and to apply the funds in the most efficient way (World Bank, 1994). Universities lacked authority and motivation to manage financial resources, and were slow to respond to the needs of local economy.

Against this context, following the country-wide promotion and economic success of market ideologies and practices in 1980s, the trend of restructuring the financing and management systems stealed over the education world. To facilitate education’s role in social, political, and economic modernisation, the CCP issued a series of reform agendas in the national education system, under the title of The Decision on the Reform of the Educational System. It was seen as the foundation for the later systematic reform in national higher education. The Decision points out that:

The key to success in the reform of the higher educational system [...] is to change the management system of excessive government control over the institutions of higher learning, expand the powers of decision-making of the institutions of higher learning in school
management [...] and enable the institutions of higher learning to have the initiative and ability to meet the needs of economic and social development (CCP, 1985).

One of the major themes of this reform is the decentralisation of certain financial responsibilities to the local government, i.e. to distribute functionalities to individual provinces or even the universities themselves. The trend of financial decentralisation is in conjunction with the ideological shift from a centralised planning economy to market-driven economy. The new approach aims to delegate more authorities to institutions and local governments to develop their own goals and missions in meeting the demands of and preparing human resources for a market-driven economy (Wu & Wu, 2001). In this sense, local governments are being endowed with more responsibilities for the financing issues, and on the other hand, they could execute the direct influence over higher education institutions through the financial allocation.

However, among the major pitfalls during the process are the increasing disparities of funding and investment input in higher education institutions, which are resulted from varied financial and economic capacity among provinces. In economy, the policy of "assume the sole responsibility for profits or losses" effectively arouses people's creativity and motivation to commercial success. However, the intense and crude competition eliminates the losers and ensures the development of the winners, which gradually leads to the shape-up of monopolisation in every sector. Disparities resulted from the geographically unbalanced economic development have been enlarging day by day across the regions. Up till now, China has been divided into three economic development zones: the east coastal highly developed province, the central medium-developed provinces, and the western less developed region. The vast foreign investments and the economic, scientific, and technological advantages for the east coast areas resulted in increasing disparities between the coastal region and the inner hinterland (World Bank, 1997). In turn, the unbalanced economic development across and within the regions has been exerting some significant influence in social sector operations — economic disparities are impacting the traditional social values and equalisation. Higher education, as one of the public sectors that are closely related to each social citizen, is not immune from it. The impact of economic disparities on higher education will be further discussed in the final chapter.
5.3 Cost-sharing with Students and Other Social Sectors

5.3.1 Towards User-Charge Principles

Another important reform in fiscal operation is the universities’ openness to a diverse funding mode. Before the Decision of 1985, the appropriation for national higher education came from two levels of government, the central government and the local government: both the 36 national universities of the State Education Commission and 325 universities and colleges of the ministries are financed by the central government according to the head-counted enrolment. The other 704 provincial universities receive their funds from the Department of Finance at the local provincial level (MOE, 1985). From 1985, in spite of the fact that the central government is still playing a crucial part in funding, higher education began to be encouraged to seek alternative sources of funding rather than exclusively relying on government appropriation.

The first step in this process is the admission of fee-paying students. This has proved to be effective in bringing about a large part of extra incomes to national education sector, and thus reduce its financial reliance on the public funding. The policy of admitting a certain percent of non-public-funded students started in 1987. Together with those traditionally public-funded students, over 25,000 employer-sponsored and self-paying students were enrolled, counting about 2.5% of the total intake of students (Zheng, 1997). Self-paying students were admitted on a lower entrance examination score than that was required for regular admitted students, but had to pay full tuition fees to cover all instruction costs. Other alternative sources of funding included the remuneration from contracted research, loans from the World Bank, and donations from enterprises and individuals at home and overseas. Institutional revenue generated from fee charges increased from RMB 64 million (US Dollar 8.13 million) in 1978 to 692 million (US Dollar 87.92 million) in 1987.

The situation of public provision in the country’s higher education was exacerbated by a severe inflation in 1988. Universities experienced a period of serious deficits. Allocations from the government could only cover two-thirds of the operating expenses (Ding, 2001). Income from other sources became an indispensable supplementary source to overcome financial crisis. In some universities, income from alternative sources increased to 50% of the total budget (Zheng, 1997). From 1989,
most of the universities and colleges started to charge a tuition fee of RMB 200 (US Dollar 25.4) per academic year to newly enrolled students, which accounted for about 8.6% of the unit recurrent cost (Min, 1991).

However, before 1993, the proportion of the income from tuition fee charges was still very low compared to the funding from the central government. The development of marketisation in China's economy after 1992 has provided impetus to a significant restructure in higher education system. In recent years, the tuition fee charges have become a major part of university revenue. Compared with the proportion of less than 5% counted from students' fees in university revenue resources in early years of the reform, this figured rose to 13.4% in 1998, and by the end of 2001, the proportion of tuition fees in the overall high education revenue has been increased to 24.7% (Cai, 2002).

The driving forces
Before the higher education reforms in 1985, the state government was the only source for funding the higher education. Students, once admitted to the national higher education (with less than 5% of admission rate), were not charged, or charged very low tuition fees for their receiving higher education in national universities and colleges. Moreover, college students could enjoy the benefits from free residency, a stipend to certain allowances for food and other living expenses, which accounted for about 20% of the recurrent expenditure of academic institutions (Xiong, 2001).

The first driving force for cost sharing with students as services consumers is the changed role of the central government played in higher education fiscal system. In 1985, the central government began to take some steps, gradually reducing the financial subsidies from government to higher institutions and devolving financial responsibilities to higher education institutions and college students. In most cases, this expense came from the sponsorship of students' families.

The growing public and private demand for higher education counts as another rationale for shifting the higher education costs to students. Concurrent with the internal financial constraints and the decline in available public revenue, this trend is also recognised as a major engine for national economic development and provider of
individual opportunity and growth (Wu & Wu, 2001). The traditional high student subsidies and low-level cost recovery rate hampered the further expansion of higher education capacities to meet with the fast-growing economic and social requirement for human resources. With only 5% of the college-age population enrolled in higher education institutions in 1987 (World Bank, 1994), the participation rate in China’s higher education was very low compared to world-wide levels.

Since 1987, by introducing the new college admission policy for partially self-sponsored and enterprise-sponsored students, the central authorities started to encourage higher institutions to seek their own funding resources through the tuition fee charges. The new sharing policy leads to an average 9% unit cost barely from student’s tuition fee in 1989 (Fang & Fan, 2001). And for those early self-sponsored students, the fees have been charged ten times higher than the government funded students to fully cover their own instructional costs. The water-shed is the government set bottom line for every year’s National College Entrance Exams. The gradual introduction of an increased range of fees for training programs indicates the emergence of a user-pay view of education. This is in the same trend followed by many other western countries. Funding of higher education was no long from government budget only, but began to be shifted to and shared with students.

The implementation

Early in the 1980s, the admissions of self-sponsored students were regarded as an extra category that was not included in the formal state plan (Cheng, 1996). Between 1989 and 1993, in spite of the growth in the proportion of self-sponsored students, the government funded students who paid very low tuition fees, still occupied the major population of college students throughout the nation.

With the endorsement of the socialist market economy from the CCP’s 14th Congress in 1992, the situation changed significantly. The State Education Commission officially approved institutions admission up to 25% students that were self-sponsored in that year (Wei & Zhang, 1995). In the following years, by introducing a “fee-paying” policy in higher education sphere, the CCP gradually shifted the financial responsibilities from the central government to individuals and families. In 1993, thirty institutions were selected as experimental samples for the scheme known as
“merging the rails”. Under this policy, students who were qualified for the requirement of the national university entrance examination were directly admitted as what had been conducted before, while those who just failed to reach the required scores could enter the higher education institutions by paying a relatively higher tuition fee. In 1994, more institutions joined the scheme, and the fee-charging principle was thus legitimatised (Cheng, 1996). In summing up the 9th five-year national plan (1996-2000) for China’s educational development, the MOE stated:

For the reform on student recruitment, fees-charging and graduates employment, during the 9th 5-Year Plan, the two tracks of government-fund student and self-fund students in HEIs and secondary specialised schools should be integrated so all the students should pay fees for education. At the same time, scholarships, student loans, part-time jobs provision, and the remission of tuitions and stipends for poor students should be further improved. With the development of reforms on personnel system and recruitment system, the reform on graduate employment will be further promoted. In the current stage and near future, the employment system will mainly involve meetings between employers and students with both sides having the freedom for final choice (MOE, 1995, p12).

Up till now, the system has merged all types of students, including those who are financed by the state, enterprises, and their families (the different “rails”), into a single category (be merged into one line). This means that all students need to pay as high tuition fees as self-sponsored students used to pay, while the funding resources for individuals can be varied from the state, enterprises, the family or the student loan system. The normal higher education tuition fee in 1995 was set between RMB 1,300 (US Dollar 165.2) and 2,700 (US Dollar 343.1) per academic year. To cover the operation costs for logistics departments, some universities also began to charge for accommodation in addition to tuition fees. The policy was to target 20% of the cost to be recovered from charging tuition fees by 1997 (World Bank, 1997). The trend for raising fees and charges in higher education has been lasting after the turn of the new century. By the year of 2005, the level of tuition fees in public institutions higher education floats in the range of RMB3,500 to 5000 (Xinhua news). Table 5-1 illustrates the level of costs for higher education in different regions of the country.
Table 5-1 Higher education tuition fees in major regions of P.R. China, 2005.

<table>
<thead>
<tr>
<th>Province</th>
<th>Higher Education Institutions</th>
<th>Tuition Fees (RMB)</th>
<th>Other Expenditures (Accommodation) (RMB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>Peking University</td>
<td>5300/year</td>
<td>1020/year</td>
</tr>
<tr>
<td></td>
<td>Qinghua University</td>
<td>5000/year, 6000/year (language studies)</td>
<td>900/year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average Standard for the Province: 4200 - 5500/year</td>
</tr>
<tr>
<td>Shanghai</td>
<td>Fudan University</td>
<td>6500/year</td>
<td>1200 -1600/year</td>
</tr>
<tr>
<td></td>
<td>East China University of Science and</td>
<td>5000/year, 10000/year (Art &amp; Design), 5500/year (Computer Science)</td>
<td>1200 -1500/year</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
<td>Average Standard for the Province: 5000/year</td>
</tr>
<tr>
<td></td>
<td>Nanjing University</td>
<td>4600/year</td>
<td>1200/year</td>
</tr>
<tr>
<td></td>
<td>South East University</td>
<td>4600/year, 6800/year (Art &amp; Design)</td>
<td>1000 -1200/year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average Standard for the Province: 4000 - 4600/year</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>Zhejiang University</td>
<td>4800/year, 7000 (Art &amp; Design), 4000/year (Agriculture)</td>
<td>1200/year</td>
</tr>
<tr>
<td></td>
<td>Zhejiang Technological University</td>
<td>4400/year, 17000/year (Civil Engineering)</td>
<td>1200/year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average Standard for the Province: 4000 - 4800/year</td>
</tr>
<tr>
<td>Tianjin</td>
<td>Tianjin University</td>
<td>4200/year, 5000/year (Engineering), 8000/year (Art &amp; Design)</td>
<td>1000/year</td>
</tr>
<tr>
<td></td>
<td>Tianjin University of Science &amp;</td>
<td>3200/year, 8000/year (Art &amp; Design)</td>
<td>800 -1000/year</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
<td></td>
<td>Average Standard for the Province: 4200 - 5000/year</td>
</tr>
</tbody>
</table>

81
### Henan
- Zhengzhou University: 3400/year, 3700/year (Computer Science), 4500/year (Medical Science), 5700 (Art & Design)  
- Henan University: Same as above
  - Average Standard for the Province: 2700 - 3100/year

### Liaoning
- North East University: 4600 - 5200/year  
- Liaoning University: 3880 - 5200/year  
- Dongbei University of Finance and Economics: 4500 - 5200/year
  - Average Standard for the Province: 4200 - 5000/year

### Guangdong
- Zhongshan University: 4560/year (Social Science), 5160/year, 8000/year (Software Engineering)
- Shantou University: 4560/year (Social Science), 5160/year, 8000/year (Software Engineering)
  - Average Standard for the Province: 4560 - 5200/year

### Other Provinces


Before the 1990’s, the number of fee-paying students was only a very tiny group, and it has been increasing dramatically after the government’s adoption of the “user charge” principle. A study conducted by the World Bank (2004) reveals some similar findings on the government’s transition of financial responsibilities. Against this background, it is not surprising that in the past few years, commissioned (Daipel),
self-supporting and tele-education based university and correspondence university students have taken a bigger share of the total student population in China (Pepper, 1995; Hayhoe, 1996). The enrolment of self-supporting students rose from 829 in 1987 to 13,438 in 1994 (Cheng, 1996). The percentage of fee-paying students in the University increased from 1.9% in 1991 to 14.3% in 1993, showing a jump of “self financing” students (Xu, 1995). Scholars also suggest that in some areas self-supporting students even constitute half of the student population (Xu, 1995).

China is not the only country that introduces the student fee charging policy; in effect, the route of financing higher education via student contribution has been practiced in Australia since 1989, with its establishment of the Higher Education Contribution Scheme (HECS). Table 5-2 shows the historical development of Australian higher education tuition fee policies.

Table 5-2 Development of Australian higher education tuition fee policies.

<table>
<thead>
<tr>
<th>Year</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854</td>
<td>Inception of Australian higher education sector, foundation of University of Sydney.</td>
</tr>
<tr>
<td>1854 - 1974</td>
<td>Tuition prices are charged to students.</td>
</tr>
<tr>
<td>1974 - 1985</td>
<td>Abolishment of tuition fees, Australian higher education is funded virtually exclusively from federal government sources.</td>
</tr>
<tr>
<td>1998</td>
<td>Institutions are allowed to admit (a limited number of) students on a cost-covering basis.</td>
</tr>
</tbody>
</table>

Under the HECS system, the national Ministry of Education determines the level of higher education charging; students have to contribute proportion of costs of the training program, either by paying up-front or by taking out a loan and defer repayment through the tax mechanism until after graduation (Raines & Leathers, 2003). The major objective was to raise the revenues of higher education institutions, without erecting financial barriers to participation in higher education.
Originally, the proportion for tuition fee charges in Australia was set to recover 20% of the costs of an average university program, which was Australian Dollar 1,800 (US Dollar 1408.1) in 1989. The level of HECS started to be indexed to the cost of living and as a result rose to Australian Dollar 2,450 (US Dollar 1916.6) in 1996 (Raines & Leathers, 2003). As the HECS is fundamentally a cost recovery system, the fees charged differ under various training programs, and are categorised into three tariff bands: low, middle, and high. Considerations from the central government are mainly focused on the costs of each training program and the expected future earnings for the graduates.

Similar changes also occur in other countries. In U.S.A., even the public institutions (except the two-year community colleges who are not allowed to charge any fees) are free in pricing for the fees and costs for education services. In the U.K. and many other European countries, the level of tuition fee charges for higher education has risen gradually in the recent decade. In developing countries, like Indian, the majority of the professional courses are only offered in private institutions that depend on fee incomes from the students; only small numbers of higher education institutions that are of high quality are government-funded and not subject to financial constrains.

However, it is worth mentioning that in China, the increasing financial burden to average families resulted from the rise of tuition fees becomes a notable issue in recent years. The incessantly growing charges and the lack of social security and welfare systems have even intensified this situation. In 2005/6, the ratio between the average tuition fees and the GDP per capita in U.S.A. is 15%, while in China, this ratio is as high as 50%. Most Chinese families have to allocate some unreasonable proportion of their incomes for receiving a higher education. In order to help relieve the burden, especially to the families that cannot afford such high tuition fees, various mechanisms have been proposed, such as a wide range of financing assistance and scholarship measures. However, the establishment of relevant social security systems is still in its early stage and the process proves to be slow for the nation. The issue will be further developed in the final analysis.
5.3.2 University Enterprises

The diversified approach of higher education fiscal operations terminates the institutions' long-term excessive dependence on government financing and their vulnerability to budget fluctuations, and makes institutions more responsive to market signals and more flexible in operational approaches (Bok, 2003). In addition to the cost-sharing with those who consume the education services, other approaches are also introduced and practiced as the major parts in financing the national higher education.

Recognising the role the knowledge and technology plays in improving the country’s productivity and competitiveness, the national government and higher institutions have tried different approaches to realise the commercial value of higher education services. In recent years, more efforts have been made from central authorities to set up laws and orders in the licensing of research findings and in assisting the practices of the Intellectual Property Right (IPR). Today, universities’ relationships with the industry become more and more important. The wide cooperation in contract researches and consultancy services has generated increasing revenues for higher institutions. This entrepreneurship-style management for public institutions is characterised with a multidimensional concept or a process of risk taking, innovativeness, and proactiveness (Fang, 1996). It is central to the value-creation process by which entrepreneurial profit can be obtained across functions and at all levels in the firm, provided that a structure is in place to allow rights and responsibilities to match and employees to receive the rewards that accrue from their activities (Covin & Slevin, 1991; Morris & Paul, 1987). The concept requires an organisational culture, which functions effectively in promoting the values of excellence in innovation and services in its strategic management.

The experiences of U.S.A. provide a good example of the government practices of transferring the knowledge and technology between institutions and the commercial sectors. In history, the U.S.A. institutions have long tradition in exercising their social and commercial functions in agricultural and industrial practices. Early in 1862, the later called land-grant colleges were built up with a granted sizeable piece of federal land in order to encourage the universities’ dedication and contribution into agriculture and mechanics (the Morrill Act). The efforts had also been made from the
government to link the academic researchers to the farmers, supporting their researches for agricultural experiment stations (1887), and offering federal funding of state cooperative extension services (1914). Later, the calls for enlarging the benefits of academic research became aloud nationwide in the 1980s and resulted in a number of policy initiatives during the period. Table 5-3 illustrates the development of this process.

Table 5-3 the Principal US federal policy legislation toward university-industry technology transfer.

<table>
<thead>
<tr>
<th>Year</th>
<th>Legislation</th>
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</thead>
<tbody>
<tr>
<td>1975</td>
<td><em>Industry-University Cooperative Research Centers program of the National Science Foundation</em>: partial funding by the NSF of university research programs enlisting industrial firms as participants in collaborative research activities.</td>
</tr>
<tr>
<td>1980</td>
<td><em>Bayh-Dole University and Small Business Patent Act</em>: permits universities, small companies and non-profit organisations to obtain the property rights to innovations resulting from federally-funded research. In 1984 certain restrictions regarding the kinds of inventions and the right to assign property rights to other parties were removed.</td>
</tr>
<tr>
<td>1984</td>
<td><em>National Cooperative Research Act</em>: establishes the “rule of reason” standard for determining anti-trust prosecution for collaborative R&amp;D efforts of firms, universities and federal laboratories. This means that collaborations are not automatically forbidden, but only if there is an “unreasonable” restraint of competition.</td>
</tr>
</tbody>
</table>


Among these, the *Bayh-Dole Act* plays as the most important one. According to it, universities are required to set up technology licensing offices, which effectively coordinate in the process of patent licensing for the college researches and the distribution of the licensing revenues among the university, the individual inventors, and the technology transfer offices. Universities are encouraged to make profits directly from the patent rights for the academic researches, and the industrial application of the researches are facilitated throughout the close interactions between academic and commercial sectors. During the 1980s, other organisations, such as the
Industry-University Cooperative Research Centres (IUCRCs), the Engineering Research Centres (ERCs) and the Science and Technology Centres (STCs) programs were initiated and established to foster the research that is of strategic importance to industries in some special area. Figure 5-1 illustrates the growth of university patents since 1985.

**Figure 5-1 Growth of university patents, U.S.A.**


Interactions between universities and private firms have gained importance over the years in U.S.A., as is evidenced by a number of R&D-statistics. Since 1990, industry’s share/sponsorship on academic researches, both basic and applied, has increased steadily and almost half of the private expenditures on academic R&D researches went to university-industry R&D centres. Increasing attention has also been attached to commercial application of academic research. The studies from Cohen *et al.* (1998) revealed that during the two decades since 1980, approximately 1056 university-industry R&D centres have been established nationwide, accumulatively spending around US Dollar 2.9 billion on R&D. The figure amounted to almost one-fifth of all the academic R&D expenditures on science and engineering in the U.S.A. About half of the private expenditures on academic R&D went to university-industry R&D centres.

The closer interaction between the universities and the industry enhances the social value of academic researches and facilitates the transfer of knowledge from institutions to the market. However, it also arises the fears among the socialists to the distortion of the research agenda toward applied research, from which the benefits
may be privately appropriable, have been expressed (Bozemian, 2000). Despite the debates in the academic field, the wide commercialisation of academic research and outcomes has become the global trend in the higher education development.

Due to the historical and political reasons, China’s practices of commercialising the academic researches only started in early 80s. In 1984, a circular issued jointly by the State Education Commission, the Ministry of Finance and the State Planning Commission declared that:

the promotion of the wide cooperation and communication between higher education and enterprises is based on the consideration to expand the potential capacity of higher education institution and create new sources of funding, to strengthen the relation and co-operation between institutions and the employers, and to construct channels whereby institutions supply specialised manpower to non-state and individual enterprises (Cheng, 1996).

Under this guideline, the national higher educational institutions started the attempts to introduce the commercial ideologies in higher education management (Xu, 1995). It is the first time that the institution-operated enterprises has been officially approved and encouraged by the government. The commercial values and profit from educational services and products. Article 58, in the Law of Education stipulates that:

The state adopts preferential policies to encourage and facilitate schools [and institutions] to develop work-study programmes and social services and to develop institution-operated enterprises, with the provision that such activities do not affect normal education training (Zhongguo jiaoyu bao, 1995, March 22).

Gao Ling, Secretary of the Information Management Centre of Northwest University (Xida), who is in charge of the project in developing Xida’s real estate, declared that:

Northwest University has three major advantages — talent, science and technology geography. Combined these three can produce substantial economic and social benefits. By pushing down the south wall to open up to the market, and by building this area into a cultural and commercial market street majoring in new and high technologies and supported by third-estate industries, we will be beautifying the environment as well as opening up a window for Xida from which it will be able to address the main battlefields of economic construction, introduce its science and technology and industries to the world, build closer relations with society, and speed up the transformation of science and technology into productive forces.
Xida is not the only case of doing business and commerce to generate extra fund to support teaching and research activities. Xi'an Jiaotong University, another key university in Shanxi province, has also followed this track. Many faculties have established a close link with the industrial sector, playing either a consultant or managerial role in some enterprises (Jiaotong University Review, 2005). With the additional income gained from the venture in the “commercial sea”, educational institutions can possibly allocate more money to raise the living standard of teachers and improve teaching and research facilities (China News Analysis, 15 October, 1993; Cheng, 1996). By doing successfully with businesses operations, these enterprises across the country nearly doubled their profit (up to RMB 2 billion) in 1990 when comparing with that of 1988. In addition, up to the early of the 21st Century, among 50 higher educational institutions, there have been 238 companies, 144 factories, 43 three-tier enterprises (sanzi qiyi), diverting about 40% of the profit from these enterprises to support scholastic activities and also provide the place for students to have interaction with the society (MOE, 2004).

5.3.3 Cooperation with Business and Industries

Apart from setting up independent-run enterprises, higher education institutions also build up closer links with the outside businesses and industries over the past ten years. The cooperation has been carried out through the following approaches:

- the development of courses and programs for industry sectors or particular businesses or industries;
- the development of closer research links with industries and businesses;
- the provision of social services to attract the public donation, conducts applied science and transfers research findings to industries and government to attract state and local governments’ funding, industries’ financial supports and the National Education Committee funding; and
- the undertaking of consulting activities for businesses and industry.

Specific courses and programs for local industry sectors are launched and developed in higher education institutions to meet the demand of human capital market. The traditional formal higher education institutions began to offer the courses designed for the joint ventures and private companies, as well as State Owned Enterprises to train
local workers in relevant issues and fields, and attract other students who wish to work in these industry sectors (Hawkins et al., 1999). Higher education has made an effective combination of the research on important scientific issues with the training of personnel with high level specialised knowledge and professional skill as demanded by the country’s socialist modernisation. It strives not only towards the simultaneous improvements in teaching and research work, but also the promotion of interaction among various subjects.

Another characteristic of today’s national education is the prosperous development of the research centres designed to meet the industry and market research demands. Researches conducted present more links with businesses and the industry. An example of this is Southeast University (SU) in Nanjing which has established:

Research programs and teams with bodies such as Nanjing Library, Nanjing Chemical Engineering University, Wuxi Huanjin Microelectronics Company, Jinling Petrochemical Company, Yangtze Petrochemical Company, Panda Electronics and Nanjing Automotive Works. In addition the university has established the Centre for Integrated Engineering which undertakes research related to this industry sector (Southeast university, 1999).

During this process, the development of applied sciences has gained a special attention, as considered major contributor to the country’s economic construction and scientific development, and to the enhancement of the competitiveness of the university to gain both government and public supports in terms of financial resources. Some universities such as Shanghai University, Tsinghua University, and Peking University have each over 50 such research institutes, and other institutions such as Wuxi University of Light Industry have developed commercial businesses through their research institutes (China Daily, 1999).

Finally some universities like Xi’an University of Technology have also established consulting arms to provide direct assistance to business and industry — the university does this through its National centre for Industrial Science and Technology Management Development which also conducts its course and associated programs including an MBA and executive short courses (XUT, 2000). This activity, as with the other activities discussed in this section, also helps to raise income to the university and helps to augment teachers’ salaries.
5.3.4 Other Cost Recovery Measures

As the public funding from the central government budget have declined significantly since 1980, donations and endowments from alumni and private industry become a new financial approach for higher institutions. This type of contributions may have diverse forms, including funding for the construction of new facilities, donations of scientific equipment, books and art, provision of scholarships for students with financial problems, and corporate funding for research and development. In 1994, donations from private sectors contributed 1.6% of the total income compared with zero in 1978. For example, in Shanghai, the Zhijiang Group has endowed RMB 100 million (US Dollar 12.71 million) to East-China Normal University. Domestic and overseas entrepreneurs have established various fellowships and scholarships. However, the beneficiaries are usually prestigious universities. Small provincial universities in the interior are rarely the recipients of donations.

The issue of cost-effectiveness is another measure for tackling the problem of inadequate resource supplied to higher education. These policies include: Raising student/teacher ratios, reducing waste and redundancy, and sharing resources (Clark & Neave, 1992). Furthermore, university/college merging is another prominent characteristic in recent years. Since 1992, 159 institutions have been merged into 74 universities and colleges. The objective behind this is to increase institutional efficiency and enlarge capacity of enrolment. Institutions were selected to be combined so that redundancy in learning and teaching resources can be reduced. However, being large in scale does not mean being efficient (Liu & Liang, 1999). Super-size institutions may not improve teaching and learning quality and increase operation efficiency. Hence, merging institutions need the overall consideration between size and efficiency.

5.4 Summary

In summary, China’s higher education administrative and financing reform has been attempting to distribute the financial responsibility to lower levels of government and institutions. Along with obtaining more autonomy, national higher institutions are taking more responsibilities for any success or failure in fiscal management. This
chapter depicts the process of the 1980 and 90s fiscal reform in China’s higher education system: the diverse channels for funding collections are explored and introduced into daily management in the context that the revenue of universities and colleges can be increased despite the reduction in the budget from the central government. However, at the same time, the reform has also raised some new issues for policymakers and academic leaders: the increasing financial burdens for social citizens to receive the higher education has become increasing unaffordable for average families and the disparity in financial resources and development of higher education institutions are being enlarged among regions. Issues on the further development and adjustment will be discussed and finalised in conclusion.
6 CHINA’S HIGHER EDUCATION CURRICULUM REFORM

6.1 Introduction: China’s Higher Education Curriculum under Reform

The open-door policy and economic reform from 1978 has turned over a new page for the contemporary China. It gradually shifts the Party’s leading ideology from political movement to economic reconstruction and development. However, accompanying with over a decade of economic success, the traditional over-reliance on labour and resources and the far lagging scientific and technological conditions are seen to hinder the further development. Education becomes the key to underpin the sustainable development for the 21st Century. No longer seen as a means for proletarian politics, the higher education, by way of professional training and technological innovation, began to gear itself towards serving for national economic construction and modernisation.

In practice, the intrinsic dimension of knowledge structure set up in the early years of national construction has showed increasing inadaptability to the changed socio-economic environment. After years of socio-economic transition, the central educational authorities still held tightly over the content and curriculum design, the university leaving qualifications, and textbooks in higher education. Argument has become increasingly strong since 1990s over the existing curriculum structure for higher learning. The primary issue in this debate focuses on the philosophical foundation of higher education curriculum, and its structure and sequence throughout the whole education process. Advocates assert a new pedagogical model for today’s higher education: instead of being endowed with strong political responsibility, the new model sparkplugs a more philosophical and moral inquiry for each individual social citizen, which is to produce a “vision of the good life, a life of responsible citizenship and human decency” (Fang, 1996). The emphasis on individual development has been first over the political or collective will as the principal objective for education in a long run.
Increasing involvement and influence are from external constituencies in educational, especially the higher education world, and their roles are becoming more as a primary driving forces in this reform. The movement urges colleges to devote more attention to the common learning for all students. The curriculum design is suggested to be a device for organising material so that the student would “know the literature, philosophy, institutions and art of their own and other cultures”. Based on this, coherent sequences of courses are provided, and students are beginning to be assessed on goals. Besides, social and economic values are also attached much more attention in curriculum design; programmes are taking with more concerns of customer and market demand.

However, current researches on curriculum restructuring have been still lingering on the “occasional, coincidental, sporadic or episodic” (Chen, 1998) state without comprehensive and systematic evaluation. Moreover, research on this field has been mainly carried out on the basis of sociology, anthropology or political science, rather than on the basis of educational science (Chen, 1998).

6.2 Background Review: Curriculum Construction and Higher Education Policy Making

The following section investigates the curriculum construction of higher education, from the perspective of its original concept, its policy making process and its interrelationship with the outside socio-economic context.

6.2.1 Definition of Curriculum

The idea of curriculum derives from the running tracks of Greece, where it was, literally, a course. The word of “curriculum” was a racing chariot, and the currere was to run. Kelly (1999, p10) once took up John Kerr’s definition of curriculum as:

All the learning which is planned and guided by the school, whether it is carried on in groups or individually, inside or outside the school (Kelly, 1999, p10).

This gives a more specific picture of the concept for curriculum, which could be a very useful start for the further studies.
Kerr’s definition of curriculum suggests that learning is deliberately planned and guided with a specified aim and approach. It represents a rational approach to curriculum construction where the curriculum is carefully planned and organised prior to classroom engagement. In the light of Aristotle’s influential categorisation of knowledge, Kelly (1999) suggests a practice process related to curriculum theory in three disciplines: the theoretical, the productive and the practical. These three disciplines and their application into the practical process of curriculum are shown as follows:

- as the “syllabus”: it represents the body of knowledge that is being transmitted;
- as the “process”: the practical deliberation of transmission;
- as the technical concerns of the outcome or product model mirror elements of Aristotle’s characterisation of the productive.

It is necessary to point out that this approach treats the curriculum construction and changes as internal to higher education: it does not consider the influence of groups, associations and organisations that are external to the academy, nor display the existence of the interest of those scholarly and professional associations other than the advancement of knowledge.
6.2.2 Higher Education Policy Making System in Curriculum Design and Construction

Public policy making has long been recognised as a process of the interplay between various forces, interests or actors. Representing a typology of the actors in this process, the model of “the triangle of coordination” distinguishes the relationship between the state authority, the market, and the academic oligarchy (Goedegebuure, et al., 1993). Different social factors and interest groups, under certain mechanisms of coordination, push and pull the system. Such coordination, as Goedegebuure has suggested, is determined by certain form of interaction amongst the groups, which may vary against differential social and political state of the time. In this context, to analyse and understand the competitive but reliant relationship among these forces is to be central to the research on higher education policy making process in curriculum design and innovation.

The government steering model

This model is the extension of Neave and Van Vught’s (1991) idea of state control to the higher education administration. The theory emphasises the governmental influences on the decision-making process. Government regulation, defined by Neave and Van Vught, is:

the efforts of government to steer the decisions and actions of specific societal actors according to the objectives the government has set and by using instruments the government has as its disposal (Van Vught, 1989).

Regarding the design and construction of higher education curriculum system, Van Vught (1989) suggests three aspects that centre on the influence of government regulation on decision-making:

- the regulation of structures at the system level, which has strong and long-term impact on the decision-making processes regarding curriculum;
- financial regulation at the institutional level, including targeted control of institutional funding, which influences the way in which program or discipline innovations can be made; and
- the regulation of curriculum itself.
Upholding the tight control over universities and colleges, the central government, in this model, considers the higher education as an instrument for reaching its political, economic or social goals. Being accountable to political authorities, the role of higher education is to implement whatever political objectives are on the higher education policy agenda.

The institutional steering model
The central government and its political or economic aims are not the only force in steering the development of a country’s higher education system in this scenario. Universities and colleges have special responsibilities to protect academic values and traditions against the whims of political regimes, shifts in conditions, and short term interests of different force groups. Under a shared consensus of universities as elite institutions with non-interference from other social forces, higher education upholds its traditions and its social-economic and cultural role, to protect academic freedom, and to secure the independence in pursuit and transfer of knowledge (Fang, 1996).

The cooperation model
Challenging the view of either the central government or the higher education institutions as a unitary actor with the monopoly over power and control, this model pictures a polyphyletic framework that involves several competing and legitimate centres of the authority and controls with respect of higher education. It indicates different interest groups as stakeholders of higher education and suggests that the decision making in higher education reflects the constellation of aspirations from different groups. Those groups are identified as including the student unions, the staff unions, the professional associations, the industry, and the regional authorities.

The market steering model
Compared with the forms discussed above, this approach lays much more weight on the effect of market forces in steering and shaping up either the individual or social activities, and at the same time, minimises the role of the political and administrative powers played in social innovation. Along with the worldwide wave of new management ideology for public sector operations, the voice of market-orientation becomes increasingly loud around academia. The reform calls for a more self-regulated style in institutional management and asserts a so-called “institutional
autonomy", and free approach for individual institutions to implement educational change.

The decision making process in curriculum innovation can be affected by different social factors. The initiation of a curriculum change may vary from the government, the higher education institutions, or the market forces. Especially in wake of today's promotion of marketisation in economic world, the market forces have shown an increasing impact on decision making in curriculum reform.

6.2.3 Other Factors Affecting Curriculum Construction

Human society is mainly a combination of politics, economics and culture, which shapes and is often reflected in individual activities and socio-economic systems. Along with the development of studies in academia, curriculum is increasingly recognised as a result of social activities. It is suggested to be designed for both deliberate and emerging human purposes, which is avowedly and manifestly a social construction (Doll, 1993). The interaction of higher education curriculum with the external political, economic, social, and cultural forces has been attracting growing interests in educational studies. Pan Maoyuan, the Honorary Director-general of the Professional Committee of Higher Education who is widely regarded as the leading scholar in China's higher education innovation, develops his studies on the inter-relationship between education and society against China's background. He suggests education adapt itself to the broader socio-economic development and demand. By stating “to be adapted”, he refers it to two levels of meanings, which are “to be constrained” and “to serve” (Pan, 1990). Apart from serving for the social objectives, a country's education system is also affected and constrained by several other forces. Those factors, considered influence the education development, directly or indirectly, are close related to the level of a country's productivity and development of science and technology, the political system and cultural tradition (Pan, 1990). Therefore, the study on China's curriculum innovation, a major element in higher education reforms, should be analysed and interpreted against the views of its historical, social and philosophical background.
6.3 The First Higher Education Curriculum Reconstruction

After 1949

The curriculum design and reconstruction, in the early years of the PRC, was subject to the contradiction between the desire of the Communist leadership for economic modernisation and the reluctance to abandon the Confucian pattern for political order (Chai, 1997). Higher education development was highly restricted to the social, political and philosophical context. Centralisation in policy making and over-specialisation of disciplines are the key features for the curriculum system.

6.3.1 Centralisation of the Curriculum Policy-making

Directed to serve for the early years of socio-economic construction, the newly built polytechnic institutions were, administratively, under the tight control of the national Ministry of Education (MOE). Detailed teaching plans and course outlines for each specialisation were set by the central Ministry at the national level, and the unified curriculum and assessment system were believed to be effective in ensuring and promoting the consistence of the high academic standards implemented throughout the whole system. In accordance, neither the universities nor students had got the control over the content, the materials, or the way of the instruction.

In addition to the curriculum design itself, there was a rigid top-down selecting and assignment system to ensure the absolute control over personnel management from the central government. The nation-wide unified university entrance examination system, the unified national job assignment system, and the stipend and free tuition system for undergraduates and graduates, in the early years’ construction of the new system, ensured that the higher education system produced the specialised personnel and that they were allocated to the right position for the nation’s industrial and agricultural reconstruction (Chai, 1997).

The dominant position of the central education bureau in national higher education operations walked to its end after the break-down of the Sino-Soviet relationship in the early 60s. Except for around 30 comprehensive, polytechnic, and teachers universities were still directly administrated by the MOE, over 200 higher institutions were assigned to the relevant central or local ministries. Ministries involved included
metallurgy, machine-building, light industry, agriculture and forestry, and public health, with all responsible for the day-to-day based administration on operation, financing, and student selection and graduate job allocation.

Despite the 1960s' decentralisation of institutions to related ministries, there had been little change in the highly centralised style of management. The tight control from central authorities was still believed to be essential in promoting the unity and efficiency of the academic standards across the nation. Rather than diminished, the control from the top was even enhanced through Law and Orders. The Decision on Unifying Management in the Higher Education System issued by the State Council in May 1963 entitled a legal sanction for MOE with an exclusive authority over decision making on higher education issues to maintain the consistent academic standards. In light of the demands for agricultural and industrial construction defined in the Fifth-Year Plan of national socio-economic development from 1953, the MOE, coordinated with all related ministries, decided on a new set of system, which controlled the setting of curriculum structure, the enrolment quota for each specialisation, the assignment policies for graduates, as well as the appointment of the leadership of all higher institutions and regulated the staff recruitment and promotion policies.

The structure and organisation of higher education activities showed an obvious influence and control from the central government and its purpose of implementing the Party's educational policy in experts training for Socialist construction. Teaching and learning were the primary activities in higher education institutions; all the other research or creative functions of higher education were strictly limited to the purely academic objective, which largely stood aloof from the practical and innovative functions. These were defined, therefore, not in purpose of creativity and practical problem solving, but in forms of the fixed disciplines and narrowly defined specialisations for which authoritative canons of true knowledge could be established (Chen, 1999). As Min (1999) sums up, there was always a tendency of an absolute political control over knowledge, which was highly attractive to the China's leadership.
The uncritical borrowing from the Soviet model pushed China's higher education toward centralisation and authoritarianism, which was in tune with the political climate of the new country. The features of such a system were much similar to the government steering model of policy making discussed before. In a newly founded regime of 1950s' China, higher education only played as an instrument for certain political intention, which was to train higher level personnel as effectively as possible for the service in all sectors of the new Socialist state — the political, economic, cultural and national constructions (Hu & Seifman, 1950). The interaction was accordingly hierarchically determined, and decision-making was centralised and "top down", while steering took place by hierarchy (Cheng, 1998).

6.3.2 The Construction of Curriculum System

Like other social sectors before 1949, China's higher education system suffered from haphazard geographical distribution of institutions, poor performance in administration, uneven qualities, multifarious and disorderly specialties, and disproportionate higher education at various levels (Xue & Shen, 1997). Under this context, the reconstruction, during the early ages of the new leadership, targeted to adapt higher education to serve for the urgent demands of industrial and agricultural development. In 1952, the MOE issued the draft to guide the national higher education reconstruction. To comply with the country's socio-economic rebuild and development, the reconstruction was carried out in order of importance and urgency. Efforts were made to abolish the long term over-weighted development in areas like law, political science and humanities, which were strongly favoured due to persisting values from the traditional civil service system, and the considerable geographical imbalances between coastal and central/hinterland regions (Xue & Shen, 1997).

Paralleled with the abolition of the old systems, the new model was built up with the assistance of the experts from the Soviet Union, and showed a strong imprint of the Soviet style. The formerly comprehensive universities were split off into different colleges or institutions, with each specialising in one area and being comprised of relevant schools and departments. Though covering a varied range of areas in social, and economic studies, the newly reorganised or established polytechnic colleges and universities attached more attention on the construction of subjects in agriculture,
engineering, and medicine, and the close coordination between higher education programs and personnel needs of the state as well as a rational geographical distribution of higher education (MOE, 1985). The 1950s’ reorganisation of higher education institutions established a basic framework for China’s higher education system, with some changes in number until the late 1980s. A strictly hierarchical administrative model was instituted.

6.3.3 Conclusion on the First Curriculum Reconstruction

Over-specialised Knowledge Structure for Professional Training

The major feature in the first round of reconstruction in China’s higher education institutions after 1949 can be summarised as 1) the decreased number of comprehensive universities, 2) the separation of former colleges of engineering, medicine and agriculture from comprehensive universities, and 3) the increased number of newly transformed specialised institutions. The establishment and development of specialised colleges, particularly in engineering, agriculture and medicals focused on the pure training orientations in its first twenty years and demonstrated an urgent demand for the country’s industrial and agrarian construction. The curriculum and knowledge systems were structured and organised within a highly centralised policy making channel which reflected its essential obedience to the political order.

Compared with comprehensive universities which were dedicated to the pure elite education, new polytechnic universities were highly specialised in professional trainings, which were closely related with particular governmental sectors or product areas in mechanical engineering, agriculture, metallurgy, health, finance, justice, textile, etc. In 1965, the former 601 specialties in political sciences and law were unified into only 1; in contrast, 21 specialties in finance and economics, 72 in the arts, 55 in the pure sciences, 76 in teacher training and other applied arts, and 376 in the applied science were set up in the new national higher education system (He & Pan, 2003). The branches in engineering alone had grown from 107 in 1952 to 315 in 1965. By 1953, 249 distinct specialties had been identified, and the number had even grown to 601 by 1965, and ultimately to a point of more than 1,000 in the 1980s (MOE, 1983). Each specialty or specialised institution was designed highly independent and
had no connection to other related areas: biology and physics in comprehensive universities had no link to specialised institutions of agriculture, medicine, and engineering; and the law in political science institutions had no connection to philosophy departments.

The traditional administrative hierarchy of university-college-department was replaced by a two-level college-department structure. Knowledge system was divided by departments, which had disciplinary identity. For evaluation purposes, an academic-year-based system was adopted, which fixed curriculum requirements for the duration and for the courses of the training for a given specialty. For each specialty, courses involved were identified and grouped into three types:

- the general courses covering the basic disciplines of political science, physical education, productive labour, and foreign languages;
- the foundation of specialist courses; and
- the advanced specialist courses.

Separate from higher education, the scientific research activities were mainly organised within institutes of the Chinese Academy of Science, which limited the higher education curriculum’s role as a canonical approach to knowledge and the teaching as the transmission of authoritative and unchanging texts.

The highly centralised curriculum system and its focus on the professional training in early years of national construction did show the mechanical efficiency in meeting with the precise demands of industrialisation and socialist building. The percentage of students enrolled in engineering were raised from 26% in 1949 to 37% in 1957, teacher training from 10.3% to 26%, basic sciences from 6.0% to 6.5%, with a concomitant decline in social science and humanities and their reshaping to new needs (MOE, 1985). Technical experts were cultivated and assigned within the socialist bureaucracy and expected to apply their skills to socialist modernisation. However, the isolation of the specialist education from the foundational theory and research-oriented knowledge development proved to be restricting students’ capacity in adapting and creatively adjusting the knowledge and skills gained in higher education to the changing work conditions.
The Knowledge Structure with the Traditions of Confucianism

The hierarchical structure of the knowledge and curriculum in the 1960s still maintained Soviet contours even though political relations with the Soviet Union had been broken down. Besides, it also showed some strong hint here or there of the impact or persistence of the traditional Confucian knowledge patterns in this period. The professionals normally involved in the political or social science, were exalted and such ideology was defined as the practical principles of benevolent government abstracted from the China’s historical process (Hayhoe, 1989).

The tradition of Confucianism lays much stress on the association with the privileged elite, especially the elites in government. The social sciences, particularly in politics and feudal governance rules and laws, were highly regarded in the traditional structure of educational curriculum and thus dominated and steered the original formation of social organisation. As much more weight was transferred to the specialised education in industry or agriculture related areas, the political science and law yet were still a highly potential route into the influential positions in the socialist bureaucracy.

Preceded only by political science and law, the finance and economics studies were highly valued among the most favoured specialties in 1950s and 1960s. Although the enrolment was low, those areas were ranked among top layers in the pyramid of the knowledge structure for its steering function in socio-economic construction in accordance with the classics of Marxism-Leninism. Below the social and political sciences were the specialised training areas covering engineering, agriculture, forestry, medicine, etc., which were directly connected to the national industrial and agricultural construction. These specialties were delicately tailored under the guidance of political and economic objectives, so were as the base but supporting the pyramid.

The higher education curriculum for the new country in its first 20 years represents a combined feature of the Confucianism, the demand for the enhancement of unified leadership and the comprehensive national construction.
6.4 New Round of Curriculum Reform Since 1978

China’s open door policy to the outside world and its comprehensive economic reform since 1978 has staked a new claim to the further reform in higher education and curriculum system, which represents an increased significance in the role of market forces played in the curriculum decision making process.

6.4.1 Policy Making of Higher Education Curriculum

In higher education, the world wide popularisation of information technology has led to the information revolution and a new era of knowledge-based economy. The ability to generate, accumulate, deploy, and utilise the knowledge information becomes crucial for national development. Capital, production, management, market, labour, information and technology are organised across national boundaries, which have resulted in strong tendency of globalisation (Wu & Wu, 2001). As the world’s largest developing country, China is confronted with the unprecedented challenges from global forces: it is in its crucial stage for transforming from a planned to a market economy and for adapting itself into the globalised competition. As the former Minister of Education, Chen Zhili, indicated in the World Conference on Higher Education in 1998, the economic reform has raised new and future requirements for higher education and has resulted in profound changes in this sector to meet the challenges from the economic and political fronts (Chen, 1998).

The Decentralisation of Policy Making

Decentralisation in public sectors also affects the curriculum reform in the new era of knowledge-based economy. With principles of joint construction and transference of jurisdiction, the Category of Undergraduate Specialities of General Higher Institutions, issued in 1998, clearly identified the relationship among the central, the local government, and the higher education institutions in curriculum construction. The MOE is thereafter only responsible for the constitution of the overall category of specialisations. Higher education institutions, together with the audition of the correspondent supervisory ministries are entitled to set and adjust curriculum structure of their own within each specialty. The supervisory ministries report the readjustment to the MOE.

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Though slow in practical process, the decentralisation of policy making in curriculum construction marks a new start for China’s higher education: It clearly identifies the supervisory functions of the central government and enables more autonomy to be assigned to the local government and higher institutions in curriculum construction. With strong intention to satisfy the market requirement, higher education institutions are now holding the power of readjusting the objectives of various disciplines, formulating teaching plans and programs, compiling and selecting teaching materials, accepting projects from and cooperation with other social establishments for scientific research and technological development, and setting up combinations involving teaching, scientific research, and production. They are also entitled with the power of suggesting appointments and removals, disposing capital construction investment and of funds allocated by the state, and developing the international educational and academic exchanges by using their own funds. The new system is believed to be able to adapt the knowledge structure to the needs of national economic construction and scientific development under the educational principles, and to manage the relationships between supply and demand, quantity and quality, short-term and long-run in a proper approach.

**Market Forces and Curriculum**

China’s economic reform and the promotion of market economy have gradually altered the traditional government-centralised way of resource allocation and utilisation. The growth in foreign investment and international trade, the expansion of joint ventures and private enterprises has brought the market orientation not only in economic lives but also in the academic world. For today’s higher education, the problem is not simply to expand the system and to enlarge the number of students in colleges and universities. The rapid changing technology and work process call for a more competitive, flexible and adaptive labour force.

Before 1949, China had a long tradition of high valued education in ethics and arts to enhance the morality for the Feudal elite. After the establishment of new Socialist leadership, the focus on socio-economic reconstruction and the strong influence of the Soviet ideology led China’s higher education into a state of excessive centralisation and over-specialisation. The model, however, has been found problematic in the context of new market economy. The rigid curriculum and evaluation systems in
traditional professional trainings resulted in the graduates’ inability to adapt themselves to the requirement of the changing labour demands in new market economy. The obsolescence of content and materials, the spoon-feed teaching mode and the theory and book-focused examination system largely restricted the development of students’ creativity.

Besides, the rapid economic development and technological innovation require the higher education system to set up of new professions. Even for the existing professions, increasing calls have been emerging for some partial or comprehensive update and renovations with the rapidly changing demands. The lack of qualified employees with updated professional trainings in some important socio-economic sectors like in legal and financial systems seriously affected the effectiveness of the country’s further development. A striking example is that in 1986, there were only 3,000 judges in China with a population of over one billion, let alone the figures who were proficient in international issues. The laws and orders systems were left far behind the demands for the new social and economic operations. In the banking and finance industry in China in 1987, only 25 percent of employees had undergraduate and graduate education background, 20 percent had some college education experience, and 39 percent of the employees’ education background were below the level of high school (Xiong, 2001).

Economic reforms and the open door policy bring the country with growing amalgamations to the outside world with unprecedented challenges and opportunities. The government starts to realise the fact that it can only benefit from this amalgamation through fitting itself into international competitions. The socio-economic sectors can no longer be satisfied with the self-defined model from the autarky for the early decades. In 1987, the State Commission of Education started the first attempt in amending the higher education curriculum system. Areas involved cover the arts, sciences, engineering, agriculture and medicine. In June 1993, the MOE promulgated a more systematic guidance in curriculum reform, The Category of Undergraduate Specialties of General Higher Institutions. Based on the 1950’s classification system, the specialties were reduced from 2,865 in 1965 to 850 in 1987 and to 249 in 2000. The formerly separated disciplines of humanities and arts were combined into a whole. Law was separated from political science and became an
independent discipline. Education now consists of teacher training and physical culture.

Along with the economic reform and political decentralisation throughout the whole nation, the hierarchical structure of higher education curriculum has been dramatically changed with the new market demand. The curriculum pyramid of the 1960s, which had the political science always on the leading position of all, was considerably flattened with the key focus on the economic and social development fields. Some new areas like the business and management appeared and grew dramatically. Among the enrolment of each discipline it was that of economics and law that stood at the highest growth rate from 1965 to 2000, along with that of engineering still standing on the top. The new trend reflects the signals of the current governmental intentions and the human resource needs driven by market, such as the massification instead of elitism, and the charging of tuition fees instead of free higher education.

6.4.2 Policy Change After 1978

In wake of the decentralisation of government administration, the increased market involvement into education selection, the environments for higher education curriculum reconstruction become more and more diverse and complicated. In May 1985, the CCP (1985) issued the Decision on the Reform of Education System. The major rationale for the reform given in the Decision is:

The key to success in the reform of higher educational system [...] is to change the management system of excessive government control of the institutions of higher education, expand the power of decision-making in the institutions under the guidance of unified educational policies and plans of the state, [...] enable the institutions of higher education to take the initiative and ability to meet the needs of economic and social development, and strengthen the connection of institution of higher education with production organisations, scientific research organisations, and other social establishments (CCP, 1985).

The Decision suggests that the professional training functions of higher learning should meet with the specific requirements for projected manpower in specialised fields. Moreover, it indicates the restoration of research functions in universities, which is deemed to provide an internal dynamic for curriculum transformation. The
Decision also put forward the feasibility of more three-year specialised colleges and two-year junior colleges as the effective supplement for the existing four- or five-year colleges or universities for different levels of skills and professional training.

Much of the higher education reform during 1980s and early 1990s can be originated from the Decision of 1985 (Cheng, 1998). However, it was not until the 1990s, when in 1993 The Outline for Reform and Development of Education in China was announced (CCP, 1993), that the major reforms started the implementation (Yang, 2000). The reconstruction has represented a gradual movement of curriculum from being narrow to more integrative and creative. Substituting the pure academic approach from 1952, research, application, and innovation have become the major themes for the current reform of higher education curriculum.

Apart from the restoration of its functions for research and innovation, higher education curriculum has been adjusted to serve in a more practical way. On the third National Working Meeting on Education held by the CCP and the State Council in June 1999, the Party set up its new guidelines for future higher education curriculum development. Traditional conceptions of elite education has been in the progress of destruction; higher education is expected to play a more active role in preparing social citizens to fit for the changing socio-economic environment. Among the points for renewal, the integration of sciences and humanities to ensure all round development of students, and the special weight to the training in practical skills in foreign language, computer science and others are the major areas for change. Polytechnic universities, with only engineering fields under the Soviet model, established departments of mathematics and basic sciences, and developed related social sciences such as management, scientific journalism, and demography. Specialised institutions in medicine and agriculture set up new programs in biology, medical sociology, agricultural management, and other related areas.

In addition to the internal reforms within each higher education institution, the amalgamation and combination of previous separate institutions also promoted the process of curriculum changes since 1992. The readjustment and organisation of specialties, curriculum, disciplines and faculties has relieved problems of duplication between institutions, of institutions being on too small a scale, and of the isolation of
single-subject institutions have been reduced (China Education Daily, August 27, 1999). Universities have been adjusted to the more comprehensive with multi-specialties to enhance the overall strength, efficiency, and quality of the modern higher education.

6.4.3 Implementation and Evaluation of New Curriculum Reform

The “interrelation” and “integration” of the subjects in sciences and humanities are the two central themes in today’s curriculum reform to ensure the all-round development of students and their abilities to fit into the changing environment. The reconstruction is not merely on the curriculum itself, but also having strong impact on the institutional culture, norms and habitual routines. The reform requires scientific management techniques; more considerations need to be on leadership, coordination, communication, resources allocation, committees building, and project assessment and evaluation.

Diversification

In order to meet the needs for more technical manpower in the economic construction, more two- or three-year short cycle programs are now offered at four-year colleges and universities and at junior colleges. Besides, adult education is promoted more widely across the nation through the provision of universities as well as the open media. Geared towards the vocational and technical training in the much-needed areas for socialist market economy, those diversified and more flexible routes of higher education have become increasingly popular among those who are not able to ensure a place at traditional higher institutions to upgrade their professional levels. And the feature of short term and flexibility also makes it possible for the on-the-job-training. Although there has been a decrease in the number of such education since the expansion of enrolment in regular higher institutions, these short programs are still a main approach for incumbents with higher education diploma to upgrade their professional levels.
Research Orientation

Against the global context of the knowledge economy and globalisation, traditional intensive labour and mass production has been gradually giving way to technology and innovative industries. Knowledge, no longer viewed as something canonical and absolute, is starting to be put under a constant questioning and readjusting. Under this circumstance, there was a clear vision that for further technology innovation, a direct link between university research and knowledge transformation must be established. Universities, provided with more autonomy from central ministry, have been establishing their own research institutions and restoring the higher education's function of knowledge construction and innovation since 1980.

The major stimulus for R&D activities in higher education institutions in its early years was to raise the academic standards, and to enhance the unique identity of those institutions. More attention is now attached to its application to the socio-economic productivity. Universities work much closer to economic activities. They have participated in the construction of hi-tech industrial parks, developed college- or university-run hi-tech enterprises to combine production with science and research, and found ways to transform their scientific research results into productivity. The Founder Group run by Peking University, for example, successfully revolutionised the Chinese printing industry with scientific technology and has currently held 90% of the domestic and foreign market in Chinese newspaper printing industry.

Apart from the promotion of knowledge and technology innovation, the emersion of university enterprises has also effectively diversified the funding of research activities from the previous model of government as the sole provider. So far, China’s colleges and universities have run 2,564 enterprises, demonstrating their ability and creativity in embracing the coming new age of knowledge-based economy. Institutions of higher learning has 600,000 scientific research staff and have won 289 state natural science awards, 907 state invention awards and 1,643 state science and technology progress awards, making up 50.4, 32.5 and 23.2% respectively of the country’s total since 1980. The higher learning institutions undertook or participated in 502 hi-tech projects of the famous state-wide 863 Program, 18.54% of the total, and the priority was given to the fields of biotechnology, information, automation, energy, advanced materials, marine, space and laser.
Credit System with Chinese Characteristics

China's education, followed by the ideology of Confucianism, has a strong tradition of teacher centeredness. The 1950's adoption of the Soviet model, centring on the specialised training in correspondence to the explosive needs of professional labour forces for the full-scale social construction, restricted the students in one specialty with a fixed set of courses for the duration of their training. It was characterised by a narrowing of the curriculum and a proliferation of majors (Fang & Fan, 2001). Together with the standardised tests, exam-directed instruction, and fixed content, China's rigid curriculum policy in its early years resulted in a closed system of educational thinking and methods. Worshipping the text books and authority, students were cut off the creative and innovation spirit.

Today's world-wide new economy supported by knowledge and technological innovation and application has gradually transformed the role of universities in social development. Higher education is suggested to be treated not only as a route for career development but also an approach for intellectual pleasures. It is the higher education that is taking more and more responsibility in building up a person's attitude towards social values and judgment throughout this accumulative process. Meanwhile, the abolition of unified job assignment system and the charging of tuition fees have altered the relationship between higher education institutions and students. Students, more like consumers for the education services, require for the education capable to adapt them to the changing society.

Since the early 1980s, the central and educational authorities, together with the higher education institutions, in the major industrialised countries in U.S.A. and Europe, have engaged intensive efforts to provide integrated and cohesive learning experiences for students in higher education learning process. In China, since 1990s, some major reform approaches on the program design have been under discussion in accordance with the towards-more-general-level ideology for higher education. Four major approaches, mirrored from the existing western experience and theories, will be reviewed on their benefits and challenges for higher education development. Years of western research and practical experiences are of a great valuable resource for current China's education reform.
Core curriculum: The curriculum is designed as a set of inter-related courses, designed to achieve specific purposes. Rather than randomly organising the individual courses, proper design of a core curriculum views the higher education as a systematic whole, and relates each subject as part of the unity under certain rules with a common objective for education. For each core curriculum, all students need to participate in a common program which is integrated by structured topics instead of academic disciplines. Moreover, a well-structured core curriculum provides both breadth and depth of knowledge. Each component of the core curriculum not only has its own significance but also exhibits its interrelatedness with other parts of the program. This system is suggested to offer prospective students a better understanding on the curriculum program and the mission of the college. In addition, the establishment of the core curriculum to serve preferred goals is supposed to help institutions to develop clear criteria by which the universities can effectively evaluate programs and student performance. Issues for this scheme include how to individualise general education curriculum, and how to make students be aware of the interrelation of the core curriculum.

Interdisciplinary program: The concern for the traditional specialised education has aroused a new topic for curriculum designers on how to make the college and university curriculum more coherent. The interdisciplinary approach represents a possible attempt to establish an inter-connection among different but relevant programs. People who are in favour of such an interdisciplinary approach argue that greater educational benefits can be derived from such courses and programs which treat knowledge from related fields simultaneously rather than in disciplinary isolation. By a better understanding of the relationships and connections among issues and disciplines, students are encouraged to synthesise material and to develop a comprehensive perspective.

Besides, apart from the benefits, more considerations are required on the design and techniques for practices. With the potential to bring together different academic constituencies, the approach for integrating curriculum in higher learning always requires the coordination of team teaching and the course clustering, and the building up learning communities.
**Competence-based programs:** Different from traditional subject-based curriculum, competence-based curriculum emphasizes the achievement of outcomes that are explicitly defined. Outcomes identified as important in both general and professional education include communication skills, critical thinking, contextual competence, aesthetic sensibility, professional identity, professional ethics, adaptive competence, leadership capacity, scholarly concern for improvement, and motivation for continued learning. The approach focuses more on the “practical teaching experiences” and the “direct contact with learners”, and point out the increasing need for the re-evaluation of the existing practices on student teaching. It is worth mentioning that the debate on the appropriateness of the competency-based approach into student teaching practices has been under debate early from 1970s. The major debate focuses on its key reliance on the observation-measured system and assessment strategies into both liberal arts and professional education curriculum, which casts away the traditional exam-based evaluation systems.

**Freshman seminar:** A series of freshman seminars have been adopted widely nowadays in western higher education institutions. Students, at the beginning of their college life, are given a tremendous chance for an in-depth experience of their future studies. As arranged in core curriculum or orientation programs, these seminars tend to be interdisciplinary, covering a wide range of topics, from freshman writing to college study skills, from personal finance management to human performance.

In China, much effort has been made for a combination of the Soviet-style of specialty-based system and the western student-based laissez-faire system. At some key universities in Beijing, Nanjing, and Wuhan, the required or the fixed courses constitute approximately 70% of the total courses taken, including the core courses for the specialty, the public courses (philosophy, language, and sports), and the basic skills courses (computer and mathematics for science majors). The electives or options account for the remaining 30%. For others, like East China Normal and Jilin Universities, a less flexible system is implemented where the academic year system with fixed courses and length is carried out for the first 2 years and the more flexible credit system takes effect for the last 2 years.
It is notable that current literatures have aroused more concerns for the practical issues in applying those approaches into the indigenous teaching and learning process. However, comparing with the over-specialised, rigid teaching and learning and evaluation system, the integration with credit system and other approaches offers the flexibility that tailors better to students’ individual needs in fitting themselves into labour market. More marginal and new subjects are developed with the special demands of the market. Studies in higher education can be designed delicately with the specific needs of each student. They are encouraged to select the courses on their own feet and to build up more extensive knowledge base.

6.5 Summary

In summary for the last two chapters, China’s higher education reform, commencing from the late 1970s, has been initiated and driven by the impelling of national economic construction. Higher education and curriculum system have been always adjusted to the changes in socio-economic world. As the market forces become the dominant factor in decision makings during this process, the practices of free market have achieved great commercial success in public sector management. In higher education sector, reforms have been widely practiced in either the financial or the curriculum setting sectors. However, with the reform being undertaken for over 20 years, some more profound social issues arise. Calls for the rebalance of economic and social functions of national higher education are becoming louder in academia. The expansion, diversification, and decentralisation now taking place in higher education world, which have proved effective in corresponding to the rapid economic development and market needs, indicate an obvious “top-down” approach. With the years of reform, problems have been coming out on the uneven expansion in different types of education, and the increasing regional disparities in the access to and quality in higher education provisions. These await further speculation and actions for maintaining the education’s responsibility in promoting equality, and cultural and ethical values of the nation.
7 CRITICAL ANALYSIS OF CHINA’S HIGHER EDUCATION REFORM

7.1 The World-wide Context of Globalisation

7.1.1 Current Studies on Globalisation

As globalisation has been widely quoted as a buzzword since the late 20th Century, it lacks a precise definition (Kellner, 1998, p24). The version now generally accepted defines the term as the increasing liberalisation in the flow of goods, capital, information/technology and people across national borders. The radical expansion in the trade and exchange of capital, labour, production, consumption, information, and technology has imperceptibly changed the way global economic activities are carried out, and accumulatively resulted in a fundamental transformation of the ideologies that strike the root in the broader social, political, and cultural status.

Chapter two portrays an extensive picture on the trend of global interaction and integration, and its indications to the changes and reforms in public socio-economic sectors. Detailed discussions in the chapter are carried out on the themes (Publicness, Expansion, Austerity, Markets, Accountability, Quality), and the ideology (economic rationalism and pragamatics) of this evolution. Some valuable experiences in individual countries are investigated on their attempts and reforms towards marketisation and privatisation in public sector arenas. The countries analysed range from the United Kingdom, the United States of America, and Australia as the pioneer of marketisation and privatisation, as well as the developing countries, which share similar population and developing status with China.

The gradually decentralised role of state government in economic lives inspires an extensive and profound transformation in global trade and exchange. The knowledge and technological innovation, especially in realising the wide application of Information and Communication Technology (ICT), makes such globalised activities become more and more convenient for every day business and personal practice.
Along with the past twenty years’ popularisation of international communication and exchange, huge efforts in research and studies have been made on globalisation and related topics, both in academic and popular literatures. There appears a variety of different discourses attempting to explore the further explanations of globalisation behind its surface, which highlight a more complicated intersection between a multiplicity of driving forces, embracing each country’s economic, technological, cultural and political change (Giddens, 1990; Rosenau, 1990; 1997). Although the extended communication and cooperation among countries can be seen in all aspects of the socio-economic lives, fundamentally, globalisation is always traced back to the multinational financial and industrial conglomerates (Burbach et al., 1997). It is largely a globalisation of economic life and a universalisation of capitalism (MacEwan, 1994).

7.1.2 Driving Factors for Globalisation

Although the impacts and changes appear differently in each social sector, the basic infrastructure essential to promote today’s process of globalisation lies in the actualisation of extensive application of Information and Communication Technology (ICT) together with the international policy transformation (i.e. from centralised control and regulation to market orientation). The following two sections provide more specific analysis on these two factors.

National and International Deregulation

One of the most striking features of Capitalism and market economy, as they are widely practiced today across the country, is the open and market-induced, rather than policy-led nature. Thanks to the rise of translational capitalism and liberalisation in government regulation, the trade and exchange of goods and services, through those internationalised corporations and other economic institutions, become quicker and easier across national borders. The access to internationalised market, in turn, is inspiring a social culture ideology of consumerism in each individual country (Sklair, 1995, p281). The market’s need to expand and grow in perpetuity makes it a powerful and dynamic force in the world (Sklair, 1995, p281).
The global movement of economic deregulation originally set off from the U.S.A and the U.K. in the late 1970s. Marketisation and free competition was, for the first time, introduced and widely practiced in public sector management. This movement can be manifested in:

- the liberalisation of international trade operations with the reduction of tariff and non-tariff barriers to trade in both goods and services;
- the liberalisation of capital markets and translational barriers in the floating of currencies, the financial markets, the foreign direct investment and other international capital flows, and also in the technology transfer; and
- the deregulation of internal markets for goods, services and financial flows (Miyoshi, 1998).

Against the international background of globalisation and marketisation, countries start to explore ways to fit themselves into the changing environment. Economic efficiency is argued to be achieved and enhanced through the liberalisation and deregulation of national markets and the retreat of the state from many economic activities (UNDP, 1999). For the first time, universities and institutions act as independent entities, which are entitled with unprecedented power and responsibilities for their own operations and administration. The commercial interests of higher institutions in providing educational services, and their protection and maximisation of “business” profit have been increasingly believed as both necessary and beneficial for the long-term sustainability of higher education provisions. All the social operations and relevant policies should be serving mainly to ensure that the economic activities and experience be carried out under the free or quasi-market logic. This, in turn, has resulted in a national and international deregulation in public/social and economic operations as an essential force for the process of globalisation over the past two decades.

**The Information Technology Revolution**

Apart from the policy transformation to create a favourable external environment, the last twenty years of “information technology revolution” has also cultivated a fertile soil as an important internal force driving the development of globalisation. This revolution represents a sweeping application of information and communication
technologies into all walks of business and community lives (Waters, 1995). At the heart of this revolution are the reduced costs and improved performances, which have effectively pushed forward a remarkable technological advancement in:

- the continued dramatic progress in chip technology;
- the development of photonic communications technologies, as well as major improvements in both wire-based and wireless communications systems;
- the digitalisation of products, processes and services, and the development of open systems and common standards;
- the rapid development in supporting technologies, such as those for scanning and imaging, memory and storage, and display and copying;
- the creation of appropriate software, and of new tools for the development of software; and
- the explosion of Internet technologies (Waters, 1995).

Today's extensive application of ICT and its consistently enhanced performance in practice have been promoting both the convenience and frequency in international communicative activities. The information circulation and exchange via the Internet has been replacing the traditional paper-based postal way of long-distance communication and has shown a pervasive domination in both formal and informal communications. In addition to the younger generation, the elders who have spent most of their lives with the national post system are now joining the Internet-surfing families. The huge achievement in ICT and its applications effectively ensures and encourages the globalisation process to a broader scope.

It is worth mentioning that the two factors discussed above are never entirely independent from each other, but closely related and mutually reinforcing: the dramatic advancement in the global capabilities of computing and communications provides both the prerequisite for, and some impetus to, the deregulation of global markets, while global competition and technology flows have contributed to the rapid declines in both goods and services prices (Waters, 1995).
7.1.3 Critical Analysis of Current Development of Globalisation

It is important to point out that the progress of deregulating and decentralising the governance function does not necessarily cut down the power from the central government. In fact, the growing competition from a wider international platform has actuated the national governments to function even more actively in formulating strategies, and supervising and monitoring the operations in social sectors. As Rosenau has mentioned, the role and power of the national governments are not necessarily smoothed away with global integration, but are being reconstituted and restructured in response to the growing complexity of processes of governance in a more interconnected world (Rosenau, 1997). This governance, rather than executing tight controls and plans to the social sector operations, has been adjusting its role into setting up the directions of and the instruction and supervision for the practices in the social and economic development as a whole and for a long term.

In addition to the administration and management, the practices of globalisation and market mechanisms are also challenging the traditional value of citizen's welfare and equalisation for human society (Yang & Welch, 2001). Along with the free market becoming an essential objective for socio-economic development, the ideas of good governance, freedom, and choice among others are all put forward to promote free markets into broader social sectors. However, such a market's crude calculus proves to throw a wrench into the process of social equalisation. According to the Human Development Report (1999) by UNDP, the motives of profit seeking and maximising from market players and the free competition environment have been greatly threatening people's ethics and respect for justice and human rights (UNDP, 1999). The formulae of market-orientation and relentless competition proves to be operated only to secure the perpetuation of privilege, and maintaining

the caprices of the moneyed over the very survival of those without it, has subverted the profound social function to give, to create and invent, and to do things for one another (Wiseman, 1997, p96).

A striking case is the exponential growth of the disparities between the rich and the poor, the haves and the have-nots, and the developed and the underdeveloped regions: the gap of the average income between the world's richest and poorest nation has been growing from 30 to 1 in 1960 to 60 to 1 in 1990s and even to 74 to 1 in 1997.
(UNDP, 1999, p31). The monopolisations are gradually established in each individual sector, which enables the minority group to possess most wealth, resources and power in directing social development. The situation is even worse in most developing countries, where the social welfare system is still under the construction. In many developing countries, the practice of marketisation and free competition has hugely enlarged the gap among the social classes. Power and wealth possessed in a small group of people or corporations has marginalised the poor, and limited and sometimes even expropriated the non-economic function of human society.

This disparity, formerly only within the economic world, is now even seeing some sprouts in those traditionally government-protected sectors. In higher education and research, the gap of scientific and technological standards has been continuously widened between the developed and developing countries. Key innovations in communication, databases, and information networks, which are clearly related to contemporary social advancement, are, bar none, generated in the industrialised nations. Norms and paradigms, influencing and dominating the world academic and scientific systems are emanated from the developed world (Martin & Schumann, 1997). In higher education, willingly or reluctantly, the national curriculum design and construction are increasingly adjusted to be coherent with the academic standardisation that is originated and led from the developed world. The setting up of the internationally recognised standardisation is not only necessary but also beneficial to the globe-wide communication and exchange in academic field. However, in this way, the country would lose its tradition and nation-specific nature with the blind adaptation of the national educational and cultural system into the global unity.

The growing disparities are also revealed within individual countries. In fact, it is always under the debate whether globalisation and the practice of free market have led to the growing disparities among the social classes. In China, for instance, the economic reform from the late 1970s has aroused the national pursuit of economic liberalism and market selection. After over ten years of economic success, people warmly applauded this new model of government-market interaction at that time. Rather than the highly centralised collection and assignment, and equalisation for all, the quasi-market mechanism linked the profit/loss directly to the performance. Farmers are aroused to improve the quality of seeds and techniques of farming to
boost the output; the manufacturers are encouraged to introduce new machineries and techniques to increase the efficiency. Competitions were firstly introduced into the personnel management with the performance directly affecting the bonus and promotion. Without doubt, the reform and new system inspired the people's creativity and science and technological innovation throughout the whole nation, and did prove to effectively and positively drive the national economic flying-up in the 1980s and 90s.

However, any reform and innovation needs to be placed and analysed into specific context. Though huge success has been achieved in the country's overall economic development, the imperative of market forces and globalisation undermines the communities and families and split the country into a minority of winners and a majority of losers (Martin & Schumann, 1997). The UN annual report (2005) published by the Department of Economic and Social Affairs (DESA) depicted a picture of what has been happening in the developing world (DESA 2005). In Asia, although some significant economic progresses have been achieved in many countries like China or India, the benefits from internationalised economic activities, as it is revealed, have ultimately flown into the minority groups. Similar to the process of capital collection and accumulation which has occurred in the early ages of Capitalist construction, the free market mechanisms are creating winners and losers everyday, and the minority-led monopolies in each sector have been gradually shaped up and strengthened. Differently, the social welfare for general public has nowadays been protected with the well developed social security system in most western developed Capitalist society; yet this system is quite under developed in the developing countries. The immature social security systems are not capable to effectively guide the directions of socio-economic practices, nor to ensure the necessary protection for the vulnerable for the basic social equalisation.

In this sense, the globalisation itself is not to blame. Nevertheless, the fact that individual participating parties attempt to maximise their own profit out of the globalisation results in the increasing gap between the rich and the poor. The most critical factor to decide the profit allocation is the monopolisation of distinct resources. For example, in China, benefiting from the predominant geographic advantages, the export-oriented coastal zones have led the country's economic development for the
past twenty years. The gap of economic figures has been formed up and widened between the coastal and interior areas. An increasing variation has emerged across regions in competing for better human, financial and material resources for socio-economic development. According to the statistics from the World Bank 1999, the human poverty index is just under 20% in the coastal provinces, but more than 50% in the inland areas (UNDP, 1999, p3). The average per capita education expenditure from 1988 to 2000 was RMB 67.59 (US Dollar 8.59) in the inland, and 210.02 (US Dollar 26.7) in major cities (Yuan, 2001).

The 1980 and 90’s privatisation in social sectors has even worsened the situation. The previous debate in the early years of reform on the role of the government, especially its responsibilities for public good and welfare has now been replaced by the increasing unanimity on the inefficiency and the waste of a “big government” (Cai, 2002). Faced with increasingly rigorous competitions from a global platform, the cutting down of public expense and the pursuing for the three Es (economy, efficiency, and effectiveness) in managerial practices are among the most popular approaches for better performance either in public or private sectors. The ideology of entrepreneurship is an unrivalled virtue for practically everyone; and profit and production are now the universal goals, and nothing is exempted from the push to maximise personal and private gains (Miyoshi, 1998).

However, apparently dominant as economics is in today’s global environment, politics still should not be seen as a practice of noble hopelessness in the age of globalisation (Wiseman, 1997). Blind adaptation to the world market and rules need be readjusted with necessary interventions from the government; nevertheless, this does not lead to a return to the original paradigm, where politics was dominant in social policy making. Rather than “domination” and “control”, the word with politics and central governance has now changed to the “intervention” and “supervision”. The individual sector’s autonomy in daily operations, the free competition and the market mechanism are still the major impacting factors for economic activities. At the same time, the central government is enhancing its role in rule and order constructions to keep a standardised environment for competition and in the social security system constructions to protect the lower classes. As Martin and Schumann (1997) has stated, globalisation does not correspond either to a law of nature or to linear technological
progress that admits no alternatives. Rather, it is the result of a government policy consciously pursued there today.

7.2 Globalisation and China's Social and Economic Reform

As a developing country with the world's largest population, China is faced with some more complicated interactions and tensions among different social forces during each movement and reform. On the motives of national higher education reforms, the interactions among the groups has been explored in details (see Chapter four): the evolutionary transition of national economic structure has been set foot from countryside on the agricultural reform. After accomplishing the required assignment from the central government, farmers are given more autonomy to allocate the usage of their land and to benefit from those activities. This greatly inspired the enthusiasm and creativities for daily operations. The success in rural areas quickly aroused the decentralisation and marketisation movements, first in the urban industrial sector, then the trading and economic sectors, and finally the public sectors around the whole nation. Two major factors, acting essentially as the driving forces in the process of China's higher education reform, are further investigated in the following section.

7.2.1 China's Economic Reform towards Socialist Marketisation

One of the major forces in driving China's higher education reform is the country's opening-up policy and the cross-nation economic reform. China first set foot in the cross-border activities in the Han dynasty (206BC-220AD) when commercial exchange began to be carried out with the neighbouring countries in the North-west through the Silk Route. This Route is now widely known as a significant mark of ancient Chinese civilisation. With the prosperous growth of silk production, the caravans from the interior land started to exchange the silk across the western border for furs and other consumables. However, the trade was once broken off, since the caravans were always attacked by some Central Asian tribes for valuable commodities. Through the following half-a-decade military confrontation and political mediation, a route, which was originally for expanding silk trade, was established, spanning from China to Central Asia.
The trade flourished and was gradually developed from the original frontier exchange to a commercial activity which demonstrated a broader international characteristic. During the Tang dynasty (618-901AD) the Silk Route was extended to Northern India, and the Parthian and Roman Empires. It connected the Yellow River Valley to the Mediterranean Sea and passed through Kansu and Sinkiang in China and the other present-day countries of Iran, Iraq and Syria. However, ever since the last federal empire, the Qing Dynasty (1636-1912AD) and during the first 20 years of the new China up to Deng Xiaoping’s open-door policy, the country closed its door and resisted any global communication and exchange in politics, economy, and culture.

From 1966 to 1976, China experienced ten-year stagnation in its economic and social development. This political movement, which is later called as the “Culture Revolution”, lasted long as a decade. The ideology and practices for commercial purposes were defined as the property for Capitalism and something definitely hindering the Socialist constructions, and therefore were strictly forbidden from social lives. Shopkeepers were not allowed to sell clothes with western designs, and hairdressers not to do the hair in “modern” style. People were prohibited to drink, to smoke, and perfumes; beauty appliances, and even flowers were all banned from daily use. “SIMPLICITY” was seen as the nature of Socialism, for which all the social citizens should try hard to quest.

The situation was not changed until 1976, when the CCP redefined its further creed from political centralisation to socio-economic constructions in the 3rd session of 11th National People’s Congress. The administrative tasks for every level of government were oriented to achieve the economy, efficiency, and effectiveness for higher productivity and better performance. As what has been described in Chapter four, the power of control and administration were gradually decentralised to each individual sector. The policy of “assuming the sole responsibilities for its profits or losses” successfully aroused the creativities and activeness from each individual producer, in the farmland and workshops. Besides, the opening-up policy to the outside world resulted in a rapid growth in the communication and cooperation from a globalised platform, which greatly promoted the country’s economic development and technological advancement. Years of economic reforms and development successfully solved the problem of national food shortage, by feeding 22% of the world’s
population with less than 7% of world’s farm land. Abandoning the massive debates on the differences between socialism and capitalism as it used to emphasis, the central authority opted towards a market-oriented strategy to achieve its economic goals. During the last two decades, the market economy in China has maintained a steadily fast growing pace. The average growth rate for the last 25 years was at a robust aggregate of 9.4%.

As one of the most rapidly growing developing countries, China is now being confronted with the new challenges on how to achieve the sustainability of this growth after over twenty years of flying progress. The repercussion on environment and natural resources, as the result of the rapid economic construction based upon cheap labour-intensive manners, made it clear that China could no longer afford to grow in the old fashion (Chin & Guan, 1996). The irrational industrial structure, the relatively backward technological level, and the low labour productivity have greatly restricted further development of social economy; and the traditional extensive mode of economy, featured with high input, high consumption, high emission and low efficiency at the expense of environmental and natural resources and pollution, is under the unprecedented challenges for innovation. It is against this background that the idea of a knowledge and technology based, highly productive economy is widely promoted across the country by many Chinese scholars and government officials.

7.2.2 The Impact of Knowledge Economy

Emerging from the mid 1980s, the transition from the traditional labour-intensive production to a more knowledge and technological driven economy, arrangements and institutions brought along a new era for national construction (Xiong, 2001). Not only in the economic sectors, but in all aspects of social relationships and operations, this movement has been achieved with the growing incorporation of the advanced knowledge and technology into socio-economic productions and finally to realise the enhanced efficiency, productivity, and consumption rate in industrial and agricultural flow. In rural areas, traditional labour-based manuals are gradually replaced with large-scale, celeritous enginery operations; seeding planes, reaping machines now become the leading part actively operating across the cornfield, the vegetable shack, and the wider farmland; the improved seeds and agrochemicals developed from
research centres prove highly effective in raising the output. In manufacturing, the innovation and development are telling the same story everyday: science and technology is treated as the first driving power for productivity and economy (Jin, 1999).

This knowledge driven economy is also propelled by the growing market demands for continuously renovated technologies embodied in goods and services. The realisation of effectiveness and efficiency in production relies more and more on information and know-how, which requires the producers to use more of their heads rather than hands. High technology exports, compared with other industries, have shown a driving growth over the decade to 1995, especially in the years of the 21st Century. Areas involved the range from computers, aerospace, electronics for tele-communication, to pharmaceuticals. The growth rate in these areas has been reached to 15% per annum, compared with the overall rate of 9.7% in other manufacture exports. High tech exports, amounting to nearly 30% of total manufactured exports by 2000, and to 70% of the sum of medium low and low tech exports, have become a dominant force for the manufacturing sector (Cai, 2002). The competition in individual product or services is actually a competition in the added technologies and functionality behind for real production.

The new model of economic development attracts growing attention on national educational, especially the higher educational achievements, which are believed as the determining factor in positioning a country’s technological standards. Most developed countries have seen a substantial rise in the proportion of their young generations receiving higher education. Tertiary and lifelong learning becomes more and more popular as the supplement for formal education by making the more flexible education and training possible for the entire population. Today, China has turned into one of the world’s largest exporting countries in the world, with its manufacturing industry occupying 80% of the country’s total exporting revenues (Cai, 2002). However, by 2000, among the over 70 million technicians working in the manufacturing industry, only 3.5% had received formal higher education from universities. There is still a long way to go for the country in modernising its national industry. The central government is now wasting no time in embracing its basic
principle and taking actions on several fronts in the hope that China can steer a new course of knowledge-based development in the 21st Century.

7.3 China’s Higher Education Reform

As it is discussed in Chapter four, China’s higher education system has experienced some crucial reforms since 1949, from the highly centralised governance to gradual decentralisation for parts, then the re-centralisation towards the operating autonomy with government’s macro-control. The reforms are closely affiliated with the context of socio-economic development and transitions in government leading ideologies, and have had some profound impacts on country’s social, cultural, and economic development. It is essential to point out that the process of construction and reconstruction needs to be analysed against the broader historical background and global context, rather than being merely described as some new educational policy developed by a pragmatically oriented leadership (Xiong, 2001). It is the national and global paradigm shifts that set the scene for the development of the country’s higher education system. In Chapter four, each reform in the higher education system has been discussed and analysed with the historical background, the social context, and the administrative structures of the time. The following section, based on the evidence illustrated, focuses on the two main issues of the reform.

7.3.1 Higher Education for Economic Modernisation

China’s social political institutions and administrative systems have experienced some significant transitions, from the early years’ one-sided government control to today’s combination and containment among different social forces. The period from 1949 to 1978 is the first generation under the leadership of the Chinese Communist Party. Following the Soviet Union’s Socialist model, China had set up a highly centralised administrative system throughout all social sectors. During this period, the country completed the first phase of social, political, and economic reconstruction. The second generation of the leadership is from 1978 to 1993, when the major socio-economic reforms were initiated toward a more decentralised style of governance. China’s socio-economy has achieved an unprecedented growth. The decade to 2003 is a period for some further development together with a series of adjustments for past
radical reforms. The model of decentralised decision-making with the macro supervision from the central government has been gradually shaped up in social sectors. The work now carried out under the new leadership of Hu Jintao is a continuity of the adjustments and coordination, which aims to ensure and enhance the government’s role in standardising market economy and in protecting the social equalisation.

In Chapter four, it was noted that the first 20 years of Socialist construction in the 1950 and 60s for China’s higher education, as all the other social sectors, followed the Soviet model of the highly centralised policy making and administrative system. For the country that has the world’s largest population and had just walked out from decades of wars and turbulence, the primary objective for the new leadership in its early years was more of a political tactic for setting up a sound and centralised institution and power to ensure an orderly, effective administration and operation throughout the country. Now this has been demonstrated not only feasible but also essential for the social context of that time. The isolation from the outside world and the pursuit of same social ideology bounded the two nations closely, and for some time, the Soviet Union was obligingly regarded as the “hand-in-hand socialist brother”. As Soviet’s influence dominated China’s economic, military and scientific realms, China’s higher education also bore a strong Russian imprint in the 1950s-60s. The highly centralised top-down administration in finance and curriculum systems served the only goal of assisting the construction of the new socialist country.

The economic reform and the opening up of policy, initiated by the second generation of leadership, redefined the primary goal for Socialist development, at that time, as the comprehensive socio-economic construction and modernisation. The key theme was to realise the general social welfare via the rapid economic growth and material abundance. Corresponding to the increasing demands of new knowledge and technology for sustained economic development, education, especially the higher education, for the first time, is set out as the major force for determining and driving the social economic development.
As described in Chapter four on the recent educational reforms, throughout the 3rd generation (1993-2003), China’s government implemented a series of policies in enlarging the higher education enrolment rate and in developing new academies which are closely related to the modern industry and operation. This practice does prove effective in promoting education’s functions in economic growth, but, at the same time, create some wider social issues. The potential for providing the skilled human resources and for promoting technological advancement, higher education is nowadays acting more as a commercial sector under the market economy. It does possess the characteristics of commercial functionalities. People pay for their education, and always consider the value added for the “investment”. This, in most cases, is more about the market value for a career development; while in today’s highly rigorous commercial competition among institutions and employment pressures on students, the value for higher education in its role of personality cultivation and social cultural development has been largely ignored. The social function of higher education in developing the social citizenship and cultural preservation has been blown away with the students’ and institutions’ pursuit of short-term benefits.

Today, the world-wide trend of globalisation takes China’s Socialist construction into a new era with the new task: how to readjust the reform to benefit both the economic and social development becomes a new topic for the higher education system. The further restructuring of the higher education system to fit itself into the global competition marks the third phase of the reform (Fang & Fan, 2001).

7.3.2 Decision-making from Central to Peripheral Pattern

Before the Socialist leadership established in 1949, China had experienced over twenty years of anti-aggression war against foreign invaders, and three years of civil war afterwards. The new country, in its early years, was in an extremely anarchic state in political and economic operations. A highly centralised leadership was once in dire needs in guiding such a large country’s economic recovery and construction as a whole (Falkenheim, 1989). The wholesale and uncritical borrowing from the Soviet model occurred under such circumstance, pushing all the sectors toward centralisation and authoritarianism throughout the national political, economic, and social functions.
The social policy making, therefore, has shown a strong feature of the rationality-bounded steering manner (see Chapter six).

However, the sheer pursuit of political verity and domination, together with the excessive debate on the “ism” (Socialism or Capitalism) in politics during the ten-year political movement of “Cultural Revolution” almost destroyed the first twenty years socio-economic achievement. Political debate and movement dominated the lives for all, at work or home; intellectuals put down their pens and books, and workers covered their machineries. People, willingly or reluctantly, dived into the unprecedented, nation-wide political movement. The turning point was in 1976 when the Party declared economic prosperity and social modernisation as the top agenda for the time. Hereafter, a series of political and economic restructuring were taken on, through which the expedited reforms were carried out in decentralising the central governance and its power of decision-making and, at the same time, in promoting the economic rationalism into social public administration. Higher institutions, no longer being subject to the rigid control from central authorities, began to be endowed with more autonomies and flexibilities in daily operations. For the first time, the institutions could execute their power on the personnel management, fund collection and disposal, student enrolment, curriculum design, textbook selection, and other external communication activities, the details of which have been discussed in Chapter six.

Meanwhile, the decentralised personnel allocation and free competition brought about a significant change in the training system. Under the new market economy, it is the market demand and supply, rather than the government plan, that fundamentally determines the human resource allocation and utilisation (Chen, 1999). The higher education curriculum, no longer designed and served for the political demand, starts to adjust itself to economic and market demands. Today when knowledge and technology advancement become the decisive driving force for the economic success, the markets are now calling for a more flexible, comprehensive and adaptive labour forces (Yang, 2000).
Though the voices from the market and the higher institutions become increasingly loud in decision making process, the power from the central authorities is still the top factor in shaping up policies for national and international affairs. The current process of decentralisation and deregulation does not necessarily wipe out the governmental control; on the contrary, these reforms and others are actually the strategic steps to achieve a better and more effective leadership for socio-economic development. While decentralising some power to the executive units, the government is still holding its power of re-examining the priority and options in the higher education system for economic modernisation and economic globalisation (Cai, 2002). In this sense, the administration from the central government now shows a feature of macro monitoring rather than the interventions and controls on the day-to-day operations over the higher education and institutions. It is something relevant but rather different from the mainstream of the western policy making models discussed in Chapter four, in its Socialist characteristics of micro-execution and macro-control.

7.4 The Higher Education Financial System Under Reform

The discourse of global competition, driven by economically motivated marketisation and commercialisation, has dramatically changed the global higher education market and operations. With respect to the ideology of current movement of globlisation and marketisation in Chapter two, neo-liberal economics, which is regarded a fundamental for globalisation and the free market, has become the dominant paradigm in the higher education world during the past two decades (Altbach, 1998). Today, seeing the great success of the past twenty years' practices of the open door policy and extensive transition towards marketisation in the economic world, people warmly applaud this market-oriented reform in China’s higher education system. The neo-liberal economists puts forward with a diversified financing approach for higher education fiscal system, which used to serve as “public good” solely supported with government taxation. In discussing these trends and arguments, Chapter five depicts a changing structure on higher education’s fiscal management, from both the national and international perspectives. The approaches are illustrated in details on:

- the government decentralisation;
- the tuition fee charging;
- the university enterprises;
- the cooperation with business; and
- other donations and endowment.

Nevertheless, with the launch of a series of reforms, first in economics, then social sectors, advocates seem to overlook the possible negative impacts of globalisation on China’s higher education, and pay insufficient attention to make it more relevant to local environment (Yang & Welch, 2001). To build up a customer-focused business model and to embrace the market demand are now believed among the university administrators as the key to survive and prosper in today’s rapidly changing world (Currie, 1998). On the institutional level, fighting in the increasingly competitive environment, developing countries tend to use key projects to drive the reform process and establish priorities, and are focusing investments “only on a few universities” (Cai, 2002). Within each institution, the establishment and enhancement of some highly-demanded subjects have been argued to deleteriously affect the education development, with national planning, industries and the professions extending their influence on higher education (Barnett, 1990). The situation generally in China’s higher institutions is that funds are concentrated on the subjects with high demands and potentials for commercial purposes (e.g. Information Technologies, the biology and medicine, and the financial and economics studies). Even within the same field, different divisions are telling different stories. The pure theoretical studies for chemistry can attract far less attention and investment when compared with biology and medicine.

While the result of these reforms and changes remains to be seen, the dissension among higher institutions, and the tension between departments and groups of different professional ranks within those universities have already become palpable. Such tensions within or outside the campus appear in various aspects, including personnel management, curriculum design, and fiscal administrations. However, basically, they are all directly or indirectly resulted from the funding allocation and competition under the almost pure commercial manners. Based on the evidence and analysis discussed on each reform and change in Chapter five, the following part will devote more attention to the possible impacts of fiscal decentralisation on higher education from a broader social perspective.
7.4.1 Economic Pragmatism in Higher Education Management

With the new economic standards being employed as the major benchmark for performance evaluation, China's higher education takes significant steps for its progress towards marketisation. Advocated as effective in arousing people's creativity and innovation, the new standards are now concentrated more on the practical, or technical value of higher education. The capability in carrying out the business-related activities and researches and in applying the research output into profitable productions becomes the key factor for performance. Within universities, the disparity of financial allocation becomes increasingly intensified between the departments with more commercial potentials and those on the basic theoretical enquiries, the arts and the humanities (Altbach, 1998). The cooperation between universities and the industry, seen as among the most effective channels for technology and application, is counted essential in building up a successful model for economic and educational innovation in the 21st Century.

However, when the industry's growing interests in university research becomes increasingly accepted as a symbiotic relationship between the higher education and the imperatives of the labour market, the authorities need to rethink the balance between the opportunity and threats for the whole society (Currie, 1998). The post-1980's promotion of marketisation, economic choice and free competition to higher education had some profound influence on the traditional valuation of teaching and learning. As seen in the concrete policies and measurements described in Chapter five, based on economic and fiscal considerations, contradictions and adversarial relations between university and business are brushed aside by ignoring a whole range of thorny issues. Knowledge transmission and personality development are far less considered in the new evaluation and fiscal system. As it is indicated, the number of publications, research grants, graduates, among others, and number alone, counts increasingly in universities and in most authoritative university ranking systems, and are directly affecting some fiscal issues. With the social and cultural functions being largely weakened in higher education, the new approach bases the evaluation standards for good and bad in academic fields purely on its value and performance from the commercial perspective. Solely driven by short-term commercial benefits and values, the new standard creates institutional winners and losers in the competition for enterprise-based and student-based funding models, either of which is,
to great extent, related to their success or failure in commercial functions. Similarly, the overwhelming emphasis on the active collaboration between research institutions and the business community has led to the increasing disparities between applied science institutions and pure academic research sectors, especially in humanities and social science.

Additionally, the redefined commerce- or market-oriented evaluation standards prevail inside the universities for survival and for success. This situation has been intensified with the decreased funding and support from the government. Already seen its inspiring impacts on institutional innovations, the fiscal reform and diversification needs to be reconsidered on some broader social impacts. Under the growing pressure for funding competition, the division and fragmentation of higher education diagnosed by Clark Kerr in the early 1960s are now quite conspicuous in every campus (Kerr, 1982). There has been little voices and consensus on what should be taught and how it should be taught to identify a better way for individual spiritual and personality development during the process of higher education. On the contrary, the demand for industry and labour market and for students as fee-payers determines the trend and content of the higher education teaching and learning, as well as research activities. Courses are often now cancelled unless enough students enrol for the business profit. Conversely, if a good many students, or higher education consumers in business perspective, are interested, any vacuous course can be taught to meet with the economic demand.

The emerging threats of pragmatism and accommodation in higher education are represented in its aggressive manner as if they were the ONLY viable strategy in the post-modern reality of the capitalist world (Altbach, 1998). As Clark (1993) has stated, too much concerns are now concentrated on elements like finance, economic returns, human resource development, efficiency, effectiveness, costing, private funding and the like. Education policies are more and more subject to the economic rationalism based squarely on market selection and human capital theory; the traditional function of the transformation of substantive knowledge and ethics of profession, is functioning more as a sadly vacuous place for the licensing and professionalism orienting to the demand of business and labour market. Once professors professed,
now according to critics, they are merely professionals, entrepreneurs, careerists, and opportunists, as in the corporate world (Readings, 1996).

The diversification and flexibility in the higher education management are not necessarily declined in this sense, but need to be adjusted to have both the commercial parts and educational parts co-existing in a more balanced manner. When one is developed over the other in an overwhelming manner, e.g. when the business communication and letter composition are overemphasised in the English learning, and when the traditional language and cultural studies are faced with the revision, measurements and actions need to be considered through regulations and credit requirement.

7.4.2 Financial Diversification and Equalisation Crisis

With the dramatic decrease in public funding provisions, universities are now encouraged to seek for more diversified channels to raise funds for everyday operations and other purposes. Obtaining funding via donations from society, enterprises, public institutions and individuals becomes popular in institutional practices, and students are now required to pay full tuition fees (detailed descriptions on the new funding system in Chapter five). According to the National Bureau of Statistics (NBS), higher education tuition fees increased by 584% during the period from 1998 to 2002 (NBS, 2003, also see in Chapter five). The commercial activities have shown a pervading domination in the public fiscal systems. As the professoriate is increasingly seen as a means to raising income for academic institutions (Altbach, 1998), the need to operate profit-making enterprises distracts the staff from their legitimate academic functions. Engagement of faculty in moonlighting activities is a common event in China (Ch’i, 1997).

Today, with the large scale promotion and prosperity of economic rationalism and marketisation in world’s major countries, the idea of education as the investment in human capital becomes a key plank in official educational policies in many developing countries. The increasingly dominant power of human capital theories and the subsequent structural adjustment accordingly replaced the traditional value of
higher education as public good for all social citizens and threatens academic freedom for knowledge construction and transformation. In spite of the undeniable business success, this reductive and functionalist view, seeking economic rationalism and profit-maximising, shows a negative effect for promoting educational achievement, especially among the lower social classes (Chen, 1999).

The average rate of higher education participation, illustrated in the expansion of higher education in Chapter four, has been consecutively increased during the last decade. Higher education sector has been rapidly expanded with the gross rate increasing from 3.4% in 1990, to 9.1% in 1995, and to 15% in 2002. In order to further drive economic growth, China’s government lifted the longstanding restrictions on marital status (the requirement to be single) and age (a maximum age of 25 years) of student examinees (Cai, 2002). Among the initiatives of these policies is to stimulate individual spending on education, since higher qualification has now been regarded as essential for guaranteeing good career development in today’s knowledge-based environment (Postiglione & Jiang, 1999).

Nevertheless, the favourable policy environment and the dramatic rise in higher education enrolment are largely counted on the rising figures of large cities, especially within the high income families. Children from low-income families find it even more difficult to participate in higher education compared with the situation before the reforms and expansions. Even if they are qualified in the university entrance exam, the increasing costs for fees and costs are forcing them back to home. Families can no longer count on the subsidy from the government: the entrance to universities requires both hard work and financial capabilities. The issue is especially worth considering in China where there are 900 million populations in rural areas out of the country’s total population of 1.4 billion. The disparity in the economic status between the urban and rural areas has been large in the early years and has been even expanded during the industry-focused economic reforms. According to the 2005 consensus from National Statistics Bureau (2005), the per capita net income is RMB 12,493 (US Dollar 1587.4) for city dwellers and 3,255 (US Dollar 413.6) in rural area, which indicates a gap as large as 3.22:1. The average costs for higher education is from RMB 4,500 (US Dollar 571.8) to 6000 (US Dollar 762.4) per year for tuition charges and from RMB 800 (US Dollar 101.7) to 1000 (US Dollar 127.1) for accommodation. That is to say,
to supply a university student for the four year undergraduate studies, a family in rural areas has to save up for eight years without spending any.

Taken altogether, the ideology underpinning this transformation could be summarised as the assumption that education is a private matter of individual choice and personal benefit gained by graduates for the employment market (Xiong, 2001). The responsibility of the common good, as used to be the prime ideal for education, has now been devolved to the “spirit of competition and the aggregate of atomised individual choices”. Walking further and further away from the pursuit of academic achievement and knowledge transformation, higher institutions nowadays are driven towards the supposed rewards and incentives of the market place (Smolicz, 2000). One of the major functions involved is the competition and evaluation system based on the quantified institutional performance. It is directly affected by the government initiative towards a more competitive allocation of operation funds, which have demonstrated increasing inequalities within higher education institutions (Cai, 2002).

### 7.5 The Curriculum System under Reform

Chapter six depicts the process of China’s curriculum reform. Each reform and change have been analysed against the social political context, and the policy making process of the time. These factors are defined as decisive in forming the curriculum design and construction. Some evaluations are conducted against specific background.

Based on the evidence illustrated in Chapter six, the following section places more emphasis on the interaction between the socio-economic transition and the curriculum adjustment for each period. The discussion situates its focus in the context of the country’s significant transitions from the planned to the market economy, together with the influences of the world trend of globalisation and China’s 2001 entry into the World Trade Organisation (WTO).
7.5.1 Higher Education Curriculum Structure and Design

The environment for China's higher education construction in the 1950s and 60s was that after over 30 years of international and domestic war, the country, under the leadership of the Communist Party, was in urgent need of a centralised political power and to develop the political-legal work for the socialist system (Xue & Shen, 1997). Education in higher institutions represented a strong political imprint and was borne with the sole purpose for serving for early ages of industrial reconstruction and for enhancing the power of new leadership throughout the country. The major task for higher education at that time was to train the professional experts in a planned way and assign them to the right positions.

As detailed in Chapter six, because of the highly centralised social and political systems in the early years, the curriculum for national higher education showed a clear trend of overspecialisation with unique hierarchies of disciplinary structure. Applied social science, first the politics and law, then the finance and economics, was considered the most essential at the time, followed by the new technological specialisations and professions serving for the demand of agriculture and industrial construction. The highly specialised curriculum system was of great significance and function for the historical and social context of that period.

From the end of 1970s, the social transformation to economic modernisation and globalisation has flattened the former hierarchy of the higher education curriculum, following the increasing enrolment in economic and finance studies. The structure has been readjusted from time to time in response to the changing demand of economic development. In the early 80s, China's leadership put forward the idea of "the Comprehensive Modernisation in Industry, Agriculture, Military, and Science" as the top agenda for nation's social development (Zhao, 1987). Science and technology becomes the key to ensure the economic growth, product quality, and the overall economic efficiency (Altbach, 1998). A collection of western advanced scientific work and achievement have been introduced into domestic academia.

Besides, China's economic development, especially following the increased involvement into global activities and the entry into the WTO, requires more human resources with proper managerial skills against an international context. Early in
October 1984, the central government started to attach more attention to the systematic management studies (Xue & Shen, 1997). Today, the country’s dramatically rising cooperation and communication with the outside world and the active participation in international economic affairs, requires some new techniques being introduced into the training for professionals with strong capabilities in a globalised market. On the other hand, although the design and settings of curriculum has been largely oriented to the students or market demand, the design and techniques of current higher education programmes, especially in social science, are far behind the international levels. Subject to the long abidance to the centralisation of state power, the materials and techniques for the management studies need an extensive revolution (Hao & Long, 2000).

In addition, today’s reform also encourages a wide practice and management skills in applying and commercialising research and development outputs into actual economic process. To realise the market value of researches and achievements is turning into the top objectives for current higher education institutions (MOE, 1998). This process involves not only the practices of science and technological research in higher education institutions, but also the proper, professional managerial techniques in coordinating in different stages with various divisions and sectors. New management techniques include the understanding of how technology can be altered to improve the quality of production, and how products can be altered to produce higher quality at the same or lower cost (Doll, 1993).

7.5.2 Emphasis on Research Functions in Universities

China’s higher education used to be a major supplement in providing the right labour forces for the socialist construction. As Hao and Long (2000) state, “students were specially trained into an appropriate lifelong post within the socialist bureaucracy and expected to apply their skills to the socialist modernisation”. Serving for this purpose, teaching and learning was the major form for educational practices; research and innovation were pushed to the edge of educational functions — critical thinking and innovative practices to books and authorities was considered as the departure from the classics and the rebel against orthodoxy. Indeed, to some extent, this system proved to be feasible for the short run under the specific historical and social context of 1950
and 60s, and has played an effective part in the first twenty years of the national construction.

Nevertheless, along with the huge commercial success in the economic sector, the twenty years of promotion of open-door policies, market economy and free competitions have shown the incompatibility to the traditional social systems. Economic reforms are calling for a more profound revolution in social and political systems. In higher education, institutions are taking more responsibilities in knowledge and technological advancement and innovation. Chapter six illustrated how such a restoration of the research and innovation functions into higher institutions has come out and gradually flourished across the nation. In the 1980 and 90s, following the comprehensive economic reforms and constructions, China’s higher education opened up to a broader global dimension. The western burgeoning ideologies of liberal education and those of German-American research-oriented universities have enlightened much inspiration (Cai, 2002). The university-based research and development has grown dramatically in China, and has displayed its talent for the first time in raising the academic standards and in enhancing the unique identity of the universities (Chen, 1999). Besides, thanks to the changing requirements for human capital, the curriculum in higher institutions is diversified throughout the whole education process, from course selection, teaching manner and method, to achievement assessment. Critical thinking and innovation from higher institutions, apart from the traditional imbued learning, show the growing influence in adjusting and guiding the future social and economic development.

As Pan and Wu (1989) have pointed out, the curriculum construction in one period is under the strong impact of the specific education ideologies for a specific time and social context. From the early years of highly specialised training system to the current trend of building up the multi-functional new university, China’s higher education can never be analysed on its own.
8 CONCLUSIONS AND RECOMMENDATION FOR FURTHER RESEARCH

8.1 Conclusion

Propelled by the national economic growth, China’s higher education, in the 1980s and 90s, achieved an unprecedented commercial success. The process of decentralisation in the central government successfully aroused a sense of self-determination and economy-orientation in the former highly monopolised public sectors. Market induction, free competition and the 3Es (economy, efficiency, effectiveness) were introduced into the daily operation within higher education institutions, guiding and evaluating their performance and ensuring their success in growing competitions for funds, projects, and students. The new system of “assuming the sole responsibilities for its profits or losses” (Ouyang, 2004, p17) has shown a favourable influence and led to an active interaction of higher institutions with the government and with the market.

It is worth mentioning that the analysis of “marketisation practices” in China’s higher education should not follow a radical transition from “the state” (the non-market and bureaucratic) to “the market” (the non-state and corporate). Ever since the end of the Culture Revolution, the country’s higher education system has experienced a global trend of reducing government provision in higher educational services, which has resulted a much more market-oriented sector. However, this trend, including free market competition, full decentralisation and private provision in the global higher education sector should not be assumed as a simplistic, universal one; instead, every nation should take into account its own specific situation.

In the fiscal sector, the education system confronts increasing difficulties in maintaining the requisite funding levels as social spending on education outpaces economic growth. Hence, it is required that the services offered by educational institutions should be justified. The dynamic environment compels administrators of universities in China no longer to possess the conservative attitudes in relying only on government supports, or to passively react to the change. Rather, they need to respond
proactively to the external environment, and customer demands. Administrators are required to be marketing-oriented and put this concept into institutional entrepreneurship to deal with the tumult and dynamic changes under the transitional state. The diversified model for funding collections has replaced the rigid, simplex provision from the government: the competition for resources effectively accelerates the institution's process to the market-induced manner; and on the other hand, the growing autonomy in funding assignment enables the institutions to enhance themselves in market competitions. The same story is also taking place in the curriculum sector. Though changes have been occurring slowly in motion, the system does become more practical and customer-oriented to the market demand.

The market orientation, in fiscal or curriculum system, is now playing an important role in strategic planning for universities that meet various market demands. The overall objectives of the current market-oriented reform on China's higher education system are to smooth the relationship among the government, the society and higher education institutions. Under this new system higher education institutions follow the rules and guidelines according to the service requirements of the society, while the central government is responsible for the overall macro management at the top level. Much effort has been made from the central government in setting up laws and regulations for the practice of new management style into higher education (Cai, 2002).

During the past two decades, China's higher education system has experienced a tremendous transition in various aspects, including the setting of policy for market-oriented financial resources re-allocation, decentralised management with more freedom for higher education institutions, the advent of private education and many more. These developments demonstrate the sharing on the responsibility between the state and non-state sectors in providing educational services. With marketisation being the main theme for China's higher education reform, education somehow has become a type of commercial service where suppliers inevitably need to compete with each other in the market and consumers are also required to consider their financial capability before enjoying the services. In spite of these, the new system, with solid concerns of China's specific situation, still exhibits some significant differences from the pure private ones. As such, the strategy for controlled decentralisation and
diversification of educational services has led to a hybrid system within the public sector being the mainstream but it also allows spaces for the development of private education.

However, it is noteworthy that the strategies adopted by the CCP in creating more educational opportunities in response to emerging market needs are highly instrumental. The aim is to improve administrative efficiency and effectiveness as well as resolve the fiscal crisis which the state is now encountering rather than to make a fundamental shift of value orientation (Mok, 1998). In this sense, China’s experience can be argued as the government’s attempt to make use of market forces and new initiatives from non-state sectors to create more learning opportunities, instead of a fundamental shift to managerial ideology and practices. Despite an ongoing effort toward the marketisation of higher education in China, both policy and mechanism are either confusing or their effectiveness is questionable. Without systematic research or development, the process of marketisation cannot break entirely out of the frame of planned procedures. Thus, the government continues to exert central control over the system. In this regard, the most crucial question in the debate over the ‘Public and Private’ distinction is not Public or Private.

After over a decade of endeavour adjustments since 1993, the structural reform of higher education has gained heartening achievements in education provision, management, investment, recruitment and job-placement, as well as the inner-institute management. However, today, with the reforms being carried out for over twenty years, issues in choosing between public and private have emerged in the process of implementation of reforms and policies. The problem is especially critical in protecting the basic social welfare and protection. Contrast to the consistently expanded university enrolment rate, the opportunities for students from low-income families, particularly in rural areas, has been hugely attacked by the introduction of fee charging. Now in China, increasing youth have access to the higher education, from four years university education, two or three-year technical colleges, to open media training programmes. However, the pre-condition for all types of higher education is that they can afford what they choose. In addition to the arduous process for qualifying in the University Entrance Exams, they have to be able to afford the growing higher education costs, which used to be covered by the government.
subsidies. The financial pressure is now even expanded to the middle-class families in many large cities. This, with no doubt, has completely broken their dream of “a better life”. (In China, due to the large disparities in socio-economic growth and general living standards between rural and urban areas, and between under-developed and developed regions, families have counted on their children to get a decent job in the cities to change their “status”. This is always supposed to be achieved through receiving the higher education as the first but essential step for this dream). Many families now have to give up their plan for buying properties to support a university student. The issue is really in dire need to improve when considering that in this country, 9 out 14 of the populations are living in rural area.

Besides, the highly market-induced fiscal and curriculum system can be seriously threatening the traditional value of knowledge transformation and personality cultivation for higher education. To get more advantages in highly competitive labour market, people are thronging to the popular areas in information technology, the business studies and etc.; the huge unbalance in the development of different academic areas shows everywhere in the national higher education institutions.

Those issues and others are directly related to the fundamental question – how to establish a proper balance between the public-sector based education and the private one. What is crystal clear, then, is that the future of social provision is a much more overly mixed economy. The country needs to strive for a delicate balance between the public and private provision to ensure cost-effectiveness in the service delivery but not at the expense of the promotion of human well-being. The future development for China’s higher education requires a proper instruction to enable a more balanced manner, either in the higher education itself, or in achieving its wider social, cultural functions. The central government, with its unique power of monitoring and control, is supposed to play essentially in this adjustment.

8.2 Implications for the Future Research

In summary, as the response to the world-wide trend of globalisation reflects each culture’s unique way of adaptation to change, the analysis of social phenomenon can never be isolated from its own. This study aims to perform an in-depth investigation
on the reform of China's higher education system during the past two decades, with focus being on the management decentralisation, financial resource re-allocation, and the relationship between public and private education sectors. Analyses are grounded into the wider background of national and international economic changes during the period. In spite of the numerous research efforts that have been made on this large-scale transition process during the past two decades, it is still difficult to reach a solid agreement on the costs/benefits of such a massive innovation. The study emphasises the government's role in steering and monitoring the innovation, and tends to contribute with some implications and suggestions for the future studies on China's higher education system, especially with the global context. Along with China's entry into WTO, the issue on how the country's higher education responds to the reinforced influence of globalisation is becoming a popular topic among Chinese academics (Cai, 2002).

This study can be regarded as a useful starting point for analysing the transition of China's higher education system over the past two decades. However, some important issues definitely deserve further discussions. Instead of taking the higher education policies as a whole, further research can be carried out, focusing on in-depth analysis and discussions on the specific policies and to suggest more sophisticated guidelines for future development. Besides, different higher institutions need to be examined individually on the institutional level. Issues involved may include how the institutions respond to the changed environment and policies; the mode of interaction of the institutions with the central authority, and with the other related social sectors, as well as the educational ideologies and evaluations systems adopted by each institution.

While these efforts are quite impressive, one should not forget that as a whole, education in China, the most populous country with extremely unbalanced economic and social development, is still under-cultivated. To accommodate the socio-economic development and satisfy the youth's desire for higher level education, China's education sector still has a long way to cover (Chen, 1999). The future development requires country-wide's efforts in increasing education funds, improving schooling conditions, boosting teaching competence and strengthening education administration. Further, China is still in the process of making the transition from a
planned economy to a market economy. The complexity of making these two parallel transitions presents enormous challenges. However, if one looks back to see what China has achieved over the past two decades, there is every reason to be optimistic on the future provide that country can maintain the course of knowledge development and social function of the higher education sector with specific consideration of national and international social-economic conditions.
9 BIBLIOGRAPHY


Christopher Hood. Paradoxes Of Public-Sector Managerialism, Old Public Management And Public Service Bargains. Paper prepared for IPMGN Conference, Macquarie University, Sydney, 4-6 March 2000.


