CHAPTER 1

INTRODUCTION

1.1 Problem Statement

Higher education governance and funding have become hot spots in a worldwide crisis for colleges and universities today. From an international perspective, higher education confronts dual pressures - of rapid growth in participation from a broadened socio-economic mix of students, and of an increasingly severe financial stringency. In addressing the compounded pressures, government rhetoric expressed in policies for higher education has concentrated on enhancing its efficiency and tapping new resources to finance it.

Like elsewhere, in China, the expansion of higher education has been dramatic and radical since the early 1980s with an increase in annual intakes from 281,000 students in 1980 to 1,010,000 students in 1997. This tremendous growth was both a result of, and a driving factor behind, government policy changes in higher education governance and funding. On the one hand, the fast growth in the Chinese economy resulting from the nation-wide economic reforms started in 1978, requires more and better educated and effective work-forces. On the other hand, the financial capability of the state to support the expanded system has been continuously declining. Under such circumstances, the Chinese government embarked on fundamental reforms represented mainly by devolution and deregulation in higher education governance, imposing fee charges, and encouraging the sale of academic services of institutions to promote a diversified funding base in higher education.

The fundamental reform agenda mapped by the Chinese Communist Party and the State Council in 1985 and 1993 documentations (CCP, 1985; CCP & State Council, 1993), reshaped overall policies on the
governance and funding of higher education in China. The sweeping reforms have led to three clear-cut significant shifts in the current patterns of governance and funding:

- a shift from centralised state control of governance to a state supervising model;
- a shift from complete dependence of higher education upon state-funding to a greatly diversified funding base (50 percent of institutional income is generated from non-state sources in many Chinese colleges and universities); and
- a shift from free-of-charge higher education to imposition of, and increasing, fee charges (about 20 - 40 percent of higher education cost is charged in most institutions).

These profound changes have exerted a significant impact upon the mission of higher education and quality, efficiency and effectiveness of the system.

Research interests have emerged internationally in the changed relationships between government and higher education (Neave & van Vught, 1994) and in the current changing patterns of financing of higher education (Altbach & Johnstone, 1993; OECD, 1990). However, few in-depth and systematic studies synthesising issues of governance (not merely financial management) and those of funding have been conducted although the two are closely interrelated in theory and practice, since many governments have taken financial incentives as a way of steering the development of higher education. Marceau (1993) attempted to address the trends of the governance and funding of higher education which is reviewed in Chapter 4, but his report was limited to some developed countries only. A literature survey for the current research also found that while a limited literature has addressed some general funding issues, changed budgetary processes and marketisation of Chinese higher education (Hartnett, 1993; Min, 1994; Yin & White, 1993, Lewin et al., 1994), few updated and detailed research studies on the impact of the latest governance and funding reforms driven by the 1993 government policy package in Chinese higher education have been reported. This represents a serious gap in the knowledge and understanding of issues and problems related to the radical changes in
higher education governance and funding, thus hindering the innovation of effective policy options to redress them.

1.2 Aims and Focus of the Study

To replenish the shortage and the knowledge gap as shown above, the current research aims to explore and determine major effects of government recent policy changes in both governance and funding of higher education upon the function of higher education, and on quality, efficiency and effectiveness of the system in China. Moreover, this thesis attempts to recommend some policy options to remedy any major problems raised in the reforms and to conjure up some general prospects, extrapolated from current global trends, of higher education governance and funding in the near future.

This thesis discusses issues of governance around external and internal financial control systems of Chinese higher education and around resource mobilisation and allocation, rather than investigating them from political or general administrative and managerial perspectives. This is coupled with a discussion of major funding issues raised in the funding reforms affecting higher education provision and the structure and function of the system. The discussion focuses on the most significant funding trends of recent years in China (a theme of research still in its infancy in both Chinese and international literature), namely, the diversification of funding sources in Chinese higher education. Although the study encompasses broader issues, discussions are based on the detailed data developed from primary sources of Chinese national and local newspapers over more than a decade, questionnaire surveys of university managers, interviews of different interest groups, a case study of a Chinese university, and personal correspondence of over three years with academic staff, students and managers.

1.3 Structure of the Presentation

The structure of the remainder of this thesis flows from the aims of this research and falls into three parts. Following this introductory chapter,
Part I, consisting of three chapters, presents a comprehensive review of relevant literature ranging from a general survey of documentation on governance and funding systems of Chinese higher education (in Chapter 2), through a brief overview of the history of Chinese higher education with greater weight to the reform period after 1985 (in Chapter 3), to a wider perspective of current international trends, issues and policy options in the governance and funding of higher education (in Chapter 4). While summarising the existing worldwide research results that provide important background knowledge to this research, as well as defining areas of theoretical and empirical weaknesses of the current literature, Part I concludes with a clear conceptual framework of research questions to be investigated in the main body of this thesis. Part II, Chapter 5, describes and justifies the methodology used to achieve the aims of the current research.

Part III, made up of seven chapters, is a presentation, analysis, interpretation and discussion of the research findings obtained through an analysis and triangulation of rich sources of data surveyed for this research. Chapters 6 and 7 concentrate on issues of governance, exploring the impact of management reforms on both internal and external governance and finance of higher education institutions. Specifically, Chapter 6 examines the rationale, magnitude and consequences of the changed state-institution patterns on mobilisation and allocation of financial resources for higher education. Chapter 7 revolves around internal management, looking into issues of efficiency that the internal management reform was intended to achieve.

Chapter 8 presents an overall and general discussion of current significant trends of higher education funding in China, represented by diversification of the funding base through the sale of academic services (see Chapter 9) and fee charges (see Chapter 10). The general discussion in Chapter 8 sets the context for Chapters 9 and 10, which explore in detail the effects of the changes on institutional priorities, the quality and efficiency of the higher education system, and extend the exploration further to the relationships between higher education and the society. A more detailed and in-depth observation, illustrative of the
issues and problems in the interaction of a Chinese university with pressures for governance and funding reforms, is reported in Chapter 11 through a case study. Chapter 12, the final chapter, is bifurcated, summarising the current patterns and major issues identified in the current research and the general policy options recommended by this researcher in each of the discussion chapters, and concluding on prospects for the general directions in which higher education governance and funding is currently trending in a global perspective.

1.4 Significance of the Study

Some importance of this research was already alluded to in the early part of this chapter. Firstly, the three shifts (see page 2) embody far-reaching and revolutionary changes in the ways of governance and funding of higher education in China. However, relatively little has been published about the impetus of the revolution to the relation between higher education and the society, and a need remains for a detailed and analytical review of the issues raised in the dynamism of changes. These issues concern institutional priority, academic quality, certainty and availability of funding, and equity and efficiency of higher education provision. In the light of the multifaceted roles and functions of higher education in modern society, failure to attend to those governance and funding issues could easily jeopardise the achievement of long-term goals for higher education. This research has attempted to fill the gap in this area.

Secondly, this study provides updated country study findings for future comparative and empirical research in international perspectives. The findings about the current changing patterns of Chinese higher education governance and funding are strikingly paralleled by some international trends despite the latter taking different forms in detail. It is on this ground that the researcher proposed a series of policy options for Chinese higher education incorporating some successful international experience, and formulating some overall conclusions on general prospects, beyond national horizons, of higher education governance and funding in the near future. Due to the global comparability of the results
of this research, the current study makes an important contribution to
cross-cultural and comparative studies by providing an updated data
base from the Chinese case study and promoting general understanding
of common issues albeit with significant differences in detail, for scholars
and policy makers in other countries.

Thirdly, the personal background of this researcher (a Chinese who
formerly worked as a senior academic in a university in China) is
believed to provide this country study with some additional advantages,
in terms of her being bilingual and an insider within the system. The
advantages include collecting data (conducting interviews and surveying
Chinese newspapers) directly from primary sources without going
through an intermediary (eg, a translator or interpreter); perceiving
Chinese systems from a vantage point of a Chinese with relevant
expertise; and understanding intuitively and relatively authentically
some unique aspects of Chinese culture and society in which Chinese
higher education is embedded. The current research with these
advantages is able to develop insights in interpreting events and issues
in the Chinese context and thus to contribute to a deeper appreciation
of the recent developments in the governance and funding reforms in
Chinese higher education.

The final significance of the study is derived from its methodological
convergence through using different methodologies (qualitative and
quantitative). The use of a variety of methods (ie, documentation
research, questionnaire surveys, interviews, case study and personal
correspondence) achieves triangulation through drawing on qualitative
and quantitative data collection and analysis procedures in this
research. The methodological triangulation minimises the weaknesses or
intrinsic biases that are inherent in any single method research design.
The mix of methodologies helps to add scope and breath to the study
and to find new perspectives.
1.5 Limitations

In spite of the contribution and significance stemming from this research as argued above, limitations need to be acknowledged in terms of the official materials used, size of sample obtained and personal stance of this researcher. (Methodological limitations of the present research are discussed in greater detail in Chapter 5.) As this study relies heavily on the reports published in the Chinese official newspapers and other news press controlled entirely by government agencies, it is unlikely that the current research will be free from political, cultural and social biases. Generally speaking, government organs of press often carry excessively favourable remarks about government-driven reforms while disclosing fewer adversities and serious problems in the reforms. This is also true with other publications in China including academic and research documentation. The lack of transparency of media impedes critical but healthy inputs to the reform agenda and affects the trustworthiness of the materials published and used for this research. To address this issue, this researcher adopted a research methodology of triangulation as noted above (see also Chapter 5) to improve validity of the information used. In addition, every effort was made to maintain a critical viewpoint in dealing with all the raw data.

Another limitation that warrants similar attention is the small sample obtained for the questionnaire surveys, interviews and personal correspondence used in the current research. Lack of trust from prospective participants (that is, ethical and political concerns) and funding constraints to this research were two main factors contributing to the low sample size. Suspicion of the motivation of this research (Who and what is the research for?) derived from the location (Australia) where the research was undertaken and the nature of the surveys. Some respondents expressed their suspicions explicitly in their incomplete questionnaires or in letters to this researcher, although much explanation for the benefit of the surveys for the system had been given. The cost of conducting interviews (including international telephone conversations) limited the number and the time of interviews. So, information obtained from this relatively small sample for a system of
the size and diversity of Chinese higher education limits representativeness. This is also true with the case study of a Chinese university conducted for this research. In view of this limitation, the research treated the data as illustrative rather than definitive and supplemented them with an analysis of aggregated national data.

Although this researcher has the advantages derived from her former residence and professional experience in China, the advantages could sometimes turn into disadvantages in terms of cultural bias that may arise in analysis and interpretation of data. Being aware of the potential threat to the ecological validity of the research, the researcher sought to adhere to a scientific and objective stance as well to maintain a sensible and critical attitude throughout the entire research process which was further complemented by quantitative statistical analysis.
PART I

REVIEW OF RELEVANT LITERATURE
INTRODUCTION (PART I)

As indicated in Chapter 1, the current research aims to explore and determine major effects of recent government policy changes in both governance and funding of higher education. Moreover, it attempts to redress problems raised and conjure up some general prospects of relevant international trends in the near future. A thorough review of relevant literature is clearly necessary to examine the historic, social, economic and political environments in which current patterns of governance and financing of higher education in China are embedded and on which they act, as it provides important background knowledge to issues to be investigated in this research. It is also imperative to identify current international trends in the relevant areas around which international debates are located. The international debates about governance and funding of higher education offer wider perspectives on issues and options for the current global trends and also enlighten policy development in the Chinese context. The positive elements of international governance and financing patterns are likely to apply to China, as governments in the current world are confronting many common social and economic issues along with the emergence of a globalised economy.

The interrelated economic, political and cultural processes of globalisation provide a strong rationale for a review of international trends in governance and funding of higher education. This comprehensive review is attempting to pull together the existing studies in both Chinese and international literature, of universalising trends and issues shared in reforms in relation to governance and funding of higher education so as to assist recommendations for policy development in China as well as to speculate on the future directions of higher education governance and funding in a global perspective. The literature review
also contributes to a general framework to facilitate a better understanding of the contextual factors of the current changes in the areas. Most importantly, focus issues to be fully investigated in this thesis are generated from the review.

Part I provides a general review of literature in relation to the study of changing patterns of higher education governance and funding in China. It consists of three chapters. The first chapter surveys the governance and funding systems of higher education in China. The second chapter presents an historic review of higher education development since the foundation of the People's Republic of China in relation to the governance and funding of higher education, highlighting the reform after 1985. The last chapter is devoted to documentation of the current international trends in financing higher education. Part I ends with conclusions that provide a brief summary of major trends and themes located through the literature survey and their implications for this current research. While defining areas of the theoretical and empirical weakness in the current literature, the conclusions present a clear conceptual framework for focus issues to be fully investigated in Part III.
CHAPTER 2

GOVERNANCE AND FUNDING SYSTEMS OF HIGHER EDUCATION IN CHINA

2.1 Government and Polity

To help understand the governance of higher education, a brief survey of the structure of the Chinese government and its polity is presented. The People's Republic of China (PRC) was founded by the Chinese Communist Party (CCP) in 1949. The Constitution of the PRC states that the PRC is a socialist state under the people's democratic dictatorship. The lately-amended Constitution replaced the state-planned economy under socialist state ownership implemented for over 40 years in China with the socialist market economy (Xinhua News Agency, 14.2.1993), which represented the start of a new round of economic reform (see Chapter 3). In terms of the Constitution, the National People's Congress (NPC) is the highest authority of state power. The representatives of the Congress are elected in proportion to their population by the provinces, autonomous regions and municipalities. The Standing Committee of the Congress exercises the functions of the Congress between its annual sessions. The head of the state is the President. The President promulgates laws, appoints and removes the premiers in accordance with the decisions made by the Congress. The State Council is the supreme administrative body of the PRC, which directly heads about 80 state ministries and commissions and other state departments (NPC, 1982). The State Education Commission (SEC) is one of the state commissions and administers all education affairs including higher education in China.

China has four main levels of governments - national, provincial, prefectural and county. In addition, there are three municipalities and five autonomous regions directly administered by the national government.
The whole administrative structure of governments is paralleled by an echelon of the Chinese Communist Party at each level of government, which forms a special dual leadership system in China. To indicate the dual leadership in China, a good case in point is that many significant policy statements were jointly made by the Central Committee of the CCP and the State Council. The *Program for China's Educational Reform and Development* which expedited the fundamental changes in governance and funding of higher education, is one of the jointly-made policy statements (CCP & State Council, 1993).

The Central Committee of the CCP is at the top echelon but power is exercised by its Political Bureau and ultimately by the bureau's standing committee. Below the Central Committee, the Party echelon descends through every level of government. The Party has its provincial committees, prefectural committees, county committees, and committees and branch committees at every work unit, wherever there are Party members. In terms of the Constitution of the CCP, the CCP plays the roles of leadership and supervision over government's work (CCP, 1956).

However, in reality, it is hard to divide the Party from the government as the key positions of government at every level are usually held by the CCP committee leaders. The Party's roles of leadership and supervision over government's work also contribute to confusion with functions of the Party and that of the government as there is no clear definition of a division of functions (Zeng, 1987; Rai, 1991).

### 2.2 Higher Education Governance

*External Governance*

In China, higher education falls into two categories: regular higher education and adult higher education. *The study of this thesis is confined to regular higher education only.* Regular higher education is usually provided in higher education institutions of various types which
include "comprehensive universities" (human and natural sciences, social sciences), polytechnic institutions, specialised institutions (medicine, agriculture, foreign languages, etc.) and teacher-training colleges. Some 100 such institutions were ranked as "key" universities which enjoy high prestige and more funding from government (NOOSR, 1996). The 1997 official source from the SEC showed that there were 1,032 regular higher education institutions in China (News Report [TV Broadcast], 21. 2. 1997).

Regular higher education institutions are mainly administered at three levels. They are universities and colleges run by central government ministries or commissions (the central government), or by provincial (autonomous regional or municipal) governments, or by key cities (the local governments). According to 1994 official statistics, among 1,073* institutions in 1994, there were 35 institutions directly funded and administered by the SEC; 325 institutions by other state ministries and commissions, such as the Ministry of Light Industry and the Ministry of Metallurgy; and 713 by local governments (China Education Daily, 29. 12. 1994, p.1). However, there emerged a new administrative approach recently, that is, the joint-administration of institutions between the SEC or other state ministries or commissions and the provincial (or municipal) governments (see Chapter 6 for discussion).

In China, the State Education Commission (formerly the Ministry of Education) is the supreme administrative authority for the education system in China. It is a multi-functional executive branch of the State Council under whose leadership it administers all educational affairs in China. Although the SEC directly funds and administers just 35 higher education institutions, it assumes the responsibility for academic management over all higher education institutions in China. The SEC is also responsible for coordination and supervision of the institutions administered by other state ministries and commissions (SEC, 1992b). To illustrate clearly the external administrative structure of higher education, Figure 2.1 is given below.

* This figure was later changed to 1,080 (SEC, 1995a).
* This number refers to the 1994 statistics on institutions (China Education Daily, 29.12.1994, p.1).
** They do not include the State Education Commission.

**Internal Governance**

Within higher education institutions there are usually two levels of administration - institution and department. Some institutions have three levels - institutions, faculty and department, as illustrated in Figure 2.2. At the institutional level, the administrative structure is headed by a president appointed by the government (or ministries or commissions) responsible for the institution and assisted by several vice-presidents who are delegated specific responsibilities for general or academic administrative functions. Under the president and vice-presidents, there are generally two main sectors - administration, and academic affairs. Of the two sectors, there are a number of divisions and
offices, such as division of personnel, finance division, division of teaching affairs, student affairs division, etc. Below the institutional level, deans/chairpersons and directors appointed by the president are responsible for the day-to-day administration of faculty/school or department. This system is the so-called "president responsibility system" (Rai, 1991). The Education Law of the People's Republic of China implemented in September 1995 states that school principals and presidents are responsible for the daily administrative and academic operations of their schools. However, in reality, only about ten percent of institutions assume this system (China Education Daily, 8. 12. 1987, p.1).
Figure 2.2 Administrative Structure of an Institution

Source: Adapted from SEC (1992b) and the Association of Administration Over Foreign Students Studying in China (1993)
In most institutions, there is a dual authority structure involving the academic leadership headed by the president and the Party authorities headed by the Party secretary, as shown in Table 2.1. This system is labelled as "the president responsibility system under the CCP committee leadership". Under this system, the Party organisations supervise and lead the academic (and general) administration at each level, headed by the president and his/her subordinates, in the name of "monitoring and assisting the administration". This system is typical of the dual leadership on which the entire governance structure in China is based, as explained above.

<table>
<thead>
<tr>
<th>Title</th>
<th>Duty</th>
<th>Title</th>
<th>Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Overall manage areas as indicated in Vice-Presidents' duty</td>
<td>Secretary of University Party Committee (UPC)</td>
<td>Head UPC Other duties as shown below</td>
</tr>
<tr>
<td>Vice-President</td>
<td>Be responsible for teaching, scientific research, finance, library, personnel, service administration, external programs</td>
<td>Vice-Secretaries</td>
<td>Be responsible for political and ideological education Monitor/assist President/Vice-Presidents' administration Implement CCP line and policies</td>
</tr>
<tr>
<td>Deans</td>
<td>Head administrative sections - library, personnel, external programs, finance office, service office Head academic affairs</td>
<td>Branch Secretaries</td>
<td>Head Party Branches Monitor/assist Deans', Vice-Deans' administration Other duties as shown above</td>
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Although the dual structure was intended to reinforce the leadership within institutions (Li, 1990), the dual administrative system, one of the dominant issues in Chinese literature, has produced many defects, such as overlapping and redundancy of administrative units and management structures, arbitrary and amateurish decision-making processes and confusion of responsibilities, leading to great inefficiency.
and ineffectiveness in the governance of higher education (Henze, 1984; Pepper, 1990; Du, 1992; Rai, 1991; Cleverley, 1991). The Party organisations with many members, although amateurish in academic and research affairs, have nevertheless been involved in both academic and general administration at every level. Academic and administrative decisions made by presidents, deans and directors have been discussed and approved by the Party organisations at various levels. In this way, the Party has actually overridden the presidents/deans and their administration.

2.3 Finance

Funding Control System

Most Chinese higher education institutions still depend on a government budgetary financing system, in spite of the recent movement towards a diversified funding system. Budgeting includes, in a broad sense, the allocation of resources and multiyear planning. The following review of the budgetary financing system considers how the decisions are taken, what their content is, how they are implemented, and the manner in which they are accounted.

The state budget, that authorises and forecasts the annual expenses and receipts of higher education, is examined and approved by the National People's Congress. The composition of the state budget is determined by the state power bodies in terms of the development of the economy and the society in all administrative regions in China. The state budget is the major part of the state financial system. The collection and distribution of the bulk of the funds are fulfilled through the state budget. State enterprises are still the main sources of state revenues, although their contributions have been continuously declining for years, due to taxation reform to allow enterprises to take main responsibility for their gains and losses (Blejer et al, 1991). The effect of the reduced contribution of state enterprises upon the state budget leading to an actual decline in the government educational allocation is detailed in Chapter 8.
The state budget comprises both the central budget and the local budget. The central budget includes the budgets of all central government ministries and commissions and defines financial income and expenditure of enterprises and institutions directly funded and administered by the central government. The local budget, on the other hand, refers to budgets of the local governments and increasingly becomes significant as a result of devolution of central control to the local governments. The bulk of state revenue is levied by the local governments and the bulk of state budgeted expenditure is allocated in accordance with the local budget (Chinese Academy of Social Sciences, 1989).

As shown in Figure 2.1, Chinese higher education institutions are funded and administered at three levels - central, provincial and key cities. Funds of the institutions under the jurisdiction of central government’s ministries and commissions are covered by the central government through the central budget, while financing of institutions under the provincial and key city governments is the responsibility of the local governments in terms of the local budget. As a part of funding reform of recent years, higher education funds control takes as a principle, “unified leadership, decentralised administration and independent accounting” (SEC, 1992b, p.104). This principle means that the State Education Commission and the Ministry of Finance take the responsibility of stipulating a funds control system for higher education institutions, providing macro guidance and carrying out administrative work. The Ministry of Finance also collects data on the overall national education expenditure several times a year and presents them to the National People's Congress. It also means that each institution, no matter to which government agency it belongs, is allowed in principle to be responsible for its own revenue and expenditure and to carry out independent accounting. Institutions have the right to make an overall arrangement of their own budget adjusted and approved by their affiliated government agencies in line with the principle of "using funds on a contract base, taking responsibility for over-expenditure and surplus and seeking balance" (SEC, 1992b, p.105).
Within institutions, a vice-president is usually appointed to supervise and lead, together with a director, the work of an institutional funds control body, called the Planning and Finance Division. The Division takes the main responsibility for preparing an annual budget report of an institution on the basis of the enrolment plan, number of students and special funds spending. It is also an administrative body to manage and implement the institutional annual budget which is set by its affiliated government agency, taking into consideration the annual budget reports of the institution. Institutions have to be accountable to the government through submitting annual final account reports to the central or local government financial departments via their affiliated government agencies. These reports also fall within the duties of the Division (SEC, 1992b).

As extra-budgetary revenue, apart from the funds allocated from the state treasury, is growing and becomes more significant in supplementing institutional funds in recent years, the institutional funds control body is more powerful in, and takes more responsibility for, resource generation and allocation. Institutional financial management is now more sophisticated in view of an actual declining state budget and increasing reliance upon the growing extra-budgetary revenue. It is the institution rather than the government that takes responsibility for seeking and spending extra-budgetary income and that makes an overall arrangement for better utilisation of both budgetary and extra-budgetary revenues. However, the financial functional bodies in the central and local governments are authorised to supervise, scrutinise and audit institutional management of all educational funds for institutions.

However, this researcher has found that little systematic research has been undertaken on the changing roles of the above funding control systems in the face of the new diversified funding environment. This is to be addressed in detail in Part III of this thesis.
Funding Sources

The current dominant funding source of most higher education institutions is still from the state and local governments, called budgetary revenue. To supplement a severe shortfall of the state budget, institutions have been exploring alternative sources of funding mainly through running their own industry/business, sale of academic services, charging tuition, and raising funds and seeking donations from the local community. Those non-government sources of income are called extra-budgetary revenue of institutions. The extra-budgetary revenue is becoming more significant in institutional operation. It accounts for about 50 percent of institutional income in many higher education institutions (China Education Daily, 19.4.1988, p.1; Qingdao Daily, 15. 9. 1995, p.5). This significant trend toward diversification of funding base of higher education is discussed in greater detail in Part III of the thesis as a main focus of the current research. Since 1986, there emerged another important source of funding available for university research, granted mainly on the basis of academic quality of research proposals. It was reported that by 1990, 70 percent of the National Scientific Foundation's grants had been obtained by higher education institutions (China Education Daily, 3.2.1990, p.1).

Some research interest has recently emerged in the study of the boom of income-generation in the Chinese higher education sector. Suzanne Pepper (1990) discussed the issue from a perspective of economic interests that affected university staff more than university financing. She suggested that inflation as an indirect effect of the economic reform drove the academic community to make money on its own. Yin and White (1993) related the institutional income generation to the current tide of marketisation of higher education in China in the form of the institutions' sale of academic services to enterprises. They explored the effects of the increasing financial reliance on enterprises as more negative because the pursuit of economic returns may undermine the basic function of teaching and undertaking basic research in higher education.
While there is some discussion touching upon the issue of income-generation, there has been very little recent systematic research exploring income generation as a stimulus for diversification of the funding base and examining its impact on higher education funding, institutional priorities and internal and external management, all key areas defining higher education development.

**Funding Mechanisms**

It is generally believed that the ways in which higher education institutions receive their funds affect their motivation, and hence influence the composition of the academic services they provide (Hough, 1992; OECD, 1990). In addition, funding sources and mechanisms have a powerful influence on the way resources are used. In China, prior to a dramatic change in financing higher education, the government took total financial responsibility for higher education. In the light of government line-by-line budgetary control, higher education institutions produced graduates and assigned all of them to jobs in state enterprises or government departments. Institutions had, in fact, no discretion over the allocation and use of resources. There was, therefore, little incentive for institutions to make efforts to raise additional income (Min, 1994) (for a detailed discussion, see Chapter 6).

The current government funding formula is seen to be an overall average cost per student which the government pays the institution for each student enrolled or expected to be enrolled, in terms of the type of institution, requirements of students at different academic levels, economic condition of the place where the institution is located, and national fiscal strength (Wang, 1992). Based upon the formula, about 100 "key" institutions are better funded than others. Higher weights are also given for some subjects of study such as science and technology which require more resources than humanity ones, and for higher levels of study, believing that the higher the level of study, the more resources are needed. An overall fixed fund quota standard is determined on the basis of current and fixed expenditure in institutions. In addition, special subsidies for institutions and/or for students are provided by the
government for special tasks set by the government. The two parts - overall fixed fund quota and the special subsidies - make up the annual operating budget for higher education (SEC, 1992b).

There have been some radical changes in the traditional funding mechanisms since the government's 1985 decision to reform the structure of education. They include general devolution of financial autonomy and responsibility to institutions, charging students tuition fees and entitling them to seek jobs on their own, and promotion of diversified funding sources through encouraging institutions to sell their academic services. The movement towards market approaches to financing higher education has a common and widespread motive to alleviate the severe shortfall and constraints of government funding for higher education expansion in the context of the economic reform (Yin & White, 1993). Unfortunately, issues raised in the movement have not been seriously addressed in the current Chinese literature. The nature and the consequences of these quasi market approaches are further explored in Part III of this thesis.

As stated (OECD, 1990), the budgeting and financing mechanisms not only determine the allocation of resources but also steer and control the higher education system itself. They are the result of the system's historical development embedded in its social, political and economical turbulence, and in return they define its operation. The following chapter is devoted to a review of the historical development of Chinese higher education with a focus on major events where the governance and financing of higher education changed dramatically.
CHAPTER 3

HISTORICAL DEVELOPMENT OF HIGHER EDUCATION IN CHINA

Historically, the viability of Chinese higher education was full of vicissitudes and radical changes and always interacted with its political and economic environments. This interaction was and still is the most salient feature of Chinese higher education as higher education has been continuously taken as a means to achieve a certain political and/or economic objective. The current reforms of higher education governance and funding, their impact on, and consequences for higher education institutions cannot be appreciated properly without placing them in their historical and social context. This chapter provides a historical review of Chinese higher education in the context of social, political and economic changes. The review concentrates on the interaction of higher education with its changing environments. While elaborating on this feature, this chapter is concerned with outlining some of the most significant movements and reforms in the Chinese higher education history associated with changes in governance and funding in the system.

3.1 Higher Education before 1949

There is no definitive historical record on the origins of higher education in ancient China. It is advisable to choose acknowledged authoritative sources of information to start with. It is believed that the periods of Spring-Autumn and Warring States, around 500 B.C., saw the establishment of a more formal kind of ancient universities in China, though it was also recorded that there had been some kind of less formal higher education institutions before that period, such as universities in the Xia, the Shang and the Zhou Dynasties (21-c.-770 B.C.) (SEC, 1992b; Wang et al., 1985). Those universities were privately funded, and were
called the "private studies" (sishu) which emphasised individual teaching and diversity of curriculum. The most well-known educator, Confucius (551-479 B.C.), was among those who initiated those universities where he taught his classics and spread his philosophy that influenced Chinese education for thousands of years.

The first formal government-run universities were founded by the Han Dynasty in 124 B.C., well-known as the "imperial universities" (taixue), which took Confucianism as their compulsory curricular content and offered some specialities such as mathematics, medicine, law, literature, etc. (Hayhoe, 1989). The Han Dynasty also set up an official selection system through a series of written examinations. The Imperial Examination System (keju zhi) derived from these practices, prevailed in China for the following 1,300 years until it was abolished in 1905 in the dusk of the Qing Dynasty (1644-1911). Under this system, people had a seemingly fair chance to become members of the government, the ruling class, so long as they achieved in the highly competitive examinations. Learning became the means to reach a specific social position and the examinations provided the main access to power and wealth, and the upper society (Henze, 1984). Universities took the preparation of their students for the examinations as their chief tasks, where curriculum design and development were deliberately adapted for the examination system, in other words, for grooming politicians, rather than for the needs of the economy or the society. It was later found that corruption and bribery in the administration of the examination undermined equity and ruined the system itself (Xiong, 1983).

In this writer's view, the overemphasis on preparation of students for examinations and the extraordinary appreciation of book-learning have continued to exert a fundamental influence upon the current education in China. The concept of reaching a higher social position through learning (mostly through entering universities) has been deeply ingrained in the minds of Chinese people, which has contributed to an excess demand for higher education for centuries.
Along with the government-run universities, private academies of scholars (Shuyuan) were gradually gaining their momentum to meet increasing needs for higher education. These academies were self-governed and financed by private endowments of land and even subsidised their students with some living allowances (Wang et al., 1985). However, the academies never had the kind of statutory autonomy enjoyed by the European medieval universities and were constantly under threat from the imperial bureaucracy in their times, which used them for the service of the examination system in some periods and destroyed them in others (Hayhoe, 1989).

In the modern history of China, when the national capitalist economy began to take shape around the turn of the 20th century, two universities with modern science and technology were established and administered by the local governments in Tianjin and Shanghai to accommodate the development of the local economy. Soon afterwards, the first modern national university - the Capital Teachers' University (the predecessor of the Beijing University) - was founded in Beijing in 1898 (Wang, 1992). This was a central government funded and administered university.

In the Republic of China in the early 20th Century (1912-1949), there was a gradual growth of higher education, though, at a slow pace. Under the regime of the Nationalist government (1927-1949), national universities were funded and administered by the central Ministry of Education, while provincial-level institutions were responsible to provincial government's higher education bureaus. Private institutions were controlled by an external board of governors whose organisation and powers were overseen by the Ministry of Education (Ministry of Education, 1947, cited in Hayhoe, 1989). The Nationalist government sought European and American recommendations for higher education reform in the 1930s, resulting in improved academic standards and a greater centralised government control through unified examinations at entry and exit and strict faculty appointments. However, the government was entitled to hide its political repression of intellectual freedom under the guise of academic standards. It was also found that
the government attempted later to impose its political order upon university faculty (Hayhoe, 1996).

According to the official data available, of the 205 institutions in 1947, there were 55 comprehensive universities, the largest number of all types of institution. Eighty two institutions, 40 percent of the total, had an enrolment of fewer than 300 students while 112 institutions, 52 percent of the total, had fewer than 500 students (MOE, 1984). By 1949, the 205 regular higher education institutions had 117,000 undergraduate students enrolled. Of these institutions, 60 percent were public institutions, 30 percent were private ones and 10 percent missionary institutions (Hayhoe, 1989; Wang, 1995). The missionary universities were run and financed by Western missionaries, offered basic science programs as well as arts and social sciences, were patterned after Western higher education organisations, and adapted a Western curriculum.

Thus higher education prior to 1949 was diversely funded and administered, and its institutions were small in size and comparatively undeveloped. As a consequence, there was a lack of curricular and financial rationalisation of higher education provision.

3.2 Higher Education Between 1949 and 1977

The year 1949 is a year of historical significance in China, when the Chinese Communist Party (CCP) took state power and founded the People's Republic of China (PRC). The current review of the development history of Chinese higher education between 1949 and 1977 concentrates on the most significant educational reforms which not only contributed to the current pattern of higher education but also displayed how Chinese higher education interacted with its political and economic environments. Since the founding of the PRC, there have been four major reforms of higher education. Three of these are discussed in this section while the most recent one (since 1978) is discussed in the next section.

When the CCP came to power in 1949, the first step taken by the new government in the higher education sector was to take over all public
institutions, all missionary universities to "recover sovereignty in education from foreigners", and all private institutions (MOE, 1984, p.9). Following the take-over around 1950, there was only one public sector of higher education in China for about 40 years until the 1980s when private higher education was officially allowed to operate again. Soon after the take-over, there came the first major reform of higher education in PRC.

The first major reform (1952-1957) in higher education aimed to set up a socialist higher education system by learning from the experiences of the Soviet Union. In this period, China was undergoing reforms to reorganise and reconstruct China's economy modelled after the Soviet Union's system. It was in this context that all existing higher education institutions were restructured. The first education reform improved the geographic distribution of colleges and universities, developed institutions with specialised functions, consolidated numerous small institutions within an area (see Table 3.2), added some new specialities while shifting the emphasis to the sciences and engineering, and rationalised and centralised administrative responsibility. The current three types of institutions - comprehensive universities, polytechnic institutions and specialised colleges or institutes - were patterned after Soviet educational organisations and took shape during this period of reform (Ginsburg, 1976). The reform in higher education management was made to fit with the highly centralised state-planning economic system established in the early 1950s in China. During that period of time, all the higher education institutions were directly administered by the central authorities, that is, the Ministry of Education or other state Ministries (Tan, 1993).

This reform also revolutionised the long tradition of elite higher education of thousands of years in Chinese history. The CCP stipulated that all educational institutions should be accessible to workers and peasants or their children. A stipend system for those needy students was also enforced. Education at all levels was free, while educational institutions were solely financed and controlled by the government and became in fact subordinates and affiliates of government agencies.
Students enrolled in higher education did not need to pay tuition and were provided with free residences. Graduates of higher education were guaranteed to be given jobs assigned by their institutions according to state assignment plans. On the other hand, graduates had to accept the job assignment no matter whether they liked it or not. The unified enrolment and unified job assignment in line with state plans were generated to fit in with the state-planned economic system set up in 1952.

The second major reform (1958-1960) called "Educational Revolution" was intended to serve "proletarian politics", according to Directives Concerning Education by the CCP Central Committee and State Council in 1958. The reform was actually started in the context of the "Great Leap Forward" campaign with economic initiatives under the slogan: "Going all out, aiming high, and achieving greater, faster, better results at lower costs". The administrative reform as part of the change focused on the extension of decision-making power to local authorities. As a result, under the program of decentralisation, 80 percent of major industrial enterprises were transferred from central authorities to provincial or local authorities (Cleverley, 1991). In the higher education sector, the management and administration of all higher education institutions was devolved and remained within the jurisdiction of provinces, autonomous regions, and municipalities (Wang, 1994).

The extraordinary enthusiasm generated by the "Great Leap Forward" was reflected in the sharp increase in student enrolment and number of institutions. The number of higher education students rose from 441,000 in 1957 to 961,623 in 1960. The higher education institutions rose from 229 in 1957 to 1,289 in 1960 (MOE, 1984). However, of the 1,289 institutions, there were a large number of half-work and half-study (bangong bandu) institutions built and run by factories and/or farming communes, as a result of the implementation of Mao Tsetung's "walking on two legs" in education (Lewin et al., 1994). It was in this context that educational institutions founded their own factories and/or farms to accommodate the need of their students for half-work programs (Jiang,
1992). Productive labour was taken so seriously in institutions that in fact it replaced or removed study courses (Tan, 1993).

But this hectic expansion did not take full account of other factors and this lack of integrated planning resulted in the severe deterioration of educational quality. Lu Dingyi, Director of the Propaganda Department of the CCP Central Committee, criticised this expansion as it resulted in "chaos" at education institutions (Fraser, 1965).

To rectify the "leftist" deviations as a result of the "Great Leap Forward" which, together with the three consecutive years of national calamity, contributed to the collapse of the national economy around 1961, the CCP put forward a series of corrective measures in line with its policy of "readjustment, consolidation, strengthening and improvement". In the higher education sector, "necessary contraction and retrenchment were made so as to bring the educational enterprise into conformity with the prevailing economic basis" (MOE, 1984, p.10). As a result, the 1,289 institutions in 1960 were "readjusted" through consolidation, closing and degrading of a large number of institutions. By 1965, there were 434 higher education institutions left with 674,436 students enrolled, compared with 961,623 students in 1960 (Ministry of Education (MOE, 1984).

The third major reform started in 1966 together with the "Cultural Revolution" which concentrated on class struggle, a political struggle between the proletarian class and the capitalist class. The reform was implemented to suit the needs of the "Cultural Revolution". In this context, universities and colleges had to be run as work-study or farming-study communist schools (Ginsburg, 1976). City campuses were occupied and closed to students and staff. Teaching and research facilities and equipment, together with library resources, were severely damaged. Staff, particularly academics, were cruelly prosecuted (MOE, 1984). Students and staff were forced to move to the rural areas to work on farms. Little teaching was done to students. Everyone had to be engaged in the political struggle. As to the administration of institutions, the former administrative leadership was dissolved and replaced first by the Red
Guard (the representatives of students) and then by revolutionary committees composed of workers, peasants, the People's Liberation Army and revolutionary cadres (Kan, 1971). Regular intakes in the higher education sector stopped between 1966 and 1969 and in 1971 the national college/university entrance examination was abolished (MOE, 1984). The whole higher education system remained in great turmoil until 1976. Lewin et al, (1994, p.119) described the "Cultural Revolution" as "cultural nihilism, autocracy and anti-intellectualism". This is an exact comment on some aspects of the "Revolution".

The ferment and turbulence of the three historical reforms described above not only restructured higher education governance but affected greatly higher education funding. To represent clearly and visually the essential features of the financial situation of Chinese higher education between 1949 and 1977, graphs and tables are employed, from which conclusions are drawn on key facts. Figure 3.1 below illustrates government's outlays on education and higher education between 1952 and 1977. The figure shows that there was a relatively stable increase in government grants for higher education following the CCP's take-over of higher education, except for the radical growth during the "Great Leap Forward" and the drop back afterwards.

As shown in Figure 3.1, the linear waves of government expenditure on higher education tended to parallel those of total government expenditure on education, with the latter displaying more exaggerated fluctuations in view of the larger figures involved. Compared with the changes in government investment in education and in higher education, government funding for education as a share of the national budget was less impressive with little change over 26 years (1952-1977), as shown in Figure 3.1 and Table 3.1. The average rate of growth of public expenditure on education was about eight percent between 1952 and 1977 with a relatively high standard deviation of 13.4, inflated mainly by the radical changes around the "Great Leap Forward" and the "Cultural Revolution". The average increase in the rate of government investment in higher education was about 11 percent (see also Table 3.1).
Figure 3.1 Government Outlays on Higher Education and Education: 1952-1977

Note: The data about public expenditure on higher education between 1968 and 1970 is not available.

To judge fairly the growth of government funding of education, the annual rate of national income growth should be taken into consideration. Table 3.1 provides two sets of statistics - growth rate of public expenditure on education and higher education and that of national income - between 1952 and 1977.

It is concluded from Table 3.1 that although the average rate of growth of public expenditure on education and on higher education were about eight percent and 11 percent respectively, the rates of growth were still higher than the average growth rate of national income - about seven percent - between 1952 and 1977. The average increase of public expenditure on higher education was noticeably greater higher than the average increase of national income. Notwithstanding the increase, the
financial situation of higher education was still deteriorating, because of a higher growth rate of enrolments and lower student-teacher ratios in higher education institutions (see Table 3.2).

Table 3.1 Comparison between Growth of Public Expenditure on Education/Higher Education and Growth of National Income

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual increase of public expenditure on education (%)</th>
<th>Annual increase of public expenditure on higher education (%)</th>
<th>Annual increase of national income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>1953</td>
<td>43.0</td>
<td>62.1</td>
<td>20.4</td>
</tr>
<tr>
<td>1954</td>
<td>7.6</td>
<td>28.6</td>
<td>5.5</td>
</tr>
<tr>
<td>1955</td>
<td>2.3</td>
<td>3.1</td>
<td>5.3</td>
</tr>
<tr>
<td>1956</td>
<td>17.0</td>
<td>22.6</td>
<td>11.9</td>
</tr>
<tr>
<td>1957</td>
<td>18.5</td>
<td>14.1</td>
<td>2.9</td>
</tr>
<tr>
<td>1958</td>
<td>1.6</td>
<td>12.4</td>
<td>23.1</td>
</tr>
<tr>
<td>1959</td>
<td>21.5</td>
<td>45.5</td>
<td>9.3</td>
</tr>
<tr>
<td>1960</td>
<td>31.4</td>
<td>51.6</td>
<td>-0.2</td>
</tr>
<tr>
<td>1961</td>
<td>15.7</td>
<td>-30.0</td>
<td>-18.4</td>
</tr>
<tr>
<td>1962</td>
<td>10.1</td>
<td>-20.0</td>
<td>-7.2</td>
</tr>
<tr>
<td>1963</td>
<td>5.5</td>
<td>0.3</td>
<td>8.2</td>
</tr>
<tr>
<td>1964</td>
<td>11.6</td>
<td>7.0</td>
<td>16.6</td>
</tr>
<tr>
<td>1965</td>
<td>4.2</td>
<td>1.3</td>
<td>19.0</td>
</tr>
<tr>
<td>1966</td>
<td>18.2</td>
<td>-1.6</td>
<td>15.1</td>
</tr>
<tr>
<td>1967</td>
<td>-5.0</td>
<td>-15.8</td>
<td>-6.2</td>
</tr>
<tr>
<td>1968</td>
<td>-15.9</td>
<td>-</td>
<td>-4.8</td>
</tr>
<tr>
<td>1969</td>
<td>-16.6</td>
<td>-</td>
<td>-14.3</td>
</tr>
<tr>
<td>1970</td>
<td>1.9</td>
<td>-</td>
<td>-10.1</td>
</tr>
<tr>
<td>1971</td>
<td>19.7</td>
<td>-12.8</td>
<td>7.8</td>
</tr>
<tr>
<td>1972</td>
<td>16.8</td>
<td>17.8</td>
<td>2.8</td>
</tr>
<tr>
<td>1973</td>
<td>9.2</td>
<td>14.7</td>
<td>8.5</td>
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<tr>
<td>1974</td>
<td>9.3</td>
<td>11.2</td>
<td>1.3</td>
</tr>
<tr>
<td>1975</td>
<td>5.0</td>
<td>4.5</td>
<td>6.6</td>
</tr>
<tr>
<td>1976</td>
<td>4.6</td>
<td>12.2</td>
<td>-3.0</td>
</tr>
<tr>
<td>1977</td>
<td>5.1</td>
<td>2.9</td>
<td>8.9</td>
</tr>
</tbody>
</table>


Table 3.2 below discloses the following points. Firstly, the most striking feature of higher education development between 1952 and 1977 was a high increase in enrolments with an average rate of growth of about 20 percent annually, in spite of the four years' suspension of intakes (1966-
1969). This remarkable growth was achieved on the basis of an average 11 percent growth of public expenditure on higher education. On the other hand, however, it indicated that higher education was continuously suffering from severe under-investment, because the government's injection of higher education funding was far below the increase in higher education intakes of students. The long financial plight of higher education remained unchanged following the CCP's take-over. The contributing factors, in the view of this writer, were that government funding was the sole financial channel for higher education provision and there was rigid government administrative control over institutions' use of resources for higher education (see also Chapter 2).

Secondly, the developments such as growth of institutions, enrolments and student-teacher ratios all fluctuated radically in line with the economic and political reforms and campaigns between 1952 and 1977. In 1956, the new enrolment was nearly double that of 1955. During the "Great Leap Forward", the new enrolments were two and then three times higher than in 1957. In contrast, there were no annual intakes during the first four years of the "Cultural Revolution", pronounced fluctuations continued in later years. Similar variations can be traced in the changes in the number of institutions over the same period.

Thirdly, the average ratio between students and teachers was only 4.5:1 before 1978. Unlike the other changes shown above, there was a continuous decline in the ratio with the only exception of the "Great Leap Forward" period. The ratio in 1977 was about 50 percent lower than that in 1952, indicating low efficiency in the Chinese higher education sector before 1978. The continuous lower ratios were attributable to an ever increasing number of staff and the heavy drop in student enrolments during the "Cultural Revolution". The lower ratios were also the result of a life-tenure system for public sector staff, that is, a system by which staff held their jobs for life, no matter what happened around them. It was astonishing that the ratio fell down to 0.4:1 in 1970 (see Table 3.2). The long-lasting lower ratio exacerbated the severe shortfall of government financing for higher education, in view of higher costs of
emoluments such as wages and living allowances for which institutions had to be responsible.

Table 3.2 Institutions, Enrolments and Student-Teacher Ratios in Chinese Higher Education, 1952-1977

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of institutions</th>
<th>New enrolment</th>
<th>Increase rate (percent)</th>
<th>Student-Teacher ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>201</td>
<td>78,865</td>
<td>-</td>
<td>7.06</td>
</tr>
<tr>
<td>1953</td>
<td>181</td>
<td>81,544</td>
<td>3.4</td>
<td>6.31</td>
</tr>
<tr>
<td>1954</td>
<td>188</td>
<td>92,280</td>
<td>13.2</td>
<td>6.51</td>
</tr>
<tr>
<td>1955</td>
<td>194</td>
<td>97,797</td>
<td>6.0</td>
<td>6.84</td>
</tr>
<tr>
<td>1956</td>
<td>227</td>
<td>184,632</td>
<td>88.8</td>
<td>6.91</td>
</tr>
<tr>
<td>1957</td>
<td>229</td>
<td>105,581</td>
<td>-42.8</td>
<td>6.30</td>
</tr>
<tr>
<td>1958</td>
<td>791</td>
<td>265,553</td>
<td>151.5</td>
<td>7.76</td>
</tr>
<tr>
<td>1959</td>
<td>841</td>
<td>274,143</td>
<td>3.2</td>
<td>8.15</td>
</tr>
<tr>
<td>1960</td>
<td>1,289</td>
<td>323,161</td>
<td>17.9</td>
<td>6.91</td>
</tr>
<tr>
<td>1961</td>
<td>845</td>
<td>169,047</td>
<td>-47.7</td>
<td>5.97</td>
</tr>
<tr>
<td>1962</td>
<td>610</td>
<td>106,777</td>
<td>-36.8</td>
<td>5.75</td>
</tr>
<tr>
<td>1963</td>
<td>407</td>
<td>132,820</td>
<td>24.4</td>
<td>5.44</td>
</tr>
<tr>
<td>1964</td>
<td>419</td>
<td>147,037</td>
<td>10.7</td>
<td>5.07</td>
</tr>
<tr>
<td>1965</td>
<td>434</td>
<td>164,212</td>
<td>11.7</td>
<td>4.88</td>
</tr>
<tr>
<td>1966</td>
<td>434</td>
<td>-</td>
<td>-</td>
<td>3.84</td>
</tr>
<tr>
<td>1967</td>
<td>434</td>
<td>-</td>
<td>-</td>
<td>2.94</td>
</tr>
<tr>
<td>1968</td>
<td>434</td>
<td>-</td>
<td>-</td>
<td>1.81</td>
</tr>
<tr>
<td>1969</td>
<td>434</td>
<td>-</td>
<td>-</td>
<td>0.79</td>
</tr>
<tr>
<td>1970</td>
<td>434</td>
<td>41,870</td>
<td>-74.5</td>
<td>0.37</td>
</tr>
<tr>
<td>1971</td>
<td>328</td>
<td>42,420</td>
<td>1.3</td>
<td>0.60</td>
</tr>
<tr>
<td>1972</td>
<td>331</td>
<td>133,553</td>
<td>214.8</td>
<td>1.49</td>
</tr>
<tr>
<td>1973</td>
<td>345</td>
<td>149,960</td>
<td>12.3</td>
<td>2.26</td>
</tr>
<tr>
<td>1974</td>
<td>378</td>
<td>165,084</td>
<td>10.1</td>
<td>2.90</td>
</tr>
<tr>
<td>1975</td>
<td>387</td>
<td>190,779</td>
<td>15.6</td>
<td>3.22</td>
</tr>
<tr>
<td>1976</td>
<td>392</td>
<td>217,048</td>
<td>13.8</td>
<td>3.37</td>
</tr>
<tr>
<td>1977</td>
<td>404</td>
<td>272,971</td>
<td>25.8</td>
<td>3.35</td>
</tr>
</tbody>
</table>

Means = 201.1 Mean = 4.5


Note: *The teachers in this ratio refers to registered full-time teaching staff only, excluding general staff and part-time teachers, in regular higher education.

Compared with other countries, resources for higher education in China were much worse. Table 3.3 reveals a striking discrepancy in the amount of government investment in education between China and other countries. Compared with the mean percentages of education expenditure in Asian countries and developing countries, China invested
only about half of the percentage invested by those countries. The devotion of a much smaller proportion of public expenditure to education reflected the Chinese government's financial neglect of education in that long period. Higher education as a part of Chinese education was inevitably affected by the prolonged period of neglect.

Table 3.3 Public Expenditure on Education As a Share of the Public Budget, China and Major World Regions: 1950-1980 (percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>5.95</td>
<td>6.15</td>
<td>6.06</td>
<td>6.95</td>
<td>4.34</td>
<td>6.33</td>
<td>8.92</td>
<td>6.64</td>
</tr>
<tr>
<td>Africa</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16.0</td>
<td>16.4</td>
<td>15.7</td>
<td>16.4</td>
<td>16.12</td>
</tr>
<tr>
<td>Asia</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>14.2</td>
<td>13.1</td>
<td>12.2</td>
<td>12.7</td>
<td>13.03</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>18.7</td>
<td>18.9</td>
<td>16.5</td>
<td>15.3</td>
<td>17.35</td>
</tr>
<tr>
<td>Europe, Mid. East, North Africa</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>12.4</td>
<td>12.5</td>
<td>11.5</td>
<td>12.2</td>
<td>12.15</td>
</tr>
<tr>
<td>Developing countries</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16.1</td>
<td>15.8</td>
<td>14.5</td>
<td>14.7</td>
<td>15.3</td>
</tr>
<tr>
<td>Developed countries</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16.0</td>
<td>15.5</td>
<td>14.1</td>
<td>13.7</td>
<td>14.8</td>
</tr>
</tbody>
</table>

*Sources: MOE (1984), Psacharopoulos (1985)*
*Note: Public expenditure on education includes capital and recurrent costs in terms of definitions of Statistical Yearbook (Unesco).*

To recapitulate, following the CCP's take-over, higher education became an important instrument of government political policy rather than an economic one prior to 1978, because the focus of the CCP and the government was more on political campaigns than economic construction during that period. Higher education was under constant pressures from the CCP and the government "to serve proletarian politics and be combined with productive labour" (CCP, 1958). Higher education, financed solely by the government and rigidly controlled by it, had little autonomy and choice but to follow the CCP's line or government's mandates as shown in each of the reforms and readjustments in this chapter. Another salient issue afflicting higher education in the period of history was severe and prolonged under-resource by the government. The financial plight was exacerbated by the inefficient administrative arrangement leading to a much lower student-teacher ratio, and by
disastrous consequences of constant political struggles. Nevertheless, higher education greatly expanded after 1949. Between 1949 and 1977, the number of higher education institutions nearly doubled and there was an average 20 percent annual increase of enrolments. In total, higher education produced about 2.7 million graduates between 1949 and 1977 (MOE, 1984), in spite of constant financial dilemmas and political disturbances during those hard times.

3.3 Higher Education: Post-Mao Era

3.3.1 The Context: Economic Reform

Like the year 1949 when the CCP seized state power and founded the People's Republic of China, the year 1978 was also a year of historical significance in China. Soon after the death of Mao Tsetung (1893-1976), the CCP's leader and the President of the PRC, Deng Xiaoping, formed a new state administration in 1977. Chinese history took a new direction. In December 1978, the Third Plenum of the Eleventh Central Committee of the CCP put an end to the political class struggles of the "Cultural Revolution" and announced the beginning of an economic reform program (People's Daily, 24.12.1978, p.1). This reform was like China's second revolution (Blejer et al., 1991). The dramatic shift in government policy from emphasis on political struggle to emphasis on economic development was made in view of the stagnating economic situation in China at that time.

The economic reform started from decentralisation of finance and management, a shift towards a market-oriented economy and an opening of China's economy to the outside world. The principal aim of the reform was to enhance economic growth and efficiency, foster competition, increase flexibility in implementation, reduce costs of production and develop a more efficient system of resource allocation through a stated commitment to financial autonomy and self-responsibility.
The economic reform was initiated in the agricultural sector with the introduction of the farmer's household responsibility system. Under this system, the former collective communes were dismantled and the individual household became the basic unit of farm management and production. The system granted farmers greater autonomy and greater economic returns. The economic incentives and policy flexibility contributed to the rapid annual growth rate of agricultural output - nearly eight percent during 1979-1984, compared with growth of less than two percent between 1958 and 1978. Rural incomes were up 100 percent on average between 1979 and 1985 (State Statistics Bureau (SSB), 1980-1997).

The success in the reform in rural areas prompted wide-ranging reform programs in industry, pricing and the financial system in urban areas and these gained momentum following the 1984 reform package launched by the Chinese Communist Party (CCP). State-owned enterprises were granted greater autonomy in decision-making on their daily operations and provided with more financial resources at their disposal while they took complete financial responsibility for their profits as well as losses (People's Daily, 21.10.1984, p.1).

The impact of the policy changes was so dramatic and explosive that the annual GNP growth averaged over 10 percent after 1980, with the exception of that during the retrenchment period 1989-91 (SSB, 1980-1997). On the other hand, however, the rapid economic growth led to overheating of the economy, fiscal trouble such as a two-digit inflation rate, greater deficits, and imbalance of capital and recurrent funding in the national economy. The economic structure had become increasingly irrational. Many state enterprises were in great difficulty in production and operation and their workers had been laid off. This situation has continued so that the latest registered unemployment rate in cities and towns has reached about three percent (Chen, 1997). The actual unemployment rate is much higher, based on recent published statistics about laid-off workers (China News [TV Broadcast] 2.1.1998).
The economic reform also brought about significant effects on government revenue. By 1989, almost all enterprise profits were subject to taxation rather than being fully remitted to the government, due to the reform of the taxation system. Total government revenue as a ratio of GNP had been continuously declining from 32 percent in 1978 to 22 percent in 1985 and to 17 percent in 1992. The state ministries and commissions had much less funds than before, due to devolution of finance and management to local governments (China Education Daily, 6.10.1994, p.1).

3.3.2 Educational Reform

Earlier Reform: 1977-1984

Recent Chinese history demonstrates that the reform of the economic structure and of education interact, and that the development and demand of economic reform steer education reforms and education viability (Lewin et al., 1994). Along with economic reform, reform in higher education was also initiated in accordance with Deng Xiaoping’s speech at a National Education Work Conference in 1978. Deng held that educational undertakings must be geared towards the needs of national economic development (Deng, 1983). As in the previous three education reforms, higher education again became an important instrument of government policy. However on this occasion, the focus was on economic rather than political policy with a requirement that the education system should no longer concentrate on political ideology but on achieving national modernisation, industrial initiative and economic incentives. In PRC's history, this was the fourth major education reform.

The early period of reform (late 1970s and early 1980s) in the higher education sector was mainly represented by the restoration of the enrolment system, the curricula, the organisational structure, etc. of the pre-"Cultural Revolution" period. The restored system of higher education was characterised by a centralised administrative structure at the national level - a nation-wide unified college entrance examination, unified enrolment, a system of job assignment, and unified curricula.
The most remarkable achievement made by the early reform was a rapid expansion of higher education institutions and their enrolments. The number of institutions nearly doubled, rising from 404 in 1977 to 805 in 1983, and the annual intake of students also increased from 272,971 to 390,800 in the same period (MOE, 1984).

Although the early reform helped to restore the normal law and order needed for teaching and research in the higher education sector after ten years of turmoil under the "Cultural Revolution", the restored system, mainly modelled after the former Soviet Union in the 1950s, was dysfunctional with the new economic and social environments. More dramatic changes were needed to adapt higher education to the economic and social context. So the education reform took a new direction, called the first round of reform (1985-1988) by this writer. Before moving on to this period, this writer gives some space to a brief review of a new phenomenon - private higher education - encouraged by the earlier reform.

As reviewed in the earlier sections of this chapter, private higher education was well established in modern China and continued to operate after 1949 until the mid-1950s when all private institutions were incorporated into public institutions. With the development of privatisation in the economic sector, private higher education institutions emerged and were officially allowed to open in the early 1980s. Although there were more than 500 private (called "people-run" or "minban") higher education institutions established since 1980, only about 10 were "recognised" or accredited by the SEC (China Education Daily, 8. 10. 1993, p.1). As most private institutions offer programs in only one or two fields of study and are allowed only to enrol students but have no academic accreditation in light of the government's provisional regulation (China Education Daily, 26. 8. 1993, p.2), their viability and influence have still been greatly restrained in contemporary China. Although the Central Government's rhetoric encourages the establishment and operation of private institutions, there has been no actual economic or other material support from the
Government to promote private higher education in China. So far there has been no clear indication that the incumbent Government is attempting to expand Chinese higher education through providing assistance to private higher education.

1985-1989 (Pre-Tiananmen Incident)

To sustain long-term viability of the economy at a healthy rate requires the development of human resources through greater investments in education and vocational training since people are both the means and the ends of economic development (World Bank, 1986). As with reforms in rural and urban economies which aimed at increasing their flexibility, productivity and efficiency, education reform sought efficiency in the use of both financial and human resources through improving managerial performance of educational institutions. The main reform agenda in this period included delegation of autonomy and responsibility, and enhancing economic incentives and flexibility in policy implementation.

Fundamental reforms in the governance and funding of educational institutions were proposed and officially published in the 1985 Reform of China’s Education Structure - Decision of the Central Committee of the CCP (labelled the Decision subsequently in this thesis). A literature survey through a content analysis of the most influential and authoritative official newspaper - People's Daily (Renmin Ribao) - found that between 1985 and 1989 (prior to the Tiananmen Incident), the dominant agendas of reform in the higher education sector were building "horizontal links" (that is, partnerships between higher education and industry), managerial reforms, (such as devolution of authority and responsibility (including financial autonomy) to institutions), and a division of labour between the Party and the President's administration.

As to the gains and failures of the reforms, Xin (1993) maintained that the reforms succeeded in breaking the monopoly of the Party over university governance while failing to bring more funding to the sector.
1989-1991

The year 1989 witnessed two significant events in China - the June 4th Tiananmen Incident and the start of three-year economic retrenchment. The impact of these could be seen as some retreat from earlier reform in the following three years (1989-1991). The total enrolments in higher education dropped from 2.18 million in 1988 to 2.13 million in 1991 (SEC, 1992a) and the trial of the division of labour in university management was suspended (Li, 1990). These years were officially claimed as the period of "consolidation and rectification". During this period, the continuous growth of institutions which had occurred since 1977 ceased and 18 of them were suspended from enrolment as it was claimed that they failed to meet the standards required for the provision of higher education in 1990 (China Education Daily, 1.1.1991, p.1). In 1991, official statistics showed that there were 1,064 institutions, compared with 1,075 in 1988 (SEC, 1992a).

1992-1997

In 1992, Deng Xiaoping reiterated the importance of economic reform to China and called again for speeding up economic reform and the accelerated introduction of a "socialist market economy" in China during his tour to Southern China cities (Deng, 1992). Then in October 1992, the 14th Communist Party Congress announced that China would take on a socialist market economic system (Guangming Daily, 10.21.1992, p.1). Hence this date marked the start of another round of economic reform.

In 1993 soon after the new waves of economic reform, another educational reform package was put forward by the central government to complement this new round of economic reform campaign. The 1993 government policy statement, entitled Program for China's Educational Reform and Development (labelled the Program hereafter in this thesis), called for the promotion of educational reform to a further degree. One of the most striking themes of the policy paper was the proposal to form a new education funding system to address the existing financial
stringency through diversifying the exiting funding base (CCP & the State Council, 1993).

Driven both by the changing environment caused by the new round of economic reform and the government's education reform package, higher education resumed its major program of rapid adaptation, continuous expansion and considerable diversification after the early period of restoration-focused reform. As far as the governance and funding of higher education was concerned, major shifts resulting from the reform Program included:

- a shift to devolution and deregulation of higher education administration and management from the central government to local governments;
- a shift of partial financial responsibility from the government to institutions while granting financial autonomy to institutions;
- a shift from catering to national priorities to focusing on local ones;
- a shift from state-owned, state-administered and state-financed higher education to joint-operating and running higher education by other social entities such as public and private enterprises, local communities, overseas Chinese and other individuals;
- a shift from the government as a sole funding source to a greatly diversified funding base;
- a shift from state financing to adopting market-related approaches and lessening bureaucratic control; and
- a shift from free-of-charge higher education to diversified contributions.

Together with these major shifts, pressures and challenges for cost-effectiveness and managerial efficiency were growing and led to reform of internal management systems (nuibu guanli tizhi gaige) and structural changes. Another level of administration - faculty - was added to administer departments, mostly by upgrading and/or merging departments into faculties and teaching groups into departments within institutions. Consolidation between institutions and setting up cross-institution consortiums were also part of the structural change. With the
intention of raising student-staff ratios and improving cost-effectiveness, between 1992 and 1995, more than 70 institutions were merged into 28 institutions and over 100 institutions set up cross-institutional consortia. The constants in this process were reduction of unit recurrent and capital costs, concentration of resources, economies of scale and greater productivity (see Chapter 7 for discussion).

In the writer's view, the waves of such consolidation and cooperation will continue to shake up the entire structure of Chinese higher education over the next few years. The significance of restructuring cannot be emphasised too much for the future viability of Chinese higher education (Zhao, 1998).

3.4 Summary

This thesis aims to investigate the effects of reform policies upon the governance and funding of higher education with regard to the nature and the consequences of changes following the 1985 and particularly 1993 policy statements. The review of higher education history in China reveals two important points relevant to the issues to be discussed in this thesis. First, higher education has always been closely related to national politics and economy (that is, either politically oriented or economically oriented). Second, higher education in China has long been underinvested. The recent reform agenda reviewed in this chapter and the corresponding issues, are to be fully discussed in Part III of this thesis. The above general review of the historical development of Chinese higher education suffices to provide a better understanding of the origins of the exiting higher education system, and the background and the outline of its on-going reform.
CHAPTER 4

CURRENT INTERNATIONAL TRENDS: ISSUES AND POLICY OPTIONS IN THE GOVERNANCE AND FUNDING OF HIGHER EDUCATION

4.1 Introduction

Like China, many countries, both developed and developing, have seen a decade of rapid and radical changes in patterns of financing and control of higher education systems. A literature review of the changes indicates within international perspectives a general movement towards devolution of financial autonomy to higher education institutions, diversification of funding sources, market-oriented approaches to funding, increased sophistication of formula funding, larger private share of higher education costs, etc. Valuable and instructive lessons from the changes can be identified and learned from other countries for their potential in the Chinese context. In fact, the reforms of the Chinese higher education system in governance and financing are following directions common elsewhere. This chapter reviews current major international trends, issues and reform policies in the governance and funding of higher education over the past decade, and examines their implications for China so as to enlighten policy development (to be given in Part III of this thesis) for more efficient governance and funding mechanisms for higher education in China.

This chapter has three sections. The first section outlines the main findings in the evolution of funding mechanisms in developed countries with a focus on three countries' reforms. The second section concentrates on reviewing some well-established policy options for improvement of funding mechanisms in developing countries, while identifying general and major issues and problems facing these countries. The last section is concerned particularly with the issue of transferability and adaptation
of international experience and perspectives to meet Chinese needs and priorities, because, despite diversity and variety in the international experience, there are some commonalities in terms of the governance and funding of higher education in most countries.

4.2 Funding Higher Education in Developed Countries

In many developed countries, higher education has been confronting dual pressures - of rapid growth in participation from a broadened socio-economic mix of students, and of a tight budgetary environment since the 1980s. In response to these pressures, both governments and institutions have been forced to rethink their management and financing arrangements. Public policy attention has turned to mechanisms for addressing problems raised under the pressures. The main mechanisms include devolving financing authority and responsibility; seeking alternative sources of funding; moving towards more market-oriented approaches to funding and income generation; and separating teaching and research funding (OECD, 1990; Woodhall, 1992; Marceau, 1993). The aims of the mechanisms are to tap and expand institutional resources and capacity to accommodate the growth in higher education; rationalise course provision; produce more graduates with greater cost efficiency; and increase accountability and efficiency of the management of higher education institutions (Marceau, 1993). An OECD study report on the current trends of financing higher education in 13 OECD countries concluded as follows.

Whatever the pros and cons, the fact remains that institutions of higher education, and particularly universities, all have the potential capacity to operate as service enterprises, and under some conditions to cover a big part of their expenditure from the sale of their services (OECD, 1990, p.3).

This section reviews specifically significant changes in patterns of governance and funding of higher education in some major developed countries over the past decade. Australia, the United Kingdom and the United States are targeted for this further discussion in terms of their
leadership positions and progress in reform amongst the developed countries.

_Australia_

The Commonwealth Government of Australia assumed full financial responsibility for higher education in 1974. Since then the Commonwealth has been the dominant source of financial support for higher education, providing 60 percent of university income in 1994. On the other hand, total income from non-Commonwealth sources has risen from 10.7 percent in 1981 to 40 percent in 1994 (DEETYA, 1996). Table 4.1 provides a picture of changes in the sources of higher education income between 1981 and 1994.

Table 4.1 Australian Higher Education Income by Source, 1981-1994 (percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth Government</td>
<td>89.3</td>
<td>82.9</td>
<td>73.5</td>
<td>56.0</td>
<td>60.1</td>
</tr>
<tr>
<td>State government</td>
<td>0.8</td>
<td>1.0</td>
<td>5.0</td>
<td>4.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Tuition/fees</td>
<td>0.0</td>
<td>2.3</td>
<td>5.0</td>
<td>24.7</td>
<td>23.6</td>
</tr>
<tr>
<td>Investments, endowments, donations</td>
<td>4.4</td>
<td>5.4</td>
<td>7.6</td>
<td>5.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Other income*</td>
<td>5.5</td>
<td>8.3</td>
<td>8.1</td>
<td>10.0</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

_Sources:_ DEET, 1994; DEETYA, 1996

*Note: "Other income" includes trading income, services, and other.

Table 4.1 indicates a general trend in the funding of higher education in Australia – an increasing diversified portfolio of income sources for higher education as a result of a declining proportion of Commonwealth funding. This was a direct consequence of the Government policy initiated in Dawkins's Green Paper and White Paper (Dawkins, 1987, 1988).
Detailed proposals in these government policies concerning the governance and financing of higher education included:

- restructuring higher education through consolidation between universities and colleges of advanced education to increase overall capacity and productivity of the system;
- re-introduction of rolling triennial funding, which is believed to offer institutions security for planning with flexibility (Gallagher, 1992);
- establishing a committee to examine possible schemes for students to contribute towards the cost of their higher education;
- new arrangements for full-fee paying overseas students to reduce the former intakes of subsidised overseas students;
- 150 percent tax deduction for eligible research and development expenditure;
- allocation of research funding primarily on a competitive basis;
- allowing charging fees for certain postgraduate courses; and
- imposing greater accountability upon institutional management including financial management (Dawkins, 1987, 1988).

Driven by the reform package, the former binary system of 22 universities and 44 colleges of advanced education in 1988 was transformed into a unified national system of 36 universities in 1994 (DEET, 1994). The current fewer and larger multi-campus universities under one unified national system facilitated central financial arrangements and removed former differential funding for colleges and universities.

Also in the context of reform, the Higher Education Contribution Scheme (HECS) took effect in 1989. Under the HECS, all local students enrolled in award courses at Commonwealth funded higher education institutions were liable for contributing around 20 percent of the average total higher education costs. The payment arrangements are flexible. Students could choose to pay either an up-front fee with a 15 percent discount (25 percent from 1993) or defer their payment and repay through the taxation system when their taxable income reached an indexed
minimum threshold for a particular year. From 1 January 1990, all new overseas students have been required to pay the full costs of their education.

The two government papers urged higher education institutions to seek alternative sources of funding to cope with the increasing long-term budgetary constraints since the 1980s (Dawkins, 1987, 1988). Higher education institutions were thus encouraged to sell their teaching and research services to customers.

Table 4.2 provides a detailed breakdown of Australian institutional income by source in 1994. As shown in Tables 4.1 and 4.2, the remarkable increase in university income came mainly from student fees (chiefly from the HECS, and full-fee paying courses for overseas students and certain postgraduate courses) and commercial undertakings of institutions.

<table>
<thead>
<tr>
<th>Source of income</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth Government</td>
<td>60.1</td>
</tr>
<tr>
<td>HECS</td>
<td>12.8</td>
</tr>
<tr>
<td>Fees and charges - total, of which</td>
<td>10.8</td>
</tr>
<tr>
<td>from overseas students</td>
<td>5.6</td>
</tr>
<tr>
<td>from postgraduates</td>
<td>0.8</td>
</tr>
<tr>
<td>from others*</td>
<td>4.4</td>
</tr>
<tr>
<td>State Government</td>
<td>1.9</td>
</tr>
<tr>
<td>Investment</td>
<td>1.9</td>
</tr>
<tr>
<td>Donations and bequests</td>
<td>1.0</td>
</tr>
<tr>
<td>Other sources</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: DEETYA, 1996
*Note: The item includes fees and charges from continuing education and other fees and charges (including fees for services).

While maintaining a level of government provided scholarships, Australia's overseas student policy also emphasised a vigorous trade-oriented approach to the provision of higher education. The international marketability of Australian higher education resources has led to a rapid growth in overseas student enrolments and billions of
dollars' income for higher education institutions over the past few years. In 1994 alone, charges from overseas students reached up to AUS$384,517,000 which covered 5.6 percent of institutional income. With an averaged annual growth of 12.7 percent in overseas students enrolling in higher education between 1990 and 1995 (Baker et al., 1996), the revenue from this source played a most significant role in funding Australian higher education. As Rhodes and Smart (1996) suggested, Australian higher education displays a more entrepreneurial culture than its counterpart in the United States in terms of policies toward overseas students.

As another incentive for seeking alternative funding, the Government provided core infrastructure to institutions to enhance cooperation between higher education and industry (DEET, 1993). All these reform strategies widened sources of income of institutions. For example, non-Commonwealth sources of income for higher education trebled from AUS$229 million in 1987 to AUS$759 million in 1990 (DEET, 1993).

The Australian Commonwealth Government claimed that it had two main thrusts concerning the governance and financing of higher education in recent years, which merit special attention:

Firstly, the Commonwealth is moving to a funding process which enhances institutional autonomy by placing the responsibility for resource management decisions in institutions' hands. Secondly, institutions are being encouraged to develop private sector sources of funds and reduce their reliance on the Commonwealth as the main source of operating funds (DEET, 1993, p.98).

In keeping with the main policy thrusts, the Government also rolled capital funding into operating grants from 1994, which provided institutions with the flexibility to make their own capital planning for the use of their resources. Another measure to enhance institutional financial autonomy was the change of the former detailed grant system into a single block operating grant to allow institutions to decide the allocation of resources under different categories in terms of educational
profiles (DEET, 1993). But the financial autonomy of institutions was constrained by the educational profiles negotiated between the Government and institutions, and was strictly subject to greater accountability to the Government. In reality, the recent trend of governance of Australian higher education is moving towards a more centralised control by the Commonwealth Government (Zhao, 1997a).

Although Government outlays on higher education increased from 3.31 percent of its total expenditure in 1987 to 3.82 percent in 1993 (Budget Paper, 1987, 1993), there was a 73 percent increase in the number of students enrolled in higher education institutions during the period 1983 to 1995, and the growth was rapid especially in 1990 and 1991 (DEETYA, 1996). Thus, the actual recurrent expenditure per student continued to decline, due to the rapid growth in enrolments, as claimed by some Vice-Chancellors (UWA, 1989; Gilbert, 1991). Shortages of funds forced up student staff ratios and removed funds for "pure" research (Marceau, 1993).

The financial stringency became even tougher with the newly-elected Government's August 1996 budget cuts to higher education. Universities' operating grants were to be reduced by five percent in the next three years. HECS has started to rise and to be calculated at differential rates in terms of disciplines studied. The cuts in enrolments are targeted at previously HECS funded postgraduate coursework places. A lower threshold than before for repayment of HECS debts also has been introduced from 1997 (DEETYA, 1996).

The latest proposal of some university chancelleries for the introduction of full fee-paying courses in 1998 for local undergraduate students has raised further concern about possible damaging effects, particularly on equity and institutional priority (Mullan, 1997; Maslin, 1997). The cuts to university operating grants also mean that Australian universities must reduce their teaching load and must generate more income from non-Commonwealth sources, particularly from tuition and fees. In this writer's view, the increasingly stringent government funding for higher education will lead to a more market-oriented and entrepreneurial
culture in the Australian higher education sector. The Discussion Paper (the West Report) by the Higher Education Review Committee (HERC), published in November 1997, reflected this culture, urging a freemarket for fees (that is, allowing universities to set fees and reducing controls on student numbers) (HERC, 1997).

**The United Kingdom (UK)**

The higher education system in the UK used to consist of two sectors - university and non-university - which were funded and administered separately. In 1992, the binary system was abolished by the Further and Higher Education Act. The non-university sector was funded only for teaching and not for research by local authorities. It had little financial autonomy as its budgets were detailed, line by line, by local authorities (OECD, 1990). The average level of funding per student in the non-university sector was only about two-thirds of that in the university sector. There had been a prolonged campaign for polytechnics and colleges to gain university status, which contributed to the final collapse of the binary system in 1992 (Eustace, 1992).

The finance in the university sector relied heavily on national public funding until the early 1980s. The University Grants Committee (UGC), fundamentally an academic body, was responsible for making individual allocations to universities. The funding system of the university sector had the following distinct features: quinquennial, incremental, containing a research component (about 30 percent), taking into account institutions' recurrent income from other sources in determining their recurrent grant, and a block grant. However, this finance system has undergone significant changes through the 1980s to the 1990s.

Firstly, due to government's severe cuts in funding to universities and a high inflation factor, the quinquennial approach and incremental funding collapsed. The former quinquennial system was replaced by three-year and then one-year systems. Secondly, in 1986, the UGC separated the research component from the block grant and allocated it selectively in terms of research excellence of institutions. The separation
of teaching and research in funding terms has prompted the universities with a strong research base to obtain more government research funds, and others less strong in research to enrol more fees-only students in order to gain government's extra funds on the basis of student numbers (Marceau, 1993). Thirdly, more diversified sources of funding have occurred with a declining proportion of UGC funding in institutional income - from 71 percent in 1970-71 to 55 percent in 1986-87. Table 4.3 indicates the origin of non-UGC income.

Table 4.3 University Income by Source (in the UK): 1986-87

<table>
<thead>
<tr>
<th>Source</th>
<th>Percent of total income</th>
</tr>
</thead>
<tbody>
<tr>
<td>UGC</td>
<td>55.6</td>
</tr>
<tr>
<td>Research grants &amp; contracts</td>
<td>19.0</td>
</tr>
<tr>
<td>Other governments</td>
<td>1.2</td>
</tr>
<tr>
<td>Student fees</td>
<td>12.3</td>
</tr>
<tr>
<td>Endowments</td>
<td>1.3</td>
</tr>
<tr>
<td>Services</td>
<td>6.1</td>
</tr>
<tr>
<td>General income</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Eustace, 1992

The non-UGC income came mainly from research grants and contracts, student fees (especially from overseas students), and continuing education (under the services category), as shown in the Table 4.3. Also, university income from research grants and contracts rose dramatically, from 13 percent in 1970-71 to 20.4 percent in 1988-89. Of the 20.4 percent income from research grants and contracts, over one third came from the Research Council and government departments, 29.5 percent from British charities, and 13.8 percent from industry contributions (Marceau, 1993). As an individual example, Loughborough University, sought in 1990 £15 million from non-UFC sources (see the following paragraphs for the replacement of the UGC by the UFC), while receiving about £30 million from the UFC grant. The income raised from non-UFC sources reached a very significant level - 50 percent of UFC grant (Hough, 1992).
There were more changes following the Education Reform Act of 1988. The Act is regarded as the most important and far-reaching educational law since the 1944 Education Act in the UK (Maclure, 1989). The Act had four provisions directly relevant to higher education: the abolition of lifetime tenure for new appointments in universities; the replacement of the University Grants Committee by the University Funding Council (UFC), and the National Advisory Body by the Polytechnics and Colleges Funding Council (PCFC); and the transformation of the English polytechnics and about 50 other colleges into independent statutory corporations outside local authority control (Hough, 1992).

As Gareth Williams (1992) reviewed, the radical changes in the governance and financing of both the university and non-university sectors in the late 1980s and early 1990s engendered more effective planning, lower per-student costs, a devolution of control from the ministry and the local authorities to the polytechnics and colleges, and a great expansion of entrepreneurial activity. More attention has been turned to reforming higher education budgeting and management.

The two new funding councils (UFC and PCFC) have been granted greater powers, not advisory like their predecessors but legal powers, to allocate funding to individual institutions and to make formal contracts for specified services with them. In the non-university sector, polytechnics and colleges were responsible to the PCFC and became statutory corporations independent from local authorities. Another significant change has been the implementation of a contracting funding policy between 1991 and 1995 in the university sector. In terms of the policy, funding was based on bidding for student numbers, against a guide price determined by the UFC for a full-time equivalent student, for each academic subject. The winners were those who bid the lowest cost. In the non-university sector, the funding allocation by the PCFC comprised core funding plus successful bids. Both funding councils were responsible for institutions meeting their contracts through assessing their performance and adjusting funding subsequently.
As in Australia, student fees have increased dramatically in the UK since 1990. But most of the fees are borne not by students but by the state, except the fees for overseas students. By increasing significantly student fees the government has reduced its operating grants to prompt institutions to accommodate student demand in the provision of academic services.

Over the few years prior to 1992, a formula of core funding for British higher education was based upon student numbers and historical budgeting minus an efficiency dividend. The 1992 Further and Higher Education Act contributed to a new funding formula: Quality + Development + Control. The effects of the formula were seen to be greater separation of teaching and research funds and a greater emphasis on output and activity of institutions than on student enrolments. Other effects are likely to be a growing reliance on contract grants, emphasis on income generation from student fees and enrolment of fees-only students and providing students with loans other than grants.

In this writer's view, all the above major changes in strategies of the governance and funding of higher education since the mid-1980s, indicate a strong orientation of movement, namely, an increasing market-oriented approach to funding in the UK. This trend of the increasing reliance on market regulation of resources and competition for funding among institutions will continue, as a result of the pressure of government reform policies and shrinking public operating grants from the UFC.

**The United States (US)**

The higher education system in the US has its unique feature of great diversity of forms between and among institutions. Notwithstanding, some common characteristics are noticeable in terms of the governance and funding of the system. They are absence of federal government control; concurrent existence of strong public and private higher education; responsibility of lay boards delegating executive authority to a president; and departmental authority, that is, the department as a
key unit of academic organisation (see the Carnegie Commission report, 1973). Presidents are not expected to be academic in orientation, and deans enjoy real financial autonomy in the US.

Financing public higher education is primarily the responsibility of state governments through state budgets, whereas private higher education relies heavily upon tuition and fee charges. In addition to government grants and tuition fees, both sectors receive endowments, and private gifts, grants and contracts, to supplement their major source of income. Table 4.4 illustrates the sources of income of US higher education between 1980 and 1990, and of income of both public and private sectors in 1991.

Table 4.4 Fund Revenues of US Institutions of Higher Education by Source, 1980-1991 (percent)

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition/fees</td>
<td>20.4</td>
<td>23.0</td>
<td>24.3</td>
<td>16.1</td>
<td>40.4</td>
</tr>
<tr>
<td>Federal Govt.</td>
<td>15.2</td>
<td>12.4</td>
<td>12.4</td>
<td>10.3</td>
<td>15.4</td>
</tr>
<tr>
<td>State Govt.</td>
<td>31.4</td>
<td>29.9</td>
<td>27.5</td>
<td>40.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Local Govt.</td>
<td>2.7</td>
<td>2.6</td>
<td>2.6</td>
<td>3.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Private gifts, grants/contracts</td>
<td>4.8</td>
<td>5.3</td>
<td>5.6</td>
<td>3.8</td>
<td>8.6</td>
</tr>
<tr>
<td>Endowment</td>
<td>2.0</td>
<td>2.3</td>
<td>2.3</td>
<td>0.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Educational activities</td>
<td>2.1</td>
<td>2.3</td>
<td>2.6</td>
<td>2.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Auxiliary enterprises</td>
<td>11.1</td>
<td>10.9</td>
<td>10.0</td>
<td>9.5</td>
<td>10.7</td>
</tr>
<tr>
<td>Hospitals*</td>
<td>8.1</td>
<td>9.5</td>
<td>3.4</td>
<td>10.3</td>
<td>9.8</td>
</tr>
<tr>
<td>Other</td>
<td>10.3</td>
<td>3.3</td>
<td>3.4</td>
<td>2.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: US Department of Commerce, 1994
*Note: Income from hospitals was included in Other income in 1980.

Table 4.4 shows that the source of income from tuition and fees increased from 20.4 percent in 1980 to 24.3 percent in 1990 in the whole system, while the proportion of state government funding in institutional income dropped from 31.4 percent to 27.5 percent during the same period of time. The table also indicates that sources of funding for US higher education are more greatly diversified than those for Australia and the UK. Non-state government funding for public
institutions accounts for about 60 percent in 1991. The income from trading and services (including educational activities, auxiliary enterprises and hospitals) ranked the second largest source of income in both sectors. The Federal Government's contribution is also significant in the form of provision of some financial support for students and contract research grants. The US also has long led the rest of the world in raising funds from alumni, foundations, friends and corporations (Johnstone, 1993). Compared with Australia and the UK, the US is the closest to a market model of funding. The various categories of non-state government funding are granted mostly for specific purposes and are subject to a high degree of market competition. Also in the US, students share more costs of higher education than their counterparts elsewhere, but are well assisted with a mix of loans and grants, and work-study programs. The larger private component of income gives US institutions not only greater independence from governments than elsewhere but greater dependence on the vagaries of labour markets and economic viability, and politics of states' administration (Marceau, 1993).

By the late 1980s and early 1990s, sources of finance for US higher education became more problematic. Institutions confronted financial crises as a result of fiscal problems of individual states, declining research project funding and reduced student support. The rate of growth in student enrolments became more modest in the 1990s than in the 1980s, which posed further financial problems for institutions as most base funding allocations were determined by student enrolment numbers in the US. The most popular funding formula in the US is based upon student enrolments, while taking into account the type of institutions, study loadings of different levels and different costs for different course offerings (Stanley, 1992).

The consequences of the financial crises included hyper-competition for high-fee paying students and research funds between institutions, dramatic increase in student fees, and closure of some departments and even institutions, due to state funding cuts (Marceau, 1993). Between 1981 and 1995, tuition and fees in public institutions increased dramatically. In some states the increase reached up to 250 percent (in
Alaska), 215 percent (in California), 177 percent (in Mass.) and 159 percent (in Louisiana). The average tuition and fees charged to undergraduates at state universities rose by US$195 from 1993-94 to 1994-95 (Lewis & Farris, 1995). Table 4.5 gives an overall picture of an enormous increase in US higher education charges between 1980 and 1993.

Table 4.5 US Higher Education Charges by Sector: 1980-1993

<table>
<thead>
<tr>
<th>Year</th>
<th>Public institutions</th>
<th>Private institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>$585</td>
<td>$3,130</td>
</tr>
<tr>
<td>1985</td>
<td>$971</td>
<td>$5,315</td>
</tr>
<tr>
<td>1990</td>
<td>$1,356</td>
<td>$8,174</td>
</tr>
<tr>
<td>1993</td>
<td>$1,787</td>
<td>$10,031</td>
</tr>
</tbody>
</table>

*Source: US Department of Commerce, 1994*

*Note: Figures are estimated average charges per full-time equivalent student.*

In terms of a questionnaire survey over 780 public and private non-profit colleges and universities conducted in 1993, about one third of all participant institutions experienced cuts in their budgets between 1991 and 1993 after the budgets were initially approved (Lewis & Farris, 1995). The current financial stringency is clear in the US higher education sector, regardless of status as private and public higher education institutions.

In sum, US higher education, like its counterparts in Australia and the UK, is suffering from the same grave funding constraints. But as a pre-eminent example of a market-driven system, US higher education is more subject to market accountability, and has more financial incentives to commercialise knowledge, transfer technology to private enterprises and form partnerships with business/industry. This market model of US higher education has an increasingly dominant influence in other developed countries. As evidenced in this section and the OECD report (1990), higher education in many developed countries as a whole, is moving towards a market or quasi-market model.
4.3 Funding Higher Education in Developing Countries

Compared with developed countries, trends in higher education are less clear cut in developing countries. But some common issues are located:

- financial crisis caused by inappropriate (excess) expansion of higher education and economic stagnation in many developing countries;
- declining expenditure per student in real terms;
- deteriorating physical facilities, poor library resources, insufficient scientific equipment and severe shortages of staff; and

General problems in financing arrangements were identified:

- centralised financial and administrative arrangements restrict the flexibility and efficiency of resource utilisations;
- in some countries, higher education students are heavily subsidised by public grants that limit the resources for other developments and also generate social inequalities; and
- investment in subjects of higher education is frequently not consistent with the demand of labour markets, resulting in oversupplies of graduates in some fields and a shortage of supply in other fields (World Bank, 1986; Tan & Mingat, 1992).

In some countries in Africa, students received free higher education as well as book allowances (Woodhall, 1992). Also in Africa, living allowance of university students accounted for at least 40 percent of the entire grants for higher education (World Bank, 1986). In Mali, about 90 percent of higher education graduates could not find jobs (Hough, 1992). In many developing countries such as in India and the Philippines, government grants were the only effective source of finance. But in other countries such as in Korea, for public higher education, tuition fees accounted for approximately 50 percent of institutional income, and government grants for about 46 percent (Harman, 1991). By the end of the 1980s, some trends similar to those of the developed countries can be
located, for example, prompting institutions to be entrepreneurial and cost-conscious (Hough, 1992).

To address the issues and problems identified above, some reforms have already been conducted or proposed in some developing countries over the decade. India, Barbados and Nigeria, for instance, began to reduce public subsidies for higher education courses and students, and planned to charge student fees accompanied by provision of student loan programs (World Bank, 1986). In Malaysia and Colombia, student loan schemes worked well with the assistance of scholarships and government service (Ransom et al., 1993). In India, the government called for mobilisation of community resources to meet substantial costs of education. In Pakistan, the government lifted the ban on private education and supported with earmarked funds efforts in establishing private education institutions. Devolution and decentralisation of financial responsibility and planning management were also seen in Nigeria and Pakistan (World Bank, 1986).

To assist developing countries in addressing problems in the governance and financing of education including higher education, the World Bank also worked out a series of policy options. The Bank suggested a number of policy reforms, based upon several intensive studies of some developing countries. These reform recommendations described below, have significant relevance to the current higher education reform in China, when it comes to enlightening policy development for the Chinese conditions.

(a) Reducing allowances and charging fees to promote cost recovery. Cost recovery could be achieved through reducing student allowances and charging or increasing higher education fees. Introduction of a tuition fee system increases the private share of costs of higher education. Evidence from some case studies of African countries demonstrates that higher education remains an attractive private investment in spite of reduced student allowances and fee imposition. Available evidence also suggests that excess demand for higher education is so great and common in many developing countries that an increase in fees would not reduce
enrolments to a significant extent. In Mauritius, for example, the imposition of tuition charges for higher education did not affect enrolments (World Bank, 1986).

The Bank (1986) elaborated on the rationale for this policy. There are two major areas upon which the measures for recovery of higher education costs have effects: on efficiency and on equity. Efficiency should be improved within a higher education system if fees were charged. The argument is that the greater individual share of higher education costs would prompt students to be more cost-conscious in their choice of study fields and institutions, and improve student performance since they bear a greater financial stake in their studies. The fee-charging policy should also improve the quality of student selection since students at risk of failure to complete courses would be discouraged from applying. Also, students' greater cost-consciousness should stimulate institutions to examine costs more closely and to improve management so that competitive levels of fees would attract students.

As far as equity is concerned, the Bank argued that funds raised from user charges would provide chances for more talented and motivated students to enrol by increasing study places and total resources for education. It is claimed that surveys show that the majority of higher education students come from high-income groups, and that reducing allowances and charging fees would enhance equity in the use of public funds, since in the absence of fees, all taxpayers contribute to higher education. However, in the view of this writer, equity in access for low income students would presumably only apply if some of the additional revenue from fees was used for scholarships or other forms of support. The Bank did recognise that tuition charging could force some students from low-income groups to drop out of higher education, but argued that the potential loss of equity could be compensated by expansion of primary and secondary education through reallocation of funds gained from higher education cost recovery. This argument was justified by the Bank's findings that the heavy subsidisation of higher education was
fulfilled at the expense of primary education in many developing countries.

(b) Introducing student loan schemes and selective scholarships. Student loan programs already existed in some developing countries, such as Malaysia, Pakistan, Colombia, and Barbados. Based upon their experience, the World Bank (1986) suggested that student loans would be feasible in many other countries. There would be a number of benefits on almost all counts. Loans enhance equity by assisting highly-motivated students from low-income families to compete for higher education places and by improving the quality of student selection. Studies found that loans stimulated student borrowers to complete their studies successfully and in the minimum time. It was also found that in most world regions, annual earnings of higher education graduates were relatively higher than annual public expenditure on higher education. This suggests that it would be very likely that students could afford to repay their study loans after graduation. This also indicates the feasibility of full recovery of higher education costs through student loan schemes, although the extent of repayment is largely determined by the size of loans and the period of repayment. Like loans, selective scholarships based on economic need and merit, could enhance equity by offering financial assistance on an equal competitive basis and reducing loan burdens on excellent students from low-income groups.

Loans can be obtained from state-owned banks and private banks. Government can play an important role in promoting educational credit markets to help the needy students get loans and also help collect repayments as well. The major problems affecting student loan schemes are lack of legal or administrative framework to enforce financial contracts (repayment terms) effectively in many developing countries, and high administrative and repayment costs of loan schemes (World Bank, 1986). The similar topic was later discussed in greater detail in the World Bank Discussion Paper No. 137 (Albrecht & Ziderman, 1996).

(c) The third policy option proposed by the Bank is decentralising management to mobilise additional private and local resources for
education without much increase in government expenditures. It was found that overly tight central control over running schools, and restriction of private education in many developing countries, discouraged non-state resources contributing to education. It was claimed that this policy would improve efficiency in schools by increasing competition among public schools and between private and public schools (World Bank, 1986). But the elaboration of this policy was confined to primary and secondary education only. Here, the Bank did not mention the likelihood of the implementation of the policy in the higher education sector.

In a later seminar organised by the World Bank, participants from 22 developing countries discussed priorities and strategies for higher education policy in the 1990s. In relation to financing policies, two types of funding mechanisms were examined in the seminar: cost recovery through rationalising subsidies to higher education in terms of private and societal benefits, and privatisation of higher education. The discussion of the first funding mechanism matched with the first policy option of the Bank illustrated above but raised more detailed problems concerning the implementation of such a policy option. The central issue was how to effectively estimate in advance the magnitude of private benefits accruing from higher education to an individual so as to determine how much to pay, for what kinds of higher education, and when to pay. While this issue remained unsolved, the equity and efficiency of higher education charges based upon actual rather than presumed benefits of education through differentiated tax and salary structures would continue to be problematic (Ransom et al., 1993).

As to the discussion of privatisation of higher education, proponents of privatisation of higher education claimed that privatisation can improve quality and efficiency through greater political and academic freedom, flexibility and diversity. Nevertheless, problems occurred in relation to establishment of private institutions, their funding sources and their performance. In some developing countries where private higher education was the mass system such as in the Philippines, Indonesia, Brazil and Korea, the quality of private education was inferior
to that in the public system (Ransom et al., 1993). In the Philippines, over 80 percent of students were enrolled in private higher education institutions, where 82 percent of income came from tuition fees (Harman, 1991).

The above illustration of on-going reforms and a list of policy options highlights the issues and problems confronting the governance and financing of higher education in many developing countries. Whether the proposed policy options apply to individual country conditions needs a lot more analytical work to be done. For example, in the case of student loan schemes, some countries such as Malaysia and Colombia, have been successful, whereas some countries such as Brazil and Uganda, have failed in the trial of the schemes due to high administration costs and high default rates (Ransom et al., 1993). In addition, difficulties to implement the reform policies of the World Bank would be great, given that the policies challenge a long-established tradition of heavily subsidised higher education and of a tight central government control over higher education in many developing countries.

4.4 Implications for the Chinese Study

The previous two sections have reviewed some major international practices and policies, and identified trends and issues with respect to the governance and financing of higher education. Although this review is limited and cursory, a number of consistent themes relevant to the issues to be addressed in this thesis can be located. The funding of higher education faces some common issues throughout the world, regardless of whether the provision is in developed countries or developing ones. These issues concentrate on questions such as whether and/or how the costs of higher education should be shared between public and private resources, and what funding mechanisms should be employed to allocate resources in the higher education sector. In the context of a universal stringent budget for higher education since the 1980s, in many countries, higher education has struggled to survive through seeking alternative sources of funding under pressure from governments and economic recession. In developed countries, market share of funding sources tends
to be more popular in terms of greater diversification of sources of income, sale of academic services and high increase in student fees. Meanwhile, in developing countries, despite a less clear cut trend in financing higher education, cost-consciousness and cost recovery are being given greater weight. Under the increasing pressures of excess demand and scarce resources, many developing countries are exploring different strategies to reduce the public burden of maintaining higher education institutions by increasing private sources of finance.

The international experience and the series of reform packages clearly demonstrate worldwide concerns and interests in improving higher education efficiency (particularly economic efficiency) and the possibility of greater cost recovery. They also demonstrate a remarkable degree of consensus on mobilising additional funding and sharing the burden for developing higher education, increasing institutional autonomy, and favouring market-orientated delivery mechanisms for higher education. The popular international practices and perspectives imply the possibility of translating and adapting some strategies into the Chinese context. The problems and difficulties raised in the practices and perspectives will inform policymakers and researchers in designing reform policies or policy options for China.

The international trends suggest that some aspects of current development in higher education funding mechanisms are not unique to any country. The universalising trends also mean that the well-established policy options from the World Bank and other international sources of expertise are likely to apply to many developing countries. With the emergence of a globalised economy, the existing universality of diversified funding patterns in many countries is more likely to grow in the face of some common social and economic issues. Similarly, higher education in some developing countries is facing and/or will likely face, in the near future, problems similar to those that have confronted or will confront higher education in some developed countries. Therefore, learning from international experience and practices can help higher education in China to develop strategies to deal with the considerable funding issues it faces. In addition, Chinese higher education has already
had a relatively long history of copying and adopting Western and Soviet academic models (more details in Chapter 3). The current higher education reform in China is seen to resume some features of the Western academic models, such as the British polytechnic and open university models, the US teaching and research university and community college models, etc. (Hayhoe, 1996). This history indicates that China is ready to adopt other international models if they are useful for Chinese needs and priorities.

On the other hand, it must be recognised that there are many fundamental and important differences between China and the developed countries in terms of cultural, social, economic and political systems in which it is embedded. It is likely that some aspects of the experience of developed countries may not be relevant and some solutions may not be appropriate to the Chinese situation. This is also true when dealing with the experience of developing countries. The successful funding mechanisms in one country can hardly be readily transferred to the Chinese context for similar reasons. More analytical work is needed, and every caution should be taken in extrapolating from any international experience or drawing on any policy options of other countries.

As situations vary from country to country, an in-depth, country-specific study must be undertaken to determine funding mechanisms that are most applicable to the Chinese context. This in-depth China specific study drawing on some aspects of international experience and perspectives with respect to the governance and funding of higher education is the major focus of this research and covers the remainder of this thesis.
CONCLUSIONS (OF PART I)

In this Part of the thesis, a general survey of literature related to the current research topic has identified major current trends both in China and abroad and consolidated a number of consistent themes in international perspectives regarding the changes in the governance and funding of higher education. The trends and themes have derived from some major reforms and signalled some significant effects on the higher education systems in several countries. These reforms have included, broadly, decentralisation for resource allocation, financial autonomy of institutions, diversification of funding sources, adoption of market models of funding, and improvement of cost efficiency. The trends and consistent themes in the literature concerning these reforms in both China and abroad are summarised as follows.

- It is widely claimed that centralised financial and administrative control has restricted the flexibility and efficiency of resource allocation and utilisation, and thus can no longer accommodate the increasing diversification and variability of higher education expansion and development in terms of increasingly diversified demand for its services.

- While devolving financial authority and responsibility to institutions, the government has exerted pressure for institutional accountability and its demands for efficiency of management of higher education are increasing. As a consequence, the independence and freedom of higher education institutions have inevitably been constrained as is the case in Australia.

- In many countries over the past decade reviewed in this part, institutional revenue from non-state sources has expanded significantly as a result of declining, in real term, public funds flowing into higher education and pressures for seeking alternative
sources of funding to supplement the state source. It is suggested that the increase in non-state revenue has given institutions greater independence and made them less vulnerable to the vagaries of budget allocation by governments.

- There has been a strong international trend to shift from bureaucratic systems to a market model of funding. It is claimed that market approaches to funding promote efficiency of management through competition for funds among institutions.

- Along with the prevalence of a market or quasi-market model of funding has been the trend to diversification of funding sources through encouraging institutional income generation from a variety of commercial and entrepreneurial activities such as the sale of educational, research and consulting services to students, public authorities and commercial organisations, and building and/or expanding links with industry/business. The boost to this income generation, called the "third stream" generation (Fürstenbach, 1993), has to some extent offset the effects of declining government funding.

- Another clearly discernible worldwide trend has been containing costs of higher education and enhancing its productivity. Cost pressures for reducing per-student and per-degree costs have greatly increased. More attention has been paid to economies of scale and rigorous cost control. Modern managerial thinking has gained momentum in the higher education sector over the past decade. Outcome assessments or quality indicators are being introduced in university budgeting and management.

The literature review also enlightened this researcher to raise a number of key questions, which have not been well addressed in research and represent gaps in the current world literature. Critical and analytic studies about these questions in the Chinese context are very scarce. As these questions are fundamental and significant in the current study of the governance and funding of higher education, they provided the basis for a clear conceptual framework for further theoretical and empirical inquiry which this research is intended to undertake. These research questions are outlined as follows.
• What changes have taken place in the relationships (including financial relationships) between governments and higher education institutions and how significant have these changes been?

• What implications stem from the newly-forged relationships between government and institutions for the relationships between higher education and the broader society?

• To what extent has the recent management reform within institutions enhanced internal efficiency of Chinese higher education, in the view of national reports and individual survey results?

• What are the impact and implications of this reform for internal governance and funding of institutions?

• What general effects, positive and negative, has the recent shift from sole government funding to diversification of funding base exerted upon the viability of Chinese higher education?

• What does diversification of financing mean descriptively and conceptually to individual institutions with different financial and administrative backgrounds?

• The increase of income from the sale of institutional services has grown rapidly and significantly, constituting currently an important part of the income for many institutions in China. What consequences have resulted from this increase, in terms of organisation and governance, staff commitment to external demands and academic quality, as the income generation activities involve many staff and become an important agenda in internal management within an institution?

• As the proportion of financing from the sale of academic services is increasing, its significance affects decision making on institutional priorities and power patterns within institutions (faculties and departments). So, what are the advantages and disadvantages of such an influence and what are its other consequences?

• Official press has demonstrated a nation-wide upsurge of enthusiasm for partnerships between higher education
institutions and industry/business in China. What are the driving factors behind the upsurge? What specific outcomes have been generated from the boost, particularly in relation to income generation from the partnerships?

- What impact does the recent shift to a greater private share of higher education through tuition charges exert upon open access to higher education and the quality of its provision in China in terms of a national study and survey results?
- What adversities, issues and problems are confronting Chinese higher education institutions in the present reforms in the governance and funding of higher education? How could they be solved or minimised?

All these questions are to be fully discussed in broader terms subsequently, except for the last questions to be addressed separately in each of the remaining chapters, in Part III. This research attempts to provide some answers to these questions through a systematic analysis and triangulation of findings from a number of rich data sources. The next part, Part II, describes the methodology of this research used to address the project's objectives. Part III is devoted to the presentation, analysis, interpretation and discussion of research findings. In this part, findings in relation to the above issues and problems are examined in great detail under seven different chapter headings. Figure 4.1 presents a conceptual picture of relations among the above issues to be investigated and a writing scheme to address them in Part III.

As shown in the figure, the discussion of governance is coupled with that of funding (finance), as the two are interrelated in practice. For example, the shift from sole government funding to diversification of the funding base for higher education has led to an important change in the relationships between government and higher education institutions. Also, income generation activities of institutions and fee charges have produced a significant impact on internal governance (agenda) and finance of institutions. So the discussion of each theme in each chapter forms a framework to achieve the overall aims of this current research.
Figure 4.1 Structure of Themes to Be Discussed in Part III
Note: *Numbers in this figure refer to chapter numbers.
PART II

METHODOLOGY
CHAPTER 5
DATA COLLECTION AND ANALYSIS

5.1 Introduction: Research Design

The research design of this thesis follows a guideline of methodological triangulation. By triangulation* is meant the application and combination of several research methods in the study of the same phenomenon (Denzin, 1978). It is commonly acknowledged that the initiation of triangulation came from Campbell and Fiske's multiple methodology in the field of psychological research, the so called multitrait-multimethod matrix technique (Denzin, 1988; Campbell & Fiske, 1959). By combining multiple sources of data, theories and methods, this researcher sought to overcome the weaknesses or intrinsic biases likely to be derived from a single method research design. The use of a variety of methods achieves triangulation by drawing on qualitative and quantitative data collection and analysis procedures in research. Other rationales for the adoption of triangulation in the present research lie mainly in its sense of convergence of findings, complementarity through examining different facets of a phenomenon, initiation in perspective and expansion of the scope of a study (Greene et al., 1989; Berg, 1995).

To test the assumption that by using triangulation, the weakness in a single method will be compensated by the strengths of another method, Jick (1979) showed how quantitative results supplemented qualitative data in his research through the practice of a triangulation strategy. Grant and Fine (1992, cited in Creswell, 1994) also enumerated quite several cases of combinations of methods and designs in the literature

* The concept of triangulation is borrowed from surveying and navigation (Denzin, 1978).
such as structured, quantitative observations and an ethnographic strategy, supplemented by experimental research and survey research.

Although triangulation is a commendable mode of research in the social sciences, there are few outstanding illustrations of classic works undertaken using this mode. There are some basic problems in designing a multiple-triangulated research study (Denzin, 1988; Creswell, 1994). The key issues are how to locate a common subject of analysis to which multiple methods can be applied; how to deal with discrepancies which may arise among findings and interpretations from multiple methods; and whether paradigms need to be linked with research methods. These issues posed a great challenge and complexity to the research design. To solve the issues, a sophisticated knowledge of all the study designs, methods and tactics involved in a single research study is required. This researcher took up the challenge to apply a mix of methodologies sequentially and in different research contexts with a commitment to achieve the best possible results for this research.

As this thesis investigates the effects of government policy changes upon patterns of governance and funding of higher education in China in recent years, this researcher believes that a combined methodology - triangulation - is the preferred approach to design to reflect the rapid changes and processes in the current Chinese context and one which can better interpret the causes, nature and consequences of the changes than the constricted framework of any single method.

5.2 Data Collection Strategies

As this research design emphasises a combined mode of qualitative and quantitative methods, several data collection strategies were designed to be complementary, relating to different aspects of the study focus. They are document research, questionnaire survey, interview, case study, and (because of the problem of distance) personal correspondence. Thus the current research was to benefit from data collected from multiple sources including both broader and specific units of inquiry, and the evidence
was brought to convergence from the different sources, rather than relying on quantitative or qualitative data alone.

Document Research

The collection and analysis of documentary evidence is one important method of research. It was particularly useful in this research as access to the subjects of research was difficult, given that this research was conducted from Australia rather than in China, and the research topic covered a relatively long period of reforms. Able to be collected unobtrusively, official documentary records have been popularly used in qualitative research (Webb et al., 1981). The overall value of document research is its corroboration and augmentation of information and evidence from other sources of data, and the provision of inferences for further investigation (Yin, 1994). The document research in this thesis involved both conventional and non-conventional materials, as described by the International Bureau of Education (1982). Conventional materials studied included:

- encyclopedias, bibliographies and abstracts of publications;
- research journals; and
- government policy papers, laws, committee reports and Congress proceedings.

Nonconventional materials studied were:

- newspapers and newsletters;
- television program transcripts;
- official statistical compilations and updated data (both national and international);
- institutional records and reports;
- personal letters and records; and
- electronic works (electronic serial articles).

Collecting these different kinds of documents was a formidable task for the research, considering the difficulties in obtaining official and unofficial access to the original Chinese texts of documentation, particularly those from personal and institutional records.
To enhance integrity of the information, most of the documents were obtained from primary sources including nonconventional as well as conventional materials (see the References of this thesis). Greater weight was given to primary sources than to secondary sources of data since the latter are susceptible to conscious and unconscious errors in the provision of information (Cohen & Manion, 1989). Notwithstanding that, all the contents of documents were subjected to rigorous analysis and critical evaluation by this researcher before accepting them as authentic evidence.

Questionnaire Survey

The second important source of data was a postal questionnaire survey. This researcher realised that, as a main method of data collection, postal questionnaires have the following main advantages, compared with standardised interviews:

- low cost of data collection;
- low cost of processing;
- avoidance of the risks of interview bias; and
- ability to get access to respondents at a long distance or abroad.

On the other hand, disadvantages co-exist with the advantages. The main disadvantages of postal questionnaires are:

- low response rates, and consequent potential biases from unrepresentative sampling;
- no opportunity for briefing and debriefing of respondents;
- no control over the process of questionnaire answering; and
- no opportunity to collect ratings or assessments based on observation (Oppenheim, 1992, p.102).

As far as the limits of resources for this doctoral research and the location where the research was conducted (in Australia) are concerned, postal questionnaires turned out to be an alternative for seeking information and evidence for this research, given the advantages claimed above. About 200 questionnaires were mailed from Sydney,
Australia, to presidents' or deans' offices of higher education institutions in China. While the advantages of questionnaires were fully appreciated, the main disadvantages of this methodology also impacted significantly on the study. The notable disadvantage was a low response rate, and its potential consequent bias. Several strategies were used to maximise participation including a guarantee of anonymity, an explanation of respondents' random selection, independent sponsorship of the research scholar (under a scholarship scheme), restricted length of questionnaires, reply-paid return envelopes, and most importantly, a focus on topics of intrinsic interest to respondents. To enhance the validity of the survey, a pilot study was also undertaken. Based on feedback received, some of the questions were then reworded, revised and refined, and some question sequences were reordered, following a try-out procedure in a number of universities in China. In addition, to encourage responses, a repeat mailing of 200 questionnaires was also used. Nevertheless, the response rate for the questionnaires was still disappointedly low, with only 43 out of 200 target subjects (21.5 percent) returning their questionnaires. Further details about the survey and its interpretation are given in Part III, the discussion part of this thesis.

The questionnaire survey covered both factual material and analytical, evaluative questions searching opinions of respondents. The questionnaire format was carefully designed to place easier questions before harder ones so that respondents would not feel a heavy burden in responding. Both closed and open-ended items were used, and items were scaled to yield information on demography, governance and financing, funding sources, consequences of reforms in Chinese higher education institutions, and attitudes towards the changes. The Likert scale response type was used to measure respondents' attitudes to reforms. The layout and wording of the questionnaires were modelled after those of popular forms in mainland China, and the questionnaires were written in standard official Chinese (jiantizi) and printed in China. English versions of the questionnaires are placed in the appendices of this thesis.
Table 5.1 Characteristics of Respondents (N = 43)

<table>
<thead>
<tr>
<th>Position</th>
<th>President, Vice/President</th>
<th>Dean, Vice/Dean</th>
<th>Finance manager</th>
<th>Other manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>18.6</td>
<td>23.2</td>
<td>25.6</td>
<td>32.6</td>
</tr>
<tr>
<td>Length of tenure</td>
<td>10 yrs+</td>
<td>5-10 yrs</td>
<td>less than 5 yrs</td>
<td></td>
</tr>
<tr>
<td>Frequency %</td>
<td>7.0</td>
<td>11.6</td>
<td>81.4</td>
<td></td>
</tr>
<tr>
<td>Length of working in a university/college</td>
<td>20 yrs+</td>
<td>10-20 yrs</td>
<td>5 - 9 yrs</td>
<td>Less than 5 yrs</td>
</tr>
<tr>
<td>Frequency %</td>
<td>44.2</td>
<td>30.2</td>
<td>20.9</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Source: Data were compiled in accordance with responses to Section 1 of the questionnaire surveys conducted for this research.

Table 5.1 shows that the majority of respondents (about 67 percent) to the questionnaire surveys held key positions in the decision-making process of resource management and therefore, they were well placed to provide authoritative sources of information.

Table 5.2 Summaries of Participating Institutions’ Background (N = 21)

<table>
<thead>
<tr>
<th>Location</th>
<th>Eastern</th>
<th>Northeastern</th>
<th>Southeastern</th>
<th>Northwestern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>66.7</td>
<td>14.3</td>
<td>9.5</td>
<td>9.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Comprehensive university</th>
<th>Science/Technology</th>
<th>Medicine/Pharmacy</th>
<th>Teacher Training</th>
<th>Finance/Economics</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>28.6</td>
<td>23.8</td>
<td>9.5</td>
<td>14.2</td>
<td>14.2</td>
<td>9.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administration</th>
<th>SEC</th>
<th>Other Central Govt.</th>
<th>Provincial</th>
<th>Joint-management</th>
<th>Municipality/city</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>28.6</td>
<td>19.0</td>
<td>38.1</td>
<td>9.5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standing</th>
<th>Key institution</th>
<th>Non-key institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>71.4</td>
<td>28.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enrolment</th>
<th>5,000+</th>
<th>3,000-5,000</th>
<th>3,000 below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student-staff ratio</th>
<th>10:1+</th>
<th>5:1 - 9:1</th>
<th>below 5:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>14.3</td>
<td>19.0</td>
<td>71.4</td>
</tr>
</tbody>
</table>

Source: Data were compiled in accordance with responses to Section 1 of the Institution Questionnaire survey conducted for this research.
Table 5.3 Summaries of Participating Faculties/Departments’ Background (N = 22)

<table>
<thead>
<tr>
<th>Main program offered</th>
<th>Commerce/ Economics</th>
<th>Technology/ Engineering</th>
<th>Humanities/ Social Science</th>
<th>Education</th>
<th>Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency %</td>
<td>4.5</td>
<td>36.4</td>
<td>45.5</td>
<td>4.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Enrolment Frequency %</td>
<td>2,000+</td>
<td>1,000-2,000</td>
<td>500-999</td>
<td>500 below</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>22.7</td>
<td>4.6</td>
<td>22.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student-staff ratio</td>
<td>10:1+</td>
<td>5:1 - 9:1</td>
<td>Less than 5:1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency %</td>
<td>13.6</td>
<td>40.9</td>
<td>45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>Key</td>
<td>Non-key</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency %</td>
<td>59.1</td>
<td>40.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source:* Data were compiled in accordance with responses to Section 1 of the Faculty/Department Questionnaire survey conducted for this research.

The summary description of the participating institutions and faculties or departments as shown in Tables 5.2 and 5.3 indicates that most of the responding organisations come from the eastern coastal (well-developed) areas of China. The data also show that the majority of participating units are key institutions or faculties/departments, implying that most of them are well-established and better funded than non-key units. Moreover, the eastern coastal and southeastern areas are more dynamic in economic reform than other areas in China, and this aspect can be assumed to have a strong positive bearing on the financial resources and pace of reforms of the institutions located in these areas. However, in terms of administrative level, type of educational programs offered, and enrolment size, there were vast differences among respondents, reflecting a wide diversity in their background and educational provision. Discussion of problems associated with enrolments and student-staff ratio follows in Chapter 7.

**Interviewing**

To supplement the questionnaire survey and compensate for the insufficiency and/or deficiency of the data caused by weaknesses in other forms of data collection, a number of interviews were conducted in Chinese over the telephone and through face-to-face contacts with interviewees. Compared with the questionnaire survey, an interview schedule is able to contain more open-ended questions or probes, that
may elicit rich and spontaneous answers from respondents prompted by
the interviewer's interaction. A second important advantage of
interviews is a much higher response rate than that from a mailed
questionnaire. Interviews were particularly helpful and complementary
in the present research in view of the low response rate for the
questionnaires. The third advantage of interviewing is that it gave this
researcher an opportunity to explain the purpose of this study more
convincingly than occurred in a covering letter, to prevent
misunderstandings, and to maintain control over the sequence of
questions (Oppenheim, 1992).

One more advantage this researcher perceived in interviewing, was that
interviews helped to gain the trust of the respondents, which was
especially hard to obtain through questionnaires. Lack of trust of
respondents was one of the biggest problems confronting this researcher
because she conducted the research about China from a western country
with a greatly different political ideology and culture from those of
China.

In spite of the above advantages, these are still ethical and political
concerns which must be faced in the interviewing process. To minimise
ethical and political dilemmas and to avoid any risk of damage to
informants, interview questions were carefully worked up and phrased.
Moreover, the risks of interviewer bias were recognised and addressed
with a friendly and non-directive attitude. Considering that interviews
were more expensive and time-consuming to conduct and to process, this
researcher had to limit the time and the number of interviews but
sought to maximise the quality of responses with skills in design of the
process and pattern of questioning.

In the process of interviewing, two modes were adopted - face-to-face
interviewing and telephone interviewing. Research comparing the two
modes implies that telephone interviews may produce data of lower
quality than those collected through face-to-face contacts, but the
differences are generally small (William, 1977; Groves & Kahn, 1979).
Conducting international telephone interviews was less expensive and time-consuming than overseas trips to China as long as they were well organised and administered. Another advantage was that interviewing by ringing respondents - university managers, senior academics and government officials in China - at their homes on weekends or at night helped to create a less formal and more relaxed atmosphere than in interviewees' offices in business hours. These telephone interviews lasted about 15 minutes, due to financial limits to this research. Topics for telephone interviews were the same as those for face-to-face interviews but wording of questions was more structured to maximise the information obtained in a minimum of telephone time. Most of the interview questions were open-ended and worked out to elicit the information missing from the questionnaire survey. They concentrated on what interviewees thought and felt about the changing patterns of governance and financing of their institutions (see Appendix III of this thesis for the interview schedule).

Face-to-face interviews were conducted by contacting some Chinese university managers doing an official tour in Australia, and some former Chinese university managers and/or former senior staff doing research as visiting scholars in Australian universities. These interviews usually lasted about 30 minutes and were conducted in either interviewees' residences or offices. There were totally 30 people being interviewed, of whom seven were government department officials, ten university managers and 13 senior academics. (For methods of an analysis of interview data, see Content Analysis of this chapter.)

A Case Study

As a research strategy, case study is generally preferred when it comes to answering "how" or "why" questions, when the researcher has little control over events, and when the focus is on contemporary and real-life events (Yin, 1994). For this reason, the case study method was adopted in the present research. To compensate for the insufficiency of questionnaire surveys that focused more on "who", "what", "where", "how many" or "how much" lines of inquiry, the case study contributed
more to the explanation and exploration of the information elicited from other sources. In other words, the purpose of using this empirical study method was to further investigate and illustrate specific issues related to the reforms in a particular university against the backdrop of macro profiles.

Although a case study does not preclude a capacity for generalisation, concerns have frequently arisen over its basis for scientific generalisation since a single case cannot represent a population. Many researchers seek applications founded on the comparison of case with case (Hamel, 1993). Yin (1994) argued that case studies, like experiments, are generalised to theoretical propositions and not to populations or a universe, and that they make analytic generalisations but not statistical ones. Hamel (1993) further indicated that the task of a case study is to collect and record data about a case or cases which appeals to judgement and offers evidence for judgement. It resembles history in this point.

Recognising the strengths and the weaknesses of the case study, this researcher used it to extend her research to a deeper level by focusing on a specific case - one university in China (see Chapter 12 for a report of the case study) - after a general discussion of national trends and issues. The initiative for the case study was not to generalise the findings of this case study to other situations, because the single case selected cannot be representative (no set of cases is likely to truly represent an entire population). Rather the point for the case study was to explore non-quantitative aspects of the changes in the governance and funding of higher education in more detail and to help understand how and why the changes occurred in a particular institution. The case study itself was conducted by using data collected from interviews, documents and personal correspondence.

**Personal Correspondence**

Letters as a source of research data can be traced back to Thomas and Znaniecki's (1927, cited in Lancy, 1993) *The Polish Peasant*. Denzin

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(1978) also viewed letter exchange as a way of communication between a dual audience - the writer and the recipient. Mail exchange of letters had already started prior to this research between this researcher and university managers, academic staff and students, some of whom were former colleagues and students of this researcher. The initiative of keeping in touch with these former colleagues and students later developed into a deliberate strategy for an alternative channel to yield information from them and their acquaintances. The personal correspondence turned out to be an unreplaceable source of information, full of detailed accounts of personal experiences and feelings on current sensitive issues around them and inside and outside their universities. This kind of data is hard to locate in any official documentation. In this point, it enlarged the data base for methodological triangulation for this research, despite its limitations such as the lack of wide generalisability.

The personal correspondence was undertaken on a regular basis and lasted for about three years. There were 28 people directly involved in the correspondence but some dropped out later.

5.3 Instrumentation: Reliability and Validity

Reliability and validity deserve explicit attention as they are commonly viewed as criteria for judging the quality of instruments or methods of collecting data. The concepts of reliability and validity are derived from measurement theory and from psychometrics. These two terms are interconnected and overlapped to some extent, for adequate reliability is a precondition to validity (Oppenheim, 1992). There are different perspectives on reliability and validity in dealing with data between quantitative and qualitative researchers. Qualitative researchers might not even use the term validity but might refer instead to issues of authenticity (Gipps, 1994), trustworthiness (Lancy, 1993), and so on. As the design of this research combined both qualitative and quantitative methods of data collection, issues concerning reliability and validity were quite complex. A number of strategies were adopted to ensure and enhance reliability and validity of this research.
5.3.1 Reliability

Reliability is related to dependability, stability, consistency, predictability and accuracy. To enhance reliability (stability) of the content analysis adopted in this research, consistency of the result of content classification of documentation and other data was checked by repeating the coding of the same content after a lapse of two to three months, in accordance with general methods of reliability assessment (Krippendorff, 1980; Burns, 1990). To ascertain reliability (internal consistency) in responses to the questionnaire survey and interviewing, internal checks were also made by examining answers to the same question asked in different ways and responses to some serial and contextual questions. A reliability coefficient (Cronbach alpha) was used to assess the reliability of scales comprising responses to sets of attitudinal questions in the questionnaire survey and interview schedule for this research.

5.3.2 Validity

Validity is a complex, important, and sometimes controversial term in the research literature. Validity concerns the nature and meaning of the phenomenon under study (the variables). A test with perfect reliability may not measure anything of value, but on the other hand, if a test is unreliable, it cannot be valid. Validity can be considered under several types in terms of functions in validation procedures - construct validity, predictive validity, concurrent validity, content validity, face validity, and consequential validity (Burns, 1990). To justify the validity of the data gathered, this researcher explained in this research report the significance of the research, its major research questions and perspectives on the questions, and then explained data-gathering procedures in detail to indicate their correspondence to the key research variables.

Methodological triangulation was used as a guideline in this research design, and is itself a particular approach to improvement of validity of the research measures as a whole. Triangulation helps check out the consistency of findings yielded by different data-collection methods and
assesses the consistency of different data sources within the same method.

Content Validity

In the present research, to ensure content validity of data collection procedures was of primary importance. That is, of the types of validity, content validity was the most relevant to this research as the research relied heavily on the data elicited from national official databases and responses to questionnaires and interviews. Content validity indicates whether the question items measure what they purport to measure, and to what extent the national data is applicable to individual cases or whether large variations occur from normative descriptions. Expert judgement was sought to validate the adequacy of the content of questions and to make sure questions to be asked were of direct interest to this research and to the respondents in the questionnaire survey and interviews. University managers and senior staff (general and academic) were consulted and a systematic review of relevant, authoritative monographs was made to obtain all necessary information about the potential respondents and the substance of questions to be asked. Content validity was also obtained by having the draft of questionnaires and of interview schedules reviewed by key informants before starting the surveys.

Internal and External Validity

To address concerns about the validity of the research instruments, it was also necessary to consider the validity of the design of the research study. As this research relied partially on qualitative methods, some claims of ethnography to high internal validity derived from the data collection and analysis techniques, are also relevant to this research (Miles & Huberman, 1994). First, a sustained period of personal correspondence with different interest groups was conducted for this research and created opportunities for continual data analysis and comparison to refine constantly the propositions generated at an early stage of the research. Second, the informant interviews for this research
provided first-hand and lived experience and perceptions of those participants, which formed a direct and important source to match actual happenings. From this perspective, interviews provided a stronger form of instrumentation to establish credible internal validity than would other research strategies. However, the credibility of individual informants remained a problem as some may present misleading or biased information and/or claims reflecting their unique perspectives (see Chapter 1 for the limitations). To improve validity, multiple sources of information were used to converge the inquiry as illustrated in 5.2 Data Collection Strategies of this chapter.

Apart from the problem with the informants concerning internal validity, there was also an issue of external validity raised by the use of the case study approach in this research. External validity of a research design (relating to the capacity to generalise the findings) requires comparability, applicability and transferability of findings across sites and disciplines (Burns, 1990). However, it is difficult for the results from a single case study to be translated or generalised even to other similar sites. Yin (1994) suggested a replication logic to address this issue, that is, replications of one case study findings in a second or even a third similar setting to explain consistency of findings and hence test a theory. Given the accessibility and the resources available for this researcher, such replications were hard to make. This researcher agrees with Firestone's (1993) review of generalisation that there are three levels of generalisation: from sample to population, analytic, and case-to-case transfer. For the results of the case study, an analytic generalisation (one using evidence to elicit comprehensive analysis of a situation), was more advisable for this research than the other two. Thus the case study conducted was not used as a basis for transferability to another case but as one source of evidence for a deeper understanding of the effects of changes.

5.4 Sampling Strategies

As claimed at the beginning of this chapter, this research relies on a combination of research methodologies and hence this researcher has
used both probability sampling and nonprobability sampling techniques for the different data collection strategies involved. Every effort was made to draw a representative sample for the questionnaire survey, from which valid generalisations could be made to a larger population. For this purpose, stratified sampling was employed. When it came to other research strategies, such as interviewing and correspondence, interviewees and correspondents were selected in terms of nonprobability sampling, using a form of judgement sampling. These greatly different strategies used in sampling were nonetheless consistent with the designs for data collection in this research, which were planned to enhance the validity of data analysis through triangulation. Whenever possible, both probability and nonprobability approaches were combined to achieve a unified approach to the sampling task. With newspaper sampling for content analysis, for example, although the newspapers (People's Daily and China Education Daily) were purposively selected, articles in the newspapers were selected by using probability methods, including stratification and multi-stage cluster sampling, in terms of time periods of publication and coverage of pages within the newspapers.

**Stratified Sampling**

The technique of stratified sampling is generally the most popular sampling method because it generally provides increased precision (smaller standard error than with unrestricted sampling of the same size) without increasing much the sampling costs. Moreover, it is convenient to use. Given the convenience and the precision of the stratification, it was deliberately adopted in this research to sample from a total of 1,032 higher education institutions in China in 1996. The major variable used to stratify the institutions was geographical location. The rationale for defining the stratifying factor was that geographical location was a more objective factor for sampling than other factors, such as administrative affiliation, enrolment size, type, etc. Another reason was that every Chinese province (30 provinces in all) boasts some institutions in spite of varying greatly in number. The initiative for proportionately stratified institutions by province was to obtain a wider distribution of institutions, leading to desired
representation of the higher education system and presentation of a national picture of higher education in China. However, returned questionnaires showed that most of participating units in the surveys came from eastern coastal areas of China, and that institutions from other areas were less represented in the surveys.

Following the above initiative, 100 higher education institutions were proportionately sampled by location from 1,032 institutions in China. In the institutions sampled, 100 questionnaires were sent to their central administration offices and 100 to faculty/department offices. The faculties or departments in the 100 institutions were sampled by course offerings to ensure samples were proportional and representative in terms of provision of a wide range of educational programs. In the context of the on-going economic reform in China, financial situations may vary between faculties/departments in terms of marketability of the educational programs they offered. Those faculties and departments sampled were intended to provide information on financial management and funding issues at the middle level of institutional management to supplement the surveys at institutional level. Thus, the sample techniques for the questionnaire survey involved stratification and two-stage sampling.

Purposive Sampling

Purposive sampling, or so-called nonprobability sampling, was also used in selecting interviewees, the site for the case study, and letter correspondents for this research. Considering the great difficulty in getting access to key-informants relating to this research, the purposive sampling method was a pragmatic strategy to solve the difficulty and meet the research objectives as well. Snowball sampling (Hedges, 1979) was adopted to locate a smaller base of well-informed respondents and then expand the base with the help of the first few informants. Interviewees and letter correspondents were selected with this technique of snowball sampling, by virtue of their formal positions held, experience and qualities. They were university presidents, faculty deans, heads of
departments, academic staff, students and government officials in charge of educational affairs.

The selection of a site for the case study in this research - a university - was also purposive. This researcher had approximately a ten-year-long experience of working in this university before starting this research. Apart from the researcher's personal and professional knowledge and experience in this university, she had wider accessibility to documentation and archival records of the university, and to key informants for the case study.

As shown above, the purposive sampling addressed the problems raised at the data collection stage of this research, such as accessibility and resources and therefore helped to meet some of the research objectives. However, critics may challenge the reliability and validity of the information that a purposive sample provides since there is no way of knowing how well estimates reflect population parameters from such a sample (Ross et al., 1990; Calder, 1979). As noted above, the present study used the purposive sampling to supplement the stratified random sampling used for the survey, rather than relying on it as a sole method of data collection.

5.5 Data Analysis Strategies

Data collected for the present research from documentation, questionnaires, interviews and personal correspondence were analysed, interpreted and presented in ways corresponding to the general guidelines of combined qualitative and quantitative designs. The major data analysis strategies involved in this research were content analysis and statistical analysis.

Content Analysis

Content analysis is defined as the systematic quantification of certain characteristics in terms of research interest through counting their frequency of occurrence within a selected context (Burns, 1990). Content
analysis is widely used and regarded as an indispensable technique in analysing historical documents, newspaper stories, political speeches, open-ended interviews, official publications, etc. As a popular research technique, content analysis uses a set of procedures to provide replications and then permit valid inferences from data to their context (Krippendorff, 1980). Compared with other data analysis techniques, content analysis has the following main advantages as identified by Weber (1990).

- It works directly on verbal or written forms of human communications.
- It uses both qualitative and quantitative analytic procedures on texts to achieve the best results.
- It generates reliable data from documents of long history by their culture indicators.
- It also uses culture indicators to assess quantitatively the current interaction of economic, social, political and cultural changes.
- As it usually yields unobtrusive measures without the awareness of participants, there is little risk of data being confounded by the act of measurement such as in interview techniques (Weber, 1990).

- An additional advantage is that the written materials for content analysis are easily and inexpensively accessible (Berg, 1995).

However, this researcher also realised that in content analysis, reliability and validity problems often grow out of semantic ambiguity, or operational definitions of category or variables, and these create difficulties in doing content analysis. These problems were addressed through using a carefully formulated conceptual basis and by recoding samples of data after a period of time to check stability of coding. Another limitation of content analysis is that causal relationships between variables cannot be assessed through a content analysis strategy (Berg, 1995).

To maintain originality and precision, content analysis was employed in this research to process the original texts of documents, closed questionnaire responses, responses to interview schedules and personal
correspondence which were written in Chinese rather than their English versions. In particular, content analysis was adopted to examine newspaper orientations towards changes in higher education governance and funding. As there is no computer software such as TEXTPACK for text analysis in Chinese available, content analysis was done by hand to code the original texts and classification of themes into content categories for unit analysis. It was a laborious and time-consuming process. Notwithstanding, a systematic content analysis turned out to be a very effective and applicable mode of analysis to detect changes and mainstream of reforms at different periods of time, through analysis of themes and paragraphs of newspaper reports.

To guard against superficial face validity of content analysis, this researcher gave greater weight to the analysis of latent content or meaning conveyed (reading between the lines) rather than merely an interpretation of the surface or literal characteristics of content. This is particularly the case as far as the analysis of the notes taken from interviews are concerned, because these notes may not record every word of the interviewees but the larger discourse themes conveyed through responses to interview schedules.

**Statistical Analysis**

With a bulk of raw data, particularly official statistical databases and survey data, statistical analysis was appropriate to summarise and present the information amassed from a variety of sources for this research. Some basic techniques of descriptive statistical analysis were used to detect and display patterns and tendencies, such as frequency distributions, central tendency and dispersion. To further explore relationships between variables, some basic inferential statistics were also employed in this research. However, the relatively small sample size meant that fairly large differences were necessary to achieve statistical significance. Examples employing these statistical techniques are illustrated below.
Frequency distribution was used, for example, to summarise content categories from documentation. To summarise statistically the overall development of Chinese higher education between 1949 and 1997, the mean and the standard deviation were reported while graphs and tables were used to illustrate the patterns of growth in institutions and enrolments. The analysis of data elicited from questions modelled after the Likert scale also involved item analysis and descriptive statistics. To detect statistically a possible relationship between administrative level of institutions (dependent variable) and the implementation of reforms (independent variable), a correlational analysis (bivariate analysis) was used to measure the strength of the relationship, namely, the well-known Pearson's product moment correlation coefficient. The assistance of a computer program SPSS (Statistical Package for the Social Sciences) enabled this researcher to score and analyse the collected quantitative data quickly and in different ways as suited by the research questions.

5.6 Compliance with Ethical Standards

As shown above, this research relied heavily upon a combined mode of qualitative and quantitative methods. The data collection and analysis in this research involved the use of human samples, which became more than a technical matter. It was imperative that proper codes of ethics were attended to. Specific ethical issues relevant to this research were identified and addressed as follows.

In respect of interviews and personal correspondence, the respondents were well-informed of the focus, aims, value and benefits of the research project, sample details, and the roles of respondents. Respondents' confidentiality was protected by giving no detailed identifiers in this research report. Informed and voluntary consent was obtained from the respondents before the interviews were conducted. As to the questionnaire surveys, cover letters were attached contained a concise information statement, an assurance of the researcher's bonafides, and guarantees of the anonymity of the respondents to the surveys. The request for the return of the postal questionnaires indicated voluntary consent of respondents to participate. In a report of the case study
findings to be given, the name of the university as a site for the case study is disclosed, leaving the case itself to be identified accurately for the sake of others who might wish to review what is written. The other reason for disclosure is that cover-up of some important background information, such as history and location about the case, would affect the desired outcomes of the case study. However, to protect the informants of the case study, the anonymity of the individuals was strictly maintained to avoid attributing any particular point of view or comment to a single individual, unless comments were quoted from officially published speeches or reports in which individual identifiers had already been disclosed.

However, the protection may reduce the degree of the validity of the case study, that is, as an illustration of an authentic portrait of some events in the university. To avoid any risks of harm to informants and to maintain the validity of the case study, every effort was made to protect as much as possible the identity of any individual but to report major findings from the accumulated evidence.

Moreover, application for an ethical review of this research project was lodged and approved by the University of Western Sydney Nepean’s Human Ethics Review Committee before the data collection started.
PART III

FINDINGS AND DISCUSSION
CHAPTER 6

CHANGED SCENARIO OF
STATE-INSTITUTION RELATIONSHIPS

One of the most significant policy changes the current reform has aimed at is a shift from centralised state control of governance to a state supervising model. This has been embodied by administrative decentralisation from central state government to local authorities and by giving considerable devolved discretion to institutional managers. This chapter explores the nature and the impact of the fundamental changes on the governance and funding of higher education and addresses the issues raised in the context of the change. Specifically, this chapter revolves around the rationale, magnitude and effects of the decentralisation and devolution upon mobilisation and allocation of financial resources.

6.1 Rationale for Decentralisation and Devolution

The literature review in Chapters 2 and 3 of this thesis demonstrates that the administrative structure and processes of higher education management as well as the arrangements for the funding of higher education involved a high degree of centralisation, uniformity and rigidity prior to the year 1985 in China, when a significant educational reform package was released by the central government. The central authorities regulated in detail enrolment quota, curricula, degree requirements, the examination system, graduate placements, the appointments of heads of higher education institutions, staff remuneration, etc. The government as the sole funding source for higher education provided free higher education, student subsidies including accommodation, as well as job guarantees to higher education graduates. In return, graduates had to accept job offers from the government.
The detailed and rigid state control over higher education and the heavy subsidisation of students did play a positive role in the development of Chinese higher education in several past periods of time. For example, the highly-centralised approach to the governance and control promoted political and social stability in the early 1950s, soon after the CCP’s take-over from the Nationalist Party, and helped restore law and order in the higher education system destroyed by the turmoil of the “Cultural Revolution” (see Chapter 3). The centralisation of the standards of degree requirements, the nation-wide college entrance examination (held once a year), and unified syllabi and curricula for most disciplines helped to maintain the quality of higher education provision in China. The heavy subsidisation of higher education students promoted social equality through encouraging participation of those students from worker-peasant-soldier families, who were greatly disadvantaged by not being able to afford higher education in previous times.

Nevertheless, the highly-centralised state control strategy failed to accommodate the rapid expansion of higher education and the increasing diversification and variability in demand for higher education services in the context of the on-going economic reform and the corresponding changing patterns of the economy in China (see Chapter 3 for a brief review of the economic reform). Government’s fiscal capacity and resources were further constrained as a result of taxation reform (see Chapter 3) and could no longer afford full financial support for the rapid expansion of the system. In crisis situations, the move to shifting burdens and rebalancing powers of control came at the forefront of educational reform. The reform gave greater weight to improvement of management efficiency, flexibility and adaptability of the education system within the changing social and economic realities. Decentralisation and devolution as ways to achieve these objectives were highly valued in government policy rhetoric.

6.2 A Reform Package

The 1985 and 1993 government policy statements, the most influential and authoritative reform guidelines, demonstrated government’s thrusts
for radical changes in the governance and financing of higher education, which were released in 1985 and 1993 respectively. Table 6.1 outlines major reform initiatives of the central government in terms of governance of higher education (for government policies on education funding in 1985 and 1993, see Chapters 7 and 8).

Table 6.1 Outline of Central Government Policies Concerning the Governance of higher education (1985 and 1993)

<table>
<thead>
<tr>
<th>Theme</th>
<th>The 1985 Decision</th>
<th>The 1993 Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance/control</td>
<td>Eliminating excessive government control over institutions; granting local authorities more power and responsibility; delegating authority to make administrative decisions including financial decisions to institutions; jointly-running institutions with local authorities; introducing a president responsibility system and division of labour between the Party and the administration; and encouraging private higher education.</td>
<td>Claiming institutions as bodies corporate; extending further institutional autonomy; devolving most institutions to local authorities; jointly-running higher education with local governments and other social entities; and encouraging private higher education.</td>
</tr>
</tbody>
</table>

*Sources:* This table is compiled in accordance with the *Reform of China's Education Structure - Decision of the Central Committee of the CCP* (CCP, 1985) and the *Program for China's Educational Reform and Development* (CCP & State Council, 1993).

The 1985 Decision signalled the following three aspects of decentralisation and devolution:

- transfer of authority and responsibility (including financial responsibility) from the central authorities - the CCP Central Committee, the State Council and the State Education Commission (formerly the Ministry of Education) - to the local authorities - the provincial, municipal and autonomous governments;
- devolving authority and responsibility (including financial autonomy) to higher education institutions; and
• delegating authority and responsibility to make administrative decisions to professional expertise - presidents and his/her administration - rather than to the Party.

Compared with the 1985 Decision, the 1993 Program seems to have been more radical in terms of changes in governance and control over the system. The 1993 Program claimed that higher education institutions are statutory corporations that are expected to self-develop and self-regulate without direct government intervention in response to changing economic and social development. However, the Program withheld the president responsibility system proposed by the CCP in 1985. While ensuring the Party’s monopoly at every level of governance, the 1993 Program announced further devolution of authority and responsibility for higher education to local governments.

In response to the CCP’s call for devolution, the State Education Commission (SEC) proposed the implementation of devolution in 16 aspects of management over the 35 higher education institutions directly under the administration of the SEC. In relation to fund raising, income generation and resource allocation, the SEC proposed the following devolution. In terms of the devolution, institutions were to be given decision-making power in:

• enrolment of different groups of students including full-time and degree-award students, part-time and non-award (adult) students, fee-paying local and overseas students;
• setting differential fees for fee-paying students and some courses;
• adaptation of course offerings to societal demands;
• allocation and use of institutional budgetary and extrabudgetary income;
• capital construction with institution-raised funds;
• approaches to appointment of staff (permanent, part-time and casual positions);
• using different managerial approaches in teaching and research sections from those in institution-run industry/business;
• restructuring organisations within the institution;
• setting staff quota for internal organisations; and
• setting differential salary and bonus quota for staff within the state's block grants for staff's payments (Guangming Daily, 22.8.1992, p.2).

6.3 The Changing Patterns of Governance

The aim of this section is to elaborate on the current changing patterns of governance of higher education driven by the 1985 and 1993 reform packages. The section is divided into two parts. Part one (6.3.1) describes the national trends to devolution predominantly on the basis of official reports from the national press, while the second part (6.3.2) looks at devolution in terms of responses from a number of institutions participating in the present research.

6.3.1 A National Perspective

Transferring to Local Authorities

Following the 1985 Decision, the momentum of reform was shifting gradually toward decentralisation and institutional autonomy. In spite of the interruption in the aftermath of the Tiananmen Incident of June 4 1989, decentralisation and institutional autonomy have become the greatest feature of the management reform, forming a major pattern of current governance of higher education in China. The findings through a content analysis of major official newspapers and journals, questionnaire surveys and interviews conducted for the current research provided sufficient evidence to demonstrate the momentum of the trend.

The government press reported that a number of specialised institutions formerly administered directly by the central authorities - the SEC or other ministries and commissions - were passed to provincial governments because it was believed that they would better serve the local community if they were transferred to the local governments. For example, Guangzhou Foreign Language Institute formerly administered by the SEC and Guangzhou Foreign Trade College formerly administered by the Foreign Trade Ministry were taken over by Guangzhou Province in
1995. Shanghai Foreign Trade Institute, formerly administered and funded by the Foreign Trade Ministry, was also transferred to Shanghai Municipality (China Education Daily, 5.7.1994, p.1). It was also reported that the institutions which were transferred to local governments made significant changes in their missions. They shifted their top priority from national demands to the demands of local economic and social development (China Education Daily, 5.1.1995, p.1).

The transfer of administration over institutions from the state to local governments was caused by the economic reform of the national financial system and the planning system. With the devolution of financial responsibility and economic planning to local governments, the state ministries and commissions had much less funds than before, as illustrated in Chapter 3. They found it more difficult to finance their higher education institutions (China Education Daily, 6.10.1994, p.1). On the other hand, the local economy demanded an increasingly highly skilled all-around workforce to accommodate its rapid development. Some local enterprises and governments were ready to take over some national institutions by funding them and to obtain their service directly in return. However, other local authorities were reluctant to accept the funding responsibility for higher education shifted by the central government, as they confronted a similar budgetary difficulty to that of the central government and held that education is not a profitable investment in the short term (interview, senior government official, Beijing, December 1996).

Another similar step the state government has taken is the practice of state-province joint management of the institutions administered directly by the central authorities, by partial devolution of administrative power and financial responsibility to the provincial level. For example, in November 1994, the SEC signed an agreement with Jiangsu Province government on joint management of Nanking University and Southeast University, both previously administered directly by the SEC. In terms of the agreement, Jiangsu Province government would provide the two universities with no less than 20 million yuan (RMB) annually to help them set up a number of key
disciplines for the Province. While fulfilling the national tasks, the universities would enlarge their community service to the Province through relevant teaching and research. From 1995 on, the universities would take in 60 percent of local students and would increase their enrolment annually (China Education Daily, 19.11.1994, p.1).

Towards Institutional Autonomy

The Program's call for institutional autonomy was responded to by some local governments, according to some news reports. The governments of Guangzhou Province, Fujian Province and Yunnan Province, for instance, announced their plans for devolution to institutions. In terms of the plans, institutions now had the right to their own internal management, staff promotion, staff bonus, enrolment of fee-paying students, course offerings, building external links and resource allocation (China Education Daily, 25.5.1993, p.3; 15.2.1993, p1; 4.1.1993, p.3).

Meanwhile, there were also reports on lessening of control of the SEC and other central authorities, and greater autonomy given to institutional management. For instance, the details of expenditures by institutions were no longer monitored by the SEC. The auditing red tape was cut and institutions were allowed to take their own decisions regarding the areas on which they wanted to spend when they were allocated a sum for daily expenditure and a fixed per capita amount per student (Chinese Education, Spring 1988).

6.3.2 Exploration of Survey Results

Responses to the survey questionnaire conducted for the present research provided further evidence of the overall trend towards decentralisation and devolution and reflected respondents' opinions on the trend as well.

The Questionnaires

Before interpreting the relevant results of the questionnaire surveys, ways of conducting and presenting the surveys are given here. A general
account of the questionnaire surveys and summaries of background data of the respondents and the participating institutions and faculties or departments have been presented in Chapter 5 (Methodology). The surveys comprised two small-scale mail-out questionnaires. One survey (about 100 questionnaires mailed out for this survey) focused on university leaders and managers while the other (also about 100) targeted faculty deans and/or department heads in about 100 colleges and universities in China. Forty-three respondents returned their questionnaires, of which 21 came from university leaders and managers and 22 from faculty or department managers (see Table 5.1 in Chapter 5). Although the response rates were low, only 21 percent at university level and 22 at faculty/department one, they were reasonable, considering an understandable lack of trust in a doctoral research project conducted from Australia and the heavy work loads of the targeted leaders and managers.

The questionnaire surveys aimed to examine current changes in a number of areas including external governance and internal management in relation to funding sources, income generation and resource allocation. They were also designated to elicit data on the consequences of and issues arising from reforms following the 1985 and 1993 policy statements as well as respondents' opinions on the reforms. In view of the wide coverage of themes in the surveys, data yielded from each of these themes will be presented and analysed in accordance with the sub-topic(s) discussed in each chapter of the remainder of this thesis. As this chapter concentrates on an exploration of the nature and the impact of reforms mainly upon external governance of higher education in terms of decentralisation and devolution of financial authority and responsibility, a report now follows on responses from those relevant questionnaire items. Other themes within the questionnaires will be discussed separately later in this thesis when they are required.

As shown in Table 6.2, the questionnaire data from institutions suggested that, while the overall response was positive to the extent of government's devolution to institutions, the institutions surveyed displayed mildly positive to relatively neutral views on the reform of
having institutions take responsibility for their finance and its utilisation.

Table 6.2 Perceptions on Devolution from Institutions (N = 21)

<table>
<thead>
<tr>
<th>Item</th>
<th>Great extent %</th>
<th>Fair extent %</th>
<th>Some extent %</th>
<th>Minimal extent %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.3.3 Extent of actual devolution to institutions</td>
<td>19.0</td>
<td>47.6</td>
<td>33.3</td>
<td>0.0</td>
<td>3.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Q.3.4 Opinions on desirability of institutional financial autonomy and responsibility</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>0.0</td>
<td>57.1</td>
<td>38.1</td>
<td>4.8</td>
<td>0.0</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: Higher Education Institution Questionnaire for this research (see Appendix I)

6.4 The Impact

The decentralisation for resource mobilisation and allocation, and devolution of responsibility for the governance and funding of higher education have resulted in a number of identifiable outcomes. This section discusses the impact of the decentralisation and devolution upon (a) a rapid expansion of higher education, (b) mobilisation of local resources, and (c) redistribution of resources from the governments to institutions. As these aspects are vital to the development of higher education, they become significant in an assessment of the consequences of the reform.

Rapid Expansion of Higher Education

In China, people who had received higher education accounted for only 1.3 percent of the population aged between 20 and 24 in 1980 (Unesco, 1994). The low rate contributed to a severe shortage of a well-educated workforce, particularly in the context of rapid economic viability following the economic reform. Access to higher education had to be greatly expanded and diversified to lessen the severe shortage and accommodate a high degree of diverse demands for higher education provision. However, over the years, state funds for education in China
covered no more than two percent (e.g., 1.9 percent in 1980, 1.7 percent in 1992, for example) of the GNP or less than 13 percent (e.g., 9.3 percent in 1980 and 12.2 percent in 1992, for example) of total government expenditure (Unesco, 1994). Financial support for the higher education sector was at a crisis point (see Chapter 8 for more detail). The financial deficits of Chinese higher education had reached 20 to 30 percent between 1986 and 1989 (Chen et al., 1989).

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of institutions</th>
<th>Total enrolments* (million)</th>
<th>Annual increase in enrolments (thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>404</td>
<td>0.63</td>
<td>-</td>
</tr>
<tr>
<td>1978</td>
<td>598</td>
<td>0.86</td>
<td>242</td>
</tr>
<tr>
<td>1979</td>
<td>633</td>
<td>1.04</td>
<td>173</td>
</tr>
<tr>
<td>1980</td>
<td>675</td>
<td>1.17</td>
<td>130</td>
</tr>
<tr>
<td>1981</td>
<td>704</td>
<td>1.30</td>
<td>130</td>
</tr>
<tr>
<td>1982</td>
<td>715</td>
<td>1.18</td>
<td>-120</td>
</tr>
<tr>
<td>1983</td>
<td>805</td>
<td>1.31</td>
<td>130</td>
</tr>
<tr>
<td>1984</td>
<td>902</td>
<td>1.45</td>
<td>140</td>
</tr>
<tr>
<td>1985</td>
<td>1,016</td>
<td>1.79</td>
<td>340</td>
</tr>
<tr>
<td>1986</td>
<td>1,054</td>
<td>1.99</td>
<td>200</td>
</tr>
<tr>
<td>1987</td>
<td>1,063</td>
<td>2.08</td>
<td>90</td>
</tr>
<tr>
<td>1988</td>
<td>1,075</td>
<td>2.18</td>
<td>100</td>
</tr>
<tr>
<td>1989</td>
<td>1,075</td>
<td>2.18</td>
<td>0.0</td>
</tr>
<tr>
<td>1990</td>
<td>1,075</td>
<td>2.16</td>
<td>-20</td>
</tr>
<tr>
<td>1991</td>
<td>1,064</td>
<td>2.13</td>
<td>-30</td>
</tr>
<tr>
<td>1992</td>
<td>1,053</td>
<td>2.28</td>
<td>150</td>
</tr>
<tr>
<td>1993</td>
<td>1,065</td>
<td>2.64</td>
<td>360</td>
</tr>
<tr>
<td>1994</td>
<td>1,080</td>
<td>2.93</td>
<td>290</td>
</tr>
<tr>
<td>1995</td>
<td>1,054</td>
<td>3.05</td>
<td>120</td>
</tr>
<tr>
<td>1996</td>
<td>1,032</td>
<td>3.09</td>
<td>40</td>
</tr>
<tr>
<td>1997</td>
<td>1,032</td>
<td>3.20</td>
<td>110</td>
</tr>
</tbody>
</table>

Note: *Including all undergraduate and graduate students on campus.

As an approach to the mobilisation of local initiatives and the allocation of resources to expand higher education, the reform strategy of decentralisation and devolution helped to promote a rapid growth of enrolments and a dramatic increase in the number of higher education establishments. Table 6.3 gives a picture of the vast quantitative expansion of Chinese higher education after 1977 when the economic reform was launched.
The years between 1977 and 1997 saw the greatest growth in higher education enrolments in the history of China. Table 6.3 indicates the total enrolments of students on campus in regular higher education institutions increased about five times between 1977 and 1997, and the number of regular higher education institutions grew to 2.5 times the 1977 figure during that period. The table also shows that the high growth distribution of institutions was between 1980 and 1986, whereas the rapid growth in enrolments occurred between 1983 and 1986 and between 1992 and 1995.

The rapid emergence of 650 institutions (from 404 to 1,054) within nine years (1977-1986) was mostly through upgrading former secondary colleges and polytechnics. The dramatic and rapid growth in institutions was intended to accommodate an upheaval of demands for expansion of enrolments without much consideration of the actual capabilities of these newly-upgraded institutions. Most of them were relatively small in size of enrolments and not well-resourced in both human and financial resources as disclosed in the Chinese press (People's Daily, 20.1.1985, p.5; 31.3.1988, p.3; 10.3.1988, p.3). It was also reported that in 1986, 90 percent of higher education institutions were below the standard required for a higher education institution set by the State Council in that year, in terms of staff quality, teaching and research facilities and equipment, student accommodation and libraries. It was believed that the devolution of accreditation of two-year colleges and polytechnics to local governments resulted in the radical upgrading of institutions with poor quality before 1987 (China Education Daily, 16.4.1991, p.2). In 1986, to restrain the extremely fast growth in institutions and improve the quality of higher education, the State Council circulated Provisional Regulations on Establishing Higher Education Institutions, and revoked the accreditation of higher education institutions by local governments. In 1988, the State Education Commission issued another policy paper to reinforce the quality standard on higher education institutions set by the State Council in 1986 (China Education Daily, 8.10.1991, p.1). This indicated that the central government had realised the severe downgrading of higher education institutions caused by its own
decentralisation policies and tried to offset this through further intervention.

Like the growth in higher education establishments, enrolments in higher education were also surging upward as shown in Table 6.3. The main contributing factors were deregulation of enrolment quotas to local governments and institutions, and allowing institutions to enrol a certain proportion of fee-paying students, including employer-sponsored students, in the name of decentralisation and devolution. Since the government did not have sufficient financial capacity to fund the expansion of higher education needed by rapid economic growth, as a part of government's extension of institutional autonomy, institutions were encouraged to take in fee-paying students and commissioned students (students whose tuition and fees were paid by their prospective employers) as allowed in the government reform package (CCP, 1985; CCP & State Council, 1993) (see Chapter 10 for detailed discussion of the fee charges). Universities in Yunnan Province, for example, were allowed to take in 30 percent of their enrolment quota as fee-paying students (China Education Daily, 4.1.1993, p.1).

The vast expansion in enrolments not only allowed more people to have access to higher education but also contributed to the considerable increase in graduates from higher education. According to Xinhua News Agency, Beijing, between 1979 and 1993, Chinese higher education institutions produced 6,120,000 graduates - twice the number of graduates produced between 1949 and 1978 (People's Daily, 8.6.1994, p.1). According to the SEC's estimation, about 895,000 students would graduate from higher education in 1995 alone, the greatest output in number since 1949 (Guangming Daily, 12.11.1994, p.1).

The rapid expansion of higher education fulfilled to some degree those needs associated with the rapid development of the economy stimulated by open-door and other economic reform packages. It also addressed the pressing demand of Chinese youth for higher education. The enrolment ratio in higher education increased from 1.3 percent in 1980 to 1.6 percent of the current population group aged between 20 and 24,
although the ratio was still much lower than the average level of 4.1 percent in other developing countries (*Beijing Review*, March 4-10, 1996 p.23). As noted above, the considerable growth in enrolments could partially be attributed to the flexible deregulation policy of enrolling fee-paying and commissioned students. The enrolments for these students accounted for 39 percent of new students on campus in 1993, a sharp rise from 11 percent in 1991 (*China Education Daily*, 7.4. 1994, p.3).

Tensions and concerns arose out of the rapid and vast increase in enrolments. First, owing to insufficient funding, student residential colleges, classroom buildings, laboratories and libraries were more overcrowded and the conditions of many teaching and research facilities declined or became outdated. Some institutions could hardly afford necessary teaching experiments. This caused general concern about the quality of Chinese higher education (*China Education Daily*, 2.3.1993, p.1; 6.4.1994, p.1). Second, over-enrolments were increasing, because of the deregulation and weakening of government's overall control over enrolments. For example, the proposed plan for 1993 enrolment was to take in 789,000 students. But the actual number enrolled was later found to be 925,000 (*China Education Daily*, 7.4.1994, p.1), a 17.2 percent over-enrolment. The over-enrolments led to further deterioration in the conditions of students' living and studying as indicated above. Third, back-door deals and corruption in obtaining admissions increased with the deregulation of enrolments to institutions. Some institutions took in unqualified students by dropping admission requirements in order to gain financial profits, which provoked great anger and disappointment in the community, a potential source of social unrest (*People's Daily*, 25.1.1986, p.1; *Guangming Daily*, 11.2.1993, p.6).

**Mobilisation of Local Resources**

The dramatic and rapid expansion of higher education was both the result of and a driving factor behind the reform agenda. The major initiative of decentralisation for resource mobilisation came from the search for new funds to support the expanding system of Chinese higher education and to alleviate the financial stringency of the central
government as suggested in government papers (CCP, 1985; CCP & State Council, 1993). The transfer and sharing of authority and responsibility with local governments in running higher education institutions were important themes of administrative and funding reforms, particularly over the past few years. For example, when the administration over Shanghai Foreign Trade Institute was transferred from the Foreign Trade Ministry to Shanghai Municipality, the annual government recurrent grants for the Institute were transferred to Shanghai Municipality by the State Finance Ministry. Shanghai Municipality was to take responsibility for the Institute's capital construction, its enrolments, and its graduate placements (*China Education Daily*, 5.7.1994, p.1). Also as shown earlier in this chapter in the case of Kiangsu Province, the sharing of central control over the two universities with the provincial government brought in more funds for the universities, although it also suggested that the universities had an obligation to provide contracted services to the localities.

The devolution to institutions permitted them to seek investment from enterprises, commercial organisations and even some government agents, in the name of jointly-running institutions. The Northwest Industrial University (NIU), for example, signed a 20-year service contract with China Petrochemical Company in 1984. In terms of the contract, the Company invested 10 million yuan for capital construction in the University and provided the University with annual recurrent grants for the students enrolled for the Company. The University was entitled to use of the infrastructure built with the investment and would own it at the end of the 20-year service contract. The University also had contracts with other industry/business enterprises and local government agents. From the contracts, the University obtained over 30 million yuan for its capital construction in a few years, which was more than was received in 30 years of government capital grants for the University. With the contract grants, the University built over 40,000 square metres of teaching and research facilities and residences (*China Education Daily*, 27.8.1987, p.1). It was evident that the University had benefited financially from the contract deals.
The above evidence shows that the implementation of institutional autonomy as a part of devolution, promoted mobilisation of local resources from different channels and responses of institutions to local priorities as well. There were numerous such cases of cooperation and partnership between institutions and industry/business enterprises such as the NIU's, through which local resources and business revenue were tapped. Details about the linkages between institutions and industry and their implications are given in Chapter 9 of this thesis.

In spite of the benefits which resulted from the decentralisation for resource mobilisation, the implementation of the reform was nevertheless in great difficulty. According to a news report from the National Conference of Higher Education System Reform held in early January of 1995, 17 higher education institutions under the SEC and eight institutions under other state ministries/commissions had implemented state-province joint management (*China Education Daily*, 5.1.1995, p.3). In 1985, the central government initiated a proposal of joining efforts with local governments in running schools, including higher education institutions, and reiterated the policy in 1993 (CCP, 1985; CCP & State Council, 1993). However, between 1985 and 1995, only 17 out of 35 SEC institutions (48.6 percent) and seven out of 325 institutions (2.2 percent) under other state ministries/commissions, took on the state-province joint management. These figures indicated that the SEC and its institutions achieved much more in implementing this reform than the other state ministries and commissions and their institutions. But the overall percentage of institutions engaged in this reform was still very low, 24 out of 360 institutions of the central government departments. In other words, only 6.7 percent of the central government's institutions were jointly administered and funded by the central and local governments in 1995. In responding to the questionnaire surveys conducted for the present research, only two out of 21 higher education institutions said that they had adopted the joint-management model. So far, no data have been available showing how many institutions of the central government departments were fully transferred to local governments. The news reports about such full transfer cases were few and scattered.
Given the low degree of implementation of the joint management and full transfer of institutions to local governments, factors associated with the implementation warrant attention. However, recent studies of administrative decentralisation in relation to the joint ventures and full transfer tend to be scarce. One probable cause of this shortage is the difficulty of obtaining detailed information on negotiations between the central government and localities about the decentralisation. After analysing the relatively higher degree of implementation of this reform in the SEC institutions and some interviewees' responses, this researcher holds that there were three main factors influencing the success and failure of this reform.

First, there was passive resistance to this reform from both the central government departments concerned and local governments. As far as the state ministries and commissions were concerned, the full implementation of the joint management over their institutions with localities and/or transfer of their institutions to them implied the loss or partial loss of their authority over these institutions, although it also meant a shift of some or all financial responsibility for funding to the local governments. The passive resistance from the central government departments took the form of transferring responsibility rather than authority to localities. The local governments that signed agreements of joint management over institutions were not provided with the same magnitude of authority enjoyed by the central government departments over the institutions. These institutions under the joint management were still administratively affiliated with the SEC or other state ministries/commissions rather than with provincial governments (China Education Daily, 26.11.1994, p.1). The details of the devolution of administration over higher education institutions indicated a scenario in which relations between provincial governments and institutions under the joint management resembled a contract relationship or an exchange relationship. The local governments provided financial aid to institutions in the name of "joint-management funds" (gongjian fei). In return, institutions gave priority to enrolment of local students, and
allocation of graduates to the local community as shown in the above cases reported.

Under such an arrangement, local governments did not actually "manage" the institutions and did not have real authority and ownership of higher education institutions. This might be a major cause of reluctance of local governments to join efforts (i.e., financial resources) in running institutions. Some interviewees also expressed similar concerns (interviews, government officials & university managers, Beijing, December 1996; Shandong, January 1997). Joint-management over institutions as a means of capturing local resources is thus unlikely to make great progress, unless the central government empowers local governments with real authority for raising sufficient funds through levying for higher education development in their regions, and unless the tradition of affiliation of institutions with a certain state ministry or commission is dismissed.

Second, the state-province joint management of institutions and transfer of institutions to localities were more likely to be implemented in regions where the economy was more developed such as Beijing, Shanghai, Guangzhou and Jiangsu, than in other regions, as shown in the above cited cases. This fact indicates that, as a means of mobilising local resources, the joint-management and transfer require additional funds for successful implementation. If these are not available or not forthcoming as planned, it is difficult for the local government to afford such a reform, and any agreements reached concerning the joint-management and transfer would be endangered or fail.

Third, the prestige of an institution facilitated the implementation of transfer and/or the state-province joint management, because local governments were ready to accept the more prestigious institutions. It is well known that most of the SEC institutions were ranked as top or key universities in China. The higher percentage (nearly 50 percent) of the SEC institutions achieving state-province joint management agreements provided evidence for this viewpoint, although the SEC institutions were
also often the targets of reforms and took leading positions in every aspect of them.

Redistribution of Resources from Government to Institutions

Frackmann (1988, p.30) asserted, "In a state-financed higher education system, the most determining question might be how and by whom the allocation of funds to the institutions and inside the institutions is made". This subsection addresses the effects of decentralisation and devolution upon mechanisms of external funding to institutions.

Government financial allocations to the higher education sector have undergone some fundamental changes with the implementation of decentralisation and institutional autonomy. As seen in the previous section, some auditing red tape of government was cut and details of institutional expenditures (ie, where and how to spend the government general grants) were not subject to rigorous government specification and monitoring. The institutions had some degree of financial autonomy to handle their own budgets. Since 1986, the government has taken on a new funding system called "comprehensive fixed fund quota standard and special subsidy". The comprehensive fixed fund quota is determined on the basis of current and fixed expenditure in higher education institutions and their enrolment of students. The special subsidy comprises government special grants for specific purposes. These two parts make up the annual operation budget of institutions. When institutions obtain their state grants, they have the right to make an overall arrangement of their own budget. The principle set by the government for institutions is "using funds on a contract base, taking responsibility for overexpenditure and surplus, and seeking balance" (SEC, 1992b, p.105).

The above changes represent a shift from a financial mechanism by which budgets for institutions were detailed, line by line, by government, to a quasi-block and contract funding model in China. Also, as in the case of the state-province joint management of institutions, the provincial governments provided institutions with the so-called "joint-
management funds" to obtain services from institutions in terms of a supply of graduates and other educational and research products. This funding mode indicates another new approach to allocating resources to higher education institutions. So, in reality, the government buys the services from the institutions. This novel way of funding emerging over the past few years in China has become a part of market-oriented funding, which the government has recently adopted. In addition, diversification of institutional funding sources through prompting institutions to sell their teaching and research services is another feature of market-oriented funding.

All these changes in funding mechanisms, that is, the quasi-block funding, contracting, and market-oriented approaches to funding, herald an important change in the relationships between government and institutions. The central government declared that it intended to macro-manage institutions, that is, not to involve itself in detailed operations (including financial operations) of institutions, and it also urged the local governments to follow this principle (CCP, 1985; CCP & State Council, 1993). Evidence shown above demonstrates that the government's roles have multiplied. Its roles of a sole provider and direct regulator of higher education resources have changed. Consequently, the government, particularly the local governments, acted more as a contractor with institutions than a provider in allocating resources. The dramatic changes in the state-institution relationships have considerable implications for efficiency and equity of higher education provision in China (Zhao, 1997b).

Internationally, proponents of greater decentralisation maintain that the sharing of central power with localities promotes efficiency, as it reduces interference with decision making, defines lines of accountability, addresses problems more quickly, and stimulates innovation. Also, the redistribution of authority from the central to local governments is seen to enhance equity (Kemmere, 1992). In the Chinese context, the changed scenario of state-institution relationships as a result of decentralisation reforms, has realised some degree of such efficiency and equity but raised some problems to be solved in the allocation of resources to institutions.
Firstly, less government detailed regulation and direct intervention in institutional operations permitted institutions to be flexible and innovative in responding to diverse and changing demands of local communities, particularly in a fermented, complex and new economic environment under the economic reform. The financial autonomy of institutions placed responsibility for decision making in the hands of institutional managers. It also empowered institutions that were close to the action to make the most effective decisions and react quickly in the interest of institutions.

To accommodate different demands and needs of local enterprises, other employers, students and parents, institutions have constantly been engaged in adapting their curriculum design and development in the form of setting up new courses, closing some "out-of-fashion" ones and modifying others, over the past decade. The general trend of curricular adjustment is towards a flexible, diversified and more responsive curriculum. Greater emphasis has been placed on the expansion of curriculum with short-term applied disciplines, such as, business management, commerce, financial securities and stock exchanges, international trade, etc. In Hubei Province, for instance, to fulfill the local needs for economic growth, the institutions gave higher priorities to such fields of study as tourist economy, real estate management, tobacco engineering, printing techniques, etc., which are newly set-up courses in China. Jilin University set up about 112 new applied specialities by 1993, which included entrepreneurial culture, mass communication and other very popular courses in China. The University also changed the ratio between basic theory and applied technological disciplines from 4:6 to 3:7 (China Education Daily, 3.6. 1993, p.1).

In broad terms, the adaptation of the curriculum of higher education was initiated to respond to the development of economic construction and the socialist market economy. To institutions, the active adjustment of curriculum was more intended to attract students and enterprises' investment. The changed allocative mechanisms and institutional autonomy prompted institutions to be innovative and entrepreneurial,
and facilitated them to adapt quickly to the needs of the local labour market, from which institutions benefited financially as well. Those departments within institutions that failed to adapt to the changing societal demands lost their enrolments and inflow of funding as well, and some had to be closed down, because their institutions could not afford financial loss due to the loss of enrolments (China Education Daily, 19.7.1993, p.1).

Secondly, there was also evidence indicating that the new funding mechanisms that allowed institutions to keep unused funds provided by the government encouraged institutions to manage resources efficiently without the necessity to exhaust the budget within a certain year. In this point, financial autonomy developed incentives for institutional performance and managerial efficiency. A number of reform procedures have been undertaken to improve the efficiency and effectiveness of every operating unit (or cost centre) within institutions, such as, the introduction of an economic responsibility contract system in resource allocation within institutions, that has been well and widely assumed in Chinese enterprises since the economic reform. Other reform procedures were concerned with performance of individual staff, such as, implementation of an appointment contract system and bonus system for staff's higher commitment and greater contribution. These flexible and dynamic measures replaced the former system of remuneration, known as "the big-wok-meal" (daguofan) and "iron-rice-bowl" (tiefanwan) system*, and provided both pressure and incentive for more and higher quality productivity of staff members. Although outcomes of the reforms are controversial (see Chapter 7 for more discussion), the launch of the reforms reflected the cost-consciousness and initiatives of institutions to improve their efficiency in the use of both human and financial resources under their control.

*The "big wok meal" means that people share the same food cooked in one big wok. In other words, people get similar rewards no matter how they perform. The "iron rice bowl" system refers to a life-long tenure office system, under which staff cannot be sacked as iron rice bowls (symbolising employment) are too hard to be broken.
Finally, as far as equity - fairness in the collection and distribution of resources for higher education - is concerned, the changes in the government allocative mechanisms (such as, the contract funding and market-oriented funding) provided fair opportunities for active competition among institutions for resources, with the result that some institutions reaped the benefits from it while others paid the price. Under the new funding mechanisms, institutions were confronting growing pressures in competing for students, government general and special grants, local government contract funds (the "joint-management funds", for example), enterprises' investment, etc. However, the competition itself encouraged greater managerial efficiency within the institutions, as well as diversity and innovation in higher education provision and development as shown above.

The changed allocative mechanisms had much to recommend them but they also had some adversities. The aspect of higher education most vulnerable to the funding changes was quality. There was some evidence to support this view. To obtain local contract funds and financial rewards, institutions tended to give greater priorities to teaching activities and research projects which indicated clear evidence of immediate value for money. Consequently, more fundamental and less commercial activities of teaching and research suffered a lot (China Education Daily, 2.2.1995, p.3). In this way, quality of higher education as a whole, was inevitably affected and damaged to some degree.

Another side effect exerted by the quasi-block funding to institutions was over-enrolment and dummy upgrading of institutional status in many institutions. In terms of the "comprehensive fixed fund quota and special subsidy" funding model, government operational grants for institutions were based mainly upon the size of enrolment and institutional status (rank). In short, more students meant more money. This funding model partially contributed to over-enrolments in institutions through which institutions gained more funds from the government, ignoring their insufficient capacities to actually provide essential educational and other services for the over-enrolled students. Some institutions changed their names from "colleges" to "universities"
to attract students and meet a certain rank requirement for a funding status, because universities were traditionally better funded than colleges (China Education Daily, 28.7.1993, p.1; 2.8.1993 p.1; 19.3.1994, p.3; Sun, 1996). As a result, this adversity undermined the quality of higher education provision in China.

6.5 Policy Options

Policy options to offset the general adversities in relation to decentralisation and devolution identified in this chapter are recommended as follows:

- reinforcing macro-management over higher education at the central government level through imposition of general accountability on higher education institutions to monitor and assure overall quality;
- legislating to control the establishment of higher education institutions and the accreditation of institutions and courses;
- restructuring and consolidation in those institutions with low enrolment to enhance overall enrolment capacity of higher education (to be further discussed in the next chapter);
- improving the existing external funding mechanisms through the adoption of performance funding to restrain over-enrolment and maintain or improve quality; and
- empowering local governments with commensurate authority for financial responsibilities for higher education institutions transferred or to be transferred to them, while developing comprehensive accountability procedures and sustaining institutional autonomy.

In subsequent chapters, the quality issue will be elaborated in more detail as one of the focus issues of this thesis, and theoretical and practical solutions to the quality problem will be further addressed in terms of themes discussed in each of the remaining chapters of this thesis, with corresponding recommendations.
6.6 Conclusions

The aim of this chapter has been to address issues in the process of introducing deliberate changes to the governance and funding of higher education through decentralisation and devolution to allow mobilisation of local resources and changes in funding mechanisms. This chapter has examined the rationale for government decentralisation and devolution, the magnitude of the policy changes, and discussed in detail both the positive and negative impacts of the changed relationship between governments and institutions resulting from the establishment of additional higher education institutions and increased enrolments, local resource mobilisation, and external funding mechanisms.

On the one hand, decentralisation and devolution have become popular means to capture local resources, encourage institutional initiatives to seek alternative sources of funding, and enhance efficiency and equity in the allocation and use of resources. As shown above, there is evidence indicating that some progress has been made to achieve these objectives in China. On the other hand, however, the implementation of the reform has encountered difficulties such as passive resistance from the line ministries/commissions and the localities, and resulted in adversities such as declining educational quality and facilities, low economies of scale, corruption and so on, thus forming dysfunctions between original aims and outcomes. The central issue raised in the process of introducing decentralisation and devolution is how to mitigate the decline of quality of higher education provision, while shifting autonomy and responsibility to local governments and institutions.

This chapter has demonstrated, through examining reform policy formulation and policy implementation, that the state-institution relationships have changed significantly, as a result of shifting from highly-centralised state control and detailed regulation over higher education to decentralised governance and delegation of financial responsibility to localities and institutions. In this sense, the changed scenario of the relationship tends to be flexible, contractual and less state regulated in favour of more market orientation.
As illustrated in this chapter, in the context of a general state supervising approach to governance, higher education institutions have become more localised in terms of their governance and funding. This tendency obviously has important implications for the relationship between higher education and the society. The current diverse missions and responsibilities of higher education require high correspondence with the societal goals and quick response to the concerns of the society. The current overall situation prompts institutions to be more responsive and flexible, and to enhance efficiency in raising and utilising resources.

The newly-forged relationships between the government and higher education also have significant implications for internal management of institutions, and have impacted on the diversification of institutional revenue sources, income generation, internal allocation mechanisms, and governance structures. As a rule, the changes in the external funding mechanisms have inevitably brought about modification of and adjustment to the internal allocation machinery, already discussed from the case of the “economic responsibility system” within institutions. The next chapter will discuss issues concerning changes in internal governance and the allocation structure of institutions in the context of the changed scenario of the state-institution relationships.
CHAPTER 7

ENHANCING EFFICIENCY:
INTERNAL MANAGEMENT AND RESTRUCTURING

7.1 Introduction

The governance of higher education has two components: external governance, namely, government regulation and control over higher education institutions, as explored in the previous chapter, and the internal governance of higher education institutions. The chief aim of government devolution policy was to eliminate the excessive control of government departments and mobilise institutions' initiatives to improve their efficiency in internal management (CCP, 1985; CCP & State Council, 1993). This policy had the potential to generate a significant impact on the internal governance of higher education institutions. This chapter aims to discuss the internal management reform of institutions in the context of decentralisation and institutional autonomy, as well as internal and across-institutional restructuring, with a focus on efficiency in resource allocation and utilisation within and across institutions. Issues to be addressed include recent changes in internal management, allocation systems and organisational structures, efficiency and tensions in the process of the changes, their implications for institutional governance and finance, and finally the policy options for research and action.

This chapter begins with a description of reforms in the internal management and restructuring in the Chinese higher education sector over the past few years, moves on with a critical assessment of identifiable outcomes of the reforms elicited from a variety of sources such as official reports, interviews and questionnaire survey data, in terms of efficiency including internal efficiency, and concludes with
implications of the reforms for internal governance and financing of higher education in China and policy options available to address the key issues of the reforms.

7.2 Reshaping and Restructuring: New Policy Moves

The literature review in Chapter 3 of this thesis has shown that higher education reform started in the early 1980s and gained momentum following the 1985 government reform package (CCP, 1985). The reform concentrated on enhancing administrative incentives through devolution with an emphasis on institutional autonomy. Institutions were expected to take advantage of the reform to provide more down-to-earth services for economic growth through curricular adjustment and expansion of enrolment. The 1985 Decision defined the range of extended decision-making power of institutions but did not touch on the areas of internal management and organisational restructuring of institutions. In 1988, a so-called "internal management system reform" was initiated by the State Education Committee (SEC) and implemented on a test basis in two SEC universities: Qinghua University and Zhejiang University that have long been large, prestigious universities in China. In 1991, Nanjing University and Southeast University were required by the SEC to join in the trial of the reform. Later, there were seven other universities which participated in the trial. In August 1992, the SEC called on all its institutions (36 in all in 1996) to reform their internal management systems. This indicated the end of the trial stage of the reform where only small numbers of institutions were involved, and signalled the beginning of large-scale implementation of the reform. Higher education institutions (regardless of their administrative affiliations or levels), with the exception of a small number of art and musical institutions in Beijing, were reported to have started the reform. In Shanghai for example, by 1993 80 percent of higher education institutions had implemented the reform (China Education Daily, 23.5.1993, p.4).

From the latest statistical information, more than 70 institutions were involved in institutional mergers, among which 42 institutions
consolidated in 1995, and about 100 institutions joined in cross-institution consortiums. In the writer's view, the waves of such consolidation and cooperation will shake up the entire structure of Chinese higher education over the next few years. The significance of restructuring cannot be over-emphasised for the future viability of Chinese higher education.

Mobilising the initiative of staff through providing differential economic incentives, enhancing efficiency and productivity of institutions through restructuring, and reducing redundancies of institutional management structure were proposed goals of the reforms. The reforms included the following major elements.

First, a new diversified staff appointment system was to be established, under which appointment and employment of staff were made on two bases - casual and fixed-term bases. The traditional single internal management mode was to be replaced by "two management modes in one institution", that is, institution management (non-business or non-trading management) and business management. In other words, staff in the same institution would be employed and appointed under different contracts (casual or fixed-term), and managed in different ways (ways used in non-business entities and those used in commercial and business enterprises). Staff working in teaching and research would be remunerated differently from staff working in spin-off companies or enterprises of institutions. Any new appointments in the higher education sector were to be determined by so-called "staff quota (dingbian), position quota (dinggang) and duty quota (dingzhize)" set at the institutional level and department level in accordance with an overall staff quota defined by the SEC.

Second, the appointment and promotion of staff would no longer depend on seniority but on staff's actual commitments and achievements at their work places. Equity of opportunities would be fostered, and competition for appointment and promotion would be encouraged.
Third, an assessment system would be established to monitor and evaluate the performance of staff. Results of the assessment were to be taken as the ground for contract renewal or dismissal, promotion and remuneration.

Fourth, an internal reward system was to be set up at the institutional level. A double-track (shuanggu) system of remuneration would be introduced in institutions, under which staff's income from institutions would be made up two parts: state-granted salary, and allowances and bonuses provided by their institutions. The intent of the internal reward system was to provide economic incentives for better performance of staff.

Fifth, while the principal internal resource allocator of an institution was to be ensured at the institutional level, the relationship between the institution and its departments warranted proper coordination in terms of fund raising and distributing (SEC, 1992c).

Finally, when it came to institutional restructuring, it was proposed by the Chairman of the SEC, Zhu Kai-xuan and the Premier, Li Peng that expansion of enrolments should be achieved through tapping the potential of existing institutions and promoting consolidation of small institutions and cross-institutional consortiums to share resources (People's Daily, 12.3.1986, p.3; China Education Daily, 24.11.1995, p.1).

Of the reform initiatives, the most far-reaching ones have been the introduction of the contractual appointment of staff and the restructuring move. The general rationale for the reform initiatives was claimed to be the need for adaptation of higher education to the accelerated economic reform following Deng Xiaoping's call for the acceleration in early 1992, which contributed to the fastest economic growth of China in the world (Hope, 1995). Specifically, the extension of the internal management and restructuring reforms to almost all institutions was suggested to be a consequence of the central government's dissatisfaction with the progress of the higher education reform (China Education Daily, 21.7.1992, p.1).
7.3 A Critical Assessment of Outcomes of Reform

Outcomes of the implementation of the management and the restructuring reforms have been located from official Chinese newspapers and SEC publications. To triangulate the reports from official sources, data from questionnaire surveys over a number of institutions and interviews with some university managers and senior staff have also been sought and analysed. An assessment of the outcomes has been undertaken on the basis of the reports, interviews and survey data with the intent to determine if the outcomes of the reforms have met the desirable goals of the reforms and mitigated the serious redundancy and low internal efficiency problems of institutions.

7.3.1 An Overall Exploration

Perhaps the most ambitious objective of the above illustrated management reforms was to enhance efficiency and productivity of higher education institutions through optimising human and financial resources. To achieve this goal, some institutions made strenuous efforts to shake up redundancies of their staff and to meet a staff quota set by the SEC; and some institutions were consolidated or set up institutional consortiums to share their scarce resources.

Internal Reform and Restructuring

The following discussion elaborates on the two reform moves: internal and cross-institutional restructuring. Qinghua University, one of the first group of institutions engaged in the reform, was reported to have cut 467 staff members, closed and consolidated about 10 percent of existing operating units, and replaced the old practice of setting up new units so as to accommodate the need for employment, with employing staff to reflect work needs (China Education Daily, 15.12.1992, p.1; Zhang, 1992). In Shanghai, 20 percent of administrative staff were cut in the institutions engaged in the reform (China Education Daily, 23.5.1993, p.4). A news report on a recently-opened national higher education
conference in Wuhan, China, states that nationally, student-teacher ratios of higher education institutions have risen from 7:1 in 1992 to 10:1 in 1997 (China News [TV Broadcast], 26. 3. 1998). If the report is correct, such an outcome should be seen as an important achievement of the recent reform of internal and external restructuring.

For decades, the predominant problems inflicted on Chinese higher education institutions have been excessively high unit costs leading to extremely low economies of scale, ineffective organisational structures, and inefficient management. The causes of these problems were multifaceted. But government’s heavy subsidisation of higher education (that is, government took full financial responsibility for higher education) was a major contributing factor. Employees in institutions could not be sacked as in other public sectors in China. Owing to the policy of heavy subsidy for a long period, institutions could employ more staff than they actually needed. The placement of the excessive staff resulted in excessive operating units within institutions, thus forming a vicious circle - more staff leading to a more redundant internal structure.

Another factor causing the problems was extremely low ratios of staff to students in institutions. It has been a well-known fact that most higher education institutions in China are like a community where one has staff and students' apartments, canteens, medical services, kindergartens and schools for employees' children, factories, farms, shops, etc. It has been fully or mostly the responsibility of institutions to run and manage them. These services were mostly free or non-profit in nature, and relied mainly upon institutional financial support before the reforms. So, they had been heavy burdens to most institutions until government policies changed to encourage institutions to generate income from them. These indirect supporting services required a large number of staff as well as about 50 percent of the space of institutions (Hartnett, 1993). The importance of reforming these services is undoubtedly significant. If efficiency in these services could be realised through the reform, they would provide real financial support for institutions rather than depend on the institutions for help. This was one of the reasons that the internal
management reform was also targeted at these service sectors in institutions.

The third sensitive cause of the above problems was a dual management system within institutions: the Communist Party's control on the one side, and administrative and academic administration on the other (see Chapter 2). Due to the Tiananmen Incident of 1989, the implementation of a division of power between the Party and the administration was no longer a topic in the official press. Instead, an emphasis on the paramount role of the Party has been the most dominant theme of current literature in China. This is why this third cause of the redundancies and inefficiency was probably deliberately ruled out from official sources of information, although the cause was evident and popularly known. The dual management structure in institutions required almost twofold staff members since staff of administration and management parallel those of the Party. It has caused not only problems of redundancies but also confusion for both staff and managers over roles of authority, responsibility and function in institutional leadership.

The last but not the least causative factor was under-counter deals in employment and appointment, as has happened in other public sectors in China. Recruitment of staff sometimes was not tailored to the needs of institutions but reflected the needs of some people wishing to work in the institutions. Because these people often had connections with the institutions or key staff (friends or relatives), they were recruited not through normal procedures of employment but through back-door deals. People recruited in this way were often unqualified but took better jobs or positions in institutions. This corruption has inflicted the overall Chinese personnel system for many years and challenged any attempts at reform of labour markets.

To solve the problems of heavy redundancies and inefficiency in internal structure and management, cutting staff members and restructuring internal management might be effective policy initiatives. But in view of the complexity of the contributing factors to these problems as identified above, it was a formidable task to achieve the desired efficiency in terms
of cutting and restructuring. It was learned from official reports that many institutions improved their internal management through restructuring and reducing the number of organisations and positions (China Education Daily, 14.4.1992, p.1; 23.5.1993, p.4). In addition to the cases of Qinghua University and other universities in Shanghai as shown previously, Nankai University was also recommended as a successful example of the reform. This University managed to limit its staff quota to 4390 members, 216 fewer than the staff quota of 4606 set by the SEC, although the overall workloads of the University staff increased by 20 percent at that time. The University doubled and strengthened its research forces while reducing the administrative staff from 14 percent to 13 percent of its total staff. The quota set for academics was raised from 160 lecturing hours to 240 lecturing hours per academic year, a one third increase. In spite of the increase in workloads, academic staff were said to demand more work. This was most likely a result of the changes in remuneration - more workload, more money. However, the demand for more work was seen to be evidence of high morale promoted by the reform (Nankai University, 1992).

In the case of Nankai University, internal efficiency of the University was enhanced through the improved use of teachers' time. The wide spread low workloads of university staff in China had been one of the key factors of inefficiency for many years. Data from the questionnaire surveys for the current research showed that the workloads of teachers in most participating institutions were increased as a means of the reform (see Table 7.4 in the present chapter). In addition to the improved internal efficiency, the reform strategy used for restructuring in Nankai University merits recommendation. The increase in research staff could help to bring more research funds to institutions through accepting more industry-sponsored research projects and have more research products for trading, particularly in the face of an increasing demand for industry and business for universities' partnerships. Also, the strategy of reducing administrative staff helped to counter a traditional oversupply of administrative forces in most Chinese higher education institutions, a major source of redundancies in institutions.
Although they made great efforts in reducing redundancies of the system and succeeded as claimed above, institutions involved in the reform were facing a similarly difficult problem, namely, how and where to place those staff who had been removed from their previous positions. In theory, institutions had the right to appoint and dismiss staff according to the government’s devolution policy (CCP, 1985). But in practice, institutions had to take responsibility for placement of their redundant staff. Like others, Qinghua University asked their surplus staff to engage in self-run business enterprises so as to be able to support themselves later (China Education Daily, 15.12.1992, p.1). Data from the interviews indicated that those non-appointed staff were mostly administrative and general staff who were still paid by their institutions until they found jobs, but at a rate barely enough for their own basic living costs, as has been the case with redundant workers elsewhere in China (interviews, senior staff of Chinese universities, Sydney, January 1997). In this sense, institutions had to continue to shoulder the financial burden of their own redundant staff. The degree of success of the reform was constrained by other forces. In other words, the final solution to this problem is far beyond the reach of institutions, as it concerns the Chinese social security system for the unemployed which unfortunately has not yet been well-established. Over the past few years, an increasingly large number of state-owned enterprises have been closed down or have partially suspended production due to "poor economic returns", which has resulted in growing numbers of laid-off workers (xiagang zhigong) (Beijing Review, April 7-13, 1997, p.28). By the end of 1996, the registered urban unemployed people were 5.53 million in China, with an unemployment rate of three percent (Beijing Review, April 28-May 4, 1997, p.31). Provision for these laid-off workers and the unemployed has become a key issue to be addressed in the process of industrial reform as has been the case with the reform of the internal structure of higher education. So, a feasible and effective way is urgently required to develop the Chinese social security system to accommodate the increasing number of laid-off and unemployed people, in this writer's view.

Another problem challenging the removal of redundancies has been the corruption in staff recruitment as noted above. Some unqualified staff,
who had relations with their institution or with some influential figures from the institution, had in principle to be removed from their positions but they either remained in their job posts or were transferred to other jobs within the institution (interviews, senior staff of Chinese universities, Sydney, January 1997). The corruption ruined to some degree the reform initiatives and also affected the morale of staff wishing to be fairly treated in the process of redundancy and removal. In this case, reduction of redundancies was hardly achieved.

Last and most importantly, the removal of inefficiency in the internal management structure of institutions was not as simple as cutting a certain number of staff or closing down some operating units, as the entire official press tended to report. It was more a matter of quality than one of quantity. In view of the main causes of inefficient internal management, lack of clear lines of responsibility in the dual administration/management structure (between the Party and the administration), and lack of management skills including fiscal management skills were the most formidable obstacles for reformers of higher education internal management to overcome. However, unfortunately, not much has been done to tackle these obstacles.

**Cross-Institutional Restructuring**

Table 7.1 presents a picture of enrolments in higher education institutions between 1978 and 1990, and displays a clear trend of development towards bigger institutions. In 1978, less than one percent of institutions had an enrolment of more than 5,000 students but in 1990, the number of such institutions rose to about seven percent. Also, the median enrolment was only 862 students but rose to 1,393 in 1990, an increase of 61.6 percent. Despite the increase, only about 15 percent of institutions had more than 3,000 students in 1990. According to recently published official statistics, the current average enrolment in higher education institutions has risen to 3,100 students, while there were only 2,070 students per institution in 1992 (*China News [TV Broadcast]*, 26. 3. 1998). The recent dramatic increase in average enrolment was attributed to the vast quantitative expansion of higher
education (see Table 6.3 in Chapter 6) and also to the restructuring movement between institutions.

Table 7.1 Cumulative Frequency Distribution of Institutions by Size of Enrolments: 1978-1990

<table>
<thead>
<tr>
<th>Year</th>
<th>1 or more</th>
<th>301 or more</th>
<th>501 or more</th>
<th>1001 or more</th>
<th>1501 or more</th>
<th>2001 or more</th>
<th>3001 or more</th>
<th>4001 or more</th>
<th>5001 or more</th>
<th>Mdn. enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>100</td>
<td>83.4</td>
<td>71.0</td>
<td>41.9</td>
<td>25.5</td>
<td>15.1</td>
<td>6.4</td>
<td>1.7</td>
<td>0.7</td>
<td>862</td>
</tr>
<tr>
<td>1982</td>
<td>100</td>
<td>91.6</td>
<td>81.9</td>
<td>50.9</td>
<td>33.0</td>
<td>21.8</td>
<td>10.9</td>
<td>5.4</td>
<td>1.8</td>
<td>1026</td>
</tr>
<tr>
<td>1986</td>
<td>100</td>
<td>90.6</td>
<td>81.6</td>
<td>58.8</td>
<td>39.5</td>
<td>27.0</td>
<td>14.4</td>
<td>9.2</td>
<td>6.2</td>
<td>1229</td>
</tr>
<tr>
<td>1990</td>
<td>100</td>
<td>94.6</td>
<td>87.4</td>
<td>66.7</td>
<td>45.4</td>
<td>31.8</td>
<td>15.8</td>
<td>9.3</td>
<td>6.6</td>
<td>1393</td>
</tr>
</tbody>
</table>

Sources: Adapted from MOE (1984) and SEC (1986, 1991)

As a part of the restructuring reforms, consolidation and cross-institutional cooperation were highly recommended by the government as a means of optimisation of resources (China Education Daily, 12.7.1995, p.1). The most dynamic development of such structural changes occurred in 1995 and prevailed in almost every province in China. In major cities such as Beijing, Shanghai and Guangzhou, where there were more institutions than in other areas, institutional mergers and cross-institutional cooperation were growing more vigorously.

There exists a common belief that institutional consolidation helps achieve cost-effectiveness and optimisation of the insufficient resources supplied to higher education, through raising student-teacher ratios, reducing waste and redundancy, and sharing resources (Woodhall, 1992). It was on the basis of this common belief that consolidation and cross-institutional cooperation were initiated and developed in China. As the trend of consolidation and cross-institutional cooperation started not long ago and is still in progress, it is too early to locate much evidence of the actual outcomes of the structural changes. Hence the following discussion is based upon potential changes as well as realities.

In 1995, Shanghai boasted a total of 45 higher education institutions with about 140,000 students on campus. The average enrolment for each institution was 3120 students. However, there were 23 institutions whose
enrolments were below 2,000 students and 11 institutions with fewer than 1,000 students. In the light of the government’s plan for restructuring higher education in Shanghai, the 45 institutions would be consolidated into 30 institutions with an average enrolment of over 4,680 students. The capacity of enrolment of each institution would increase by 50 percent. It is evident that consolidation is likely to enlarge the institutional capacity for enrolment. But the capacity is also determined by other important factors such as popularity of course offerings, quality and morale of staff, teaching and research facilities, student services, etc. Besides, cost-effectiveness is achieved through increasing student-teacher ratios and removing redundancy. The above mentioned plan did not deal with this sensitive issue, that is, how much redundancy would be reduced to achieve efficiency, as student-teacher ratios were very low with around a 7.3:1 ratio nationally by the end of 1995 (SEC, 1996b).

There was a news report about increasing student-teacher ratios from 5.5:1 in 1991 to 8.1:1 in 1994 through restructuring higher education institutions administered by the Ministry of Internal Trade in China (China Education Daily, 25.8.1994, p.1). This is one of a few successful cases reported of achieving a relatively high ratio of students to teachers through consolidation.

As shown above, the realised and potential benefits of larger institutions imply greater opportunities to expand higher education by tapping existing resources without injecting additional funding (The World Bank, 1986). A World Bank survey over 136 Chinese higher education institutions also provided evidence in favour of larger institutions and raised student-teacher ratios to produce substantial savings. However, the above reports, including that of the World Bank, failed to look at or estimate possible difficulties and problems institutional consolidation may raise in practice.
7.3.2 Specific Studies of Some Cases

To help to deepen the general exploration and assessment of the overall outcomes of internal management and restructuring, data elicited from the questionnaire surveys and a specific report on a case of cross-institutional restructuring are given below and analysed in greater detail.

Governance and Financial Systems Within Some Institutions Surveyed

This subsection presents a report on survey results of the internal management in 43 higher education institutions and faculties or departments which participated in the questionnaire surveys. The current internal governance and financial control systems of those participating units are examined and discussed.

Table 7.2 Internal Governance Systems at Both Institutional and Faculty/Departmental Levels

<table>
<thead>
<tr>
<th>At the institutional level</th>
<th>Freq. %</th>
<th>At the faculty/dept. level</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &quot;President responsibility under the CCP&quot; as a main system</td>
<td>95.2</td>
<td>1. &quot;Dean's responsibility under the CCP&quot; as a main system</td>
<td>86.4</td>
</tr>
<tr>
<td>&quot;President responsibility under the CCP&quot; used to some extent</td>
<td>0.0</td>
<td>&quot;Dean's responsibility under the CCP&quot; used to some extent</td>
<td>0.0</td>
</tr>
<tr>
<td>2. &quot;President responsibility system&quot; as a main system</td>
<td>4.8</td>
<td>2. &quot;Dean's responsibility system&quot; as a main system</td>
<td>13.6</td>
</tr>
<tr>
<td>&quot;President's responsibility system&quot; used to some extent</td>
<td>19.1</td>
<td>&quot;Dean's responsibility system&quot; used to some extent</td>
<td>31.8</td>
</tr>
<tr>
<td>3. Having adopted both systems</td>
<td>23.8</td>
<td>3. Having adopted both systems</td>
<td>31.8</td>
</tr>
</tbody>
</table>

Source: Data were elicited from both the Institution Questionnaire and Faculty/Dept. Questionnaire (see item 3.1 in Appendices I & II).

Table 7.2 summarises the questionnaire data of the governance structures of the 43 institutions and faculties/departments surveyed for the current research. The data showed that at the institutional level, all except one participating (20 out of 21) had a dual administration or management system, while only three institutions answered that they had also implemented a single governance system called "president responsibility system" but to a different extent, one taking it as a main
system and the other two using it occasionally, over the past decade. At the faculty/departmental level, the single administration system "dean's responsibility system" was much more popular than at the institutional level, with three faculties/departments taking it as a main system and seven using it occasionally, although a great majority of faculties or departments (19 out of 22) still had held on to the dual administration system at the time when the survey was conducted. The survey data were consistent with national data published about ten years ago, indicating that institutions which had taken on the president responsibility system accounted for about 10 percent of all Chinese higher education institutions (China Education Daily, 8.12.1987, p.1). This probably suggested that the current overall governance system was much the same as it was ten years ago and the internal management reform did not even touch the dual system.

As noted previously, the dual administration/management was one of the main factors affecting efficiency and causing redundancies in internal management. The internal management reform could hardly have achieved its desired goal if it avoided attacking the dual system, as this system prevailed among Chinese institutions and exerted a direct and vital influence upon financial management and control processes within institutions.
At the Institutional Level

President's office

Proposing major budgets and resource allocation

CCP University Committee

Reviewing, approving amending, disapproving budget proposals/plans

Planning & Finance Division

Implementing approved budgets; preparing fiscal accounts and reports

Auditing Office

Monitoring/auditing implementation of details of budgets

Faculty/Department Offices

Non-academic sector Offices

Figure 7.1 Most Frequently Stated Financial Control Structure and Its Process
(compiled in accordance with the data elicited from responses to item 3.2a of the Institution Questionnaire)
Figure 7.1 provides a picture of the financial control structure and its process of most participating institutions surveyed at the institutional level. The data demonstrate that, under the dual management system, the president proposed major budgets of an institution but the CCP university committee had the final say in the budgets and resource allocation. In other words, both the president and the CCP university committee were at the top of a hierarchy of financial management of an institution but their functions and powers were different. Below the top level, there existed an executive organ called Planning and Finance Division that carried out the decisions on major financial issues of an institution made by the CCP committee and the President. The Division delegated auditing authority to its Auditing Office that monitored the implementation of details of financial decisions. The Division also had delegated authority to be responsible for budgetary expenditures at faculty/departmental level and other non-academic operating units level as described by most institutions surveyed.

Figure 7.1 demonstrates that the institutional budget-making process and control structure were simple and less formal. They might have been adequate when institutions were merely affiliations of their line ministries or local governments and had little financial discretion. But with the rapid expansion of higher education, current institutions have tended to be large in size with complicated missions. Sources of revenue have also been greatly increased and diversified. Most importantly, institutions have been granted body corporate status, which means that institutions have authority over their own budgets and take responsibility for their profits and losses. In this sense, the simple organisational structure and control processes were not able to accommodate the diverse needs for successful and efficient operations of institutions. This is because separate divisions, with different functions, such as an academic division, general administration division, and external relations development division, are significant organs to ensure clear lines of responsibility and roles for efficient management in different functional areas of an institution.
The organisational chart of institutions surveyed (Figure 7.1) also indicated vagueness concerning the delegation of authority. The Planning and Finance Division surveyed was said to be directly responsible for expenditures of faculties/departments. In other words, the Planning and Finance Division had delegated authority to interfere directly with financial discretion at the faculty/departmental level. The delegation of authority and responsibility to faculties/departments as a part of the reform agenda was attributable to conflicts and tensions between the faculties/departments and the Planning and Finance Division (an executive unit at the institutional level), thus creating a source of low efficiency in management.
Figure 7.2 Most Frequently Stated Financial Control Structures and Processes
(compiled in accordance with the data elicited from responses to item 3.2a of the Faculty/Dept. Questionnaire)
Unlike the corresponding responses to the institutional system of financial control, there were two different groups of responses to questions about a faculty or department financial control system. At the faculty or departmental level, the two kinds of financial control structures and processes, as revealed by the questionnaire survey data, are labelled A and B. Structure and Process A in Figure 7.2 was characterised by a control system built on cooperation between the Party and the faculty or department administration. One main function of the Faculty or Department Affairs Committee was making decisions on revenues and expenditures at the faculty/departmental level. The Committee delegated to a Vice-Dean the authority of putting the financial decisions into effect and preparing budget reports.

Compared with Structure and Process A, Structure and Process B was simpler and generally applied to smaller faculties/departments. In this case, the dean had paramount power to control finance within his/her own faculty/department. This was the so-called dean's "signature approval" (yizhibi pizhun), where operationally the dean himself or herself decided how and where to spend faculty/departmental funds.

In this writer's view, the extent to which the two structures and processes of financial control at the faculty/departmental level revealed by the survey are rational and efficient, depends mainly on what allocative formulae the institution used and whether the faculty/department managers had the administrative capability to take competent resource allocation decisions. It is more a matter of content than one of form. In the light of the questionnaire survey results shown in Table 7.4 of this chapter, among the institutions surveyed, 76 percent of institutions had implemented the "economic responsibility contract system", though about 24 percent of institutions used it as a main strategy and 52 percent used it to some extent. The economic responsibility contract system was, in nature, a block resource allocative system, under which institutions allocated funds to their faculties/departments with few or no strings attached but faculties or departments were responsible for delivery of what was promised, and for gains and losses. In this sense,
faculties/departments had real autonomy to make financial decisions within resource constraints. This devolved internal resource allocation created incentives for those faculties/departments to use scarce funds efficiently, and enabled faculties/departments that were close to the action to direct their resources flexibly and efficiently to accommodate changing environments, especially in an era of rapid change in current China. If the two structures and processes of the faculties/departments surveyed above operated under such a devolved internal resource system, they might be efficient, subject to the administrative capability of faculty/department managers and other management staff (information about the capability could not be elicited through these questionnaire surveys). However, as Figure 7.1 suggested, the vagueness in delegating authority from the central administration to the Planning and Finance Division on the one hand and to faculties/departments on the other might undermine the efficiency of the financial control system.

As noted above, the Structure and Process B (Figure 7.2) allowed the Dean to have very strong decision-making power in finance within the faculty/department. This might contribute to efficient internal management in terms of the dean's clear role and responsibility in the control structure and process. However, adequate consultation, a variety of inputs to decision-making processes and, most importantly, appropriate monitoring and review procedures are extremely important to maintain transparent, rational and efficient management at the faculty/departmental level. Accountability thus becomes more important as faculty/departmental autonomy increases.
Table 7.3 Rating of Satisfaction of Respondents from Institutions (N=21) and Faculties/Departments (N=22) with Their Financial Management Structures and Processes

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>Great extent</th>
<th>Fair extent</th>
<th>Some extent</th>
<th>Minimal extent</th>
<th>Mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>To what extent are you satisfied with the process and structure in your institution?</td>
<td>4.8</td>
<td>9.5</td>
<td>71.4</td>
<td>14.3</td>
<td>2.0</td>
<td>0.6</td>
</tr>
<tr>
<td>3.2</td>
<td>To what extent are you satisfied with the process and structure in your faculty/department?</td>
<td>0.0</td>
<td>13.6</td>
<td>54.5</td>
<td>31.3</td>
<td>1.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: Data were elicited from both the Institution Questionnaire and Faculty/Dept. Questionnaire (see Appendices I & II).

Table 7.3 provides a summary of opinions from both institutions and faculties/departments about their current financial control structures and processes illustrated in Figures 7.1 and 7.2. The data were summarised by rating the extent of satisfaction of respondents with the structures and processes from a "great extent" to a "minimal extent". It was found that the ratings given by both responding institutions and faculties/departments corresponded on average to the label "some extent" (with means of 2.0 and 1.8 respectively on the 4-point scale). These relatively low ratings indicate an overall disappointment of respondents (standard deviations of 0.6 and 0.7 respectively show considerable consensus) with their internal financial control systems. It probably also reflects the weaknesses of the systems discussed above, and the gap between the existing systems and what was desired. As noted in Table 7.3, in the sample studied, faculties/departments rated their management systems (with a mean of 1.8) even lower than did institutions (with a mean of 2.0), although this difference was not statistically significant (t=1.5; df=38; p>.05). Also, nearly one third (31 percent) of faculties or departments were only minimally satisfied with the systems.
A Case of Cross-Institutional Consortium

This subsection provides closer insights into cross-institutional restructuring through a case survey* with an intent of exploring specific issues and problems associated with the move. In early 1994, five higher education institutions in Beijing founded a cross-institutional consortium called “Eastern University City”. The five institutions were Beijing Chinese Medicine University, Beijing Chemical Industry University, Foreign Trade and Business University, Beijing Fashion Design Institute and China Finance Institute. The consortium had one central governing body as a coordination and supervision commission to manage overall business of the consortium. Under the central governing body, there were six sub-committees in charge of academic and administrative affairs, institutional industry and business, and student and staff services of the consortium. The five member institutions still retained their own full administrations, which were separately funded and governed by five different state ministries.

On the foundation of the consortium, the five member institutions reached an agreement on cooperation in a number of areas. The agreement included setting up common basic courses, exchanging faculty members, combining library and laboratory resources, credit transfer, cooperation on research projects and on trading and transferring research products, sharing research achievements, sharing student and staff services, and jointly building and sharing student and young staff residences, etc.

One year after the foundation of the consortium, a survey was conducted of the progress of the consolidation. It was found that very limited cooperative programs had materialised, most of the agreed cooperation had not been implemented, and some cooperative activities failed to achieve the desired results. Of the materialised cooperative programs, the most successful was the operation of the Eastern University City

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Credit Union which attracted 30 million RMB from each member institution and other investors in one month after its foundation and seemed to have a prosperous future.

However, difficulties and problems were raised when it came to other cooperative areas. As far as exchanging staff was concerned, few arrangements could be made because the five institutions had the same problems of over-supply of staff for some courses and under-supply of staff for other courses. Also, it was often too late to make changes in overall staff arrangements when the five institutions submitted to coordinating committees their respective staff arrangement plans, as any changes would cause conflict in already prepared lecturing timetables of teachers.

As to sharing library and laboratory resources, it was hard for students and staff to use other member institutions' libraries and laboratories due to quite complicated approval procedures. Cooperation on research was also infrequent because it was difficult to obtain joint-research grants from the five government agencies which funded and administered each of the five institutions. When it came to consolidation of staff and student services, no progress was made as a result of lack of profits and fears of loss of jobs on the part of the staff who worked at the services. Even the plan to build shared student and staff residences for the five member institutions failed, due to financial stringency.

The above brief description of the findings illustrates that institutional consolidation and cooperation are complicated processes involving full commitments and great efforts of all participants in the agreed areas - teaching, research and services. Problems raised in the processes of the consolidation of the five institutions can be summarised as:

- lack of a powerful central administration with clearly-defined roles and responsibilities to ensure cooperation plans were enforced;
- lack of support to convert the rhetoric of approval into action;
- insufficient funds injected into the consolidation by the government agencies which administered the participating institutions;
• fears of losing jobs because of the potential redundancy caused by consolidation;
• concern about losing institutional status; and
• the time demands required for the consolidation processes.

These problems may be relevant to other institutional consolidations and cooperation. Failure to realise and solve such problems has led to a loose federal arrangement of the five member institutions, which not surprisingly increased administrative costs with a new central superimposed administration, contrary to the initial objective of achieving greater savings through consolidation. Given that little sharing of resources was realised and few cooperative programs were implemented as shown above, the consolidation of the five institutions was in fact unsuccessful and resulted in a nominal rather than an actual consolidation.

This case study, though it may not apply to the entire trend and issues, implies that many difficulties and problems exist such as those of administration, funding and culture in the processes of consolidation and cooperation. The difficulties and problems inherent in the processes need to be fully understood so that positive outcomes can be achieved, and adversities minimised.

Respondents' Perceptions of the Reform and Its Impact

Table 7.4 provides the summary data on reform strategies related to the internal management of institutions surveyed, and perceptions of both institutions and faculties/departments on how much had been achieved through the reform. On the part of institutions, the responses to all six reform strategies indicated an overall involvement of participating institutions in the reform at least to some extent. The means of all ratings reached 2.0 or more on the 3-point scale, except for item 3.6e, where the mean was 1.8 but still 62 percent of institutions reported having introduced a double-track internal reward system. Among the reform strategies, "raising student-staff ratios through increasing
workloads of staff and expansion of enrolment" (items 3.6f and 3.4e*) received very high ratings from both institutions and faculties or departments (with means of 2.2 and 2.4 respectively, and 43 percent of institutions and 50 percent of faculties and departments identifying it as the main reform strategy, and a further 33 percent of institutions and 41 percent of faculties/departments using it to some extent).

*Note: Item labels without "*" are items from the Institution Questionnaire while item labels with "*" are from the Faculty/Department Questionnaire.
Table 7.4 Strategies Used to Enhance Efficiency in Internal Management and Perceptions of Respondents on Outcomes: Comparisons of Responses of Institutions and Faculties/Departments to Corresponding Items

<table>
<thead>
<tr>
<th>Reform strategy</th>
<th>Responses from institutions (N = 21)</th>
<th>Responses from faculties/depts (N = 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 3.6 &amp; Item 3.4*</td>
<td>A main strategy %</td>
<td>Used to some extent %</td>
</tr>
<tr>
<td>(a) Devolution of financial discretion to faculties/depts</td>
<td>28.6</td>
<td>57.1</td>
</tr>
<tr>
<td>(b) Implementing an &quot;economic responsibility contract system&quot; (a)*</td>
<td>23.8</td>
<td>52.4</td>
</tr>
<tr>
<td>(c) Implementing an employment contract system (b)*</td>
<td>33.3</td>
<td>38.1</td>
</tr>
<tr>
<td>(d) Appointing casual teachers (c)*</td>
<td>23.8</td>
<td>47.6</td>
</tr>
<tr>
<td>(e) Introducing a double-track internal reward system (d)*</td>
<td>14.3</td>
<td>47.6</td>
</tr>
<tr>
<td>(f) Raising student-staff ratios through increasing workloads of staff (teachers) and expansion of enrolment (e)*</td>
<td>42.8</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Perceptions on outcomes (Item 3.7 & Item 3.5*)

<table>
<thead>
<tr>
<th>Extent of efficiency and effectiveness achieved through the above reform strategies</th>
<th>Great</th>
<th>Fair</th>
<th>Some</th>
<th>Mini.</th>
<th>Mean</th>
<th>s. d.</th>
<th>Great</th>
<th>Fair</th>
<th>Some</th>
<th>Mini.</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>extent %</td>
<td>9.5</td>
<td>23.8</td>
<td>57.1</td>
<td>9.5</td>
<td>2.3</td>
<td>0.8</td>
<td>0.0</td>
<td>22.7</td>
<td>77.3</td>
<td>0.0</td>
<td>2.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Sources: Data were elicited from the questionnaire survey conducted for the present research.

*Note: Item labels without "*" are items from the Institution Questionnaire while item labels with "*" are from the Faculty/Department Questionnaire.
Compared with the summary data from institutions, faculties or departments were, on the whole, less engaged in the reform (with generally lower ratings on implementation of reform strategies given by faculties/departments except for the item 3.4e* mentioned above). On the implementation of an "economic responsibility contract system", 50 percent of responding faculties/departments said that this was little or not used, while only 24 percent of responding institutions ranked it as a strategy used to a minimal extent. As to the other two reform strategies - appointing casual teachers and introducing a double-track internal reward system - there was a similar negative response, from faculties/departments (41 percent answering "little or not used") although both means were 1.7, well below the value of 2.0 corresponding to "used to some extent". The lower engagement of faculties/departments was likely to be a result of limitations of decision-making power and implementation conditions at the faculty or departmental level. If, for instance, a faculty or a department did not have the power to allocate its financial or human resources at its own discretion, or if it was small in size, it would be very difficult if not impossible for the faculty/department to implement the reform strategies.

However, in addition to the very strong consensus in items 3.6f and 3.4e*, there was also a relatively high degree of consensus between institutions and faculties/departments on implementing the employment (appointment) contract system and raising student-staff ratios. Seventy-two percent of responding institutions and 68 percent of faculties or departments reported that they had adopted the employment (appointment) contract system as a main strategy.

In response to questions 3.7 and 3.5*, 57 percent of responding institutions and 77 percent of responding faculties/departments rated the efficiency and effectiveness achieved through the reform strategies.

*Note: Item labels without "*" are items from the Institution Questionnaire while item labels with "*" are from the Faculty/Department Questionnaire.
only as "some extent". Also, responses from institutions demonstrated through quite dispersed ratings that the perceived extent of efficiency and effectiveness varied greatly from institution to institution (with a standard deviation of 0.8, far higher than that of 0.4 for faculties/departments' ratings). The respective means of 2.3 and 2.2 for ratings from institutions and faculties or departments respectively fell between a fair extent (3.0) and some extent (2.0) on the 4-point rating scale. This indicated the overall perceptions on the outcome of the reform strategies - efficiency and effectiveness - were far from enthusiastic.

The difference in implementing reform strategies between institutions and faculties/departments inspired this researcher to find out whether the administrative level of institutions affects their implementation of the reforms. The relationship between administrative level and each of the 20 reform strategies in the Institution Questionnaire and 18 in the Faculty/Department Questionnaire was explored. Given the small sample falling into each of the five levels of administration (that is, 1. SECs, 2. other Central Government's, 3. provincial, 4. under joint-administration, and 5. local), the five levels were collapsed into two wider groups, namely, institutions under the jurisdiction of the Central Government and those under the local governments. The exploration found that only in three reforms was there a tendency for a difference. A chi-square test (2 x 3 contingency table) was undertaken for the three cases. However, even here, the results were not statistically significant because of the small sample size (10 Central Government's institutions and 11 local institutions). Table 7.5 summaries the difference in responses of Central Government's institutions and those of local institutions to the implementation of the three reform strategies.
Table 7.5 Comparisons of Responses of Central Government's Institutions and Local Institutions to Some Corresponding Items

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>Institutions funded and operated by the Central Government (N = 10)</th>
<th>Institutions funded and operated by local governments (N = 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A main strategy %</td>
<td>Used to some extent %</td>
</tr>
<tr>
<td>c</td>
<td>Recruiting staff on a contract basis</td>
<td>50.0</td>
<td>40.0</td>
</tr>
<tr>
<td>f</td>
<td>Increasing student-staff ratio</td>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td>t</td>
<td>Expanding links with industry &amp; business in broad areas</td>
<td>10.0</td>
<td>60.0</td>
</tr>
</tbody>
</table>

Source: Data were elicited from the questionnaire surveys conducted for the present research (see Appendices I & II).

Note: Item labels without "**" are items from the Institution Questionnaire while item labels with "**" are from the Faculty/Department Questionnaire.

Table 7.5 presents the distributions of responses from the two sets of institutions. In response to the question about "recruiting staff on a contract basis", 50 percent of the Central Government's institutions said that they had taken the system as a main strategy whereas less than 20 percent of local institutions did so. On the other hand, in terms of responses to "increasing student-staff ratio" and "expanding links with industry", local institutions were more dynamic than Central Government's institutions. A major contributing factor to the differences might be the greater financial pressure on local institutions to reduce their costs and seek alternative sources of funding as they are normally less well funded than Central Government's institutions. However, in responding to similar questions such as generating extra-budgeting revenue through expanding spin-off enterprises and fee-charging, the ratings given by Central Government's institutions and local ones differed little. This suggests that the administrative level of institutions does not have a sizeable effect on most institutional reforms, as Chinese higher education institutions (regardless of whether they are national or local institutions) are confronting similar financial stringency and similar pressure to enhance their revenue and increase productivity (efficiency in resource utilisation).
7.4 Implications for Internal Governance and Finance

This section probes the implications of the changes in institutional structures and resource allocation for internal governance and finance. The two major aspects of the changes discussed above were streamlining the internal decision-making structure and reducing redundancies through internal and cross-institutional restructuring. (Other important aspects of the reforms such as remuneration were not elaborated because of their loose relevance to the theme of this chapter.) The restructuring and reshaping reforms aimed to enhance efficiency of the system. The reforms are deemed to have a number of implications for internal governance and finance in terms of a changed pattern of internal resource allocation and redundancy reduction which are now discussed.

*Changed Pattern of Internal Resource Allocation: Implications*

As a result of the internal management reform, an economic responsibility contract system has been implemented mainly between the central administration of an institution and its faculties and/or departments. Some universities, such as the Northwest Industrial University, changed their approaches to control over faculties or departments from administratively direct interference and detailed regulation to an approach involving contracting with faculties and departments. Under this system, faculties and departments took the responsibility for their financial gains and losses and disposed of funds at their own discretion. As a result, faculties and departments began to feel increasing pressures from this responsibility. It was reported that many faculty/department managers in the Northwest Industrial University went out to explore markets for their research projects and/or research proposals (*Guangming Daily*, 31.10.1992, p.1).

This procedure has changed the traditional centralised resource allocation system under which the central administration allocated resources to its faculties/departments line by line. The changed pattern of internal resource allocation allowed faculties/departments to make financial decisions to redeploy their resources in support of institutional
goals and their goals as well, while taking financial responsibility for losses. This also brought about changes in the relationship between the central administration and its faculties/departments. The survey of participating faculties and departments in the present research yielded results which tallied with the trend of decentralisation within institutions reported in the press (see Table 7.6).

Table 7.6 Decentralisation Within Institutions (N = 22)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>SA %</th>
<th>A %</th>
<th>N %</th>
<th>D %</th>
<th>SD %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>As a result of reforms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>your faculty/dept. has got greater financial autonomy</td>
<td>27.3</td>
<td>54.5</td>
<td>9.1</td>
<td>9.1</td>
<td>0.0</td>
<td>4.0</td>
<td>0.9</td>
</tr>
<tr>
<td>b</td>
<td>your faculty/dept. has taken more financial responsibility</td>
<td>18.2</td>
<td>68.1</td>
<td>13.6</td>
<td>0.0</td>
<td>0.0</td>
<td>4.0</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: Data were elicited from the questionnaire survey conducted for the present research (see Appendix II).

With the growth in faculty/departmental autonomy and power, the central administration at the institutional level was inevitably weakened. The issues raised in the devolution within an institution are similar to those which have been discussed in Chapter 6 in relation to devolution to institutions, although the emphasis may be different. As shown in the findings above, more autonomy to basic operating units encouraged a greater sense of responsibility for their revenues and expenditures. The autonomy mobilised the initiatives of faculties and/or departments to generate income and seek outside funds for the good of the unit as a whole, and provided greater pressure for faculties and departments to improve their managerial efficiency in the use of available resources.

On the other hand, however, the autonomy challenged the managerial capability of faculties/departments to take effective financial decisions on their revenue, in many cases, amounting to around half a million RMB (questionnaire data). To efficiently operate their own budgets required skills for rational planning and informed decision-making on the part of faculties/departments. The questionnaire surveys indicated that most faculties/departments were less positive about their current
financial management structures and processes, and were suffering from increasing financial constraints. This situation suggests that there were difficulties experienced and some incapacity for faculties/departments to handle the pressures from the additional autonomy.

Another problem that may arise in the devolution (although there is a lack of evidence for it in the Chinese context), is goal differentiation and value externalities (Massy & Hulfactor, 1993). Faculty/departmental autonomy can allow operating units to pursue their own goals at the expense of their institutional goals, if their goals are different. It can also inadvertently encourage operating units to maximise their revenue at the expense of overall institutional efficiency. Consequently, tensions and conflicts may arise between the central administration and the faculties/departments.

Moreover, as the changed pattern of internal resource allocation permitted operational decisions to be made to a greater extent at the faculty/departmental level, the role of the president and the central administration inevitably needs to change. The central administration becomes more a top unit for monitoring or macro-managing the overall environment of an institution, disseminating information and making general policies, and less of a unit for regulating every operation and allocating each item of economic resource. This is another significant implication of the changes for internal governance of higher education institutions.

**Implications of Redundancy Reduction**

As illustrated earlier, the reduction of redundancy aimed to achieve efficiency in internal structure and management through internal and cross-institutional restructuring. Its extended implication was to improve the extremely low student-teacher ratio and the low student-total-staff ratio, a main source of diseconomies of scale. One of the major funding problems in China has long been the excessively high unit recurrent costs (over two times the per capita GNP (Tan & Mingat, 1992)), that restricted the overall expansion of higher education and led to low average
enrolments in institutions. As unit recurrent cost is closely related to student-teacher ratios and also enrolment size, raising student-staff ratios through shaking up redundancy of the system and increasing staff workloads has undoubtedly significant implications for the governance and finance of higher education as a whole.

Personnel costs in the Chinese higher education sector have been increasing over time, rising from about 37 percent in 1986 to about 70 to 80 percent of the total recurrent expenditure in 1996 (World Bank, 1986; Wang, 1996). The rising costs resulted mainly from the high inflation rate which pushed up staff's salaries, traditional low teaching loads (four to six hours per week for many teachers), and over-staffing in the administrative and non-academic sectors within institutions. The results of the questionnaire survey for the present research also indicated that student-staff ratios were very low in most participating institutions with 71 percent reporting that their student-staff ratios were below 5:1 (see Table 5.2 in Chapter 5 of this thesis), and that personnel costs and the costs for non-academic building and land were the largest recurrent and capital outlays of institutions in the sample surveyed (see Table 7.7).

Table 7.7 Surveys on Expenditure of Participating Institutions by Category (N = 21)

<table>
<thead>
<tr>
<th>Recurrent expenditure</th>
<th>Percentage</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel costs</td>
<td></td>
<td>53.6</td>
<td>30-80</td>
</tr>
<tr>
<td>Student accommodation</td>
<td></td>
<td>6.2</td>
<td>4-10</td>
</tr>
<tr>
<td>Maintenance and repair of building and facilities</td>
<td></td>
<td>7.7</td>
<td>4-16</td>
</tr>
<tr>
<td>Other*</td>
<td></td>
<td>32.5</td>
<td>10-60</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital expenditure</th>
<th>Percentage</th>
<th>Mean</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library collection &amp; equipment</td>
<td></td>
<td>10.4</td>
<td>3-16</td>
</tr>
<tr>
<td>Academic building &amp; land</td>
<td></td>
<td>19.5</td>
<td>5-40</td>
</tr>
<tr>
<td>Non-academic building &amp; land</td>
<td></td>
<td>63.1</td>
<td>40-90</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>7.0</td>
<td>0-10</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source:* Data elicited from item 4.2 of the Institution Questionnaire for the present research

*Note:* "Other expenditure" here refers to expenditure mainly on developing external relations activities, student assistant programs and electricity and water bills. (The definition was made by some respondents to the survey).
The results imply that greater savings are likely to be achieved if personnel costs are reduced through increasing student-staff ratio and if the weight of expenditure on non-academic building and land is shifted significantly to that on academic-related facilities to improve the deteriorated condition of teaching and research within institutions as reported in the Chinese press. The heavy costs on non-academic construction are mainly caused by the traditional feature of Chinese higher education institutions, acting as self-sufficient communities, to support a large number of auxiliary facilities such as student and staff buildings, a variety of spin-off enterprises, and clinical centres for students and staff. Suggestions have already been made in the Chinese press that higher education should be allowed to shed some of their heavy financial burdens by transferring the ownership and operation of their housing and clinical services to local communities (China Education Daily, 19. 10. 1995, p.1).

Although redundancy reduction and other reform strategies discussed in this chapter entailed the improvement of internal efficiency, real efficiency also requires highly dedicated academics, committed support staff and most importantly, quality teaching and better instructional equipment. The quest for efficiency through cutting staff members, increasing staff workloads, appointing casual staff, etc, can also lead to low morale of staff, insufficient time and attention to individual students, overused and overcrowded academic facilities and so on. The final consequence is likely to be a virtually inevitable decline in quality of higher education provision, due to ignorance of real learning outputs.

The reduction of redundancy as a chief strategy of internal reform has changed, for the first time since 1949, the long-cherished tradition of a life tenure system in the Chinese higher education sector and provided great potential for efficient institutional management. Whether or not real efficiency can be achieved through the reforms depends not only on cutting staff quotas but on efficiently using available teaching and support staff. But the efficient use of staff is more than a matter of increasing teaching loads and sharing human resources. It also requires
qualifying staff for their jobs and establishing a more selective system of recruitment.

In the current Chinese situation, it is difficult to recruit and keep well-qualified personnel in higher education institutions, as remuneration in the education sector has long been lower, and much lower over the past decade, than most other sectors. (As far as the average salary of staff is concerned, the education sector has ranked at nine in all twelve public sectors in China, according to the State Statistical Bureau (SSB, 1993)). There has been an increasingly severe drain on qualified human resources in the system, as a result of the great discrepancy between remuneration in the higher education sector and that in the other sectors, such as business, finance, industry and government agencies. A number of news reports in the official Chinese press have revealed flows of able and qualified university staff, particularly young academics and researchers, into other sectors, and general concern for the loss from, and the increasing drain of, higher education institutions (China Education Daily, 14.3.1994, p.1). For example, Fudan University, one of the most prestigious universities in China, has lost nearly 50 percent of its young academics, who left the University mainly because of the modest remuneration they received (China Education Daily, 24.3.1993, p.2). All these issues have inevitably affected progress in redundancy reduction. Unfortunately, this is a social problem which is unlikely to be solved by the higher education sector alone.

7.5 Policy Options

This chapter has identified a number of issues raised in the process of pursuing organisational and managerial efficiency. The key issues directly resulting from institutional governance and structural reforms are (a) how to achieve real efficiency, (b) how to overcome barriers of the dual internal management system, (c) how to place redundant staff, and (d) how to realise the potential benefits of institutional consolidation and cooperation. In the writer's view, it is far beyond the scope of this thesis to detail the solutions to the problems as they concern the entire social, economic and political systems in China. Nevertheless, broader
policy options for research and action are suggested on the basis of this chapter’s study of the main factors causing the problems.

1. Higher student-teacher ratios should be accompanied by higher remuneration for teachers. If the entire remuneration level for university staff can reach a similar or higher level of that of other social sectors such as business and industry, staff’s commitment will be enhanced and thus, real efficiency is likely to be achieved. The increasingly severe drain and crisis in human resources in the Chinese higher education sector is also likely to be alleviated. In addition, the pressure for quantifiable outputs should be coupled with a quest for defined learning outputs.

2. The division of labour between the Party and university administration should be reinstated. This is the key way to streamline and improve the efficiency of the operational management and structure within institutions, if the Party and the dual administration system are here to stay as this system is the miniature of the whole governance system in China. The monopoly of the Party over university administration could be replaced with actual collaboration and cooperation between the Party and the President’s administration, provided responsibilities and roles are clearly defined between the Party and the administration.

3. Redundancy reduction is of special significance in terms of the extremely high student-staff ratio and the correspondingly high personnel costs in the Chinese higher education system. However, given the very low enrolment ratio of the current population aged between 20 and 24 in higher education (less than two percent), it is unrealistic to expect that there will be much real redundancy if the expansion of higher education can match the general demand for it and the higher education system is allowed scope to acquire sufficient financial resources. On this point, improving the quality and productivity of the staff and managers’ capability of fiscal management will be more important than cutting staff numbers. Moreover, there are substantial economies of scale to be achieved in the structures of recurrent and capital expenditure of higher education institutions. More research and
action are needed to restructure the existing imbalance between outlays on academic academic activities and non-academic ones. (The further exploration of this theme is beyond the scope of this thesis.)

4. The current artificial demarcation of external administration over institutions is one of the biggest barriers to institutional cooperation and consolidation, as seen in the case study of this chapter. The demarcation in the current system had led to considerable waste and managerial inefficiency in terms of duplication and overlapping of course offerings in institutions under different government agencies and redundancy of bureaucracy. To facilitate the development of administration and educational links between institutions and consolidate and share the existing resources of higher education, institutional autonomy needs to be fully materialised and the control of external administration over institutions minimised. Moreover, full benefits of institutional consolidation and cooperation require strong links between institutions in at least three aspects in the Chinese context, namely, closer location, placement under the same government jurisdiction, and common or complementary educational programs (Zhao, 1998).

7.6 Summary

This chapter has described the reforms in structure and management within higher education institutions; identified critically the achievements, weaknesses and issues corresponding to changes; and pointed out the implications of the reforms for institutional governance and finance in China. This chapter has found out through an overall exploration of general outcomes of the reforms and a further discussion of some specific case surveys, that the management reform and cross-institutional restructuring have helped to enhance internal efficiency through improved use of teachers’ time (such as increasing teachers workloads), consolidating and sharing resources and shaking up redundancy. In addition, the reforms have also changed the traditional relationships between the central administration of an institution and its faculties/departments in terms of resource allocation and financial management. As a result, a more flexible and devolved decision-making
process has begun to take shape within institutions, that has provided basic operating units incentives and opportunities to take efficient and effective actions in their daily operations.

However, the restructuring and the internal reforms have raised a number of issues to be addressed. The key issues concern real efficiency, the placement of laid-off staff, the seemingly insurmountable barriers (at least in the current system) of a dual administrative system at every level, and materialisation of actual benefits from cross-institutional restructuring. Policy options to address these issues have been given in the previous section.

The dramatic changes in external and internal governance of higher education discussed in Chapters 6 and 7, must have exerted a significant impact on higher education funding as the governance and financing of higher education are closely interwoven and interacted. This thesis has attempted to focus the issues of governance on the efficiency of financial control systems and management processes of higher education, and on resource mobilisation and allocation. To fully explore the impact of the changes in governance upon financing of higher education, the remainder of Part III will be devoted to an in-depth discussion of wider funding issues in the Chinese higher education sector, in terms of the most striking feature of recent funding reform: diversification of the funding base of higher education. The next chapter will embark on a series of discussions of changes in funding patterns of higher education in China.
CHAPTER 8

ENHANCING REVENUE:
DIVERSIFICATION OF FUNDING SOURCES

The pattern of financing higher education in China has been undergoing a radical change from complete dependence upon government funding to a greatly diversified funding base (Zhao, 1996). Now an estimated 50 percent of institutional income comes from non-government sources in many public universities in China. The effects, positive and negative, of this shift upon the development of higher education provide the study focus of this chapter. Around this topic, several issues are addressed. They include the pressure and the policy context for change, the changing pattern of financial arrangements, and the outcomes and the implications of the change.

This chapter aims to examine general (overall) issues accompanying the change in current financial arrangements in the Chinese higher education sector. Specific issues concerning different aspects of diversification of the funding base, such as institutional income generation and greater private share of tuition costs, will be discussed separately in the next two chapters. This chapter starts with a survey of government policies on funding over the past decade, then explores issues and problems in the implementation of the policy changes and winds up with prospects and strategies for diversification of funding sources.

8.1 Policy Changes in Funding of Higher Education

*Background*

Government policy changes in financing higher education were closely related to the wide-ranging economic reform started in China in 1978, which shifted the former central-planning economy to a market-oriented
economic system. The changes in economic policies resulted in significant and sweeping reforms in higher education funding, that were represented by a dramatic shift from complete state funding to diversification of the funding base through mobilising non-state financing and boosting income-generating activities of institutions. Other main causes of the shift were a severe decline in state revenue resulting mainly from taxation reform and unprecedentedly rapid expansion of higher education enrolments since 1978.

China's tax system is in transition from a revenue system to a true tax system. The taxation reform enables state-owned enterprises to sustain their profits subject to taxation rather than to remit them fully to the government. Revenues from state-owned enterprises have long been a main source of state revenues. However, with an introduction of the market economy in recent years, a growing number of state-owned enterprises failed to compete and were in dire straits. It was officially reported that 49 percent (but as high as 70 percent, according to some Western analysts' estimates) of the state enterprises were suffering losses (Asia 1997 yearbook, 1997). As a result of the heavy losses of state enterprises and tax reform, total state revenues as a ratio of GNP have been sharply and continuously in decline, from 32 percent in 1978, to 22 percent in 1985, and to 17 percent in 1992 (China Education Daily, 6.10.1994, p.1). Moreover, alternative forms of state revenues have not yet materialised, due to the existing inelastic tax system and the decentralised tax collection system (Wong, 1995). The shrinking state share of revenue in GDP makes it harder for the government to continue to take full responsibility for the financing of higher education. A review of government expenditure on education since 1980 can help to reveal the real financial situation of higher education in China and identify the context for government dramatic changes in financing of higher education.
An Analysis of Financial Situation of Higher Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Total education expenditure amount (m. yuan)</th>
<th>As % of GNP</th>
<th>As % of total government expenditure</th>
<th>Current expenditure on higher education as % of total education expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>11,319</td>
<td>1.9</td>
<td>9.3</td>
<td>20.0</td>
</tr>
<tr>
<td>1985</td>
<td>22,489</td>
<td>2.0</td>
<td>12.2</td>
<td>21.8</td>
</tr>
<tr>
<td>1989</td>
<td>37,299</td>
<td>1.7</td>
<td>12.4</td>
<td>18.6</td>
</tr>
<tr>
<td>1990</td>
<td>43,386</td>
<td>1.8</td>
<td>12.8</td>
<td>Not available</td>
</tr>
<tr>
<td>1991</td>
<td>48,218</td>
<td>1.8</td>
<td>12.7</td>
<td>Not available</td>
</tr>
<tr>
<td>1992</td>
<td>53,874</td>
<td>1.7</td>
<td>12.2</td>
<td>19.1</td>
</tr>
</tbody>
</table>

Mean = 1.8%  
Mean = 19.9%  
s. d. = 0.1%  
s. d. = 1.2%

Source: Unesco (1994)

As shown in Table 8.1, government total expenditure on education increased by 376 percent, from 11,319 million yuan in 1980 to 53,874 million in 1992. However, the table also indicates that the proportion of GNP devoted to education did not increase and remained relatively stable (s.d.=0.1%) with a mean of 1.8 percent annually during the same period. The proportion of education expenditure increased relatively little as a percentage of total government expenditure between 1980 and 1992 and actually decreased between 1990 and 1992. In terms of current expenditure, government investment in higher education failed to grow and averaged around 19.9 percent of total education expenditure annually between 1980 and 1992 (s.d.=1.2%).

The years between 1977 and 1997 saw the greatest growth even in higher education enrolments in China (see Table 6.3 in Chapter 6). The high increase in rate of enrolments (about a five times increase) formed a sharp contrast to the current expenditures on higher education provided by government that did not increase proportionately at all after 1980 (see Table 8.1).

To further explore the current financial situation within higher education institutions, it is necessary to look in detail at government grants to institutions for each full-time study place over the past few years. Table 8.2 summarises government investment in unit recurrent
and capital expenditures. The table indicates that government funding flow, particularly for recurrent expenditure, to higher education institutions fluctuated dramatically in the past few years.

Table 8.2 Unit Recurrent and Capital Budget in Higher Education: 1992-1995

<table>
<thead>
<tr>
<th>Year</th>
<th>Unit recurrent budget (yuan)</th>
<th>Annual increase rate %</th>
<th>Unit capital budget (yuan)</th>
<th>Annual increase rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>4,091.94</td>
<td>-</td>
<td>2,086.24</td>
<td>-</td>
</tr>
<tr>
<td>1993</td>
<td>4,102.30</td>
<td>2.53</td>
<td>2,040.55</td>
<td>-2.19</td>
</tr>
<tr>
<td>1994</td>
<td>5,047.61</td>
<td>23.04</td>
<td>2,063.36</td>
<td>1.12</td>
</tr>
<tr>
<td>1995</td>
<td>5,442.09</td>
<td>7.82</td>
<td>2,339.73</td>
<td>13.39</td>
</tr>
</tbody>
</table>

*Source: China education yearbook (1993-1997)*

This table indicates that government increased unit recurrent budget by about 2.5 percent in 1993, raised it dramatically by about 23 percent in 1994 and then slashed the rate of increase to 7.8 percent in 1995. On the other hand, government funding for capital construction in higher education was generally less impressive than for recurrent expenditure. The unit capital budget dropped from 2086.24 yuan in 1992 to 2063.36 yuan in 1994 and increased to 2339.73 yuan (a 13 percent rise) in 1995.

It would be wrong to draw conclusions about government investment in education without taking into consideration the high inflation rate in China since the economic reform. Table 8.3 below illustrates the inflationary pressure which affected government investment. The annual inflation rate reached 14.3 percent in 1993, then jumped up to 24.2 percent in 1994, the highest inflationary rate since 1978, before dropping back to 8.3 percent in 1996, due to deliberate efforts by government to curb the long-standing inflation through austerity programs and through deflating the overcharged economy. It was reported that the main factor causing the spiralling inflation was the excessive growth of investments in fixed assets and consumption funds. The inflation has also been affected by rapid expansion of GDP in China. For example, the increase in the annual rate of GDP reached 11.8 percent in 1994 (with a high of 24.2 percent inflation rate) and declined to 9.7 percent in 1996 (with a
flattened 8.3 percent inflation rate) (*Beijing Review*, March 1995; March 1997).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate %</td>
<td>1.3</td>
<td>2.7</td>
<td>5.3</td>
<td>14.3</td>
<td>24.2</td>
<td>17.1</td>
<td>8.3</td>
</tr>
</tbody>
</table>

*Source: SSB, 1980-1997*

The statistical information given by the above tables demonstrates that although government investment in education increased greatly, the actual higher education budgetary allocation to each student declined resulting from the rapid growth of enrolments, the spiralling inflationary rates shown in Table 8.3, and the continuous shrinking in government revenues since 1978 as mentioned earlier in this paper. For example, the increase in government unit recurrent budget was a dramatically high 23 percent in 1994, but the inflation rate in the same year soared up to 24 percent. The increase in government funding was thus fully eroded by inflation, resulting in an actual decrease. As for capital expenditure, it was much worse, given the low 1.1 percent rise in government unit capital budget against a 24 percent inflation rate in 1994. Moreover, education expenditure in proportion to GNP and total government expenditure devoted to education also declined. Given the shrinking state funds flowing into higher education since the 1980s, the financial stringency of higher education was severe and obvious. (For the financial situation in individual institutions, see survey results in Tables 8.9 and 8.10 in the present chapter.)

**Reform Package in Funding**

To alleviate the severe shortfall in funding resulting from the incapacity of government to finance higher education expansion, the central government started a new funding strategy: enhancing revenue for higher education through promoting a diversified funding base, which was first in evidence in the 1985 Decision.

In regard to governance and financing policies, the reform policies in 1985 included delegation of autonomy and responsibility; increasing
government grants for education at a rate faster than the increase in the state's regular revenues; tentatively introducing a fee-paying system; promoting joint-running and financing educational institutions by central and local governments, enterprises and the private sector; and prioritising educational programs (CCP, 1985). These policies emphasised an initiative of mobilisation of all social entities and all potential resources to provide financial support for higher education, although the term "diversification of funding" was not explicitly used.

The 1993 Program released by the CCP and the State Council clearly demonstrated that a new education funding system was to be formed to address the financial constraints recognised by the government, with its major characteristic of a diversification of the funding base of higher education. The new funding base was proposed to be one basically funded by government, supplemented by education levy, tuition fees, income from institution-run industry, funds raised from industry contributions, social donations and some non-government education funds.

As far as government funding is concerned, the Program set targets for two indices of increase, namely, an increase in total educational expenditure by up to four percent of GNP by the year 2000 and an increase of educational expenditure by 15 percent or more of government expenditure at all levels in the following five years. The Program also gave an assurance that the average recurrent and capital expenditure per student would be increased steadily (CCP & State Council, 1993).

In terms of the Program, the measures to promote a diversified funding base included improvement of the education levy system by local government; expanding or setting up school-run industry and business to sell academic services through taking advantage of tax concessions and other preferential policies granted by government; increasing tuition fees; and enlarging enrolments for employer-sponsored students and full fee-paying students while developing student financial assistance programs such as tuition exemption and student loans for low-income family
students (CCP & State Council, 1993). Compared with the 1985 Decision, the 1993 Program put forward more detailed strategies to promote a diversified funding pattern and made more promises for an increase in government investment in education.

8.2 General Issues and Problems

8.2.1 Current Funding Sources

The reform package for financing higher education exerted a considerable impact on the funding pattern of higher education in China and raised a number of issues and problems in the course of diversification of the funding base. A survey of current funding sources of higher education institutions in China helps to detect the current trend of funding and identify major issues and problems related to the trend, as each source of funding may have different attributes and impact, and impose various obligations on institutions. To capture a real picture of the current funding pattern, a survey was undertaken by reviewing national data and official news reports as well as the questionnaire data elicited from a number of participating institutions.

A National View

Table 8.4 (below) presents an overall picture of sources of income for the whole of education, including higher education, in China in 1994. Although the picture does not define exactly the amount and the items of the funds flowing to higher education, it does illustrate a general pattern of funding sources which also applies to higher education. This table indicates that the government, as the main supplier of educational funding, pays about 60 percent (in the name of the national budget and other government outlays on education) of the total costs of education. The second biggest contribution, about 10 percent of the total costs, comes from tuition and fees charged to students. Then comes an education levy and community donations, accounting for about nine and seven percent of the total respectively. Enterprise contributions, covering less than six percent, refers to direct financial contributions of
enterprises to education, though they are also important taxpayers upon whom state revenues rely. The income of about four percent of the total from educational institution-run enterprises and paid services is an average amount at all education levels whereas the actual income from these contributions in the higher education sector is much higher than in other education sectors, since higher education institutions run a larger number of high-tech enterprises and are the major providers of paid academic services. (Unfortunately, an extensive search of available sources was not able to locate a breakdown by sector of education). Table 8.4 also shows that private education is developing in China, though its role is still of relatively minor importance in view of its 0.73 percent contribution to the total (see a review of the development of private higher education after the early 1980s in Chapter 3).

Table 8.4 Funds for Education by Sources: 1994

<table>
<thead>
<tr>
<th>Sources</th>
<th>Amount (billion yuan)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>National budget</td>
<td>88.40</td>
<td>59.38</td>
</tr>
<tr>
<td>Other Govt. outlays</td>
<td>0.82</td>
<td>0.01</td>
</tr>
<tr>
<td>Education levy</td>
<td>13.28</td>
<td>8.91</td>
</tr>
<tr>
<td>Enterprise contribution</td>
<td>8.91</td>
<td>5.98</td>
</tr>
<tr>
<td>Institution-run enterprises &amp; paid services</td>
<td>6.07</td>
<td>4.08</td>
</tr>
<tr>
<td>Tuition and fees</td>
<td>14.69</td>
<td>9.87</td>
</tr>
<tr>
<td>Donations</td>
<td>9.75</td>
<td>6.55</td>
</tr>
<tr>
<td>Private education funds</td>
<td>1.08</td>
<td>0.73</td>
</tr>
<tr>
<td>Others</td>
<td>5.89</td>
<td>3.96</td>
</tr>
<tr>
<td>Total</td>
<td>148.88</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: SEC, 1995a

Moreover, it was officially reported that in all 35 higher education institutions funded and administered by the SEC, revenues from non-state sources nearly equalled government recurrent grants to these institutions in 1987 and remained so in 1995 (China Education Daily, 19.4.1988, p.1; Qingdao Daily, 15.9.1995, p.5).

Case Surveys

To supplement a shortage of statistical information specifically on funding patterns of individual higher education institutions, details of institutional revenues were elicited through a questionnaire survey over
a number of higher education institutions in China. Although they may not represent the situation of the whole system, the results provide a basis for an analysis from some individual cases of funding issues and permit some tentative generalisations about changing patterns of the funding system.

Table 8.5 Income of Sampled Universities by Source: 1995 (N = 16)

<table>
<thead>
<tr>
<th>Source of Income</th>
<th>Mean (%)</th>
<th>s. d. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government (central or provincial or local)</td>
<td>78.1</td>
<td>15.0</td>
</tr>
<tr>
<td>Tuition and fees</td>
<td>9.5</td>
<td>7.9</td>
</tr>
<tr>
<td>Institution-run enterprises</td>
<td>4.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Paid services</td>
<td>5.8</td>
<td>5.2</td>
</tr>
<tr>
<td>Other</td>
<td>2.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Total income</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Data elicited from item 4.1 in the Institution Questionnaire survey conducted for the current research.*

Table 8.5 presents a summary of general funding patterns at 16 institutions surveyed. In the questionnaire survey, institutions were asked to list their income by source in 1985, 1990 and 1995 respectively. But only 16 out of 21 returns provided details of their 1995 revenues and only four of them gave a complete picture of their revenue details in the three years required. Reluctance to reveal the information was expressed in marginal notes on the questionnaires. (For example, "information about details of institutional revenues and expenditures is not open to public"). Other possible reasons for the low responses might be that some respondents could not remember or readily access details of their revenues over a span of 10 years and/or did not hold office during the whole period (overall, 81.4 respondents reported a length of less than five years' tenure in their current positions) (see Table 5.1 in Chapter 5).

As shown in Table 8.5, government funding remains a dominant source of institutional revenues, representing an average 78 percent of total funds in the sampled institutions. It was found from the questionnaire returns that all the responding institutions had only one source of government funding, either from central government or provincial government or local government, which administered and funded
respectively a certain number of institutions (see Chapter 3). Similar to
that of the national statistical data, income from tuition and fees
provided about 10 percent of overall institutional income, ranking
highest in all non-state funds of institutions in the sample. Revenues
from paid services and institution-run enterprises accounted for about
six percent and four percent respectively of their total income. Other
income sources, although they were not defined on the questionnaires,
generally referred to enterprise contributions, private donations and
other endowments (interviews, senior university managers, Sydney,
January, 1997). This category represented less than three percent of the
total income.

Data elicited from the 16 institutions provide further evidence that the
current institutional funding base has been diversified, with an average
22 percent of income raised from non-state sources. Although the
government remains the main funding provider, it is no longer the sole
one. To identify changes and detect the current trends in funding, a
longitudinal survey is needed, although the difficulty in eliciting such
data was discussed above. Table 8.6 presents a comparative view of
funding patterns between 1985 and 1995 in the four responding
institutions which provided the complete data over this period. In this
way, comparative studies of change can be made over a span of 10 years
and among the four individual universities.

The funding patterns of the four universities have altered dramatically
between 1985 and 1995 as shown in Table 8.6. There is a clearly
perceived trend of change that is represented by a general decline in
government funding and an increase in non-state proportions of
funding. The average percentage of government funding has declined
from 89 percent in 1985 to 75.5 percent in 1995 in the sample, although
the most dramatic change occurred in University 4. In contrast, the
proportion of tuition and fees has increased greatly from 1.5 percent in
1985 to nine percent in 1995. Revenues from paid services have also
increased on average, from three percent to nearly nine percent in the
same period. There has been a minor change in proportions of revenue
from institution-run enterprises and other sources in the sample over the decade.

Table 8.6 Comparative Funding Patterns at Four Universities (1985-1995), Percent

<table>
<thead>
<tr>
<th>University No.</th>
<th>1985</th>
<th>1990</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of income</td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>Government</td>
<td>98 100 85 73 89.0</td>
<td>90 95 85 73 88.3</td>
<td>89 90 80 43 75.5</td>
</tr>
<tr>
<td>Tuition</td>
<td>0 0 0 6 1.5</td>
<td>2 0 0 4 1.5</td>
<td>11 0 0 12 9.0</td>
</tr>
<tr>
<td>Institution-run enterprises</td>
<td>2 0 10 5 4.3</td>
<td>8 0 10 1 4.8</td>
<td>0 12 4 4.0</td>
</tr>
<tr>
<td>Paid services</td>
<td>0 0 5 7 3.0</td>
<td>0 5 12 5.5</td>
<td>0 8 16 8.5</td>
</tr>
<tr>
<td>Other</td>
<td>0 0 9 2.3</td>
<td>0 0 2.5</td>
<td>0 0 12 3.0</td>
</tr>
<tr>
<td>Total income</td>
<td>100 100 100 100</td>
<td>100 100 100</td>
<td>100 100 100</td>
</tr>
</tbody>
</table>

Source: Data from the Institution Questionnaire survey conducted for the current research

In terms of individual cases, Universities 1 and 2 were fully, or almost fully funded by the government in 1985 but the 98 percent and 100 percent of government funding in 1985 dropped to 89 percent and 90 percent respectively by 1995. The funding sources at University 3 were relatively stable over the decade, as shown in Table 8.6. However, the situation at University 4 was quite different from those at the other three. University 4 had 73 percent of its income financed by the government in 1985, far less than government appropriations in the other three universities (98 percent, 100 percent and 85 percent respectively). By 1995, the non-state sources of funding at University 4 reached 57 percent of its total funds, thus exceeding the state appropriation for the University. In the non-state sources, revenues from tuition and fees made up nearly 50 percent (25 percent of its total income). Revenues from paid services and institution-run enterprises also played a significant role in institutional funding, representing 20 percent of its total income. The changes in University 4 are more dynamic and dramatic than those in the other three universities, perhaps because the initial diversification at the start of the decade.
produced greater momentum for further change. Although the extent of changes varied within the four universities, there is a clear-cut trend of diversification in the funding patterns of the universities with a significant decline in government appropriations.

8.2.2 The Issues and Problems

As noted in the above sections, the current trend towards diversification of the funding base for higher education institutions is a direct result of government policy changes. As non-state (called "extrabudgetary" in China) financing is increasing and the significance of the state as a major source of funding is declining, issues and problems are emerging. The following discussion concentrates on general issues of diversification, leaving specific ones for subsequent chapters.

On the positive side, diversification of the funding base for higher education has provided an opportunity to increase the overall level of financing of higher education. As indicated in the previous sections where an analysis of the financial situation of Chinese higher education was made, the actual state budgetary allocation to higher education has been continuously shrinking. The scale of the change is such that higher education institutions cannot survive if they continue to depend completely on state funding. So the current trend of diversification of funding sources is not only driven by government reform policies but by increasing financial stringency inflicted on institutions that has led to underinvestment and underspending on recurrent and capital expenditures. Non-state funding has undoubtedly helped to alleviate the financial stringency by providing additional funding flows into institutions as shown in both national and individual survey results.

Non-state funding provides another opportunity for institutions to make their own decisions which are difficult to be overruled by the government. In other words, less dependence upon state funding promotes institutional autonomy and restricts government influence to some extent, as non-state financing increases non-state involvement in higher education and helps to balance the overwhelming influence of the
government. As the current trend towards diversification develops, the extent of significance of government control and influence upon higher education will further decline.

The potential for an increase in overall level of finance to higher education through seeking a greater range of sources of finance helps institutions to accommodate rapid expansion of enrolments, thus enhancing the productivity of higher education institutions. For instance, revenues from full-fee paying students and employer-sponsored students have increased institutional capacity to offer more study places. (Discussion of this issue will be given in greater detail in Chapter 10).

The search for alternative sources of funds impelled higher education to be more responsive to the viability of the local economy and markets. This is because non-state funds are usually generated from local enterprises (contract research, for instance), institution-run enterprises, popular courses and sale of other academic services. The revenues from these sources depend largely on the demands of the local economy and markets, and the income-generating activities are often oriented by market forces. Any efforts to seek additional income that fail to address local markets cannot succeed.

Moreover, diversified funding leads to a diverse system of management and delivery. The movement towards market-related funding for higher education in terms of multiplicity of its sources, helps to lessen bureaucratic control over institutions, and contributes to a diverse system of higher education responsive to the development of the economy and the society in China. To accommodate the different influences imposed by the suppliers of different sources of income and to compete for funds from every potential source require more sophistication of management to deliver a more complex array of services. On this point, the diversification prompts greater managerial flexibility and efficiency within institutions. A majority of respondents to the questionnaire surveys perceived this positive outcome of competition

171
caused by the market-oriented funding as well as the gap in resources (see Table 8.7).

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>SA %</th>
<th>A %</th>
<th>N %</th>
<th>D %</th>
<th>SD %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2</td>
<td>Competition for funds has encouraged greater managerial efficiency.</td>
<td>9.1</td>
<td>59.1</td>
<td>22.7</td>
<td>9.1</td>
<td>0.0</td>
<td>3.7</td>
<td>0.8</td>
</tr>
<tr>
<td>5.3</td>
<td>The competition has widened the gap in resources between institutions and faculties/departments.</td>
<td>0.0</td>
<td>77.3</td>
<td>9.1</td>
<td>13.6</td>
<td>0.0</td>
<td>3.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: Data elicited from questionnaire surveys conducted for this research

On the negative side, however, the diversified financing pattern has posed some problems and dangers. Firstly, the changed portfolio of the funding base in higher education has not improved the increasingly stringent financial situation of the system due to a growing withdrawal of the government from its assumed financial responsibility for it. The actual decline of government investment in education in the past decade illustrated in this chapter, provides evidence for this withdrawal. The market orientation of funding causes concern of institutional managers about the viability of higher education provision.
Table 8.8 Surveys on Attitude Towards Market Orientation and Government Responsibility (N = 43)

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>SA %</th>
<th>A %</th>
<th>N %</th>
<th>D %</th>
<th>SD %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>Do you think that governance and funding of higher education should be market-oriented?</td>
<td>13.9</td>
<td>41.9</td>
<td>18.6</td>
<td>25.6</td>
<td>0.0</td>
<td>3.4</td>
<td>1.0</td>
</tr>
<tr>
<td>3.3*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5a</td>
<td>Do you agree that government should continue to take the main responsibility for the funding of higher education?</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4*</td>
<td></td>
<td>100.0</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5b</td>
<td>Why?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4b*</td>
<td>Ans.</td>
<td>because the current diversified funding cannot alleviate the financial plight of higher education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>because state funding can help to maintain education quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>because education is the foundation for enhancing the quality of the whole nation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data elicited from questionnaire surveys conducted for this research.
Note: *Item labels with "*" refer to corresponding items in the Faculty/Department Questionnaire.
**The frequency test was based on the occurrences of reasons falling into each category listed, and some respondents gave two or more reasons for their answers.

Table 8.8 summaries the data elicited from responses to two questions about market-orientation on the one hand and state funding on the other. The results show that respondents were split in their views about market-orientation of governance and funding (with a low mean of 3.4 and moderate standard deviation of 1.0) but all of them agreed that the government should be the primary funding provider of higher education. Respondents expressed implicitly their concern about consequences of a decline in state funding (see reasons for state funding expressed by the respondents in Table 8.8). This result suggests that institutional managers in the sample were hesitant about the market-oriented funding. The concern and doubt about market steering are reasonable given the current financial situation in the system.
Table 8.9 Difference Between State Allocation and Actual Unit Costs  
(N = 36*)

<table>
<thead>
<tr>
<th>Item statement</th>
<th>Mean</th>
<th>s. d.</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the actual unit costs (recurrent + capital) and the state allocation per student.</td>
<td>34.9</td>
<td>22.7</td>
<td>10.5-65.8</td>
</tr>
</tbody>
</table>

*Sources: Data were elicited from questionnaire surveys conducted for this research (see item 4.3 in Appendix I and item 4.2 in Appendix II).  
*Note: Seven respondents did not give answers to this question.

Table 8.9 indicates a significant difference between actual unit costs and the state allocation in the sample surveyed. In other words, state grants fell far short of (over one third) of actual outlays for the institutions surveyed. Table 8.9 also demonstrates a wide range of differences between costs and state-provided resources, with one institution reporting a 66 percent discrepancy.

Table 8.10 Surveys of Financial Situation in Participating Units

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement: As a result of the reforms in governance and funding areas over the past decade,</th>
<th>SA %</th>
<th>A %</th>
<th>N %</th>
<th>SD %</th>
<th>D %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>your institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h2</td>
<td>is facing more pressures of greater uncertainty in income</td>
<td>0.0</td>
<td>47.6</td>
<td>33.3</td>
<td>19.1</td>
<td>0.0</td>
<td>3.3</td>
<td>0.8</td>
</tr>
<tr>
<td>h3</td>
<td>is facing more pressures of greater deficits</td>
<td>9.5</td>
<td>42.9</td>
<td>42.9</td>
<td>4.8</td>
<td>0.0</td>
<td>3.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement: As a result of the reforms in governance and funding areas over the past decade, your faculty/dept</th>
<th>SA %</th>
<th>A %</th>
<th>N %</th>
<th>SD %</th>
<th>D %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h2</td>
<td>is facing more pressures of greater uncertainty in income</td>
<td>36.4</td>
<td>50.0</td>
<td>13.6</td>
<td>0.0</td>
<td>0.0</td>
<td>4.2</td>
<td>0.7</td>
</tr>
<tr>
<td>h3</td>
<td>is facing more pressures of greater deficits</td>
<td>27.7</td>
<td>31.8</td>
<td>31.8</td>
<td>9.1</td>
<td>0.0</td>
<td>3.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

*Source: Data elicited from questionnaire surveys conducted for this research

The questionnaire surveys further evidenced an overall financial uncertainty and deficiency in the participating institutions and faculties or departments. Table 8.10 documents the feelings of uncertainty and pressure in facing deficits.
Official press and personal interviews also revealed the nature and extent of financial plights. The China University of Forestry (CUF) was 3.3 million yuan in debt and the Central Drama Institute was 1.4 million in debt in 1993. The CUF also owed staff and students 1.03 million yuan in medical fees in the same year (Beijing Review, April 24-30, 1995). Qinghua University and Fudan University, two top-ranked universities in China, were burdened with about 20 million yuan of budgetary deficits a year. Beijing Second Foreign Languages Institute had 3 million yuan of budgetary deficits in 1992 (China Education Daily, 21. 10. 1993, p.1; 14.3.1994, p.1). Some universities did not even have the fiscal capability to pay their staff's salary and had to default (interviews, senior Chinese universities managers, Sydney, January 1997). The financial plights of these universities (some of them are nationally top-ranked) indicated that the diversified funding cannot work well if government reduces its financial support to a level where the operation of the university is not sustainable.

Secondly, institutional autonomy and academic freedom are inevitably challenged in the course of diversification as funding sources often have a powerful influence on the way resources are used. Although non-state involvement in higher education helps to balance to some extent the long-standing and overwhelming government influence on higher education, customers and contractors of academic services of institutions can also have significant influence on institutional decisions and priorities for institutional development. This influence is extending as non-state funding is increasing (see Chapters 9 and 10 for specific discussion).

Thirdly, multi-functional higher education is likely to become a sole functional enterprise in terms of institutions' pursuit of economic lucravitiveness through selling their academic services. In other words, Chinese higher education tends to be commercialised in the broad context of the on-going economic reform and specifically, in deliberately seeking non-state sources of revenue.
Finally, as the old pattern of the state as a sole patron of higher education disappears, competition for any alternative sources becomes vigorous between institutions. As a negative outcome of the competition, it is likely that some institutions become stronger and wealthier in resources while the majority of institutions will suffer. Table 8.7 has indicated a consensus of views of responding institutions and faculties or departments on the gap in resources due to competition.

To sum up, the trend of diversified funding for higher education has provided opportunities and advantages but also resulted in a number of dilemmas. Policy-makers and university managers are confronting the following choices:

- market-related approaches to funding or state and bureaucratic control;
- multi-function purposes of education or education as principally an economic instrument;
- basic fundamental teaching and research or largely vocational training and utilitarian research;
- academic needs or consumer desires; and
- institutional autonomy or sponsor direction.

In the writer's view, the resolution of the dilemmas is not a mere shift to one choice but finding the right point of balance between the two. As a diverse pattern of financing came into being, a diverse system of institutions has developed. It is desirable that different institutions with different financial and administrative backgrounds seek their own dynamic equilibrium in the dilemmas.

8.3 Prospects and Policy Options

Resources at higher education institutions will be more diverse. From an international perspective, market share of funding sources tends to be more popular than before, as it reduces the public burden for developing higher education. However, as a consequence, the worldwide stringency on the higher education budget is aggravated (see Chapter 4). China is confronting some social and economic issues in common with many
other countries, as it turns to the market economy. The market-oriented approach to funding in the name of diversification of the funding base will develop in China for the same reasons as it does elsewhere.

To accommodate a high demand for quality and quantity in labour markets boosted by high economic growth, around 11 percent on average between 1993 and 1997 (China News [TV Broadcast], 4. 3. 1998), Chinese higher education requires more funds and a wider resource base against the context of ever-tightening budgetary allocation. In the light of the development target set by the State Education Commission, higher education will be further expanded with its annual total enrolment reaching 3.5 million between 1996 and 2000 (total enrolment was 2.9 million in 1995), indicating an average annual growth rate of 3.8 percent (SEC, 1996a). To achieve this ambitious target also requires more funding injection from both state and non-state sources to support the expansion.

However, the problems and dilemmas revolving around the current trend of funding diversification identified in this chapter will continue to affect and challenge the results of diversification processes. New initiatives, effective policies and adequate resources are needed to address the problems.

- Most importantly, the Chinese government should maintain an actual increase in the rate of investment in higher education as a stable foundation for a sound (not radical) expansion of higher education.
- Government incentive policies should be improved such as through providing matching funds to reward institutions that successfully generate income from non-state sources.
- Government overall coordination and dissemination of information are very important to assist institutions to adapt quickly to local needs and attract more finances.
- On the part of higher education institutions, they should respond positively and constructively to the changing pattern of funding, enhance their managerial capacity, and strengthen their education and research reputations to capture a wider range of sources while
holding on to their mission of scholarship as well as responsiveness to student and local demands.

8.4 Summary

This chapter has discussed in general terms the current trend towards diversification of higher education funding sources in China. Through analysing financial situations of Chinese higher education after the 1980s, this chapter has found that higher education institutions have been confronting a severe financial crisis in relation to the high demands for rapid expansion imposed on them and an increasing budgetary decline. To enhance the overall level of financing of higher education, the Chinese government has adopted a new funding approach, that is, encouraging institutions to seek supplementary sources of funding. As a result, the funding pattern of higher education has been diversified, although the extent of change varies from institution to institution as revealed by surveys of national and individual cases.

This chapter has given its attention to issues, problems and prospects related to the current trend. It has been found that although some benefits have accrued from the new funding approach, the financial situation of the institutions surveyed was still deteriorating, and government core funding is not sufficient to maintain even basic activities of institutions. The main causes are government's growing withdrawal of financial support for higher education and the insecure nature of non-state revenues generated by institutions. Other problems such as the potential influence of sponsors and students as consumers upon the pattern of the development of higher education have also been generally addressed in this chapter. In spite of the dilemmas and difficulties in "marketing" higher education, the drive and pressure for finding alternative sources of funding are increasing. The prospect is clear that in order to survive, Chinese higher education institutions will have to generate more income from non-state sources. Policy options for both the government and the institutions to address the existing problems are recommended with the intent of helping to achieve the desired goal of diversified funding.
As this chapter aims at a general discussion of major issues concerning the trend of diversification, more specific studies are needed to address particular issues raised in seeking different sources of non-state funding. The next two chapters concentrate on different aspects of income generation of institutions, namely, in running institutional enterprises, seeking links with industry, and increasing private share in higher education funding.
CHAPTER 9

INCOME GENERATION: A DESPERATE MOVE

9.1 Introduction

In China, higher education institutions have two significantly extrabudgetary (non-state) sources of income: income generated from the sale of educational and research services, and tuition fees (each accounting for 10 percent of institutional income respectively), as official databases and the survey results show in Chapter 8. This chapter concentrates on the study of the former while leaving the latter to the next chapter. The sale of academic services of institutions is a typical product of the 1978 economic reform and came into being after the 1980s. It is one of the most controversial areas where arguments and worries have been raised in response to the new funding mechanism. As a new initiative to enhance overall higher education revenue, the sale of academic services has considerable implications both for the functions and roles of higher education, and the management of higher education institutions in China.

This chapter presents a detailed discussion of the following issues in relation to the sale of academic services.

- The increase of income from the sale of institutional services has grown rapidly and significantly, constituting currently an important part of the income for many institutions in China. What consequences have resulted from this increase, in terms of organisation and governance, staff commitment to external demands and academic quality, as the income generation activities involve many staff and become an important agenda in internal management within an institution?

- As the proportion of financing from the sale of academic services is increasing, its significance affects decision making on
institutional priorities and power patterns within institutions (faculties and departments). So, what are the advantages and disadvantages of such an influence and what are its other consequences?

- Official press has demonstrated a nation-wide upsurge of enthusiasm for partnerships between higher education institutions and industry/business in China. What are the driving factors behind the upsurge? What specific outcomes have been generated from the boost, particularly in relation to income generation from the partnerships?

- This chapter also addresses other important issues such as cost recovery and accountability related to institutions' income-generating activities which have been surprisingly neglected in the current Chinese literature.

The discussion of these issues is treated under five sections in this chapter. There are usually two ways in which institutions sell their educational and research services: running institutional enterprises and developing cooperative programs with external industry and businesses. Sections 9.2 and 9.3 elaborate respectively on the development and current patterns of both institution-run industry and links between institutions and industry in China. Section 9.4 provides a report and discussion of the surveys on income-generating activities in participating institutions and faculties or departments for the current research. Sections 9.5 and 9.6 discuss principal benefits and some outstanding issues in relation to this market-driven finance for higher education in China.

9.2 Institution-Run Industry

9.2.1 Evolution

Early in the 1950s, most educational institutions set up factories and/or farms for their students and staff to do fieldwork and some manual labour in the light of the CCP's mandate of combining education with productive labour. These factories and farms were
owned by institutions and were non-profit operating units like other units within institutions, relying completely upon their institutions' resources. However, with the enforcement of higher education as an economic instrument of government policy since 1980, institution-run industry, too, has been responsive to change.

Institution-run industry has been enthusiastically encouraged by the government under tax exemption and concession policies (China Education Daily, 19.4.1988, p.1; CCP & State Council, 1993). Chinese Premier Li Peng, and He Dong-chang, Vice-Chairman of the SEC, urged higher education institutions to perform all kinds of "paid service for society" in a national higher education work conference (China Education Daily, 2.2.1988, p.1). Although there have been heated and controversial arguments around the industry ever since its shift to profit-motivated activities, the first Education Law of the People's Republic of China approved by the National People's Congress and issued in 1995 gives clear support for income-generating activities of educational institutions.

Article 58 The State shall adopt preferential measures to encourage and support schools in carrying out work-study programs, community services and in setting-up school factories, provided that they do not interfere with the normal activities of education and instruction (SEC, 1995c, p.25).

Driven by the economic reform since 1978 and the changes in government funding policies, the nature and the traditional functions of institution-run industry have dramatically changed. Its backbone has currently become high technological enterprises where a large number of academics and highly skilled human resources are gathered. Its main function lies in producing and selling research products and other advanced high-tech products, and providing consultancy. Eighty percent of institution-run industry is producing high-tech products (Jiang, 1992). The profits of institution-run industry are allowed to be part of institutional revenue (CCP & State
Council, 1993). These spin-off enterprises of institutions have been managed relatively independently from their owners, higher education institutions.

9.2.2 Current Development

Dimensions

As a significant source of extrabudgetary income of institutions, institution-run industry tends to be one of the chief means to alleviate the financial stringency of higher education in China. It has played an active role to promote a diversified funding system. In 1986, the total profits made by institution-run factories were more than 0.11 billion yuan accounting for three percent of recurrent expenditure of higher education in that year (China Education Daily, 1.10.1987, p.1). In 1987, 36 institutions under the SEC earned 693 million yuan mainly from their own industries. About half of the money was spent on improving teaching facilities (China Education Daily, 19.4.1988, p.1). In 1990, the total output value of institution-run industry in China reached 4 billion yuan (Xinhua Monthly, No. 6, 1992, p.100). By the end of 1992, 335 higher education institutions had established 850 high-tech enterprises, according to national statistical data (China Education Daily, 27.1.1994, p.3). In 1993, there were over 700 institution-run enterprises in Shanghai alone where more than 40 institutions were located. Those enterprises employed about 20,000 staff and had one billion yuan annual output value with 0.16 billion yuan net profit. Some of the larger enterprises had obtained licences to import and export commodities on their own, which helped to expand their business (China Education Daily, 23.9.1993, p.1). In Beijing, institution-run industry achieved 2.6 billion yuan output value with 0.4 billion yuan net profit in 1993, of which 0.16 billion yuan, double the amount of 1992, was used to supplement higher education funds in the institutions (China Education Daily, 20.1.1994, p.1). Although so far there have been no national data available to show exactly what proportion of revenue of higher education institutions comes from
those institution-run industries (for rough data, see Chapter 8, but this source of income varies greatly from institution to institution and from region to region in China), the above figures indicate that institution-run industry has become a significant alternative source of institutional income, and involved a sizeable number of staff within institutions.

Consider several examples. Jiangxi Chinese Medicine College is a successful example of an institution which has expanded its industry and businesses. The College worked out a series of policies to encourage every department to set up its own business companies and enterprises to generate income. The Jiangzhong Pharmaceutical Factory, one of the enterprises run by the College, topped in output all the other institution-run enterprises in China. The extrabudgetary revenue of the College was *three times* more than its budgetary income (government funding for the College). The College could fully fund itself through its own income generation. It was reported that the College spent some of its earnings on construction of staff and student apartments and classroom buildings; on improvement of teaching and research facilities; and on its staff welfare (*Guangming Daily*, 18.4.1993, p.1). Qinghua University (ranked as the number one science and technology university in China) also took a lead in developing its own high-tech enterprises. It was reported that in recent years the University has opened 22 institution-run technological companies which brought in 30 million yuan net income in 1992 alone. The economic return of those companies has increased annually by about 40 percent. About 10 percent of the research projects of the University have been turned into commodities by its own companies (*Guangming Daily*, 14.11.1992, p.1).

**Diversity in Management and Function**

The scale of expansion of institution-run enterprises and their enormous productivity require sophistication of management structures and high-level management skills and approaches. The
current trend in management of these enterprises is seen to be a shift from a uniform single model where an institution owns and runs its enterprise(s) to a multiplicity of models, such as, joint ventures in ownership and management between several higher education institutions, between institution(s) and national or local industry, and between institution(s) and overseas investors. There are three important organisational structures seen within institution-run enterprises: joint-stock company, group company or general company, and academic discipline division company. Corresponding to the structures are three kinds of leadership over institution-run enterprises: university president leadership as General Director of a head company, Industry Office authority delegated by a university technological industry management committee, and governance by a Board of Directors (China Education Daily, 27.1.1994, p.3). The modes and structures of management prevailing in the industry and business sectors have been transferred to and become increasingly popular in today's institution-run enterprises in China.

The Southeast University Group Company (Dongda Jituan) has been seen as a proper model for today's institution-run enterprises. The Group Company is made up of all the industries and commercial businesses of the University. It assumes a typical industrial management structure and style. The Group Company has a Board of Directors as its governing body which comprises the University President as Chairman of the Board and Chief Executive Officer of the Company as Vice-Chairman of the Board. As a proprietor of the Group Company, the Southeast University macro-manages the Group Company through its position on the Board of Directors but does not interfere directly with daily operations of the Group Company. The Group Company is claimed to be an independent corporation with its own management and is responsible for its own staff appointments, awards and promotions. The relationship between the Group Company and the University is in fact, contractual, which ensures that the Company hands in a certain amount of its profits to the University, provides students in the University with workplaces to do fieldwork, and undertakes cooperative research
programs with the University. The Group Company is entitled to human resources and high-tech research products from the University. As the main business of the Group Company is to turn research products of the University into commodities, it has established a complete line of operations from research to production and finally to trading. The Group Company has managed to obtain investments from other enterprises and foreign companies, and set up a number of joint ventures with them. The Group Company has made considerable profit since its formation: 6.5 million yuan net profit in 1991, 14 million yuan in 1992 and over 18 million yuan in 1993 (Wu et al., 1994).

Another model of institution-run enterprises which emerged recently is a consortium of a number of institutional enterprises owned by several institutions in the form of joint-stock company. For example, China High-tech Group Company was established in 1992 with joint efforts and joint investments of over 60 higher education institutions in China. The Company raised 70 million yuan through issuing stocks, and aimed to develop Pudong industrial and commercial zone in Shanghai. Its goal was to become a new modern and high-tech consortium of companies with the greatest efficiency and a number of subsidiary companies at home and abroad. It should be noted that this Company was formed in response to a call from Li Tie-ying, a member of the Political Bureau of the CCP and of the State Council, and Chairman of the SEC, and got strong support from Shanghai municipal government (China Education Daily, 30.5.1992, p.1).

Parallel to the rapid development of high-tech institution-run enterprises has been an upsurge of institution-run tertiary industry. Business companies and a variety of service centres and shops have been set up in every higher education institution (China Education Daily, 5.2.1993, p.3). These commercial entities are mainly open to the local community. "Building shops after demolishing university enclosing walls" (so that external consumers can also see and get easy access to the shops) has become a very popular phrase in the
Chinese press and among people to describe universities' zeal for going into business. Nanjing University, a highly distinguished national university in China, demolished the enclosing wall facing one of the busiest shopping centres in Nanjing City and built a 5,400 square metre business complex. In this complex, a stock trading service limited company run by the University was founded (China Education Daily, 10.11.1992, p.2). Another university, Hehai University, is also located in one of the busiest shopping centres in Nanjing City. The University took advantage of its location and constructed a number of buildings along its borders for lease to external businesses (China Education Daily, 7.4.1993, p.2).

In sum, current institution-run industry, as a main source of income-earnings, has developed tremendously in size, productivity, function and complexity of organisations and management over the past decade. The industry has undergone fundamental change in nature from mainly non-profit and field-work training subsidiaries of institutions to mainly profit-motivated and relatively independent industries and commercial services.

9.3 Partnerships Between Institutions and Industry

9.3.1 Context

Like the origin of institutional industry, the links between higher education institutions and industry were first seen long before the 1978 economic reform, when university and college staff and students were required to go to factories on a regular basis, either to do fieldwork or to receive re-education. But after the 1980s, the nature and the content of the links were fundamentally changed in the context of the nation-wide economic reform. Like institution-run industry, cooperation between higher education institutions and industry has been highly recommended and highlighted by the government to promote higher education to be more responsive to economic construction in China (CCP, 1985; SEC, 1995b). But most importantly (although not officially claimed), a major incentive for
promotion of the links was that cooperation with industry might bring in significant additional funds to institutions and alleviate the shortage of government funding. A survey (for this research) of newspaper reports and articles published between 1985 and 1988 in People's Daily (the number one government organ of publication) found through content analysis that the theme of links between higher education institutions and industry/business (called "horizontal links" in Chinese) was the most dominant news item during that period, apart from the theme about political ideology. After 1988, the links have still been in the spotlight of the official press.

9.3.2 Pattern of Cooperation

The current partnerships between institutions and industry involve mainly such programs as joint management of higher education institutions through taking in enterprise directors in institutional and departmental boards; undertaking industry research projects; transferring and trading technology and products to industry; training fee-paying industry employees; and building up new research centres and expanding old faculties and departments to accommodate diversified and changing needs of the local economies (China Education Daily, 16.4.1992, p.1; 9.5.1992, p.3; 10.12.1992, p.3; 7.7.1993, p.1; 8.10.1993, p.3). What follows is a summary of news reports about the pattern of partnerships sampled from the main Chinese official press, from which one can get an overview of what the links are like.

Joint Management

The State Ministry of Energy Resources handed over partial authority for four of its higher education institutions to several electric power enterprise groups under the Ministry, and claimed that these enterprise groups had the main authority and responsibility for the four institutions. Shenyang Electric Power College, one of the four institutions, developed a new joint management link with the
enterprise groups which provided annually 6 million yuan funding to the College, which continued to get budgetary funding from the government. The additional enterprise funding alleviated the College's financial difficulty. Moreover, the enterprises also took responsibility for work experience placements for students of the College, thus enabling students to apply knowledge intelligently in the workplace (China Education Daily, 14.11.1992, p.1).

Chongqing University built links with 16 large industry groups and formed a Board of Trustees comprising university top managers, directors of these industry groups and government officials to joint-run the University. Through reaching joint-running agreements, the University which was formerly funded and administered only by the SEC, sought 75 million yuan from the Sichuan Province government, 50 million yuan from Chongqing municipal government and about 30 million yuan from the industry groups which promised to raise annually 25 million yuan more than their first contribution. The University undertook a number of research and training contracts with industry groups and local governments, transferred its research products and provided graduates to them (Guangming Daily, 28.1.1994, p.1; China Education Daily, 5.1.1995, p.3).

Contract and Collaborative Research

Nanjing Chemical Industry College took up research projects entrusted by production units of local chemical industry and obtained research funding totalling 2.5 million yuan within five years, which surpassed the total amount of research funds granted by the government in the College's history. A research investigation group headed by the president went on a regular basis to local industries, seeking research contracts and investigating the needs of local economic markets (People's Daily, 18.6.1985, p.1).

Xian Jiaotong University signed 386 contracts on research projects, technological transfer, consultancy and other services in 1993 alone,
from which the University gained about 2.9 million yuan contract funds (China Education Daily, 5.7.1994, p.2).

In the light of a recent national statistical report, the cooperation of universities and scientific research institutes with enterprises has further increased. In 1996 alone, about 675,000 people from 45,000 enterprises and institutions were engaged in a total of 15,800 collaborative research projects (SSB, 1997).

**Cooperation in Training/Teaching**

East China Chemical Industry College developed a form of partnership, called a teaching-research-production combine, with Shanghai Wujing Chemical Industry Allied Company. The Company contributed one million yuan to the College to accommodate the needs for academic staff and teaching and research facilities. In return, the College promised to provide 1,500 technological managers of the Company with updated training programs, take in 100 commissioned students and postgraduates for the Company, and send 100 to 150 graduates to work at the Company (People's Daily, 21.6.1985, p.3).

Guangdong Engineering College built a new campus funded by Hong Kong Longhui Company Group in terms of capital and recurrent costs. The new campus was used to teach and train local students for employment in the Company Group. The curriculum of courses run by the College was particularly designed to accommodate the needs of the Company Group (Guangming Daily, 3.11.1992, p.1).

**9.4 Report on Surveys Over Income Generation**

In the previous two sections, descriptions of national and institutional patterns of involvement of higher education with industry/business were made mainly on the basis of data elicited from the Chinese official press. To enrich the data base and extend
the current discussion, results of the questionnaire surveys conducted for this research are presented and discussed as follows.

**Income-Generating Strategies**

Table 9.1 demonstrates survey results about what strategies were taken to generate income and to what extent they were used at both institutional level and the faculty/departmental level. As seen in Table 9.1, similar questions were asked of both institutions and faculties or departments, with additional more detailed questions for faculties/departments. Overall, institutions gave significantly higher ratings (with means ranging from 1.9 to 2.3) to the strategies listed on the questionnaires than faculties/departments (with means ranging from 1.5 to 1.9). The lower ratings of faculties/departments resulted from a majority of responding faculties/departments reporting little or no use for four of seven income-generating strategies listed. (Although an alternative choice question - "other strategies" - was given, no respondents provided additional information.) This may suggest that income generating activities were less dynamic at the faculty or departmental level than at the institutional level in the sample.

Like the national data and news reports discussed previously, about 90 percent of responding institutions reported that they encouraged their lower operating units to generate extrabudgetary income and to expand their institution-run enterprises (items 3.6h and 3.6i). On the parallel question (item 3.4g) asked of faculties and departments, it was found that only 68 percent of responding faculties and departments had set up their enterprises, well below the high 90 percent of responding institutions.

At the institutional level, items of "expanding the range of fee-paying vocational education" and "expanding links with industry/business" (items 3.6s and 3.6t) also received relatively higher ratings from institutions (with similar means of 2.1 respectively). However, it was found that a majority of responding institutions implemented the
strategies listed only to some extent, and for item 3.6g, over a third reported little or no use.

It was also found that on the item "encouraging staff to take a second job to increase income", the ratings given by both institutions and faculties/departments were relatively lower (with means of 1.9 and 1.6 respectively). The consensus suggests that both institutions and faculties/departments in the sample did not take a positive attitude towards staff having a second job.
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>A main strategy</th>
<th>Used to some extent</th>
<th>Little or not used</th>
<th>Mean</th>
<th>s.d.</th>
<th>Item No.</th>
<th>Item statement</th>
<th>A main strategy</th>
<th>Used to some extent</th>
<th>Little or not used</th>
<th>Mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6</td>
<td>encouraging staff to take a second job to increase their income</td>
<td>28.6</td>
<td>33.3</td>
<td>38.1</td>
<td>1.0</td>
<td>0.8</td>
<td>3.4</td>
<td>encouraging staff to take a second job to increase their income</td>
<td>13.6</td>
<td>27.3</td>
<td>59.1</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>h</td>
<td>encouraging faculty/dept to generate extrabudgetry revenue</td>
<td>38.1</td>
<td>52.4</td>
<td>9.5</td>
<td>2.3</td>
<td>0.6</td>
<td>g</td>
<td>setting up enterprises to generate income</td>
<td>9.1</td>
<td>59.1</td>
<td>31.8</td>
<td>1.8</td>
<td>0.6</td>
</tr>
<tr>
<td>i</td>
<td>expanding institution-run enterprises</td>
<td>28.6</td>
<td>61.9</td>
<td>9.5</td>
<td>2.2</td>
<td>0.6</td>
<td>q</td>
<td>expanding the range of fee-paying vocational education</td>
<td>18.2</td>
<td>27.2</td>
<td>54.5</td>
<td>1.6</td>
<td>0.8</td>
</tr>
<tr>
<td>s</td>
<td>expanding the range of fee-paying vocational education</td>
<td>23.8</td>
<td>57.1</td>
<td>19.1</td>
<td>2.1</td>
<td>0.7</td>
<td>r1</td>
<td>trading technology to industries</td>
<td>9.1</td>
<td>31.8</td>
<td>59.1</td>
<td>1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>t</td>
<td>expanding links with industry &amp; business in broad areas</td>
<td>28.6</td>
<td>47.6</td>
<td>23.8</td>
<td>2.1</td>
<td>0.7</td>
<td>r2</td>
<td>undertaking contract research</td>
<td>4.5</td>
<td>59.1</td>
<td>36.4</td>
<td>1.7</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r3</td>
<td>training fee-paying industry employees</td>
<td>18.2</td>
<td>54.5</td>
<td>27.3</td>
<td>1.9</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r4</td>
<td>taking in enterprise directors as members of managements</td>
<td>9.1</td>
<td>36.4</td>
<td>54.5</td>
<td>1.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: Data elicited from the questionnaire surveys conducted for the current research.
**Distribution of Revenue**

As seen in the previous sections, some higher education institutions spent their income-generation revenue on building student and staff apartments and classrooms, improving teaching and research facilities, and their staff welfare. How extrabudgetary income was distributed at the faculty/departmental level has been rarely found in the official press. It was to supplement this shortage that this research used its survey and Table 9.2 presents a summary of how faculties/departments reported distributing this source of income.

**Table 9.2 Manners in Which Faculties/Departments Distributed Their Extrabudgetary Income (N = 22)**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement</th>
<th>A key approach %</th>
<th>Used to some extent %</th>
<th>Little or not used %</th>
<th>Mean</th>
<th>s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 a</td>
<td>turning the income partly over to institutional authorities</td>
<td>31.2</td>
<td>50.0</td>
<td>18.2</td>
<td>2.1</td>
<td>0.2</td>
</tr>
<tr>
<td>4.1 b</td>
<td>spending on staff rewards</td>
<td>63.6</td>
<td>0.0</td>
<td>36.4</td>
<td>2.6</td>
<td>0.5</td>
</tr>
<tr>
<td>4.1 c</td>
<td>spending on student assistance programs</td>
<td>18.1</td>
<td>45.5</td>
<td>36.4</td>
<td>1.8</td>
<td>0.7</td>
</tr>
<tr>
<td>4.1 d</td>
<td>spending on teaching/research equipment</td>
<td>27.3</td>
<td>59.1</td>
<td>13.6</td>
<td>2.1</td>
<td>0.6</td>
</tr>
<tr>
<td>4.1 e</td>
<td>spending on enterprise relations</td>
<td>0.0</td>
<td>45.5</td>
<td>54.5</td>
<td>1.5</td>
<td>0.5</td>
</tr>
<tr>
<td>4.1 f</td>
<td>other</td>
<td>37.5</td>
<td>62.5</td>
<td>0.0</td>
<td>2.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

*Source:* Data elicited from the Faculty/Dept. Questionnaire survey conducted for the current research.

The responses indicated a direct and close financial stake for staff in the income generation activities. The more you generate, the more you gain. This was also where the gap lay between the rich and the poor institutions in terms of staff's welfare in different faculties and departments and in different institutions. It was found that a majority of faculties/departments in the sample spent their extrabudgetary income on rewarding their staff (64 percent of responding faculties/departments rating it as a key approach with a mean reaching 2.6 on the 3-point scale).
Other items listed in Table 9.2 were also used either as a key approach or used at least to some extent by over 50 percent of responding faculties/departments, except for item 4.1e where about 55 percent of them did not spend their extrabudgetary income on developing relations with enterprises (mean=1.5 in item 4.1e). This showed that marketing of services had not developed to a significant degree at the faculty/departmental level in the sample. It was noted that all responding faculties and departments identified other ways of distribution of their alternative sources of income (mean = 2.4), with about 38 percent specifying "other" as a key approach and the remainder using it to some extent. But, unfortunately, although the questionnaire asked for the other ways to be specified, respondents did not complete this question on their returned questionnaires. This may suggest that the respondents were reluctant to reveal details other than those listed for whatever reasons (e.g., some may not be officially accepted). Notwithstanding, the data elicited from items 4.1a to 4.1e provide a clear picture about how faculties/departments in the sample used their extrabudgetary income and benefited from it.

Perceptions on Outcomes

On the last section of the questionnaire surveys for the current research, both institutions and faculties/departments were asked to identify consequences of reforms in the governance and funding of higher education over the past decade. Table 9.3 presents summary data of the reform outcomes in the perceptions of participating institutions and faculties/departments. The promotion of income-generating activities, as a key strategy of the funding reforms, is a major factor influencing the outcomes.
Table 9.3 Comparison of Perceptions on Some Outcomes of Reforms Between Institutions and Faculties/Departments

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item statement:</th>
<th>Responses from institutions (N = 21)</th>
<th>Responses from faculties/departments (N = 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>As a result of the reforms in governance and funding areas over the past decade, your institution (or faculty or department)</td>
<td>SA %</td>
<td>A %</td>
</tr>
<tr>
<td>a</td>
<td>has more incentives for improvement of managerial performance</td>
<td>61.9</td>
<td>38.1</td>
</tr>
<tr>
<td>b</td>
<td>gives greater priority to local economies than a decade ago</td>
<td>23.8</td>
<td>76.2</td>
</tr>
<tr>
<td>c</td>
<td>tends to be market-oriented</td>
<td>23.8</td>
<td>71.4</td>
</tr>
<tr>
<td>d</td>
<td>has taken applied subjects as its chief concern in course offerings</td>
<td>19.1</td>
<td>52.4</td>
</tr>
<tr>
<td>e</td>
<td>has made vocational education as one major source of income</td>
<td>0.0</td>
<td>28.6</td>
</tr>
<tr>
<td>f</td>
<td>has academics getting into commercial activities</td>
<td>19.1</td>
<td>9.5</td>
</tr>
<tr>
<td>g</td>
<td>has presidents and other managers concentrating more on income generation than on educational affairs</td>
<td>14.3</td>
<td>66.7</td>
</tr>
<tr>
<td>h</td>
<td>is facing more pressures of greater competition among institutions for alternative resources</td>
<td>9.5</td>
<td>42.9</td>
</tr>
</tbody>
</table>

Source: Data elicited from the questionnaire surveys conducted for the present research.
*Note: Item tables with "*" represent corresponding items in the Faculty/Dept. Questionnaire and those without "**" are items in the Institution Questionnaire.
In Table 9.3, very strong ratings were given to the item (5.1a/5.1c*) saying that "as a result of reform, your unit has more incentives for improvement of managerial performance". On five out of the seven remaining parallel items asked of both institutions and faculties/departments, the means differed by not more than 0.2. A majority of institutions and faculties/departments agreed or strongly agreed that "they now give greater priorities to local economic development than ten years ago" (item 5.1b/5.1a*); that "they tend to be market-oriented" (item 5.1c/5.1e*); and that "their managers have to concentrate more on how to increase extrabudgetary income and seek more funds than on teaching and research activities" (item 5.1g/5.1g*) (with means between 4.0 and 4.2). Relatively lower ratings with higher standard deviations (s.d. = 1.4 and 1.5 respectively for both groups) were given by both institutions and faculties/departments on "academic staff are trying their luck in the sea of business" (item 5.1f/5.1f*) (means = 2.8 and 2.7 respectively for both groups). This indicates that over half of respondents disagreed or strongly disagreed with their academics being engaged in commercial activities although others had different views about this.

However, overall involvement of participating faculties/departments in income-generating activities was less dynamic than that for institutions as shown in Table 9.3. This may have resulted from the greater financial stringency at the faculty/department level, as higher education is increasingly relying on alternative sources of income.

In Table 9.3, items 5.1d and 5.1e were asked of institutions only because the central administration at the institutional level often has more authority and responsibility for deciding priorities in course arrangements, and also because an overall picture of

*Item labels with "**" represent corresponding items in the Faculty/Department Questionnaire and those without "**" are items in the Institution Questionnaire.
institutions is needed for a survey of revenue from vocational education. The summary data of item 5.1d show that a majority of participating institutions (19 percent strongly agreed; 52 percent agreed) considered that their institutions took applied subjects as their chief concern in course offering. Responses to item 5.1e suggested more negative (33.3 disagreed; 4.8 strongly disagreed; and 33.3 remained uncertain) than positive (only 28.6 percent agreed) responses to the statement "revenue from vocational education becomes one major income from students fees". This shows that fee-charging vocational education was not turned into a very popular or major income-generating activity in most participating institutions.

In sum, the elaboration and analysis of the overall surveys on income generation in Chinese higher education institutions and the funding reforms suggest that current higher education in China tends to be more responsive, entrepreneurial and market-oriented than was previously the case in deciding its priorities or its viability under the pressures for alternative sources of income. Greater detail of the discussion about the advantages and disadvantages of income generation is given in the next two sections.

9.5 Principal Benefits of Institution Involvement with Industry

Through developing institutional industry and cooperative programs with external industry, higher education institutions have fostered closer links with their local communities, particularly the local economies. In the past, higher education institutions had to look up and receive bureaucratic mandates from their superior government departments as to what to do, but now they have to look down and outwards, responding to the viability of the local economies as they are increasingly relying upon cooperation with local industry/businesses and upon local markets. Some case studies of a number of higher education institutions in China also showed that the linkages shortened the time and distance between advanced

The strategic significance of the linkages lies in enhancement of higher education as a direct contributor to the economy in terms of the application of research achievements of higher education in the production of industries. By 1992, about 30 percent of scientific and technological achievements made by higher education institutions had been converted into economic returns through such linkages (*Beijing Review*, July 27 - August 8, 1992). As can be seen above, the involvement of external industry managers in university management including course development and delivery promoted institutions to adjust quickly to the changing needs of the local economies. Industry's input on the teaching and research agenda helps institutions to ensure their provision is up-to-date. The linkages also provide students with places for field work and knowledge of industry/business management systems. If measured in terms of financial gains, the sale of academic services of institutions to industry has brought in large cash flows to institutions, which help to improve and update institutions' teaching and research facilities as well as staff welfare, as shown in the previous sections.

9.6 Outstanding Issues and Options

The rapid expansion of institution-run industry and the flourish in collaboration between higher education institutions and industry have produced a considerable impact and raised a number of issues on institutional management and higher education provision. The intention of this chapter has been to discuss major aspects of income generation in the Chinese higher education sector rather than to achieve comprehensiveness. The following discussion identifies some outstanding issues in relation to income generation in terms of institutional governance, institutional priorities, staff commitment to external demands and academic quality, and cost recovery and accountability.
9.6.1 Institutional Governance

"One institution, two systems" has been a direct product of the fast and strong growth in income generation of institutions. The shift of the institution-run industry and partnerships with industry from non-business to profit-motivated also requires a new management system and a new leadership. A new organisational design and management system called "one institution, two systems" has been favourably adopted to manage respectively the two sectors within an institution: teaching and research sector, and non-academic sector including institutional spin-off enterprises and services. The two systems refer to an institution (non-business) management system implemented in the academic sector, and a business management system adopted for the non-academic sector within an institution.

The "one institution, two systems" resulting from the expansion and complexity of the non-academic sector of institutions, has in fact divided an institution into two parts, namely, a profit-making sector and a non-profit-motivated sector. It appears that the latter does not have to worry about its financial gains or losses as it is mainly state-funded and there is no direct relationship between revenue and expenditure in its non-profit operations, while the former has to count mainly on its own earnings and takes direct financial responsibility for its business operations. If so, the new design of management style is worth commending as it protects the academic sector from financial uncertainty and helps to maintain its principal mission and integrity of teaching and academic research. From the point of view of the non-academic sector, the new management approach also provides economic incentives as well as opportunities, as it allows institutional industry and businesses to have authority and responsibility for their own financial operations.

However, the practice of the "one institution, two systems" has also raised some problems. As income-generating activities involved not only non-academic staff but also a large number of academics holding concurrent jobs in both sectors, confusion existed in
administration, resource allocation (distribution) and utilisation. Some recurrent and capital funds were misused for income-generation through trading shares on stock exchange markets or undertaking other commercial activities (China Education Daily, 8.9.1994, p.3). Some academics used budgetary research funds to mount specific research bids by some external companies (revealed by marginal comments on returned questionnaires).

The "one institution, two systems" also contributed to disparity in staff rewards as the two management systems adopted different rewarding approaches. Some staff involved in research and training contracts or other commercial activities were able to boost their income and some academic staff were increasingly detaching from regular teaching and academic research. On the other hand, those academics who were fully committed to basic research and teaching which did not show immediate market value were disadvantaged financially and their morale was weakening. The gap between the rich and the poor staff has thus been widening on campus as it is elsewhere in China (China Education Daily, 28.12.1994, p.1; personal correspondence, 1996). The gap caused tensions among staff and distracted them from their internal commitment as well.

Another significant impact on the governance of higher education institutions seen in the course of institutional engagement in industry/business is the change of power patterns within an institution. The boom in joint-management between institutions (faculties/departments) and industry and the new control system - board of trustees - changed and reduced the power of institutions (faculties/departments). The saying that "he who pays the piper calls the tune" is true with the current internal management. For example, the Faculty of Economics and Trade at Qingdao Ocean University took in directors from ten local enterprises as members of the Faculty Board of Trustees. Of the ten member enterprises, Haier Industry Group was the largest fund contributor to the Faculty. The Faculty was later named after the Industry Group and became "Haier Economics and Trade Faculty". The change was not only
nominal but fundamental. The Director of the Haier Industry Group and Vice-Chairman of the Faculty Board of Trustees made a clear statement about the role of his Industry Group in the Faculty, saying “The significance of our joining in the Faculty Board of Trustees lies in not only our financial support for the Faculty but also our commitment to institutional governance and management to help to foster skilled graduates in the need of today’s market economy”. It was reported that the Faculty had the obligation for offering its best graduates to the member enterprises and providing them with favourable research products (*Qingdao Daily*, 12.4.1994, p.1; 16.5.1995, p.5). In this case, the Industry Group imposed its image, power and influence on the Faculty and on the priorities of the Faculty as well.

**Options**

- Mitigating the adversities of the changed governance systems and modes generated in the pursuit of enterprising activities requires effective coordination in both the academic and non-academic sectors within an institution in resource distribution and allocation. The “two systems” should work together for the consistent mission of the institution.
- Reward of staff should give weight to those engaged in basic teaching and research to countervail the effect of immediate economic gains in staff remuneration. The formulation of a remuneration policy should be based on contribution and commitment of staff to an institution’s overall mission rather than merely on how much economic profit one generates.

**9.6.2 Institutional Priorities**

Institutional priorities are the second vulnerable area to change with the involvement of higher education institutions with industry. Evidence has shown in a number of cases cited above that enterprises’ investment or finance for institutions was often provided with contracts to ensure that institutions conducted research
projects designated by those industries and supplied graduates meeting their needs. That designation of enterprises has a clear impact on institutional priorities in curriculum design and development, and research orientation and agenda.

Industries/businesses usually take economic returns as their chief concern, particularly under the current market economy in China. It is their desire that their investment in higher education would produce immediate and pragmatic fruits - the highly-skilled personnel they need urgently, and technology which benefits them quickly and greatly. By implication, they favour vocation-oriented teaching and training over general education. From that point of view, most of the enterprises are reluctant to invest in basic disciplines and basic research, which contributes to an imbalance of disciplines and yields detrimental results to applied science in the long run. Evidence has shown in the Chinese press that it is getting harder for institutions to retain funds for basic research and teaching that is not geared to the immediate needs of the market (China Education Daily, 6.5.1993, p.1; 9.11.1995, p.3).

Dissenters including members of the Standing Committee of the National People's Congress of China appealed for deletion from the first Education Law of the PRC (1995) of the item - "initiating school-run industry", because educational institutions are believed to be places where knowledge is disseminated to students (China Education Daily, 28.12.1994, p.1). Some university presidents and a number of distinguished professors expressed their strong opposition to the boom in institution-run industry/business (China Education Daily, 6.5.1993, p.2; 19.4.1993, p.2; 24.3.1993, p.2; 5.2.1993, p.3). The persistent controversy over institution-run industry reflected general concern about the influence of industry/business on institutional academic operations and institutions' real mission.
Options

Perhaps one of the greatest dilemmas that Chinese higher education is confronting today is how to respond to short-term economic needs without jeopardising its long-term cultural, intellectual and creative roles in the whole society. This dilemma has resulted not only from non-state financing but also from government economic policies which take higher education principally as an economic tool. But international experience such as Japan’s indicates that large corporations that drive and finance research efforts are increasingly emphasising high quality basic science. The worldwide so-called strategic research blurs the difference between basic and applied research (Blackman & Segal, 1992). From that point of view, Chinese higher education institutions are likely to straddle the dilemma with great endeavour and balance influences from a variety of funding sources upon the development of their institutions’ teaching and research profiles. Another possible solution to the problems is to establish general criteria against which all activities, including income generation, must be assessed to ensure that institutions have balanced education and research priorities which address both short-term and long-term interests of the society and the economy.

9.6.3 Staff External Commitment and Academic Quality

In addition to "building shops after demolishing university enclosing walls", there has been another quite popular verbal phrase today to describe the enthusiasm of institutions for getting into commercial activities or income generation, namely, "a craze for doing business on campus" (xiaoyuan jingshang re). On university campuses, staff are keen on talking about how to make money out of their jobs. Taking a second job has become a fashion among university staff. More and more academics have got involved in external businesses, namely, taking a concurrent job in the industry or business sector, public or private; or doing a part-time job in their institution-run industry; or taking outside contracts, and so on. It was reported that in Jiamusi Technology Institute, about 80 percent of its staff took a
second job which included jobs in its own industry or businesses (Guangming Daily, 30.8.1992, p.1). The extra income from the second job exceeded that of staff's first job (China Education Daily, 24.3.1993, p.3). This raised a question of how much time and energy of the staff were used for their first jobs. President of the Central Industrial Art College and a member of the National People's Congress, Ms Chang told other Congress members that she now often heard mobile phones ringing in classrooms and lecture halls at her College. She expressed her profound concern about consequences of the distraction of lecturers from teaching and students from studying (China Education Daily, 26.3.1993, p.2).

The upsurge of involvement of university staff in industry or business resulted mainly from direct economic incentives from institutions and the government. Shenzhen University issued a series of preferential policies to encourage its staff to "market their scientific and technological products". The main staff involved in marketing would get six percent or more of the economic returns from any successful transaction (China Education Daily, 7.7.1992, p.1). In Nanjing University, staff and students were called on to sell their University's technological products and were entitled to two to five percent commission from every sale (Guangming Daily, 19.9.1992, p.1). Professor Guan Hua-shi (later appointed as President of the University) at Qingdao Ocean University was rewarded 200,000 yuan cash, a 3-bedroom unit and an Audi car by Shandong Provincial government for his research product in marine medicine which brought in an annual 400 million yuan of profits for over 20 factories in China (China Education Daily, 25.7.1992, p.1; 10.12.1992, p.1). (See Chapter 11 for more about Mr. Guan Hua-shi and a case study of the University headed by him).

As income-generation through the sale of educational and research services involved a significant number of staff, particularly academic staff, the internal commitment of those staff to regular teaching and research on campus was inevitably affected by their external commitments to contract research, consultancy, training and other
income-generating activities. University presidents, deans and other line managers had to devote considerable time and effort to income generation rather than concentrating on managing educational affairs, as revealed by the questionnaire survey results summarised in Table 9.3 and some Chinese official press (People's Daily, 18.6.1985, p.1; China Education Daily, 5.2.1993, p.3; 26.3.1993, p.2; Guangming Daily, 31.10.1992, p.1; 2.2.1995, p.3). This suggests a serious distraction from, and distortion of, the initial mission and the most crucial activity of higher education institutions - transmission, conservation and extension of knowledge. As a consequence, academic quality of higher education is at risk.

The problem of academic quality is an inevitable result from the change in perceptions of the relationship between higher education and society. As illustrated in Chapter 3, Chinese higher education used to be politicised and a tool of ideological education of the government in the pre-reform period (prior to 1978), and has become entrepreneurial and principally a tool of economic policies rather than politics after the 1980s. In 1992, the Chinese central government, for the first time, explicitly classified education as a tertiary industry (People's Daily, 16.6.1992, p.1). The large amount of evidence described in this chapter further demonstrates that some Chinese higher education institutions are moving towards knowledge industries given the range and scale of their sale of academic services and the upsurge of staff's involvement in it.

The change in perceptions, and in the role and function of higher education has affected the value of assessing academic quality in China. To the incumbent government and the industry, academic quality of higher education means that it is expected to be more responsive, provide prompt and relevant vocational delivery, and comply with economic priorities, which is different from the traditional conception of universities when higher education was completely funded by the state and provided by the state. Current higher education institutions are not likely to achieve consensus on what today's academic quality really is, as institutions vary vastly in
funding sources, management systems, rank (local or national), size, etc. If an institution is a local one and mainly funded by enterprise groups and the local government, its valuing of academic quality is likely to be different from that of a national and prestigious university largely funded by the state. From that point of view, the problem of academic quality cannot be addressed at a generalised level.

However, there is some consensus, at least officially, that income-generating activities of institutions should be undertaken "provided that they do not interfere with the normal activities of education and instruction" (SEC, 1995c, p.25). By this standard, the distraction of some university staff and managers which did occur as illustrated in the present chapter, resulted from a clash between income-generating activities and the normal teaching and research activities of institutions and affected their capability to maintain academic quality.

Options

Detailed institutional strategies are therefore needed in terms of each individual institutional situation, to resolve the conflict between the external commitment of staff and maintenance of academic quality of institutions. Notwithstanding, some major common issues should be addressed when designing and pursuing institutional strategies.

- Clear roles and responsibilities should be defined between core activities of teaching and research, and income generating activities.
- Quality control and performance indicators should be imposed both on academic activities and income-generating ones.

9.6.4 Cost Recovery and Accountability

This writer has surprisingly noticed that there has been little literature in China about institutions' income generation touching
on issues of cost accounting, cost recovery, the distribution and use of extrabudgetary income, and the evaluation of projects. Instead, the spotlight of the press has often been on how much money has been made by institutions and staff. The neglect or playing down of the significance of the above issues would lead to ineffectiveness in allocation and utilisation of institutional resources as cost issues in income generation may affect the operation of core finance for regular teaching and research within an institution.

There have been a number of reports about misuse of institutional core funding, space and equipment for income-generating activities in the official press. For example, some institutions vacated classrooms for running hotels and some institutions used core grants to trade shares in stock exchanges (China Education Daily, 26.3.1993, p.2; 8.9.1994, p.3). In other words, these income initiatives were accomplished at the expense of regular teaching and research funds (and facilities). This reflected cost confusion for the institutional managers involved. Some official press also sent a wrong message that some revenues from the sale of academic services had been used to improve academic facilities, thus benefiting core teaching and research. Undoubtedly, the sale of academic services consumed some regular teaching and research facilities financed with core funding. The spending of some extrabudgetary income on teaching and research facilities should be seen as covering some recurrent costs incurred by the consumption of those facilities in income generation and not as an additional benefit to academic facilities.

Options

Given the rapid expansion in the range and scale of income-generating activities of institutions, the financial operation of these activities and the manner in which resources for the activities are distributed should be accountable to the central administration at the institutional level as well as to the public. Cost accounting should include both direct and indirect costs incurred by a contract project or other income-generating activities. In other words, all
marginal costs should be covered by sponsors, contractors and service users. Otherwise, institutions have to fund the deficit, which consumes institutional core finance.

The confusion and misconception in cost accounting should be addressed through informing managers and academics of what direct and indirect costs might be incurred in the sale of academic services. The central administration at the institutional level should provide such information and impose accountability measures on all its basic operating units to ensure that income generation is related to institutions' broad mission and its costs are fully covered on its own.

It is good to see that the central government has recently recognised the problem of accountability for institutional income generation. The State Education Commission has extended its accountability to non-state finance areas, requiring that institutions should be accountable for their non-state income generation, and for distribution and management of the non-state resources (China Education Daily, 24.7.1995, p.1). If government accountability measures for income generation are actually implemented, it is likely that under the pressure for accountability, institutions will improve the relevance of their income-generating activities and the efficiency and effectiveness with which non-state funds are used so as to ensure full cost recovery for non-state income generation.

9.7 Summary

Income generation in the Chinese higher education sector is a new initiative but one which grows fast and strong. The increase has a clear and considerable impact on institutional organisation and governance, and financial operations. Although for higher education institutions, the main stimulus for income generation has been finance, the income-generating activities have contributed to a change in the relationship between institutions and the society. Income-generating activities have prompted higher education
institutions to be more responsive to the external environment, and particularly the local economies, as the activities have to take account of the needs of sponsors, contractors and service users.

As this chapter has found, the involvement of higher education institutions with industry has given rise to some unresolved issues such as greater distraction of managers away from their core mission to income-generating activities, undervaluing teaching and basic fundamental research, confusion of staff over resource allocation and utilisation, disparities among staff in rewards, clashes between staff's external commitment and the commitment to academic quality, and misconception on cost accounting and recovery. To resolve the problems, institutions have to develop policies and practices appropriate to their own particular environment and circumstances, although some general strategies have been provided in this chapter, following a discussion of the causative factors and consequences of the problems.

In spite of the existing problems, Chinese higher education institutions have to continue their expansion of income from non-core sources, as the function of the non-core income, as shown in this chapter, helps to maintain economic viability and the expansion of higher education. Tuition fees as another significant source of non-core funding are seen to play a similar role in funding of higher education in China. The next chapter focuses on issues around the introduction of a fee-paying system in the Chinese higher education sector.
CHAPTER 10

COST RECOVERY: PRIVATE SHARE
OF HIGHER EDUCATION COSTS

By 1997, all Chinese higher education institutions had implemented a
cost recovery policy: charging tuition and fees to higher education
students, which finally put an end to a long tradition of a free higher
education in China since 1949 (China News [TV Broadcast], 19.3.1997).
At present, the income from tuition fees accounts for about 10 percent of
institutional revenue, being the largest source of non-state funds in
higher education institutions (see Tables 8.4 and 8.5 in Chapter 8). This
dramatic shift from a formerly heavily state subsidised system to
imposition of tuition fees on most higher education students is the focus
of this chapter. The chapter starts with an overview of the evolution of a
tuition fee charging system initiated in 1985, goes on with a survey of
effects of this dramatic change on equity and efficiency of Chinese higher
education, is followed by a discussion of major issues raised in the
pursuit of cost recovery through charging tuition fees and reducing
subsidies for non-instructional costs, and ends with some policy options
that could redress the issues and problems identified by the chapter.

10.1 Overview of Charging Higher Education Fees

Evolution

Since the Chinese Communist Party took over Chinese higher education
institutions in 1949, students at the higher education level enjoyed not
only a free education but free accommodation (and free meals in some
higher education institutions such as teachers' colleges and universities
and agricultural universities) and received a certain amount of other
study and living allowances from the state. Things began to change with
the 1978 nation-wide economic reform. In the early 1980s, higher
education institutions were officially allowed, for the first time in history, to charge training fees from prospective employers who sponsored some students to study in institutions (People's Daily, 17.3.1983, p.1). These students were labelled as employer-sponsored students (weipeisheng) who would be assigned to work for their sponsors after graduation. In Shanghai alone, employer-sponsored students accounted for over 50 percent of new entrants in the 44 institutions there in 1985 (People's Daily, 11.6.1985, p.1). In other economically more developed provinces such as in Guangdong Province (in Guangzhou University and Shenzhen University, for example), the enrolment of fee-charging students had already started before the formal release of the government package of devolution in 1985.

In the 1985 government education reform package (Reform of China's Education Structure - Decision of the Central Committee of the CCP), charging non-employer-sponsored students for higher education tuition was first proposed by the CCP as part of enrolment reform in terms of "enrolment of a small number of self-supporting students outside the state plan". In other words, tuition charges would only apply to a small number of students enrolled beyond the annual state enrolment plans. The 1985 Decision also commended the practice of enrolment of employer-sponsored students and encouraged institutions to carry it further "in order to make the best use of institutional resources" (CCP, 1985, pp.14-15). The implementation of the new policy gave rise to a so-called two-track enrolment system, under which students fell into two categories: students who were enrolled within state plans and were required to pay a small amount (between 100 yuan and 300 yuan) for accommodation and miscellaneous costs and continued to get a free education, and students who were enrolled outside state plans and were required to pay partial or full costs for their education and accommodation (for those employer-sponsored students, tuition was paid by their prospective employers) (SEC et al., 1989). The admission requirements for self-supporting students were generally flexible and entry standards for them were mostly below the minimum entry standards for state subsidised students. At the national level, the scores for acceptance on the admission examinations for self-supporting
students were about 30 points less than those for state subsidised students, according to a spokesman of the SEC (People's Daily, 15.3.1988, p.3).

Following the 1985 government Decision, institutions began to enrol a small proportion of self-supporting students and increased their intakes of employer-sponsored students. In 1990, the central government released a specific policy document: the Provisions of Enrolment of Self-Supporting Students (China Education Daily, 28.10.1993, p.1). The proportion of employer-sponsored and self-supporting students rose to 11 percent of new entrants in 1991. By 1993, employer-sponsored and self-supporting students accounted for 39 percent of new entrants in institutions (China Education Daily, 7.4.1994, p.1; 19.3.1994, p.3). The rapid growth in 1993 was attributable to another far-reaching reform package issued jointly by the CCP and the State Council, called Program for China's Educational Reform and Development. The 1993 Program encouraged institutions to enlarge their enrolment size for employer-sponsored students and self-supporting students. Moreover, the Program maintained that all higher education students should, in principle, pay for their higher education costs as higher education is not compulsory in China, and hence the fee-charging system should gradually apply to all higher education students. This government document signalled that the two-track enrolment system would be replaced by a single enrolment system under which all students would have to pay for their higher education.

Driven by the new policy, over 40 higher education institutions were reported to charge all new entrants tuition fees in 1994. The number of institutions charging fees increased rapidly: 245 in 1995; 660 in 1996 and all the 1,032 regular higher education institutions in 1997 (China Education Daily, 7.4. 1994, p.1; 29.11.1995, p.1; China News [TV Broadcast], 23.9.1996; 19.3.1997). It was reported that the previous difference in entry standards for the two-track enrolment system was dropped in the institutions that charged fees for all new entrants, and that institutions were no longer allowed to take in students outside state plans (China Education Daily, 26.10.1995, p.3; 29.8.1996, p.1).
Tuition Range

The amount of tuition charged for self-supporting students and later for all students has been only a part of the actual costs including direct and indirect costs of higher education in China (only in some cases did self-supporting students pay full fees). In 1987, tuition charged for self-supporting students was about 1,200 yuan on average per academic year. Later, in the light of a suggestion by the SEC, it was proposed that a range of 1,000-1,500 yuan in tuition fees should be charged for an academic year per student (*China Education Daily*, 14.3. 1994, p.1). However, tuition fees varied considerably according to the cost of course provision, market demands of the courses, geographical location of institutions, academic ranks and type of institutions, etc. In 1995, Beijing University and Qinghua University (the two top-rank universities in China) charged 1,000 yuan per student per academic year; Tianjin University 1,200-1,500 yuan; Fudan University 1,800 yuan; and South China Science and Engineering University 2,000-3,000 yuan (*Beijing Review*, April 24-30, 1995). In terms of geographical locations, the range of tuition in Beijing was around 1,000 yuan, 2,500-3000 yuan in Shanghai, 3,500 yuan in Guangdong, 2,200 yuan in Heilongjiang Province and 1,400 yuan in Inner Mongolia (*China Education Daily*, 6.4.1995, p.3). However, the tuition fees charged in 1995 increased dramatically when the fee policy was extended to all new entrants in all higher education institutions. According to the latest news report, Beijing University and Qinghua University doubled their tuition charges from 1,000 yuan to 2,000 yuan in 1997 while Fudan University increased tuition to 3,000 yuan. The tuition fees at the South China Science and Engineering University reached 4,000 yuan in 1997 (*Qingdao Evening*, 27.7.1997, p.1; 24.7.1997, p.1).

Notwithstanding the above, in the light of official cost accounting, the average actual cost to support a higher education student per year was around 14,000 yuan in Guangdong Province in 1992; 5,000-7,000 yuan in Beijing and Heilongjiang Province in 1994; and about 10,000 yuan in Qinghua University and Southeast University in recent years (*China
Education Daily, 6.4.1995, p.3). Thus the official accounting shows that tuition fees charged were about 20 to 40 percent of full higher education costs, if 10,000 yuan was set at an average actual cost for a student per academic year. It also indicates the difference between budgetary unit costs (the state recurrent grant per student was 5,442 yuan in 1995) and actual unit expenditure. (The detail of this issue is discussed in the last section of the present chapter.)

10.2 Effects on Equity and Efficiency

Charging students for higher education services is a significant innovation in the history of the People's Republic of China. It came as a big surprise for most Chinese people who were used to the idea of a free and fully state subsidised higher education system. The emergence of a fee-paying system brought with it differences and controversy among all parties concerned - students (parents), academic staff of institutions, university managers, and the government. To better assess the fee-paying system, a number of surveys were undertaken over effects of the fee charging system upon equity in access and efficiency of higher education provision in China. A report of the surveys is given as follows.

A National Study

It was found from official statistics that imposing cost recovery through charging tuition fees and reducing student allowances did not affect overall enrolment in the Chinese higher education sector over the past few years. Table 10.1 shows that the higher education annual intake increased from 788,000 in 1992 to 1,010,000 in 1997, a 28 percent increase over the past five years.

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<td>New enrolment</td>
<td>780,000</td>
<td>924,000</td>
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<td>926,000</td>
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On the positive side, the rapid increase in enrolment, particularly in 1995, 1996 and 1997 when fees for all applied to many institutions and later to all institutions, indicates that fee charges help to create more study places and enhance institutional capacity and efficiency to produce more graduates without much increase in government investment. It was reported that under the fee system, parents and students showed a greater demand for quality of teaching and particularly, the relevance of courses to labour markets (China Education Daily, 26.10.1995, p.3). In this case, the positive impact of fee charges is seen to be incentive and pressure for institutions to rationalise course offerings and improve the quality of teaching and other institutional services so as to attract students in competition with other institutions. As a result, internal efficiency was improved. Moreover, surveys conducted by some institutions such as Southeast University and Wuhan University, showed that fee-paying students worked harder in their courses since they had to pay for them (China Education Daily, 20.4.1995, p.1; 26.10.1995, p.3). From this point of view, fee charges help to generate well-qualified graduates, thus enhancing higher education efficiency.

However, the steady and strong growth in enrolment also suggests that there existed excess demand for higher education as the enrolment did not fall but rose considerably instead, although the size and extent of tuition increased. The excess demand was also evident in a high ratio of applicants for higher education places, about 2:1 ratio (that is, two applicants competing for one study place) in 1995 (China Education Daily, 27.2.1995, p.1).

Although the introduction and increase in fee charges had virtually no effect on overall enrolment partially due to the excess demand for higher education, many potential students and their families from rural areas simply could not afford the costs of higher education, given their lower household income. The tuition fee-paying system also affected middle-income families. As shown above, the range of tuition for higher education was between 2,000 and 4,000 yuan for an academic year. According to the latest statistical report by the SSB, the annual per
capita income of urban residents was 4,377 yuan and that of rural residents was 1,926 yuan in 1996 (SSB, 1997). If taking also into account an average charge of 600-800 yuan for yearly accommodation on campus and a certain amount of basic living and study costs such as food and textbooks, it is clear that for students from urban lower income families and most rural students, the biggest barrier to access to higher education is not merit and performance but financial difficulty. Moreover, considering the effect of the high inflation rate of around 8.3 percent in 1996 upon living costs, the burdens for families, particularly rural families, to afford higher education for a student, were enormously heavy. The average per capita income in rural areas shown above was below an average tuition charge. Official data showed that in 1993 when fee-charging applied to only a small number of students, there were about 25 million undergraduate students on campus, about half of whom came from rural areas (China Education Daily, 14.3.1994, p.1).

The latest official data available show that poor students (in terms of the official definition) accounted for 20 to 30 percent of students enrolled in key universities in Beijing and 50 percent in local colleges (Beijing Review, April 24-30, 1995, p.25). In 1996, students from rural areas enrolled in agricultural universities and teachers' colleges and universities (which did not charge fees in most courses) accounted for over 60 to 80 percent of their students respectively (China Education Daily, 8.2.1996, p.4). This indicates the change in students' composition accompanying the fee charges. In other words, students from lower-income and rural families were moving to local colleges and some special state-subsidised institutions. Moreover, there were some reports scattered in the official press about effects of the fee-paying policy on individual students. For example, some students who had been offered study places in some universities did not turn up for enrolment because they could not afford the costs of their higher education. Many students were forced to choose lower fee or non-fee institutions such as teachers' universities, agricultural universities, mining institutes etc., which were still subsidised by the government. Some students who were well qualified for entering top-ranked and key institutions had to go to lower-ranked or non-key institutions where tuition was cheaper (China Education Daily,
All these inevitably affected open access and equity of entrants for higher education and also risked the quality of enrolments in those top-ranking institutions which charged higher tuition. It is evident that tuition charges restricted some students', particularly rural students', access to higher education institutions that charged fees and increased the potential for the less well off to drop out.

The government has shown some recognition of the equity problem and taken some action to mitigate the financial pressure on potential students through fixing a tuition range and releasing subsidy policies and special grants for potential students from lower-income families (China Education Daily, 19.4.1995, p.1; 29.11.1995, p.1). The official press reported that the central government allocated about 117 million yuan in 1994, 217 million yuan in 1995 and 440 million yuan in 1996 to higher education institutions administered by the state ministries and commissions to help student assistance programs of those institutions (China Education Daily, 8.2.1996, p.4; China News [TV Broadcast], 23.9.1996). Institutions such as teachers' colleges and universities, agricultural and forestry universities, and geology and mining institutes continued to get special subsidies from the state so they did not need to charge fees and could maintain their enrolment (China Education Daily, 8.2.1996, p.4; China Women Newspaper, 16.8.1996, p.2). Some local governments also provided local institutions with special grants for student assistance programs. Some enterprises, businesses and individuals gave donations to support the so-called "extremely poor students" (tekunsheng) on campus, according to news reports (Beijing Review, April 24-30 1995, p.26; China Education Daily, 3.9.1996, p.1).

For higher education institutions, provision of student assistance became one of the most important agendas of institutions with the implementation of a fee-charging policy. Institutions were under pressure of the government and students to enhance student assistance. For example, the State Education Commission issued a specific policy about tuition exemption for some students from lower-income families, and urged institutions to implement the policy in terms of their own
circumstances. However, the policy statement did not identify the source of funds for the tuition exemption (China Education Daily, 19.4.1995, p.1). It appeared that it was institutions' responsibility to seek additional funds for the exemption. To compete for students and assist needy students in meeting the costs of higher education, many institutions introduced a variety of student assistance programs, of which five are popular, namely, selective scholarships, loan schemes, work-study schemes, living subsidies and tuition exemption.

If these assistance programs could be adequately implemented in most higher education institutions, the equity problems in relation to fee imposition would be well resolved. It was reported that in some comprehensive universities, over 100 kinds of scholarship schemes were open to students and 40 to 50 percent of students were sponsored by those scholarships. For example, in Qinghua University in 1996 alone, scholarship holders accounted for 42 percent of students and the fund used for scholarships reached three million yuan. The student loan schemes of the University totalling a half million yuan benefited over 880 students who wished to borrow for their education. Other assistance schemes of the University included providing 21,000 students with work-study programs valued at 2.4 million yuan and subsidising needy students with 220,000 yuan (Qingdao Evening, 13.7.1997, p.3).

However, it was found that those institutions targeted by the official press about implementing adequate student assistance programs were often large and key universities which were favourably funded by the central government such as the case of Qinghua University shown above. In China, more than two-thirds of higher education institutions are currently funded by local governments, and most are small in size and non-key institutions (see Chapter 2 for detail). Unfortunately, it was hard to locate to what extent these relatively humble institutions implemented their assistance programs for needy students, as these institutions seemed to be neglected by press in this area. To deepen the discussion and supplement the existing source of information on institutions' implementation of the tuition policy and other related issues, data elicited from questionnaire surveys, interviews and personal
correspondence for the current research are presented and summarised in the next two subsections.

A Survey of Participating Institutions and Faculties/Departments

This subsection presents a comprehensive survey of the effects of tuition reform in the institutions and faculties/departments participating in the present research. Table 10.2 summarises data about tuition, enrolment and course reforms elicited from the questionnaire surveys. As shown in the table, a majority of institutions and faculties/departments in the sample implemented, at least to some extent, a fee-charging policy as well as two main student assistance schemes, namely, scholarships and student loans (with means of 2.2 and 2.1 respectively). Parallel to the tuition reform is a series of reforms in enrolment and course offerings. Strategies (listed in the questionnaires) to maximise the institutional capacity of enrolment and to enhance course competitiveness were taken by most of the sampled institutions, except with strategies of enrolling non-residential day-students and reducing enrolments for 4-year courses which a majority of participants rated as "little or not used" (see Table 10.2). However, responses from the participating faculties/departments indicated an overall lower involvement in these strategies (with means of 1.6, 1.7 and 1.7 respectively in items 3.4j*, 3.4n* and 3.4o*, and with 100 percent of negative ratings to item 3.4p*).
Table 10.2 Reform Strategies in Tuition, Enrolment and Course Delivery

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>At the institutional level (N=21)</th>
<th>At the faculty/dept. level (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A main strategy %</td>
<td>Used to some extent %</td>
</tr>
<tr>
<td>j</td>
<td>Charging tuition &amp; fees</td>
<td>28.6</td>
<td>61.9</td>
</tr>
<tr>
<td>k</td>
<td>Introducing scholarships and loan schemes</td>
<td>33.3</td>
<td>52.4</td>
</tr>
<tr>
<td>l</td>
<td>Enrolling non-residential day-students</td>
<td>0.0</td>
<td>38.1</td>
</tr>
<tr>
<td>m</td>
<td>Improving level of use of classroom and lab space</td>
<td>38.1</td>
<td>52.4</td>
</tr>
<tr>
<td>n</td>
<td>Adjusting curricula to accommodate needs of labour markets</td>
<td>38.1</td>
<td>42.9</td>
</tr>
<tr>
<td>o</td>
<td>Rationalising course offerings</td>
<td>47.6</td>
<td>47.6</td>
</tr>
<tr>
<td>p</td>
<td>Introducing a credit system</td>
<td>28.6</td>
<td>42.8</td>
</tr>
<tr>
<td>q</td>
<td>Expanding enrolments for 2-yr. courses</td>
<td>19.0</td>
<td>52.4</td>
</tr>
<tr>
<td>r</td>
<td>Reducing enrolments for 4-yr. courses</td>
<td>0.0</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Source: Data elicited from returned questionnaires for this research (see Appendices I & II)

Note: Item labels with "*" represent corresponding items in the Faculty & Department Questionnaire while those without are for the Institution Questionnaire.

As shown in Table 10.3 (below), fee-paying students (including full fee-paying students) accounted for, on average, about 26 percent of all students enrolled at the institutional level and about 24 percent at the faculty/departmental level in the sample by the year 1995. The results show a great difference in ranges (between five percent and 57 percent at the institutional level; between 5 percent and 50 percent at the faculty/departmental level) for the proportion of fee-paying students. That is, the proportion of fee-paying students varied considerably among responding institutions and faculties/departments.

As far as the amount of payment for higher education is concerned, an average of 2,514 yuan and 2,523 yuan per academic year respectively
were charged by institutions and faculties/departments in the sample. The amount of tuition charged also varied greatly in the sample from 1,400 yuan to 3,500 yuan. The results of the above surveys demonstrate a very high consensus of responses to the question asked between participating institutions and faculties/departments (with all the means differing little between the two responding groups in Tables 10.2 and 10.3). This is probably because data given by institutions were data synthesised from faculty or department sources.

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>At the institutional level (N=21)</th>
<th>At the faculty/dept. level (N=22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4</td>
<td>Proportion of fee-paying students</td>
<td>Mean: 22.5% Range: (5%-57%)</td>
<td>Mean: 23% Range: (3%-50%)</td>
</tr>
<tr>
<td>4.3*</td>
<td>Amount charged (yuan)</td>
<td>Mean: 2,314 yuan Range: (1,400-5,500)</td>
<td>Mean: 2,000 yuan Range: (1,500-3,500)</td>
</tr>
</tbody>
</table>

**Source:** Data elicited from returned questionnaires for this research (see Appendices I & II)

**Note:** *Item labels with "*" represent corresponding items in the Faculty/Department Questionnaire while those without are for the Institution Questionnaire.

The original design of this question item was to elicit data about the implementation of fee policy between 1985 and 1995. But as most returned questionnaires gave no data about 1985 and 1990, this table can only present data about 1995.

Table 10.4 (below) summarises the main points made by respondents about the effects of the imposition of a fee system in China on access, equity and quality. Although this is an open-ended question, this researcher found that responses to the question fell into mainly three groups ranging from positive effect to minimal effect, to negative effect. For the effect of tuition charges on access to higher education, the overall perceptions of respondents from both institutions and faculties/departments were highly positive. Forty-eight percent of responding managers at the institutional level and 55 percent of faculty/department managers maintained that a fee system helped to provide more study places for higher education, thus improving access to it. More than one third of respondents considered that the effect of a fee system
system on access was minor as overall enrolment in their institutions and faculties/departments did not fall. It is noticed that no negative rating was given to the access issue.

Table 10.4 Perceptions of the Effects of Fee-Charging on Access, Equity and Quality

<table>
<thead>
<tr>
<th>Effect on access</th>
<th>Responses from Institution</th>
<th>Responses from faculty dept.</th>
<th>Effect on equity</th>
<th>Responses from Institution</th>
<th>Responses from faculty/ dept.</th>
<th>Effect on quality</th>
<th>Responses from Institution</th>
<th>Responses from faculty/ dept.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing study phase</td>
<td>47.6%</td>
<td>54.5%</td>
<td>Improving equity</td>
<td>19.0%</td>
<td>22.7%</td>
<td>Improving quality</td>
<td>19.0%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Minimal effect</td>
<td>42.8%</td>
<td>31.8%</td>
<td>Minimal effect</td>
<td>42.9%</td>
<td>50.0%</td>
<td>Minimal effect</td>
<td>42.9%</td>
<td>59.1%</td>
</tr>
<tr>
<td>Reducing study places</td>
<td>0.0%</td>
<td>0.0%</td>
<td>Inequitable</td>
<td>19.0%</td>
<td>13.6%</td>
<td>Reducing quality</td>
<td>23.8%</td>
<td>18.2%</td>
</tr>
<tr>
<td>I don't know</td>
<td>9.5%</td>
<td>13.6%</td>
<td>I don't know</td>
<td>19.0%</td>
<td>13.6%</td>
<td>I don't know</td>
<td>14.3%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

Source: Data elicited from returned questionnaires for this research (see Appendices I & II)

As to the effect of fees for all on equity and quality, unlike the overwhelmingly positive perceptions on the effect on access, a majority of respondents displayed relatively neutral views. They held that a fee system had minimal effect on equity and quality as equity strategies such as scholarships, loan schemes and other student support schemes for needy students were implemented accompanying the fee charges. However, great concern was expressed by some respondents over equity and quality problems perceived. About 19 percent and 24 percent of responding institutional managers thought that a fee system led to an inequitable higher education system, and also to a drop in the number of qualified students from poorer households enrolled. About 14 percent and 18 percent of responding deans and other middle level managers expressed similar viewpoints.

To recapitulate, the questionnaire surveys indicate that tuition reform and other relevant reforms prevailed within the participating institutions. However, the surveys of perceptions of participating
managers show that while a majority of respondents supported the imposition of fees for all, concern was expressed for potential inequity in access to higher education and risks in quality of student selection.

Comparative Perspectives of Different Interest Groups on Fee Charges

Fee charges concern the interests not only of institutions but also students (parents), academic staff and the government. An examination of their views about fee charges helps to triangulate findings. As described in the methodology section of this thesis (see Chapter 5), a number of interviews were conducted for this research to elicit supplementary information. Thirty people, of whom seven were government department officials in charge of educational affairs, ten university managers and thirteen senior academic staff, participated in the interview. Data elicited from the interviews about the shift from tuition-free higher education to fees for all are summarised in Table 10.5.

As seen in Table 10.5, an open-ended question probed the opinions from different groups on the fee charges. Answers coded from different fields were diverse. To catch and summarise the main ideas of respondents, this researcher, after doing a content analysis, reorganised the answers according to themes into the 11 sentences in Table 10.5. Interviewees were asked to air their views from the point of their official positions, namely, respectively from the government point of view, from an institutional point of view, and from academics' point of view. It was found that the government officials interviewed gave greater weight to justification of the fees for all policy (see high frequency in Answers 1, 2, 3, 5, and 10) but were less concerned with other issues such as funding and student assistance schemes (Answers 4, 6, 7, 8, 9 and 11). University managers interviewed expressed a higher consensus of demand for government continued financial support while the fee policy was implemented (90 percent thinking so in item 2). University managers were also interested in outcomes of the fee policy on students' access and performance, and concerned about competition, challenges and
pressures confronting their institutions (Answers 6, 8 and 10). For academic staff of institutions, topics of their conversations were more diverse, covering all statements listed. But the issues concerning equity and quality attracted most attention from them (Answers 2, 3, 4, 5, 6, 8 and 10). Overall, they supported the fee system (items 2 and 3). Four senior academics told stories about some of their fee-paying students' financial stress resulting from fee charges (Answer 11).

Table 10.5 Opinions about Charging Fees for All, by Group

<table>
<thead>
<tr>
<th>Key Q. What do you think of the shift to fees for all? (N=30)</th>
<th>Govt. official (N=7) f %</th>
<th>Uni. manager (N=10) f %</th>
<th>Senior Academic (N=15) f %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As higher education is not compulsory education, the state does not have to take full financial responsibility for its costs.</td>
<td>100.0</td>
<td>20.0</td>
<td>46.2</td>
</tr>
<tr>
<td>2. Fees for all (with a few exemptions) enhance equity in access to higher education, because they prevent some unqualified students from buying their way into universities.</td>
<td>100.0</td>
<td>70.0</td>
<td>76.9</td>
</tr>
<tr>
<td>3. Fees for all enhance quality of student selection since every student has to meet the same entry standard.</td>
<td>71.4</td>
<td>50.0</td>
<td>69.2</td>
</tr>
<tr>
<td>4. The key to success in fee policy lies in whether student financial support schemes are sufficiently implemented.</td>
<td>42.9</td>
<td>60.0</td>
<td>100.0</td>
</tr>
<tr>
<td>5. The fees should be set at a level that can be accepted by most students (families).</td>
<td>85.7</td>
<td>60.0</td>
<td>100.0</td>
</tr>
<tr>
<td>6. Government should maintain and increase its budget level for higher education even if fees for all is implemented in all institutions.</td>
<td>28.6</td>
<td>90.0</td>
<td>75.9</td>
</tr>
<tr>
<td>7. Institutions benefit little financially from fee charges as funds raised from fees are mostly spent on student support schemes.</td>
<td>0.0</td>
<td>50.0</td>
<td>23.1</td>
</tr>
<tr>
<td>8. Fees for all contribute to more competition for students, and challenges and pressures for improving course offerings and quality within institutions.</td>
<td>28.6</td>
<td>80.0</td>
<td>92.3</td>
</tr>
<tr>
<td>9. Fees for all has led to a decline in enrolment for some fields of study and in some institutions.</td>
<td>0.0</td>
<td>20.0</td>
<td>61.5</td>
</tr>
<tr>
<td>10. Fee-paying students generally work harder than state subsidised students.</td>
<td>71.4</td>
<td>80.0</td>
<td>100.0</td>
</tr>
<tr>
<td>11. It was found that some fee-paying students lived under great stress, worrying more about their financial situation than their academic progress.</td>
<td>0.0</td>
<td>0.0</td>
<td>30.8</td>
</tr>
</tbody>
</table>

Source: Personal interviews conducted for the current research

To know more about students' perspectives on the fee charges, data elicited through personal correspondence directly with students are
presented here, and supported the findings from other sources. Purposive sampling (snow sampling) was used to locate and select student correspondents (with this researcher) from different family backgrounds and in various fields of study. Seventeen university students directly involved in the correspondence expressed their own opinions and attitudes and those of their classmates and friends towards the fee charges.

Table 10.6 Students' Views about Charging Fees for All (N=17)

<table>
<thead>
<tr>
<th>List of ideas</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In principle, I tend to agree with a fee-paying system.</td>
<td>29.4</td>
<td></td>
</tr>
<tr>
<td>2. I have to accept fee charges as I am keen to go to university.</td>
<td>58.8</td>
<td></td>
</tr>
<tr>
<td>3. I would like to share some costs of my education so that in return I can get freedom (I don't have to accept a job from the state) to find my favourite job after graduation.</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td>4. I am not in favour of the current fees for all system.</td>
<td>70.6</td>
<td></td>
</tr>
<tr>
<td>5. Under the fee system we have to choose institutions that charge cheaper rates although they are not our favourite institutions.</td>
<td>52.9</td>
<td></td>
</tr>
<tr>
<td>6. My sister (or my friend) had to go to a teachers' college because it cost less. But if her family could afford her education, she, as a highly distinctive student, would enter a prestigious key university.</td>
<td>17.7</td>
<td></td>
</tr>
<tr>
<td>7. I feel great pressure of family financial burden for my education.</td>
<td>64.7</td>
<td></td>
</tr>
<tr>
<td>So I study hard to repay their support.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I don't want to rely on my family. I work hard to win scholarships or other financial support from my university.</td>
<td>82.4</td>
<td></td>
</tr>
<tr>
<td>9. I joined in work-study programs from which I got some working experience and pocket money.</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td>10. It was very hard to get a student loan. I hope that student loans are open to all students.</td>
<td>58.8</td>
<td></td>
</tr>
<tr>
<td>11. Student financial support schemes are not satisfactory.</td>
<td>88.2</td>
<td></td>
</tr>
<tr>
<td>12. Some of my classmates are busy with doing business outside campus to pay for tuition and living costs.</td>
<td>17.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: Personal correspondence between this researcher and the students surveyed.

The results of the above student surveys display some consequences and impact of charging fees on these students and other students known to them. The results show that no more than 30 percent of responding students agreed that they should pay part of their higher education costs (item 1). A majority of correspondents did not support fee charges (item 4). Most students surveyed were not satisfied with the existing student financial support schemes (items 10 and 11). Also, a majority of
students expressed their desire for financial independence from their families and felt guilty about taking money from their humble families for their higher education (items 7 and 8). Confronting various fee charges (tuition, miscellaneous fees, textbooks and campus accommodation) and other costs of living, 65 percent of students surveyed were under stress and pressure. It was said that it was under such a pressure that they worked hard (item 7). This suggests that fee charges increase the financial stake and cost-consciousness of the fee-paying students, which prompt them to work hard. The surveys also show that students' financial backgrounds instead of students' academic performance, played a vital role in deciding which university the student attended (items 5 and 6). Some students wrote that they would like to "buy their freedom from the state" (to look for their favourite jobs on their own) by paying their tuition and fees (item 3). This may indicate that these students realised the direct personal benefits received from higher education and would like to pay the costs. It was also found in the survey that some students had developed a sense of making money partially to cover the fee charges (item 12).

Unlike responses from the government officials, university managers and academic staff, data from students' surveys demonstrate that students in the sample assumed generally a negative attitude towards fee charges and did not see a fee system as improving equity in access. But their responses also displayed that fee charges stimulated them to work hard and to be more cost-conscious of cost differences between institutions. These could be seen as positive effects because efficiency in the system would be likely to improve as a result of the incentives caused by the fee charges. Although the small number of interest groups surveyed could by no means represent views of all, the surveys provided qualitative and comparative data for assessing the fee system from the point of view of different groups involved.

In sum, this section elaborated on findings from a variety of sources about effects of fee charges on equity in access and efficiency of higher education. Some positive effects of fee charges were displayed, such as incentives for improvement of efficiency and responsiveness of the higher
education system, increased chances for study places, and greater cost-consciousness of both institutions and students (see summary data in Tables 10.2, 10.4, 10.5 and 10.6). But the imposition of fee charges also raised a number of issues concerning equity, quality and cost recovery. The next section discusses these issues and proposes some policy options based upon the study of this section.

10.3 Issues and Options

The chief initiatives of the introduction of fee charges in the Chinese higher education sector were to expand the system and improve access to higher education. This expansion of the system should be financed by a diversified funding base, according to a government policy statement (CCP & State Council, 1993). As returns to higher education comprise both private and societal benefits, the cost of higher education should be shared proportionately by the state and the individuals. As direct beneficiaries of higher education, students are liable for the cost of higher education. However, the current issues are how much students should contribute to the cost and how their contributions should be collected. If the fees were set at a very small proportion of the full cost, there would not be sufficient cost recovery for adequate expansion of the system. However, if the fees were set at a level approaching full cost or required immediate payment, these factors would most likely discourage significant numbers of students from participating in higher education. In the Chinese context, the current fees are set at 20 to 40 percent of the average operating costs in many institutions. As showed previously, this fee level was beyond the capacity of many urban families and most rural families to pay in terms of per capita income of Chinese residents (SSB, 1997), thus raising equity problems. From 1997, fees for all have been introduced to every higher education institution, thus making the problems revolving around the fee charges more significant and urgent to resolve.

In this researcher's view, the best resolution to the dilemma between equity and cost recovery lies in adequate implementation of student financial assistance schemes. Some positive international practices and
experience in relation to fee charges and financial support for students can be used to enlighten policy development in the Chinese context, as there exist some universal issues regarding cost recovery in many countries (see Chapter 4). The Higher Education Contribution Scheme in Australia allowed students to pay either an up-front fee or defer their payment and repay through the taxation system when their taxable income reached an indexed minimum threshold for a particular year. Although students in the US typically share more costs of higher education than those in other countries, there is a mix of loans, grants and work-study programs to assist them to complete their study. The World Bank also proposed a series of policy options for cost recovery as well as student support in developing countries (greater detail was given in Chapter 4). However, there is no ready model for China to adopt, as the Chinese situation differs in many ways from those of other countries. For example, there are almost no part-time students and mature-aged students enrolled in undergraduate courses in the regular higher education sector (these students normally go to the adult higher education sector). The sole income for most students is from their families, as there is also no social security allowance for students' living cost, such as Australia's AUSTUDY, in China. So most students have to rely either on their families or their institutions or both to support them.

To better address issues concerning equity, quality, efficiency and cost recovery, this writer proposes some policy options as follows, taking into consideration both valuable and instructive experience of other countries and the World Bank’s recommendations, and the unique features of the Chinese situation.

Option One: Enhancing Student Loan Schemes

As is apparent from the current financial situation of average Chinese households, it is very difficult for them to afford fee charges and living costs of higher education. To encounter the equity problems confronting a majority of students while achieving cost recovery, the best and most efficient option is to enhance the current student loan schemes in China.
so that students (parents) unable to pay fees out of current income still have a chance to go to universities by borrowing. The guideline proposed for the loan schemes is to turn state subsidies into loans and mobilise more resources for higher education although the cost recovery from deferred repayment takes time to achieve and may in some cases be defaulted.

The current student loan programs in China are targeted only at some "poor students" who account for about 20 percent of students enrolled in some universities. The loans are mostly interest-free. The repayment terms for the loans are not tight. For example, students are allowed to begin the repayment five years after graduation and those who accept government assignment to work in some designated areas and work units after graduation will be exempted from the repayment (*Tianjin Daily*, 15.8.1996, p.1; *Qingdao Daily*, 15.9.1995, p.5). For the funding source of the loan schemes, the central government and some local governments transfer specific funds to higher education institutions to administer loan programs, and institutions themselves also allocate part of their income from fee charges to finance the loan schemes, as previously shown. Such a loan program would allow students who cannot afford to pay out of current income, to pay by tapping their future earnings, thus addressing the equity problems related to fee charges. While this principle of loan schemes has been established in China, the existing loans are seen to be open only to a small proportion of students, and the long period of repayment and the interest-free nature of loans make them not financially efficient. So far there have been few reports and comments in the Chinese official press and literature about how to deal with potential default and evasion of repayment. As loan schemes begin to develop in every institution along with fee charges, default and evasion issues will become a serious problem in the next five to ten years when the current required repayment is mostly due.

In view of these key issues in relation to the implementation of the loan schemes, this writer makes the following proposals to improve the existing student loan schemes and increase cost recovery.
Proposal 1. A national credit union with local branches should be established to raise educational funds, distribute and collect student loans. This credit union should be non-profit when administering student loans (but it can be a commercial bank when dealing with other businesses) and be a self-supported and autonomous corporation. The government and higher education institutions should act as the main funding providers of the credit union with the condition that the credit union pays back their funds as soon as it gets the repayment of loans from students. All community support for needy students including donations and funds provided by individuals and enterprises should go to the credit union to enhance its financial capacity.

Proposal 2. While the student loans should be open to all higher education students (conditionally to full fee-paying students) (see Option Three), the credit union should charge student loan interest rates but the charges should be set below general commercial rates. There should be no interest-free loans as graduates after being employed will have the capacity to repay loans as well as the interests. The interest rate charges also encourage students to pay tuition in the first place or pay loans earlier.

Proposal 3. Higher education institutions should cease loan schemes and transfer them to the credit union together with partial funds raised from their fee charges. The transfer improves economies of scale in administering loan schemes as the credit union is likely to deal with loans more efficiently and effectively through consolidating professional human and financial resources.

Proposal 4. To provide incentives for the credit union to collect loans, the government should be the guarantor on student loans to minimise the union's losses due to default and evasion. The government in the Chinese context is the most powerful body to prevent the default losses.

Proposal 5. An up-front fee (about five percent of average operating cost of higher education, namely, around 500 yuan) should be paid by most students (with few exemptions) who wish to borrow from the credit
union to pay fees and living costs. In the light of national statistics (SSB, 1997), most families can afford such an up-front fee.

**Proposal 6.** Priority should be given in loans and interest rate charges to those students who choose to study in fields of national priority, such as teachers’ training courses, agriculture and forestry, mining etc. The current non-fee or low fee charges for those students should be replaced by the priority loan scheme to increase cost recovery through reducing heavy state subsidies for these institutions.

**Proposal 7.** Much research is needed in developing repayment policies and minimising default and evasion. A special infrastructure fund should be established to support the research.

**Proposal 8.** In the absence of an effective income tax system (most income-earners in China are not required to pay income tax), repayment should be collected through joint efforts between the credit union and other financial institutions across the country with the help of public security organs of the government that can trace defaulters through their authorised ID control. In China, most income-earners have business with banks and every Chinese citizen has a residential ID card issued by the public security organs.

**Proposal 9.** Full repayment should be made within five to seven years after graduation to reduce the period of cost recovery and administrative costs as well. In view of the current low unemployment rate of about three percent (the officially registered unemployment rate in cities and towns) and higher income that people with university degrees can earn (about 1,000 yuan per month), the repayment time limit is feasible (*Beijing Review*, April 7-13 1997, p.28; July 29-August 4 1996, p.22). Moreover, discount or other incentives could be given to those who repay their loans earlier.
Option Two: Limiting the Number of Scholarships

As shown earlier, about 40 to 60 percent of students were sponsored by scholarships in some Chinese universities. If these scholarships were mostly financed by institutional income from fee charges, cost recovery through fee charges was hard to achieve as most funds from fees went back to students (some university managers also expressed similar views) (interviews, senior university managers, Jinan, Beijing and Sydney, December 1996 - February 1997). Moreover, scholarships should in principle be used to award the best performance and encourage competition among students. Such a large proportion of scholarship awardees weakened the objectives of scholarships.

To address the problems, rigorously selective scholarship schemes should be established in every institution. Only outstanding students should be entitled to win the scholarships. The guideline for the selective scholarship schemes is based upon students' academic and moral merits rather than financial backgrounds. Needy students who are not very high achievers have recourse to student loans as recommended above. But the scholarships provide an opportunity and economic incentive to reduce the loan burden on poorer students with the best performance.

Option Three: Promoting a Full Fee-Paying Alternative

Considering the current financial stringency of higher education as described in Chapter 8, unified fee charges of 20 to 40 percent of the average operating costs for higher education are still unable to improve the financial plight as government funding continues to decline in real terms and much of the income from fee charges has to be spent back on student financial support programs. The existing excess demand for higher education will continue as the enrolment ratio in Chinese higher education was only 1.6 percent (much lower than the average level of 4.1 percent in other developing countries) (Beijing Review, March 4-10 1996, p.23).
An official survey also showed that there exists a high demand of parents for their children's higher education (74 percent of parents in Shanghai were willing to support their children to go to universities) (Chen, 1996). The results of a survey of the income levels of 916 Beijing residents indicated that about 50 percent of residents in the sample earned 500-999 yuan per month, 18 percent of residents earned 1,000-1,999 yuan per month, two percent earned between 2,000 and 2,499 yuan, and three percent earned above 2,500 yuan (Beijing Review, July 29-August 4 1996, p.22). The results thus show a great gap in income levels of sampled residents between the middle-income earners and the rich. Another survey over motivations of saving by urban residents in a number of Chinese cities displayed that saving for children's education was at the top of the list of motivations for saving (Liu & Yang, 1994). This may suggest a great potential for large private financial resources to flow to higher education (as primary and secondary education are mostly free of charge in China) and likely continuing excess demand for higher education as well.

In view of the excess demand for higher education and the great potential for private contributions to higher education, this writer suggests that higher education be permitted to enrol a certain number of full fee-paying students to alleviate the current financial stringency of institutions and increase the extremely low staff-student ratio of higher education enrolment in China. To mitigate equity and quality problems that may be raised in the practice, a number of proposals are given as follows.

Proposal 1. Public higher education institutions be able to charge students full fees provided numbers of such do not exceed 20 percent of enrolments in any courses offered. The limit to full fee-paying places is to guarantee the state-funded places for part-paying students. The limit may also prevent any prestigious universities that could attract more full fee-paying students from over-enrolment.
Proposal 2. To achieve full cost recovery, fees set for full fee-paying courses should include both recurrent costs and a capital component in their provision and vary between courses to reflect actual costs.

Proposal 3. The entry standards for full fee-paying students should be lower than those for the state-funded students receiving loans but nevertheless accountable to students, the community and the government so as to avoid any misuse of the full fee policy. The academic standards for full fee-paying students after enrolment should be the same as for the state-funded students. Those who fail to keep up should be excluded from courses. Only by doing this can the academic quality of higher education be maintained.

Proposal 4. The current delivery mode of higher education in China should be diversified to accommodate potential diverse demands of fee-paying students including full fee-paying students. Students, particularly postgraduates, should be allowed to study on a part-time basis to ease their financial burden as they can take a part-time job and pay for a half student loan only.

Proposal 5. Full fee-paying students should only be allowed to borrow the same amount of loans as the part-fee students and should raise money on their own to pay the balance, because places for full fee-paying students can be created only out of current outlay of full fee-paying students (parents).

Proposal 6. The government should implement comprehensive monitoring and evaluation arrangements to ensure that the standards of academic quality and financial efficiency of higher education are met when a full fee strategy is permitted to operate. The existing higher education enrolment offices of government departments should monitor and report on the implementation of the full fee alternative within institutions.

Although the intake of full fee-paying students who miss out on partially state-funded places sounds unfair to students from middle and low-
income families who cannot afford full fees, the revenue raised from the intake can create extra places for more Chinese youths to receive higher education, and also improve the current inadequacy of teaching and research facilities due to underspending, thus furthering both efficiency and equity. The full fee alternative is only targeted at relatively wealthy socioeconomic groups by attracting their fiscal consumption to higher education which might otherwise go to other areas. The intake of full fee students may redirect the millions of cash flows to foreign universities back to China as the number of fee-paying students going to foreign universities grew to 300,000 in China between 1978 and 1997 (*China News* [TV Broadcast], 22.1.1998) (although there are various reasons for choosing to study abroad, such as academic quality and social and political environments). In spite of a number of potential advantages of the full fee alternative, great caution and appropriate strategies should be taken to counter any possible adverse consequences in aspects of equity, quality and efficiency.

10.4 Summary

The issues of fee charges and student financial support have been well documented in the world literature of recent years (Woodhall, 1983, 1991; World Bank, 1986; Albrecht & Ziderman, 1996; OECD, 1990). However, there have been few systematic studies addressing the fee charges and supporting programs in the specific Chinese context. This chapter concentrated on examining the impact of the fee charges on equity of access, academic quality and financial efficiency in China through a systematic analysis of data elicited from various sources, both official and unofficial, after describing the dramatic shift from a free higher education to fees for all.

It was found from the analysis that the fees for all provided incentives for improvement of efficiency and responsiveness of the higher education system, helped to produce more study places and stimulated greater cost-consciousness of institutions and students (parents). However, it was also found that the fee charges raised such quality and equity problems as the great financial pressure on poorer students (families) who could
hardly afford to pay and risks of losing well-qualified students from low-income families in higher education. Moreover, the result of cost recovery through fee charges was found to be less convincing because the survey data for this research showed that most of income from the fee charges was spent back on student financial assistance, thus achieving little financial efficiency.

To redress the problems of equity, quality and efficiency surrounding the current practice of fee charges, this writer proposed three options for further research and action: enhancing student loan schemes, limiting the number of scholarships and promoting a full fee-paying alternative to tap greater private contributions. As this thesis aims to explore the overall effects of policy changes in funding of higher education in China, there is limited opportunity here to develop a comprehensive discussion of the controversial fee issues but the present chapter has focused on some of the most prominent fee issues.

To enhance efficiency of governance and alleviate financial stringency, higher education institutions, driven by the government and the changing external environment, have undertaken a number of radical reforms in the governance and funding areas discussed in this part (Part III) of the thesis. The next chapter ends Part III (Findings and Discussion) with a specific exploration of how a particular university interacted with the wide-ranging reforms in the governance and funding of higher education in China discussed in the previous and the present chapters. The case study provides first-hand information and an in-depth illustration of the changes in a particular university against the broad context of higher education sector reforms.
CHAPTER 11

AN IN-DEPTH INSIGHT INTO CHANGES:
A CASE STUDY

11.1 Introduction

Following the general discussion of broad issues concerning changing patterns in the governance and funding of Chinese higher education undertaken in the previous chapters, an extended and systematic review of changes in a particular university allows a more profound exploration of the way in which the university interacted with pressures for reform, and an in-depth examination of specific issues and problems raised in the interaction. This case study also provides the opportunity to explore non-quantitative aspects of the changes in the governance and funding of higher education in more detail. As the case study aims to review the effects of the governance and funding reforms on a particular institution, it also offers insights into how and why the changes occurred in a particular institution. Evidence for the case study came from documentation (local news clippings, minutes of meetings, memoranda and other internal documents of the case site), official and private archival records (official survey data, personal diaries and correspondence) and interviews. The selection of the case site is partially attributable to this writer's professional experience of almost a decade in this university before she started the current research (for more about the research method of the case study, see Chapter 5).

This chapter reports the results of a case study of the Qingdao Ocean University in China. The following sections provide a brief and general description of the case study site, the Qingdao Ocean University, and then a discussion of major effects of institutional governance and funding reforms on the University. Conclusions are drawn from the discussion of the detailed case study at the end of this chapter.
11.2 Brief Profile of the Qingdao Ocean University (QOU)

The Qingdao Ocean University is located within a short distance of the central business district of Qingdao (or Tsingtao), an eastern coastal city of industry and commerce with a population of about four million.

The University was first established in 1924 as the then Tsingtao University. It was turned into Shandong Ocean College in 1959 and renamed as the present Qingdao Ocean University in 1988.

In terms of academic rank, the University has long been a national key university (college) and has recently been selected as one of 100 higher education institutions in China allocated greater priority by the government in funding (called the "211 project"). The University is currently a comprehensive university, offering studies in oceanography, aquatic industry, aquaculture, maritime pharmaceutics, science, technology, engineering, humanities, philosophy and law. Priority areas and areas of research strength in the QOU include oceanography and aquatic industry in which the University takes the lead nationally. The University has 11 faculties: Maritime Environment, Technological Science, Chemistry and Chemical Engineering, Marine Biology, Marine Geoscience, Aquatic Industry, Engineering, Haier Economics and Trade, Foreign Languages, International Language and Culture Exchange, and Adult Education, under which there are 30 departments and centres. The University offers academic degree programs ranging from associate bachelor programs to PhD programs.

The University has currently enrolled over 7,600 students, of whom over 600 students are doing masters and PhD degrees, and there are nearly 100 overseas students from 11 countries. At present, the University has a total of about 2,000 staff, among whom about 700 staff are academics. It has about 170 professors and 300 associate professors and other senior academics.
The University has also been one of the 35 universities directly funded and administered by the State Education Commission (SEC) in China and is currently administered jointly by the SEC and the Shandong Provincial Government (QOU, 1997).

11.3 Changes and Issues in Governance

Like most higher education institutions in China, the QOU has undergone dramatic changes in its governance, particularly over the past decade. This section is devoted to a discussion of key changes in three areas: leadership system, organisational structure, and external governance. The focus of the study is on how the changes affected resource allocation and utilisation, and management of the University.

Dual Role of the President

In the broad context of the political and administrative reforms in China called for by Deng Xiao-Ping's central administration in the 1980s, the University replaced its long governance system - the monopoly of the Communist Party University Committee (CPUC) - with the current "president responsibility system under the CPUC" in 1987 (CPUP, 1987; personal diary, 1987). The new leadership system signified the beginning of a division of labour by leaving political and ideological work to the Party organisations and making the university president in charge of academic matters and general administration (see Chapter 2 for more detail). However, ironically, the incumbent President of the University holds concurrently the position of the Secretary (Head) of the CPUC. In other words, after a decade of evolution, the binary leadership of the University has reverted to a monopoly of governance at the top level again (although it is still called the "president responsibility system under the CPUC"). But the monopoly is different from the former CPUC, because the incumbent President is more a professor than a politician.

As there is no governing body such as the Board of Trustees over the President at the QOU, the President is required to play a dual role of both governance and management by overseeing and heading his
administration. Moreover, as the President is also the head of the CPUC, his power as leader is considerably consolidated within the University. On the positive side, the consolidation of the leader's power provides an opportunity for a strong, effective and efficient leadership under which all efforts and all parties (Party members, academics, administrators and the staff) are coordinated to achieve common goals of the University. It is also likely for the President to resolve discrepancies between the Party and the administration under such a leadership system and to streamline decision-making processes. The strong and streamlined leadership facilitates effective allocation and optimisation of institutional resources.

However, this system also allows the President, should he so desire, to function as an authoritarian leader without adequate consultation and a variety of inputs to policy determination. In this case, performance monitoring, review and public accountability to the government, staff, students and the community become very important to ensure the Presidency and the administration operate properly and most effectively. This is particularly important when overall institutional autonomy increases. In addition, a confusion of roles and responsibilities in the system may arise as it may be unclear who the President and his administration represent, the Party, or the administration, or both. Last but not least, the success in the current leadership of the President (also the Secretary) relies not only on the arrangement of the system but also on the management skills and other leadership traits of the President. (The latter is beyond the scope of the discussion of this thesis).

Organisational Restructuring

There have been two major structural changes over the past decade at the QOU. The Qingdao Ocean University used to be the "Shandong Ocean College" before 1987. Like many other higher education institutions that were upgraded in the 1980s, the College was formally changed to a University in 1988, when the number of higher education institutions in

"Shandong" is the name of the Province where Qingdao city is located.
China reached 1,075. The upgrading was nominal rather than actual at that time, as there was little change in human and financial resources of the University along with the change in name (personal correspondence, December 1997; personal diaries, March 1988). But at least one change was obvious, that is, the change in organisational structure of the University's academic sector at the middle and basic operating unit levels. Departments were restructured into faculties and teaching and research sections into new departments, while a lot of new teaching and research groups below departments came into being (internal document, 1988). After four years, another round of restructuring began in 1992 along with an internal management reform and lasted about two years (internal documents, 1995). But in fact, the recently formed (in March 1997) Faculty of International Language and Culture Exchange, upgraded from the former Chinese Language Centre for Overseas Students (Qingdao Ocean University Newsletter, 10.3.1997, p.1), indicates that structural change is likely to continue in responding to changed demands of the external environment.

The restructuring of the University had several implications. The change in name from "College" to "University" brought with it a better prospect for the development of the institution, because a university is generally more competitive than a college in attracting external funds and students. In addition, the consolidation of several departments into a larger faculty after restructuring provided opportunities for effective and efficient use of existing resources. For instance, lecturers were able to organise larger classes or have repeat classes for students in related disciplines at the same faculty. Research staff were likely to undertake research across a broader range of fields, according to the Division of Academic Affairs (DAA) of the QOU (DAA, 1993).

Moreover, as noted, the second round of restructuring (1992-1994) was actually an integral part of an internal management reform (see Chapter 7 for a national review), which aimed to shake up redundancy and extend authority and responsibility for human and financial resources to faculties and centres of the University. The reform was principally in resource allocation. As a result of the internal management reform,
faculties and centres had in principle the decision-making power to appoint staff within the staff quota negotiated between the central administration and faculties (centres) in terms of overall required workload of a certain operating unit, and were responsible for utilisation of the resources allocated by the central administration and for seeking alternative funds to supplement the core funding. In other words, the central administration reached economic responsibility contracts with faculties, under which faculties took responsibility for their own budgets after taking a share of core funding from the central administration. To meet the staff quota and lessen their financial burden for human resources, some older faculties (centres) had to cut the number of their staff, mostly general staff, and to tighten the implementation of the existing retirement policy (compulsory retirement) (interviews, senior managers, Qingdao, February 1997). On this point, the restructuring helped to reduce some redundancy and enhanced the efficiency of human resources, at least in some faculties and departments.

Another perceived outcome of the internal management reform was the change in management system in some faculties as a result of the devolution from the central administration to faculties. Three faculties adopted a new management system in the Chinese higher education sector, namely, the Board of Trustees system, and took in enterprise managers, government officials and other external figures as members of the Faculty Board of Trustees. The three faculties obtained considerable financial support through the involvement of these external members. (Greater detail is given in the next section.)

Finally, the restructuring accommodated the needs for reinforcement of new market-oriented programs and subjects set up over the past decade. For instance, the consolidation of the Department of Mathematics, Department of Economics and Department of Accounting into the Faculty of Economics and Trade led to the formation of several other departments such as the Department of (Business) Law, Department of Business Management, Department of Economics and Trade and Department of Marketing. The establishment of these new departments broadened the range of course offerings and strengthened these new
programs that have been in high demand by the local markets over the past decade.

However, the restructuring raised some issues which unfortunately have not yet been well addressed. Firstly, as a result of the nominal upgrading from college to university and from departments to faculties, levels within the internal structure increased, accompanied by more bureaucracies and administrative staff. The 1997 staff statistics show that only about one third of staff are academics at the University (QOU, 1997). This suggests heavy redundancy among general staff within the University. Although running considerable auxiliary enterprises of the University (that is, student dormitories, staff apartments, canteens, a medical clinic, a child care centre and a kindergarten, a printing factory and other factories and shops) deployed a large number of general staff, the formation of new faculties and other new operating units following the restructuring also contributed to an unbalanced ratio between academics and general staff. The redundant staff cut in some older faculties and departments were transferred either to the non-academic sector or to new faculties and departments. On the one hand, the restructuring consolidated some departments into larger faculties. On the other hand, however, most of former departments remained and new faculties and departments emerged with the restructurings. So the overall number of staff was not reduced and the overall redundancy of general staff still existed within the University, due to the increase in levels and number of operating units of administration.

Secondly, the problems of overlapping and confusion of roles and responsibilities in the administration system became severe as there were more heads and bureaucracies at all levels of operating units of the University. The smaller span of responsibility seemed to maintain closer control. However, it was not effective in an academic sector that requires minimal supervision in nature. It was often the case with this administrative arrangement that decision-making processes were unnecessarily protracted because they needed to go through so many committees and offices. It was also claimed that shirking responsibility often occurred among different levels of administration (interviews,
senior managers and academic staff, Qingdao, February 1997; personal letters, August 1996). It is obvious that reduced levels and limited numbers of administrative units (wider spans of control) can help to clarify key roles and responsibilities and remove barriers to efficient decision making and implementation.

Thirdly, the administrative costs increased with the rise in levels of the internal structure, which further added to an increase in per-student costs. As shown earlier, the ratio between students and the total staff is lower than 4:1, compared with the ratio between students and academics of about 11:1 in 1997. The financial burden for maintaining human resources was so enormous that the payment for staff salary and the cost of various living subsidies exceeded the total annual government recurrent allocation to the University (Guan, 1997). So one of the most outstanding issues confronting the University is how to enhance overall staff productivity through shedding its redundant administrative load and freeing up its resources.

**Under an SEC-Provincial Joint Management**

In 1994, the QOU became one of the 17 SEC universities to take on a state-province joint management system (for the system, see also Chapter 6). The State Education Commission (SEC) and the Shandong Provincial Government reached an agreement to jointly run the QOU. From 1994 on, the Province provided the University with 10 million yuan annually as “joint-management funds”, while the University made commitments to the Province by joining in some large research projects on opening up marine and river (the Yellow River) resources in Shandong Province (*Qingdao Daily*, 25.10.1994, p.1).

Obviously, the joint management brought to the University financial benefit as well as local obligations and opportunities to develop business with local enterprises. From this point of view, the joint management had a special implication for the viability of the University. Under the joint management, the University tended to give greater priority to the local economy than to the national one in terms of fostering linkages
with the local community. Building links with local industry and inviting local government officials and enterprise executives to participate in internal management indicated that the University was actively promoting a new relationship with external entities, including local government.

The joint management also required the University to comply with local government policies especially in the context of general decentralisation and deregulation from the central government to local governments. This, sometimes, became an additional burden for the University. For instance, the Shandong Provincial Government recently issued a series of salary policies to improve the living standard of employees. However, the Government did not allocate funds to implement the policies. The University therefore had to increase staff salaries from its own extrabudgetary income (interviews, senior managers, Qingdao, February, 1997). This increased greatly the financial burden of the University and introduced additional pressures to seek more non-government funds.

With respect to the overall relationship between the government and the University, the President of the University made the following statements in a recent speech.

At present, the government is still exercising too rigid a control over higher education institutions and leaving institutions too little autonomy. President has no decision-making power in enrolment quota (I have no right to take in one more student beyond the government quota). Such a control system is not consistent with the demand of the current market economy. It becomes more difficult to manage and run a university without institutional autonomy. (I believe that) institutional autonomy will gradually be realised, as our managerial skills increase and the entire social situation improves (Guan, 1997, p.7).

The President's remarks provided a most authoritative vision on the current relationship between the government and the University. Although in many cases, institutional autonomy has increased as shown in Chapter 6, the above statements indicated that the tight control of
the government remained over the University but would be lessened if conditions improved. The statements also suggested that excessive control by government limited the full development of the University, and this current external control system failed to accommodate the market economy.

11.4 Impact of Income Generation

Along with reforms in the governance and management arrangement, the University has been very actively engaged in income generation. The extrabudgetary income of the University has accounted for about 55 percent of the total revenue of the University from 1992 on. The main sources of the self-raised funds came from collaboration with local industry, spin-off enterprises and student fees (Qingdao Daily, 8.1.1996, p.8). As such a significant component of institutional revenue was generated from non-state sources, this indicated that the University was undertaking entrepreneurial and profitable activities on quite a large scale. The significant income generation had a considerable impact on the University's internal funding and finance, and institutional priorities. The following discussion revolves around these key areas.

11.4.1 University-Industry Collaboration and Spin-Off Enterprises

Current Features

Like most public higher education institutions in China, the QOU could not maintain its operation without other sources of income. The government's grant to the University was less than half of what was needed to support the normal function of the University (Qingdao Daily, 15.9.1995, p.5). Specifically, the state grants to the University have not been sufficient to pay staff's salaries (interview, senior manager, Qingdao, January 1997). To fill the gap, the University turned to industry. There are at present 53 registered enterprises owned by the University, of which five companies' registered capital exceeds one million yuan (internal documents, 1998). The largest and the most important collaborative
program of the University with industry was the establishment of the "Qingdao Huahai Pharmaceutical Factory" which was jointly run by the Factory and the QOU, and became a specific production base for relevant research products of the University. The Factory alone turned over to the University around four million yuan of its net profit a year, thus forming a significant source of revenue of the University. The Factory's success was mostly attributable to a series of research projects on marine medicine conducted exclusively by the QOU researchers. It was recently reported that the Shandong Provincial Government decided to support the marine medicine research projects with favourable policies to assist the Factory to reach 1,000 million yuan of annual output (the current output is 120 million yuan) (Qingdao Daily, 16.6.1997, p.1). If the desired output can be accomplished, the University's revenue from the Factory and the research products will increase tremendously.

Another important product of collaboration with industry was the formation of the Boards of Trustees in three faculties (out of 11 faculties) of the University: Faculty of Economics and Trade (in 1994), Faculty of Aquatic Industry (in 1997) and Faculty of Foreign Languages (in 1997). The members of the Board of Trustees brought in large funds for the faculties involved. For instance, the Faculty of Economics and Trade obtained one million yuan of funds from the enterprise members of the Faculty Board of Trustees. The Faculty of Aquatic Industry also obtained 700,000-800,000 yuan in this way. In 1996, Haier Company Group, one of the chief members of the Board of Trustees at the Economics and Trade Faculty, contributed two million yuan to the Faculty. The Faculty was soon renamed after the Haier Group and became the "Haier Faculty of Economics and Trade". The University's collaborative programs with industry included joint business ventures, joint management of faculties, transfer of research achievements, provision of technological information, contract research, employee training and graduate placement (Qingdao Daily, 12.4.1994, p.1; 16.5.1997, p.5; personal diary, April 1996; QOU, 1997).

In addition to these major collaborative programs with local industry, the University had a number of tertiary industries (business companies,
service centres and shops), which generated about two million yuan of net profit a year for the University (Qingdao Daily, 8.1.1996, p.8).

Financial Predicament

Given the large published profit figures generated from the collaboration and spin-off enterprises as shown above, it seemed that the University should not have many financial problems. However, when asked about what was the biggest problem facing the University, all the interviewees gave the same answer: "shortage of funds" (interviews, the University managers and faculty managers, Qingdao, February 1997). The President of the University also admitted that the University's laboratories and equipment had not been replenished for years and basic teaching facilities had not been renewed for ages, due to lack of funds. He also realised that the funds that his central administration could allocate to faculties were so insufficient that he urged faculties to "free" themselves in seeking additional income (Guan, 1997).

It was noted that the financial situation varied from faculty to faculty and department to department within the University (internal documents, 1997). Since the central administration had shifted financial responsibility to faculties through a block and contract funding mechanism (called "economic responsibility contract system") mainly based upon student enrolment, faculties had to generate supplementary revenue on their own. This led to a great difference in finance among faculties as faculties varied in their capability for income generation. Faculties such as Economics and Trade, Aquatic Industry, and Foreign Languages, were resourced better than other faculties, as the course offerings and/or research of these faculties were more market-oriented and highly demanded. The three faculties were able to attract more investment from industry and businesses, and set up Boards of Trustees as shown earlier, because of the pragmatic speciality of their courses and research. Other faculties that were less competitive in the local market, had to struggle to survive, and some departments had to rely on core funding which could barely afford staff's salaries.
Many staff, particularly middle-aged and young staff, left the University and went to businesses and/or the private sector. The University was facing a crisis of skilled human resources caused partially by the financial stringency (interviews, academic staff, senior managers, Qingdao, China & Sydney, Australia, January-March 1997; personal correspondence, 1996, 1997). At the Faculty of Foreign Languages, more than half of the middle-aged and young academics left, of whom the majority went abroad and others went to joint-venture companies and private businesses. The main reason for their leaving was said to be the University’s “humble and modest reward” (personal correspondence, 1995-1997), although this was not totally the problem of the University as there has existed nationally a great discrepancy in reward between the university sector and the business or private sector. All these aspects show that the financial situation of the University was by no means optimistic in spite of the active and successful revenue enhancing efforts and achievements. The growing shrinkage of core funding from about 80 percent of total revenue of the University in 1988 to about 45 percent in 1997 (Internal documents, 1988, 1997) and the uncertainty of extrabudgetary revenue were the key factors in the University’s financial plight.

*Reshaping to an Industrial Orientation*

The rise in both the amount and the proportion of income emanating from the University-industry collaboration and spin-off enterprises was seen to be the result of successful adaptation of the University to the needs of industry and the economy. This kind of adaptation was highly encouraged and promoted repeatedly by the Chinese government (CCP, 1985; CCP & State Council, 1993). Within the agreements and contracts reached for the University-industry collaboration, there was one dominant feature, namely, the University (faculties) agreed to provide teaching and/or research services designated by the enterprises involved (internal documents, 1994-1997). The rename of the Haier Faculty of Economics and Trade after its main sponsor was another good example for such adaptation. The Faculty was in fact used as an image of publicity (advertisement) for its chief industry sponsor. The adaptation
was beyond the change in name as industry executives were also involved in course orientation and financial management at the Faculty. According to collaboration agreements, the Faculty was obliged to send to its industry collaborators its best graduates from the needed fields of study (Qingdao Daily, 12.4.1994, p.1; internal documents, 1994-1997).

The establishment of the Multimedia Research Centre within the University in 1996 was another example of responding to local market demands. Ever since its foundation, the centre has undertaken several large research projects valued at around 10 million yuan. The Centre, like other technological enterprises of the University, had a clear motivation of profit making from industry. In terms of the 1997 University agenda, a research consortium involving several faculties was set up to undertake whatever projects industry needed and to win contracts with large industry groups in Shandong Province (Guan, 1997). Obviously, the University was deliberately reshaping itself to an industrial orientation.

11.4.2 Imposition of Fees For All

Like other Chinese universities, the University has significant sources of income coming from tuition fees and the sale of teaching services, including running adult continuing and vocational courses and various kinds of short training courses. The University was among the first group of Chinese universities to impose fees for all new entrants in 1994. In 1997, all undergraduate students enrolled at the University were charged between 1,500 yuan and 3,000 yuan per academic year. Fees were charged differentially according to market demand. Students majoring in English, Japanese and Korean paid 3,000 yuan; students studying more "unfashionable" disciplines paid 1,500 yuan; and all the other students paid 2,250 yuan a year. All students were required to pay 700 yuan for on-campus accommodation a year. Given about 7,000 undergraduate students enrolled in 1997, the University could generate about 15.7 million yuan a year from tuition fees alone. (There were no tuition fee charges for postgraduate students) (internal documents, 1997). Although it was difficult to know how much income was
generated from continuing education and short courses as these non-conventional courses were mostly run and managed by various faculties, these courses must be profitable. Otherwise, they would be closed down since they were not government funded and not required by the government. Some faculties that were weak at applied scientific research counted on the revenue from the provision of continuing education. For instance, about 80 percent of extrabudgetary income at the Faculty of Foreign Languages was generated from running short language courses (mainly English, Japanese and Korean languages). The revenue was mostly used to increase the Faculty’s staff bonus (interview, senior managers, Qingdao, February 1997).

Issue of Cost Recovery

Ever since the imposition of fees for all students in the system in 1994, the QOU has introduced various kinds of student financial assistance programs. There were five kinds of scholarships, interest-free loans and tuition exemption schemes. The range of scholarships were valued at between 400 yuan and 3,000 yuan, and over 70 percent of fee-paying students were sponsored to some extent under the different scholarships. Some students could borrow up to 1,400 yuan a year from student loan schemes which were interest-free and required repayment within three years after graduation. Students who could not afford tuition fees after proving their actual financial difficulty could be exempted partially or fully from tuition fees. Moreover, the University provided some temporary living allowances and subsidised work-study programs for needy students (internal documents, 1997, Qingdao Daily, 16.3.1994, p.5).

This package of considerable financial support for students and the large percentage of scholarship holders left such an impression that students, once offered study places by the University, would mostly be secured by various forms of financial support. A Vice-President of the QOU also admitted that only a small proportion of income from tuition fees was used to supplement the shortfall of government’s recurrent grants to the University and most of the fee income had been returned to students
through provision of the various assistance programs (*Qingdao Daily*, 15.9.1995, p.5). This raised a question: what was the point of the fee charging? The University’s practice favoured a traditional idea that higher education was a public service responsibility. This was understandable when the fees for all were first imposed and the majority of people found it difficult to accept the fee policy. It was noticed that the University later changed the time requirement for loan repayment from five years after graduation to within three years after graduation (*Qingdao Daily*, 16.3.1994, p.5). The change had a significant implication for cost recovery as it reduced greatly the time of repayment and chances of default, and therefore enhanced cost recovery.

However, students at the University still received considerable subsidy while paying about 22.5 percent of the average operational costs in terms of unit costs calculated by the University (*Qingdao Daily*, 15.9.1995, p.5). In this case, cost recovery through fees achieved little in fact. This was because the University had to maintain the quality and the number of intake of students through these economic incentives for students (interviews, senior managers, Qingdao, December 1996). In this writer’s view, the pressures to fulfil the state’s enrolment quota and win competition with other institutions for potential students, and the actual financial situation of ordinary Chinese households were among the key factors contributing to the delivery of the wide range of subsidies. But the low cost recovery was mostly a policy issue. If public subsidy could be replaced with effective student loan schemes, the main problem related to the low cost recovery would be resolved (a set of recommendations for cost recovery through fees was provided in Chapter 10).

*Market Orientation in Course Provision*

It was generally acknowledged that with the imposition of fees for all, the greatest challenge confronting the University was the adaptability and the quality of its course offerings (interviews, senior managers & academic staff, Qingdao, December 1996 - February 1997; *Qingdao Daily*, 26.10.1994, p.5). The adjustment of curriculum in response to the
changing demands of the economy started in the mid-1980s when the entire higher education sector was required to fit in with the economic reform (CCP, 1985). It became more dynamic following the 1993 government reform program (CCP & State Council, 1993) and the introduction of fees for all. Some former "pure science" or "unfashionable" disciplines such as chemistry and mathematics were changed into "applied chemistry" and "applied mathematics". A number of new courses were set up to address market demands, such as marketing, fishery management, international trade, international business management, international finance, international business law, Japanese, Korean, computer application, tourism management and stock exchange. It was clear that the curricular adjustment reinforced the pragmatic aspect of knowledge and responsiveness of course development to the market economy.

The dramatic changes were also made in mechanisms of course delivery mainly as follows:

- increasing the quota of enrolment for 3-year courses rather than for 4-year ones to produce more graduates within a shorter time;
- reducing compulsory courses while expanding elective ones to give students more choices of courses;
- introducing and improving an academic credit accumulation system by which students could get a degree ahead of schedule or within a maximum of six years; and
- introducing a dual degree (or certificate) system to enhance graduates' adaptability to labour markets (DAA, 1993; QOU, 1997).

These main mechanisms aimed to create a more flexible, diversified and responsive curriculum structure at the QOU and to enhance success in competition for students. The main parts of these steps were proposed and implemented along with the fees for all policy.

The curricular adjustment and changes in delivery modes reflected the effects of market orientation and competition with other institutions for prospective students. The most recently opened courses such as tourism management, Korean language, stock exchange and international
business law, were direct results from responding to the needs of local trade and business. For instance, trade with South Korea has developed rapidly in Shandong Province in recent years, due to the government's open policy and geographical proximity. Korean language is therefore getting popular in Shandong Province.

However, the emphasis of the University on utilitarian specialities and vocational education gave rise to some adversities. The most outstanding one was the narrowness and inadequacy of graduates' knowledge and skills as a result of the "speciality education" (in fact, overspecialisation of programs and courses), as admitted by the President of the QOU (Guan, 1997). As the present labour market becomes increasingly fluid and work structures change rapidly, there is some doubt about how graduates, after three to four years' university education, can adapt to the changing needs of the labour market, if course design and development were narrowly regulated by current market forces. Hence, broadening specialities can increase the flexibility and adaptability of graduates. Most importantly, course design and development need effective strategic planning which values both short-term and long-term interests in the contribution of higher education to economic growth.

11.5 Conclusions

The aim of this chapter has been to review the effects of the governance and funding reforms on a particular university in China. This case study provided some in-depth observations about changes and outcomes of reforms in the Qingdao Ocean University. The major findings and key issues related to the reforms were presented as follows:

- the existing leadership system at the University after changing was strong as it combined both the Party power and the administration into a single control body at the top level, but it could lead to needless authoritarianism and confusion of roles and responsibilities;
- the restructuring and reforms in resource allocation within the University provided both opportunities and challenges, of which
the most outstanding one was how to shake up administrative redundancy as the reforms achieved little in this key area; while the University was developing a more open and responsive attitude towards its external environment (the demands of the society) under the joint management between the central and local governments, the traditional excessive control of the governments remained and restricted any further progress and adaptability of the University to its changing environment; the University was so vigorously engaged in income generation that its extrabudgetary income accounted for 55 percent of the total revenue, which, however, unfortunately did not alleviate the overall financial plight due to the uncertainty of the extrabudgetary revenue and the actual decline in core funding; the University was confronting a crisis of human resources caused by discrepancy in reward between the university sector and the business or private sector; fees for all did not achieve much cost recovery for the University as most of the fee revenue was used, on social justice grounds, for student financial assistance; and overemphasis on current market orientation in course provision contributed to inadequacy and narrowness of knowledge delivery at the University.

These observations illustrated through the case study corresponded mostly with the findings from other sources of data discussed and presented in the previous chapters (see previous chapters for a detailed discussion of the similar issues listed above), and raised some new issues such as lack of institutional autonomy and the narrowness of speciality education. Like many other Chinese higher education institutions, the QOU experienced the dynamism of the reforms and innovations, and also suffered from adversities of the reforms. This case study, as an additional research endeavour, contributed uniquely to the knowledge and understanding of the reforms in greater detail, although it was not used to provide a basis for generalisation. The current discussion of the findings through combining and converging the multiple sources of data and research methods shown in the previous and present chapters
should lead to significant conclusions of the entire thesis. That is the main commitment of the final chapter of this thesis.
CHAPTER 12

SUMMARY AND CONCLUSIONS

This final chapter falls into two sections. Section one presents a summary of the current patterns and major issues identified, and of the main policy options recommended by this researcher. Section two attempts to formulate some overall conclusions extrapolated from current trends on the prospects of the higher education governance and funding in a global perspective for future research.

12.1 Summary

Over the past decade, Chinese higher education has witnessed some significant policy changes in its governance and financing. This current research argues that these policy changes were closely related to the market-oriented economic reform started in China in 1978. The radical and dramatic changes in government economic policies have exerted a significant influence upon the control and funding of Chinese higher education.

Current Patterns: Issues and Options

Pattern One: Greater Autonomy and Increased Responsibility for Local Governments and Institutions to Generate and Manage Higher Education Resources

The main initiative of devolution policy was to enhance administrative incentives and efficiency and mobilise local and other potential resources to support the rapid expansion of higher education in China. Devolution from the central government to local governments over higher education institutions and emphasis on institutional autonomy resulted in greater financial autonomy and increasing financial
responsibility in fund raising and uses. This thesis has discussed issues of governance around external and internal financial control systems of higher education and around resource mobilisation and allocation.

As devolution permitted flexibility and encouraged initiatives to seek additional funding and enhance efficiency in the allocation and use of resources, it has contributed to the tremendous increases in the number of institutions (from 404 in 1977 to 1,032 in 1997) and enrolment (from 0.6 million in 1977 to over three million in 1997). Other remarkable outcomes resulting from this governance pattern included closer relations between institutions and local governments and local communities which brought in financial benefits as well as obligations to provide contracted services to the local economy. On this point, the devolution also changed the relationship between higher education and the society and localised higher education institutions.

However, major issues and problems were raised in the process of deregulation as follows:

- diminution of quality of higher education provision caused by overenrolment that led to further deterioration in teaching and housing facilities, and by nominal upgrading of some secondary educational institutions to universities;
- low economies of scale due to the rapid emergence of a large number of small institutions with low capacity of enrolment; and
- passive resistance to devolution from both the central authorities and the local ones that made it hard for many national institutions to obtain financial support from local governments.

This thesis therefore proposed that the central government should reinforce macro-management over higher education at the national level through legislation and accountability, and empowerment of local governments with commensurate authority and financial responsibility in running higher education institutions (see Chapter 6 for detailed discussion).
Pattern Two: Increasing Pursuit of Cost-Efficiency Mainly Through Internal and Cross-Institutional Restructuring

Another remarkable reform of recent years in the Chinese higher education sector is internal and institutional restructuring with the intention to enhance cost-efficiency in the system. The internal restructuring, as a major part of internal management reform, reduced some administrative redundancies (administrative staff) in a number of higher education institutions and increased overall workloads of staff through setting quota for cost centres within institutions. Like internal restructuring, institutional amalgamation and cooperation offered opportunities to improve efficiency of the system. The development of this trend implies that higher education institutions in China will grow larger with more capacity for enrolments, broader educational profiles and more concentration of resources with potential cost savings.

On the other hand, however, the restructuring raised a number of issues. One central issue is how to achieve real efficiency which requires highly dedicated staff, quality teaching and better instructional equipment. Other key issues resulting from the reforms include barriers of a dual internal management system; the placement of the redundant staff; and materialisation of the potential benefits of restructuring.

This thesis proposed that the quest for cost-efficiency should be coupled with a quest for real learning output through higher student-teacher ratio with higher remuneration for teachers. As to other outstanding problems of the reform, the writer made three suggestions, namely, the reinstatement of a division of labour between the Party and the administration; improvement of the quality of university staff rather than cutting their numbers; and removal of artificial demarcation of the existing external administration over higher education institutions (see Chapter 7). The solution to specific problems relating to the restructuring should be worked out in accordance with individual situations as it is difficult to find remedies that are applicable to all institutions.
Pattern Three: Moving Towards Market-Oriented Funding Driven by Diversified Funding Sources

In view of national official data and the survey results conducted for this research, the funding sources of Chinese higher education have been greatly diversified as a result of a continuous decline in real terms in state funding and policy changes in the funding mechanism. The current trend towards market-oriented funding was driven by the increasingly diversified sources within higher education institutions. The multi-channel financing helps to increase the overall capacity of higher education funding, counterbalances to some extent the overwhelming influence of the government, and impels higher education to be more responsive to the viability of the local economy and markets. Moreover, the funding diversification prompts greater diversity in delivery and managerial flexibility to accommodate different needs of the trend.

However, it was also found that the financial situation of the institutions surveyed did not improve due to a growing withdrawal, in real terms, of government financial support and the uncertainty of non-state funding sources. This finding implies wider application to other Chinese institutions as they are currently confronting similar funding problems. In conclusion, the generation of alternative sources of funding is not sufficient to make up for the decline in the levels of government funding.

Other outstanding issues identified as accompanying the market-oriented funding approach focused on how to balance institutional autonomy (or academic freedom) and sponsor direction (or consumer desires).

This thesis put forward a number of options as follows.

- The Chinese government should maintain an actual increase in the rate of investment in higher education as a stable foundation for a sound (not radical) expansion of higher education.
Government incentive policies should be improved such as through providing matching funds to reward institutions that successfully generate income from non-state sources.

Government overall coordination and dissemination of information are very important to assist institutions to adapt quickly to local needs and attract more finances.

Finally, higher education institutions should respond positively and constructively to the changing patterns of funding and enhance their managerial capacity and strengthen their education and research reputations to capture a wider range of sources while holding on to their mission of scholarship as well as responsiveness to student and regional demands.

Pattern Four: Commercialisation of Higher Education Services

As a part of funding diversification procedure, the income-generation of higher education institutions commercialised their services through two channels - running institutional enterprises (spin-off enterprises) and developing cooperation programs with external industry/business. The significant extent of involvement of higher education institutions with industry had a clear and considerable impact on institutional organisation and governance, and financial operations. Although for higher education institutions the main stimulus for income generation was finance, the income-generating activities shortened the distance between institutions and the community. Income-generating activities prompted higher education institutions to be more responsive to the external environment, and particularly the local economies, as the activities had to take account of the needs of sponsors, contractors and service users. Therefore, a principal benefit that accrued from the upsurge in income generation was enhancing the application of research achievements of higher education in the production of industries.

However, a number of other issues also emerged from the close relations between higher education and industry. A key issue for higher education was how to respond to immediate, short-term economic needs in the sale of academic services without jeopardising its long-term, cultural,
intellectual and creative roles in the society as a whole. This dilemma resulted not only from the increasing non-state and greater private financing but also from government economic policies which viewed higher education principally as an economic tool. But some international experience such as Japan's indicates that large corporations that drive and finance research efforts are increasingly emphasising high quality basic science. Thus the worldwide so-called strategic research blurs the difference between basic and applied research (Blackman & Segal, 1992). From this point of view, Chinese higher education institutions are likely to straddle the dilemma with great endeavour and balance influences from a variety of funding sources upon the development of their institutions' teaching and research profiles.

Other important issues identified included the clash between staff's external commitment (by being engaged in external commercial activities) and their maintenance of academic quality of institutions and the confusion and misconception in the allocation and utilisation of core funding and resources when some funding intended to maintain teaching and research is diverted for income generating activities.

Institutional strategies are needed to address these issues through imposing quality control measures for both academic and income-generating activities; ensuring the consistency of income-generating programs within the overall mission of institutions; giving weight to rewarding staff engaged in basic teaching and research to supplement their relative loss in remuneration; and developing accountability procedures for the use of both budgetary and extrabudgetary income (see Chapter 9 for detail).

Pattern Five: Higher Level of Private Share of Higher Education Costs

The current policy of fees for all (with few exemptions) is a result of over a decade's evolution of fee-charges in the Chinese higher education sector which abolished completely the formerly free higher education system. The thesis has discussed the fee issue mainly around its impact on
equity, quality and efficiency. This current research found that the partial introduction of fees and later extension of fee charges to all students had virtually no effect on overall enrolment for higher education as the enrolment increased continuously and dramatically over the past decade. Although the growth in enrolment was partially attributable to the excess demand for higher education, it also indicated that fee charges helped to create more study places and enhanced institutional capacity and efficiency to produce more graduates without much increase in government investment. The positive impact of fee charges was seen to be incentive and pressure for institutions to rationalise course offerings and improve the quality of teaching and other institutional services so as to attract students in competition with other institutions. As a result, internal efficiency was improved.

However, in terms of the average fee charges and the annual per capita income of urban and rural residents, for students from urban lower income families and most rural students, the biggest barrier to access to higher education was not merit and performance but financial difficulty. The equity problems were tackled with a policy package of student financial assistance programs which, on the other hand, affected the progress in cost recovery from fee charges.

To redress the problems of equity, quality and efficiency surrounding the current practice of fee charges, this writer proposed three options for further research, namely, enhancing student loan schemes, limiting the number of scholarships and promoting a full fee-paying alternative. Of the three options, this writer gave greatest weight to how to improve the existing student loan programs as the programs were applicable to most students and affected most students' immediate interests (see Chapter 10 for the option packages).
12.2 Conclusions

The principal aim of the current research is to explore the effects of government policy changes of recent years in the governance and funding of higher education upon the function of higher education, and on quality, efficiency and effectiveness of the system in China, which leads to some policy options for future actions and research. Based upon the data collected from questionnaire surveys, interviews, the original national and local newspapers and other related documents, and personal correspondence, the thesis has identified and recounted the main current patterns and corresponding issues in the governance and funding of Chinese higher education caused by government policy changes in the economy and higher education. The thesis has concentrated on the impact of the policy changes on relations between higher education, the government, and the society, and extended the discussion to some key issues of quality, efficiency and equity of higher education provision in China. While exploring the overall effects of the radical changes in the governance and funding of higher education from a national perspective, the thesis looked into the changes in 43 universities and faculties/departments surveyed and finally provided a specific case study of a particular university in China.

As situations vary greatly from institution to institution, the policy options proposed by this thesis following a general discussion of major issues and problems, are unlikely to apply to all institutions in China. Specific strategies are needed to address particular issues in terms of the individual situation and the local context. In spite of these limitations, the policy options provided do give general guidelines and alternative scenarios to address the major issues and problems identified and discussed in this research.

Prospects of Higher Education Governance and Funding: A Global Perspective

The results of this research about the current patterns of higher education governance and funding in China are strikingly parallel to a number of clearly discernible global trends, despite diversity in the
international experience. As shown in Chapter 4 (literature review), some global trends are seen to favour devolution of financial autonomy to institutions, diversification of funding sources, market-oriented approaches to funding, increased sophistication of formula funding, and a larger private share of higher education costs. From the extensive discussion in Part III of this thesis, it is clearly seen that the reforms of the Chinese higher education system in governance and financing are following directions common elsewhere.

The Chinese practices and lessons illustrated in this thesis could also be informative to other countries and the broad options proposed by this thesis for Chinese higher education may apply to counterparts in several other countries in some ways. From this point of view, the current research is constructive as a basis for comparative and empirical research of similar issues in international perspectives. Given the striking parallels of the current governance and funding patterns in China to those in other countries, this researcher attempts to present some broad prospects of the future of higher education control and funding, on the basis of the results of this research and the review of current international trends (see Chapter 4 for the review). This international prospective offers a global view of the future higher education governance and funding, although common issues may take different forms in different countries.

The speculation for the future direction of higher education governance and funding should be based upon factors that influence the viability of higher education. The main contributing factors are identified and also justified by the previous studies of this thesis as follows:

- the state of the economy and the social context, which determine the capability of the government and the community to contribute financially to higher education and the governmental strategies of higher education regulation;
- student demand for higher education, which depends on demographic changes and private desire for, and valuing of, higher education;
government's perceptions and expectations of higher education, which shape its higher education funding policies and management practices; and

challenges of new as well as high technologies, which thrust themselves into their relevant areas beyond predictions of the bureaucracy and require the capability and infrastructure of higher education to adapt and adopt them.

Although the significance of each of these factors may vary over time and in different countries, they provide common ground for predicting future directions of higher education governance and funding. Given these external forces to which higher education is subject, this researcher outlines four strong (almost inevitable) global trends of higher education governance and funding in the near future.

1. A Counter-Balance of Government Regulation by Market forces

In terms of the analysis of Neave and van Vught (1994), governmental regulation of higher education generally takes two forms, the rational planning and control and the self-regulation strategy. The former represents centralised decision-making processes and tight control of implementation of a chosen policy, while the latter emphasises the self-regulatory capacities of decentralised decision-making units under limited government influence and supervision. The current trends of funding reform are moving towards the latter and favouring market-oriented approaches to higher education funding in a global perspective. This has already led to the change in the relationships between government and higher education in terms of relaxation of government centralised planning and control as seen in Brazil, China and many OECD countries (Neave & van Vught, 1994; OECD, 1990).

However, a noticeable trend towards reinforcement of state centralised control is also developing in some countries such as in Australia and some African countries (see Chapter 4) (Eisemon, 1994; Sawyer, 1994). The counter-development reflected a double dynamic of government regulation and market steering. Therefore, the future general pattern of
governance will be a counter-balance of the two options in order to cope with more diverse dimensions of higher education development and an increase in constituencies affecting higher education. Under this general pattern of governance, funding mechanisms will become increasingly important leverages of the governments in regulating higher education. Thus the future funding approaches will constitute both administrative and market factors but the dimension and level of either factor will vary over time and in different contexts of each country.

2. Greater Efforts for Cost-Efficiency and Funding Linked to Performance

Another worldwide discernible trend to date is increasing emphasis on enhancing effectiveness and cost-efficiency in higher education and the adoption of incentives funding using various performance indicators in higher education. Evidence suggests that higher education will face increased competition for scarce resources, both from within the system and from other public sectors (Harman & Selim, 1991). Extrapolating from this trend, the following observations can be made about the future higher education sector:

- greater accountability for the use of public resources by way of accountability statements against reliable (hopefully) performance indicators reflecting quality assurance, graduate employment outcomes and actual performance against other educational and research goals of institutions;
- more aggressive actions in reducing costs such as more institutional consolidation, increasing student-staff ratios, further cuts in student subsidies and reducing course duration under the general guideline of doing more with less, although it remains doubtful that the outcomes of these measures may achieve substantial cost-efficiency; and
- more complicated and categorised funding mechanisms with an overall intention to maximise efficiency of resource utilisation and reward achievements, which will gradually replace the current dominant funding mechanism based mostly on student enrolments.
3. Further Diversion of Government Financial Priority from Higher Education to Other Sectors

It is a general tendency around the world that governments in the 1980s and 1990s did not give the same high priority to higher education as in the 1960s and 1970s. This represents a shift of government's perception of higher education. In developing countries, proportionately more financial resources from the government are going to the primary and secondary education sectors. In developed countries, cuts in government funding for higher education and the increasing demands for institutions to be accountable to the government and the community imply that higher education will not remain high on the agenda of governments in terms of funding although current political rhetoric does not admit to this conclusion. However, governments in all countries will have to face the challenges of new and high technologies which demand more well-qualified human resources (mostly, graduates of higher education). Therefore, governments will be in a constant dilemma between degrading higher education funding priority and demanding more highly-skilled graduates.

4. Greater Reliance on Private and More Diversified Funding

The state of the economy is usually the most important factor that affects the investments of the government and individuals in higher education. The present economic recession in many countries and the slow-down of economic growth in China and the latest economic crisis in other countries in Asia's Pacific Rim indicate no sign of global economic boom in the near future. The effects of the recession will continue to be declining tax revenues and diminished capability of the private sector to share higher education costs. On the other hand, the current financial stringency of higher education caused by the rapid growth in enrolments and government funding cuts in real terms demands more investment in higher education. As a result, an increase in fee charges will be one of the key and feasible approaches to alleviate the potential future funding crisis. This prediction is justified by the fact that the private desire for higher education has remained unchanged over the past decade,
reflected by a consistent enrolment growth in higher education, in spite of the imposition of a fee system in many countries such as in China and Australia. In addition, higher education systems in the world have been in transition from an elite system to a mass one in many countries. There has been for years an excess demand for higher education under demographic pressures (although the overall growth rate of school population has also tended to slow down in both developing and developed countries) (Tan & Mingat, 1992, p.20; OECD, 1990, p.80). All these factors suggest that tuition increases to some extent will not affect overall enrolment, and tuition fees will become and will continue to be the largest potential source of non-government funding to tap. Although the flagging state of economy will reduce the financial capability of students to afford the periodically increased fee charges, the private benefits and private value of higher education will prompt students and families to participate and invest in higher education. Under the future financial squeeze, new and alternative sources of funding will be sought and mobilised, which will further diversify the current funding base of higher education. This will fuel every effort of income generation of the institutions from all available sources. Meanwhile, privatisation of higher education, that is, allowing or subsidising non-government entities to run and provide higher education services, will become a more important alternative of higher education provision and an additional future strategy to increase access to higher education, particularly in developing countries such as China.

The prospects suggested above for higher education institutions appear very challenging although not correspondingly bright. The international experience including Chinese one over the past decade, tells a quite dynamic story of radical changes and massive movements in the higher education sector in response to the changes in social, economic and political systems. This manifests the strong adaptability of higher education to the wider society in which it is embedded. It also suggests

* See Chapter 3 for a brief review of recent development of privatisation of higher education in China. As this thesis aims to discuss major trends of governance and financing of higher education, the issue of privatisation was not given major emphasis in this thesis, because of its current small dimension and relatively weak influence in higher education in China.
the outcomes of the interplay between higher education institutions' internal missions and the external forces that operate on them. Although the future is full of financial constraints, unresolved problems and other barriers, it also provides opportunities for the higher education system. This researcher agrees with Peter Karmel (1990, p.339) that "the successful will prosper, the less successful adapt and the system serve the inherent logic that drives it."
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APPENDIX I

HIGHER EDUCATION INSTITUTION QUESTIONNAIRE
(English Version)

Governance and Funding Reforms in the Higher Education Sector

Aim of Survey

The aim of this survey is to obtain a broad overview of reforms in the governance and funding of higher education in China over the past decade. The impact of the reforms upon your institution is a key issue of this survey. The information that you provide will help to examine effects of the existing policy and practice and make recommendations for future improvement based upon results of the survey.

Confidentiality

Please do not write your name or your institution's name on this questionnaire. All answers will be treated as strictly confidential.

Returns

This survey is conducted under an independent PhD scholarship scheme. You have been selected at random as one of the people to complete this questionnaire. Your participation is completely voluntary. I would be grateful if you would agree to take part in this survey by answering all questions in this questionnaire attached. (You are, of course, free to decline to answer particular questions.) Please return your questionnaire in the envelope provided.

THANK YOU FOR YOUR PARTICIPATION
INSTRUCTIONS
PLEASE TICK WHERE APPROPRIATE OR ANSWER THE QUESTIONS IN YOUR OWN WORDS.

Section 1 Personal Data

1.1 Your current position held
   President 1
   Vice-President 2
   Finance Director 3
   Other (please specify) 4

1.2 How long have you worked at the position indicated above?

1.3 How long have you worked in a university/college?

Section 2 Your Institution

2.1 Location
   Eastern coastal 1
   Northeastern 2
   Southeastern 3
   Southwestern 5
   Other (please specify) 6

2.2 Type of institution
   Comprehensive university 1
   Science/Technology 2
   Medicine/Pharmacy 3
   Teacher Training 4
   Finance/Economics 5
   Political Science/Law 6
   Agriculture/Forestry 7
   Language/Literature 8
   Other (specify) 9
2.3 Administrative level
SEC's
Other State Commission's/Ministry's
Provincial
Under joint-administration
Local (municipal/city)
Other (please specify) ..................

2.4 Rank
Is your institution ranked as a key institution?
Yes.
No. 1

2.5 Total students enrolled at your institution ..................

2.6 Student staff ratio at institutional level ..................

Section 3 Governance

3.1 What following leadership system(s) has your institution adopted over the past decade?

<table>
<thead>
<tr>
<th></th>
<th>A main system</th>
<th>Used to some extent</th>
<th>Little 'or not used</th>
</tr>
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<tbody>
<tr>
<td>(a) President responsibility system</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(b) President responsibility system under the CCP leadership</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(c) President responsibility system under the Board of Trustees</td>
<td>3</td>
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<tr>
<td>(d) Other (please specify) ..................................................</td>
<td>3</td>
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3.2a Please describe briefly the current budget management control process and its organisational structure in your institution.

...........................................................................................................
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3.2b To what extent are you satisfied with such a process and structure in your institution?
- Great extent 4
- Fair extent 3
- Some extent 2
- Not at all 1

3.3 To what extent do you think the government has expanded the decision-making power of your institution in resource allocation and management over the past decade?
- Great extent 4
- Fair extent 3
- Some extent 2
- Not at all 1

3.4 What do you think of the reform in which government extends financial authority and spending responsibility to your institution?
- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1

3.5 Do you think that governance and funding of higher education should be market-oriented?
- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1
3.6 What following strategies has your institution used in reforming financial management over the past decade?

<table>
<thead>
<tr>
<th>Strategy</th>
<th>A main Strategy</th>
<th>Used to some extent</th>
<th>Little or not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) giving considerable devolved discretion to Deans and heads of departments in financial management</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(b) introducing an &quot;economic responsibility contract system&quot; in internal management</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(c) recruiting staff on the basis of a certain term of employment contracts</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(d) appointing academic staff on a casual basis</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(e) introducing a performance-based reward system</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(f) increasing student staff ratio by increasing workload of staff and enrolments of students</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(g) encouraging staff to take a second job to increase their income as well as to contribute more to the local community</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(h) encouraging faculty and department to generate extra budgetary revenue</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(i) expanding school-run enterprises to increase income</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(j) charging tuition and fees from students; (k) introducing scholarships and student loans:</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(l) enrolling non-residential day-students</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(m) improving the level of utilization of classroom and laboratory space</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(n) adjusting curricula to accommodate the needs of labour markets</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(o) rationalising course offerings</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(p) introducing a credit system</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(q) expanding enrolments for 2-year courses to increase the numbers graduating;</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(r) reducing enrolments for 4-year courses;</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(s) expanding the range of fee-paying vocational education</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(t) expanding links with industry / business in broad areas.</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
3.7 To what extent do you think your institution has achieved efficiency and effectiveness by means of the above reform strategies in current financial arrangement?

Great extent: 4
Fair extent: 3
Some extent: 2
Not at all: 1

Section 4 Funding

4.1 Please estimate the percentage of total income of your institution in 1985, 1990, and 1995 (or any years between 1985 and 1995) from these sources.

<table>
<thead>
<tr>
<th>Sources of income</th>
<th>Percentage of total in 1985</th>
<th>Percentage of total in 1990</th>
<th>Percentage of total in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Province</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student fees*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School-run enterprises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External enterprise contribution**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Here student fees exclude the amount charged from contract training for enterprises. See also external enterprise contribution.
** External enterprise contribution includes the income from contract training, contract research, consultancy and other paid services for enterprises.

4.2 Please estimate the percentage of expenditures in each of the following areas in 1995 in your institution.

4.2a

<table>
<thead>
<tr>
<th>Expenditures by category</th>
<th>Percentage as total RECURRENT expenditure in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers' salaries and subsidies</td>
<td></td>
</tr>
<tr>
<td>Administrators' salaries and subsidies</td>
<td></td>
</tr>
<tr>
<td>Other staff's salaries and subsidies</td>
<td></td>
</tr>
<tr>
<td>Student accommodation</td>
<td></td>
</tr>
<tr>
<td>Maintenance and repair of building and facilities</td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

100
4.2b

<table>
<thead>
<tr>
<th>Expenditures by category</th>
<th>Percentage as total CAPITAL expenditure in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library collection and facilities</td>
<td>100</td>
</tr>
<tr>
<td>Academic building and land</td>
<td></td>
</tr>
<tr>
<td>Non-academic building and land</td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

4.3 Please state actual recurrent and capital cost per student .......... (RMB) in your institution in 1995. Please also state the amount of government recurrent budget for each student ............ (RMB) and that of capital budget per student ..........(RMB) in your institution for the year of 1995.

4.4 Please fill in the table below to show the enrolments by type in your institution between 1985 and 1995.

<table>
<thead>
<tr>
<th>Students by type</th>
<th>Amount of money (RMB) paid 1985</th>
<th>1990</th>
<th>1995</th>
<th>Percentage of each type of students 1985</th>
<th>1990</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-fee students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-fee students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-fee students*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Please define the students here ................................

4.5a Do you agree that government should continue to take the main responsibility for funding of higher education?

Yes. 1

No. 2

4.5b Why?

......................................................................................................................
......................................................................................................................
......................................................................................................................
Section 5 Consequences of Reform

5.1 Please identify the following consequences of reforms (SA = Strongly agree; A = Agree; N = Neutral; D = Disagree; and SD = Strongly disagree). As a result of the reforms in governance and funding areas over the past decade:

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Your institution has more incentives for</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>improvement of internal management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Your institution gives greater priority to local</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>economic development than ten years ago;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Your institution tends to be market-oriented</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>with the change in China's economic system;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Your institution has taken applied subjects as</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>its chief concerns in course offering;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e) The revenue from vocational education becomes</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>one major income from student fees;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f) Academic staff are trying their luck in the &quot;sea of</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>business&quot;;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Presidents and deans in your institution have to</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>concentrate more on how to increase institutional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income and seek more funds than on teaching and research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>activities;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h) Your institution is now facing more pressures</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>such as,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h1, greater competition with</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>other institutions for success in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>achieving alternative sources of income;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h2, greater uncertainty in income;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>h3, greater deficits; and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Other (please specify)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

5.2 Do you agree that competition for funds between institutions has encouraged greater managerial efficiency within the institutions?

| Strongly agree | 5 |
| Agree          | 4 |
| Neutral        | 3 |
| Disagree       | 2 |
| Strongly disagree | 1 |
5.3 Do you agree that the competition for funds has also widened the gap in resources between institutions? That is, have institutions with strong professionals and well-established reputations grown in strengths and wealth whereas other institutions have suffered?

- Strongly agree: 5
- Agree: 4
- Neutral: 3
- Disagree: 2
- Strongly disagree: 1

5.4 Please make a comment on the introduction of the fee-paying system in Chinese higher education, taking into consideration its effects on equity, access, and quality.

(a) Equity

(b) Access

(c) Quality

---

Section 6 Additional Comments

Thank you for completing this questionnaire. If you would like to make any comments concerning any question in this questionnaire, please use the space below. Your comments will be highly appreciated.
APPENDIX II

FACULTY/DEPARTMENT QUESTIONNAIRE
(English Version).

Governance and Funding Reforms in the Higher Education Sector

Aim of Survey

The aim of this survey is to obtain a broad overview of reforms in the governance and funding of higher education in China over the past decade. The impact of the reforms upon your faculty/department is a key issue of this survey. The information that you provide will help to examine effects of the existing policy and practice and make recommendations for future improvement based upon results of the survey.

Confidentiality

Please do not write your name or your institution's name on this questionnaire. All answers will be treated as strictly confidential.

Returns

This survey is conducted under an independent PhD scholarship scheme. You have been selected at random as one of the people to complete this questionnaire. Your participation is completely voluntary. I would be grateful if you would agree to take part in this survey by answering all questions in this questionnaire attached. (You are, of course, free to decline to answer particular questions.) Please return your questionnaire in the envelope provided.

THANK YOU FOR YOUR PARTICIPATION
INSTRUCTIONS
PLEASE TICK WHERE APPROPRIATE OR ANSWER THE QUESTIONS IN YOUR OWN WORDS.

<table>
<thead>
<tr>
<th>Section 1 Personal Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Your current position held</td>
</tr>
<tr>
<td>Dean/Head ............... 1</td>
</tr>
<tr>
<td>Vice-Dean/Head .......... 2</td>
</tr>
<tr>
<td>Fund Chair .............. 3</td>
</tr>
<tr>
<td>Other (please specify) ... 4</td>
</tr>
<tr>
<td>1.2 How long have you worked at the position indicated above?</td>
</tr>
<tr>
<td>..................................</td>
</tr>
<tr>
<td>1.3 How long have you worked in a university/college?</td>
</tr>
<tr>
<td>..................................</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 2 Your Faculty/Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Major programs offered at your faculty/department</td>
</tr>
<tr>
<td>Commerce/Economics ............... 1</td>
</tr>
<tr>
<td>Science/Engineering .............. 2</td>
</tr>
<tr>
<td>Humanities/Social Science ........ 3</td>
</tr>
<tr>
<td>Education .................. 4</td>
</tr>
<tr>
<td>Law ................................ 5</td>
</tr>
<tr>
<td>Medicine/Pharmacy ............... 6</td>
</tr>
<tr>
<td>Other (specify) .................. 7</td>
</tr>
<tr>
<td>2.2 Total students enrolled at your faculty/dept. .................</td>
</tr>
<tr>
<td>2.3 Student staff ratio at faculty/departmental level ..........</td>
</tr>
<tr>
<td>2.3 Rank</td>
</tr>
<tr>
<td>Is your faculty/dept ranked as a key faculty/department?</td>
</tr>
<tr>
<td>Yes .................. 1</td>
</tr>
<tr>
<td>No .................. 2</td>
</tr>
</tbody>
</table>

294
3.1 What following leadership system(s) has your faculty/department adopted over the past decade?

<table>
<thead>
<tr>
<th></th>
<th>A main system</th>
<th>Used to some extent</th>
<th>Little or not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Dean's responsibility system</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(b) Dean's responsibility system under the CCP leadership</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(c) Dean's responsibility system under the Board of Trustees</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(d) Other (please specify)</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

3.2a Please describe briefly the current budget management control process and its organisational structure in your faculty/department.

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

3.2b To what extent are you satisfied with such a process and structure in your faculty/department?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Great extent</td>
<td>4</td>
</tr>
<tr>
<td>Fair extent</td>
<td>3</td>
</tr>
<tr>
<td>Some extent</td>
<td>2</td>
</tr>
<tr>
<td>Not at all</td>
<td>1</td>
</tr>
</tbody>
</table>

3.3 Do you think that governance and funding of higher education should be market-oriented?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
</tbody>
</table>
3.4 What following strategies has your faculty/department used in enhancing revenue and productivity of your faculty or department over the past decade?

<table>
<thead>
<tr>
<th>A main Strategy</th>
<th>Used to some extent</th>
<th>Little or not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Introducing an &quot;economic responsibility contract system&quot; in internal management</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(b) Recruiting staff on the basis of a certain term of employment contracts</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(c) Appointing academic staff on a casual basis</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(d) Introducing a performance-based reward system</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(e) Increasing student staff ratio by increasing workload of staff and enrolments of students</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(f) Encouraging staff to take a second job to increase their income as well as to contribute more to the local community</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(g) Setting up enterprises to generate extra-budgetary revenue</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(h) Charging tuition and fees from students; (i) Introducing scholarships and student loans; (j) Enrolling non-residential day-students</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(k) Improving the level of utilisation of classroom and laboratory space</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(l) Adjusting curricula to accommodate the needs of labour markets</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(m) Rationalising course offerings</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(n) Introducing a credit system</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(o) Expanding enrolments for 2-year courses to increase the numbers graduating; (p) Reducing enrolments for 4-year courses; (q) Expanding the range of fee-paying vocational education</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(r) Expanding links with industry</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>/Business in the following areas: r1. Trading technology to industries</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>r2. Undertaking research projects funded by industries</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>r3. Training fee-paying employees for industries</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>r4. Taking in enterprise directors as members of management</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(s) Other (please specify)</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
3.5 To what extent do you think your faculty/department has achieved efficiency and effectiveness by means of the above reform strategies in current financial arrangement?

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great extent</td>
<td>4</td>
</tr>
<tr>
<td>Fair extent</td>
<td>3</td>
</tr>
<tr>
<td>Some extent</td>
<td>2</td>
</tr>
<tr>
<td>Not at all</td>
<td>1</td>
</tr>
</tbody>
</table>

### Section 4 Funding

4.1 Please indicate how your faculty/department deals with its extra-budgetary income

<table>
<thead>
<tr>
<th>Description</th>
<th>A main system</th>
<th>Used to some extent</th>
<th>Little or not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) turning the income partly over to institutional authorities</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(b) spending on staff's reward</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(c) spending on student assistant programs</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(d) spending on teaching/research equipment</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(e) spending on enterprise relations</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(f) other (please specify)</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2 Please state actual recurrent and capital cost per student (RMB) in your faculty/department in 1995. Please also state the amount of government recurrent budget for each student (RMB) and that of capital budget per student (RMB) in your faculty/department for the year of 1995.

4.3 Please fill in the table below to show the enrolments by type in your faculty/department between 1985 and 1995.

<table>
<thead>
<tr>
<th>Students by type</th>
<th>Amount of money (RMB) paid</th>
<th>Percentage of each type of students</th>
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<tr>
<td>Full-fee students</td>
<td></td>
<td></td>
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<tr>
<td>Part-fee students</td>
<td></td>
<td></td>
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<tr>
<td>Non-fee students*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                           | 100  | 100  | 100  |

*Please define the students here ..........................
4.4a Do you agree that government should continue to take the main responsibility for funding of higher education?

- Yes. 1
- No. 2

4.4b Why?

Section 5 Consequences of Reform

5.1 Please identify the following consequences of reforms (SA= Strongly agree; A= Agree; N= Neutral; D= Disagree; and SD= Strongly disagree). As a result of the reforms in governance and funding areas over the past decade:

<table>
<thead>
<tr>
<th>(a) Your faculty/department enjoys more financial autonomy than ten years ago;</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Your faculty/department has more delegated responsibilities for its financial operation than ten years ago;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(c) Your faculty/department has more incentives for improvement of internal management performance;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(d) Your faculty/department gives greater priority to local economic development than ten years ago;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(e) Your faculty/department tends to be market-oriented with the change in China's economic system;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(f) Academic staff are trying their luck in the &quot;sea of business&quot;;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(g) Deans and other heads in your faculty or department have to concentrate more on how to increase institutional income and seek more funds than on teaching and research activities;</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(h) Your faculty/department is now facing more pressures such as, h1, greater competition for success in achieving alternative sources of income; h2, greater uncertainty in income; h3, greater deficits; and (i) other (please specify)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
5.2 Do you agree that competition for funds between institutions has encouraged greater managerial efficiency within the institutions?

- Strongly agree: 5
- Agree: 4
- Neutral: 3
- Disagree: 2
- Strongly disagree: 1

5.3 Do you agree that the competition for funds has also widened the gap in resources between faculties/departments? That is, have faculties/departments with strong professionals and well-established reputations grown in strengths and wealth whereas other faculties/departments have suffered?

- Strongly agree: 5
- Agree: 4
- Neutral: 3
- Disagree: 2
- Strongly disagree: 1

5.4 Please make a comment on the introduction of the fee-paying system in Chinese higher education, taking into consideration its effects on equity, access, and quality.

(a) Equity

(b) Access

(c) Quality

Section 6 Additional Comments

Thank you for completing this questionnaire. If you would like to make any comments concerning any question in this questionnaire, please use the space below. Your comments will be highly appreciated.

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........................................................................................................................................

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APPENDIX III

INTERVIEW SCHEDULE*

TOPICS

1. Opinions on government's devolution (decentralisation) policy in governance of higher education

2. Opinions on government's financial autonomy policy in generating and utilising higher education resources

3. Comment on the strategy of multi-channel financing of higher education

4. Comment on institutional income-generation and the use of the extrabudgetary revenue

5. Comment on restructuring, removal of redundancy and placement of laid-off staff

6. Opinions on charging fees for all (with few exemptions)

7. What are currently major bottlenecks to higher education development from a perspective of your institution?

*This interview schedule lists main topics asked of informants. To maintain flexibility and openness of interviewing, questions around the topics were modified, discarded or added as interviews proceeded with different interest groups and in different forms (namely, face-to-face interviews and telephone interviews).
CHANGING PATTERNS IN THE GOVERNANCE AND FUNDING OF HIGHER EDUCATION IN CHINA: ISSUES AND OPTIONS

by

ZHAO Fang
(MEd. La Trobe)

A thesis submitted in full fulfilment of the requirements for the degree of Doctor of Philosophy
University of Western Sydney
Nepean, Australia
1998
PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
ABSTRACT

Since 1985, there have been major fundamental policy changes in the governance and funding of higher education in China - general devolution (decentralisation) in resource allocation and utilisation, diversification of the funding base, and imposition of fee charges on most higher education students. This thesis examines the impact of the changes on the function of higher education, and on quality, efficiency and effectiveness of the system.

The current research design followed a guideline of methodological triangulation, namely, a mix of qualitative and quantitative methodologies in collection and analysis of data. Data were collected primarily from a survey of over a ten-year period of official Chinese newspapers, 43 returned questionnaires from university managers at both institutional and faculty/departmental levels, 30 interviews with government officials, university managers and academic staff, and over three years' personal correspondence with students and other different interest groups. A case study of one university provided a deeper understanding of the impact of reforms in higher education through investigating and illustrating specific issues in an institutional context.

Analysis of both qualitative and quantitative data indicated five clear-cut patterns (trends) of current governance and funding of higher education in China:

- greater autonomy and increased responsibility for local governments and institutions to generate and manage higher education resources;
- increasing pursuit of cost-efficiency mainly through internal and cross-institutional restructuring;
• moving towards market-oriented funding driven by diversified funding sources;
• commercialisation of higher education services; and
• higher level of private share of higher education costs.

These patterns engendered both positive and negative effects on the higher education system in China. Overall, under the current system, the relationships (particularly, the financial relationship) between the government and higher education institutions have changed. The relationships have moved from total state control towards more state supervision, contractual arrangements and greater market-regulation. As a consequence, higher education has become more responsive to the economic, local and immediate needs of the society.

The devolution and financial autonomy permitted flexibility, encouraged initiatives to seek additional funding and enhanced efficiency and effectiveness in resource management. The rapid and dramatic expansion of higher education, the greatest achievement of Chinese higher education in recent years, was facilitated by the deregulation of the system. However, quality of higher education provision has become the most vulnerable area as the reform proceeds. Other major disadvantages of the reform included prevailing distraction of managers and staff from normal educational activities to income-generating ones, deterioration of the financial situations in most institutions due to a decline in state funding and uncertainty of extrabudgetary income, undue influence of sponsors on institutional priorities, and increasing problems of equity in institutional funding and students' access to higher education. To redress these issues, the thesis proposed a number of options for action and further study in each of the discussion chapters.

This thesis formulated some overall conclusions, extrapolated from current trends in China and in other countries of the world, on the prospects of higher education governance and funding in a global perspective. This country study has identified current patterns in China strikingly similar to those found globally despite great diversity in
international experience. Based on this material, the researcher predicts that the future directions of higher education governance and funding will be characterised by (a) a counter-balance of government regulation by market forces; (b) greater efforts for cost-efficiency and funding linked to performance; (c) further diversion of government financial priority from higher education to other sectors; and (d) greater reliance on private and more diversified funding.
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STATEMENT OF AUTHORSHIP

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

No other person's work has been used without due acknowledgment in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

Signature

Date ___/___/______
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<td>CCP</td>
<td>Chinese Communist Party</td>
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<td>CPUC</td>
<td>Communist Party University Committee</td>
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<td>CUF</td>
<td>China University of Forestry</td>
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<td>DAA</td>
<td>Division of Academic Affairs</td>
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<td>Ministry of Education</td>
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<td>NPC</td>
<td>National People's Congress</td>
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<td>OECD</td>
<td>Organisation for Economic and Co-operation and Development</td>
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<td>PCFC</td>
<td>Polytechnics and Colleges Funding Council</td>
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<td>PRC</td>
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<td>UWA</td>
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