

**VALUE-RELEVANCE OF ACCOUNTING
INFORMATION AND SHAREHOLDING STRUCTURE
IN EMERGING CAPITAL MARKETS:
EVIDENCE FROM CHINESE LISTED COMPANIES**

A thesis submitted for the degree of
Doctor of Philosophy

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February 2007

ABSTRACT

This study focuses on the value-relevance of accounting information and the relationship between market value and different types of shareholding in the context of China. The market valuation theory suggests that market value is in a linear relationship with the accounting figures such as book value and net profit. This theory has been widely accepted and tested in most developed markets such as the U.S.A, the U.K., the Netherlands, France and Germany etc. Generally, accounting information is found to be value relevant in these countries, implying that book value and net profits are playing significant roles in explaining the market value. Does the market valuation theory hold in emerging markets such as China? This is an empirical question; it is also the major objective of this thesis.

China's economic development and institutional settings are unique in many ways. Firstly, the whole economic system is in a transitional period in which the planned economy is gradually replaced by the market economy. Secondly, the newly-emerged listed companies are transformed from the former SOEs and display a series of distinctive features. The most significant one is that the nearly two-thirds of the shares are controlled by the government and these shares are not tradable. Thirdly, despite the phenomenal expansion in size, China's stock market is still a typical emerging market plagued by a host of inherent problems. These problems have distorted the market information such as share prices. Fourthly, from the fund-based accounting system to the IAS-based accounting standards, Chinese accounting has undergone a series of revolutionary changes to bring the accounting regulations in line with both international conventions and the overall economic environment of China. Despite the fact that China has largely adopted the IASs in constructing its accounting regulatory regime, significant differences exist between the two.

The central objectives of this study are two-fold: 1) to investigate the value relevance of accounting figures in the unique context of China; 2) to examine the effects of different types of shareholding on the market value of listed companies, in particular the state shareholding and legal-person shareholding. The results seem to suggest that accounting information contained in the Chinese financial reports, e.g. book

value and net profits, is playing a significant role in explaining the market value in China's stock market. This finding is of particular interest because it indicates that the market valuation theory can be applied not only to developed markets, but also to the emerging ones such as China. As for the relationship between ownership structure and market value, the results of this study seem to lead me to believe that both state and legal-person shareholdings have significant impacts on the market value, however their effects appear to be different.

ACKNOWLEDGEMENTS

When I first thought about studying a PhD while I was working in Brunel University as a research assistant in 2000, one of my friends offered me a 'kind' warning: "You know what PhD stands for? — Permanent Head Damage — so have another think". I was laughing because I thought that was a wonderful joke.

Now 5 years on, my PhD thesis nearly comes to an end. That joke came back to my mind again and I start to think about what the 'permanent head damage' means to me. I have to admit that the past five years have been the most difficult part of my life. In that sense, the joke turns out to be true. However, in the meantime, the PhD study is also the most rewarding and meaningful thing I have ever done. I set up the greatest challenge for myself and success is waiting for me. The true meaning comes not only from the certificate which I have not got yet, but also from the life experiences which I have already obtained. During the past five years, I have experienced much more than I have in years prior to my PhD study put together. I believe that this is the true reward to my past five years. I admit that the difficulties I have gone through have, for many times, led me to think about giving in, but I chose not to because I believe the miracle lies in 'hold on to it'. It is because of this thought that I have gone so far in my PhD study. I am glad that I did it.

I owe my greatest thanks to Professor Tony Appleyard, my supervisor and, more importantly, my good friend. Throughout the study, Tony has always been extremely supportive, understanding and encouraging in both supervising my thesis and shaping my life philosophy. His inspiring teaching style has also been immensely important in leading me to pursue my future career. What is more, his great personality and hospitality have shortened the traditional teacher-student distance, making him my most respectable friend.

I shall give my special thanks to my mother and father who gave me life, brought me up and taught me to grow up. I owe everything to them. My special thank also go to my dear wife, Olivia. Without her love and support, I would not have gone so far. Standing shoulder to shoulder, we have overcome numerous difficulties in the past

and we will continue to do so for the rest of our lifetime. I shall also give my thanks to Lucy, the little angel who came to this world while I was studying. She is my everything.

My sincere thanks also go to the Universities UK, the Great Britain China Centre and Newcastle University who have generously offered me scholarship. I would also express my warm thanks to Newcastle University Business School who gave me the chance to work as a teaching assistant during my study.

At last, my thanks go to my dear friends Situ Danian who provided me with the data in this study, Richard Parsons, Ramzi Addock, Barry Todd and Simon Price who have helped me on numerous occasions, Oradee Preutisrunyanont, Kou Wenchao and Hsin-Che Lu who offered me essential technical assistance during my study.

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Chapter 1. INTRODUCTION

1.1 General Background Information

With the gross domestic product (GDP) growing at an average of 9.5 per cent for 26 successive years, China has become the emerging economic superpower of the world. At the end of 2005, China's annual GDP exceeded RMB 18,000 billion (USD 2,250 billion), suggesting that China has outstripped many of the industrialised countries such as the U.K., France and Italy and become the 4th largest economic power next to the U.S.A, Japan and Germany¹. On the purchasing power basis, China is the secondly largest economy in the world only after the U.S.A (Sun and Tong 2002). In this sense, it has to be acknowledged that China has achieved a phenomenal success in developing its economy (Jonquieres, 2006).

China's rapid economic expansion in economy in the past two decades has drawn a great deal of attention from all over the world and has raised a fundamental question: what has driven China's economy to expand at such a phenomenal pace? It is widely recognised that the economic reforms and open-up policies started from the late 1970s have provided the enormous momentum for the economic growth (Tao, 2004, Fung et al., 2006, Fong and Lam, 2005, Xinhua, 1992). On the principle of 'crossing the river by touching stones', China has taken an irreversible path to the economic reforms and open-up policies, which in turn have brought about a series of profound changes in all aspects of the country.²

¹ Source: All data in this paragraph are from the Yearly Book of China Statistics (2005) published on the website of the National Bureau of Statistics of China (NBSC): www.stas.gov.cn.

² 'Crossing the river by touching stones' is a famous Chinese saying meaning pragmatism. It was first quoted by Deng Xiaoping at the Third Plenary Sessions of the Eleventh National Congress of the Chinese Communist Party in 1978 and has been widely accepted as the principle of China's economic reforms and open-up policies ever since.

Unlike the Eastern European countries and the former Soviet Union who transformed the economy by enforcing a set of radical changes together with full-scale implementation of privatisation programme, China has taken a trial-and-error approach. This approach has eventually led China to take a gradual and steady process in reforming its economic system. China's economic reform started with the agricultural sector. The first reform scheme was initiated in 1978 with the focus placed upon shaking up the rural economic system. Farmers were allowed to have the usage right of land, grow grain crops and retain a part of profits they were able to generate. Inspired by the experiences accumulated from the agricultural reform, the SOE reform was launched in 1984 to revitalise the ailing state enterprises. The price reform started at the beginning of the 1980s, which gradually nurtured the concept of market in the planned economy. Non-state sectors such as private economy and foreign investments are encouraged to develop to drive the economic expansion and absorb the huge labour force. Finally, the transition of economic system from centralised planning to the socialist market was announced by the government in 1992³.

It has to be mentioned that the above economic reforms and open-up policies have not only fuelled the massive economic expansion, but also brought out a series of changes to China. These changes are summarised as follows. Firstly, among all the changes resulted from economic reforms and open-up policies, the most striking change would be that China has been transformed from a planned economy to a market economy. Secondly, China has gone through a massive-scale privatisation in the past decades⁴. Prior to the reforms, the whole economy of the country was nearly entirely financed, owned and controlled by the state. Nowadays however, according to Fung et al. (2006), non-state-owned and foreign-funded enterprises have contributed over 60 per cent of industrial production in the Chinese economy, while over 90 per cent of Chinese workers are now employed by non-state sectors. Thirdly,

³ The term 'socialist market economy' was adopted by the Chinese Communist Party with the intention of emphasising the fundamental difference between China's political system and that of the capitalist world.

⁴ Due to the ideological concerns, 'privatisation' is a fairly sensitive topic and has never appeared on the Chinese government-controlled media. However, this does not change the nature of the economic reforms.

the state owned enterprise reform (SOE reform), the core component of economic reforms, has profoundly altered the corporate landscape in China. In particular, the recent shareholding experiment has eventually given rise to China's listed companies. Fourthly, the open-up policies aiming at encouraging the development of foreign investments and global trading has made China an integral part of the world economy. With nearly USD 500 billion foreign direct investment (FDI) flooding into China during the past two decades, China has become the largest FDI recipient country in the world since 2002 (Sun and Tong, 2002). What is more, China's international trading (the total of imports and exports) hit the record level of USD 1,442 billion in 2005, accounting for over 65% of the total GDP⁵.

The experiment on shareholding system started from the late 1980s eventually gave rise to the listed companies in China. The expansion in the number of companies listed on the Shanghai and Shenzhen stock exchanges has been phenomenal. There were merely 10 listed companies back in 1990. However, the number of companies floating on the stock exchanges went up to 1381 at the end of 2005. Because the stockholding system is a rather recent development in China, the ownership structure of Chinese listed companies has some unique features not found in the stock markets of most developed economies. Shares of listed companies are normally classified as A-shares designated for domestic investors and B-, H- and N-shares designated for overseas investors. A-shares are further divided into state shares, legal-person shares, tradable A-shares, and employee shares. State shares are those owned by the state, i.e., the central government and local governments. Legal-person shares are those held by domestic legal enterprises, and non-bank financial institutions. Both state shares and legal-person shares are not tradable on the stock exchanges, but the latter can be transferred to other legal persons upon the approval of the China Securities Regulatory Commission (CSRC) and other government authorities⁶. At present, a typical listed firm has a mixed ownership structure. The state, legal persons and

⁵ Source: All data in this paragraph are from the Yearly Book of China Statistics (2005) published on the website of the National Bureau of Statistics of China (NBSC): www.stas.gov.cn.

⁶ The China Securities Regulatory Commission was established in 1992 by the State Council to regulate the stock market. It is the major market regulator in China.

domestic individual investors are the dominant groups of stockholders, each accounting for some 30 per cent of total share outstanding.

There is strong criticism over the current mix of shares in the listed companies. Especially, the criticism is centred on the excessively high percentage of state shares and legal person shares which are not tradable on the open market. Firstly, an effective corporate governance mechanism is unlikely to be established within a listed company that is tightly controlled by the government. Secondly, direct government intervention into the firm's day-to-day operation is inevitable. Thirdly, the fact that the state remains to be the principal stakeholder could also worsen the agency problems that prevail in the modern public companies.

China's stock market has experienced tremendous growth in size since the inceptions of the Shanghai Stock Exchange (SHSE) on the 19th December 1990 and the Shenzhen Stock Exchange (SZSE) on the 1st December 1990. The total market capitalisation went up from RMB 105 billion (USD 13 billion) in 1992 to RMB 4,809 billion (USD 580 billion) in 2000 then dropped to RMB 3,243 billion (USD 405 billion) in 2005. By its peak, the total market capitalisation accounted for more than 50% of GDP in 2000⁷. Within a period as short as 10 years, China's stock market has become the third largest one in Asia based on market capitalisation next to Japan and Hong Kong and this growth is still continuing (Chen, 2003).

Despite the fact that it has expanded rapidly in size during the past 15 years, China's stock market is still an emerging market. The nature of the emerging market can be revealed by a series of significant problems inherent in China's unique institutional arrangements, legal framework and economic conditions. Some of the problems are caused by the unique institutional arrangements. An example would be the quota

⁷ The exact market capitalisation value for all listed companies combined is mystery because the state and legal-person shares are not publicly traded and hence no reliable information can be used to value them. The market capitalisation figures given here are based on the official estimate published on the CSRC website, in which they simply multiply the total number of shares outstanding by the tradable A-share price. From Chen (2003), it is clear that this is an overestimation of the true value, because the legal-person and state shares are transferred at an average discount of 86% relatively to the tradable A-shares.

system adapted by the CSRC to approve the IPO, which has sown the seeds of widespread fraudulent financial reporting. Some of the problems may exist across the world but appears to be more serious in China due to the nature of emerging market. For example, speculation is a common phenomenon existing in the entire world but it is far more serious in China because China's stock market is dominated by individual shareholders. Some of the problems present only in China due to the country's unique political and economic conditions, e.g. the government frequently intervenes into the stock market and cause enormous trouble to investors and other market participants. It is important to understand not only these problems but also the underlying cause of these problems. Doing so will give one a much clearer view on what's happened in China's stock market.

On the accounting side of the market valuation, the accounting regime in China has also undergone a series of profound changes. The traditional Chinese accounting practice and regulations have been heavily influenced by the information needs of the planned economy (Winkle et al., 1994). Financial reporting of state firms was exclusively serving the administrative targets of the government. In practice, accounting performs the simple roles of bookkeeping production activities, allocating economic resources, and assisting the government to facilitate economic planning. From the perspective of accounting regulations, the accounting regulatory system is segmented and complicated by financial and accounting rules that differ among enterprises with different types of ownership, among those in different industrial sectors and among those with different business natures (Xinhua, 1992).

To bring the lagged-behind accounting regulatory system in conformity with the international norms and ever-changing economic conditions in China, the government has made huge efforts to reform the accounting system and construct an accounting regulatory framework. At the end of 2005, the Chinese government made a significant announcement that China has established its own accounting regulatory framework, the Accounting Standards System (ASS), largely based upon the International Accounting Standards (McGregor, 2006a). The accounting regulatory framework encompasses three levels: the law, the standards and the system. The law refers to the Accounting Law and other laws related to accounting such as the Company Law, the Auditing Law, and the Securities Law. The standards can be

broken into two sub-levels: the Accounting Standards for Business Enterprises—Basic Standards (ASBE-BS) providing a conceptual framework of accounting, and 16 specific standards with the detailed prescriptions on accounting recognition, measurement and reporting for specific economic transactions and items. The accounting system is a set of regulations providing detailed code of practices at the operational level and can be seen from the Accounting System for Business Enterprises (ASBE).

Despite the fact that Chinese regulation regime has been largely brought in line with the international conventions, it will be totally wrong to assume that Chinese accounting regulations are identical to the rules in the IASs. In fact, there are substantial differences between the Chinese accounting standards and the IASs. The differences can be attributed to the unique circumstances of China. Firstly, China is in a transitional period in which the influence of the planned economy still remains and the market-based institutions are under construction. The overall economic, cultural and political environment in which accounting is functioning is fundamentally different from that in the developed markets. Chinese accounting regulations must be built on and be reflective of this unique institutional settings. Secondly, the Chinese accounting profession is still learning how to work in a market economy. While the regulations can be issued within a short period of time, training the accounting profession towards international practice is a daunting challenge and takes a much longer time.

The comparative approach taken by Roberts et al. (2002) in studying the international financial accounting attempts to pinpoint the position of a country's accounting regulatory system by looking at four dimensions: 1) professionalism versus statutory control; 2) uniformity versus flexibility; 3) conservatism versus optimism; 4) secrecy versus transparency. A question was immediately raised: Where does China stand in these four spectrums? Clearly, an in-depth understanding on China's current position in these four spectrums will provide a useful insight into China's accounting regulations in the global context.

Firstly, in the professionalism/statutory control continuum, China's regulatory system of accounting is obviously one which relies exclusively upon statutory

control (Roberts et al., 2002), this is in sharp contrast with the U.K. and U.S.A where the entire history of accounting practice is strongly dependent on professional expertise. Second, when it comes to the uniformity/flexibility spectrum, it is rather difficult to pinpoint the position of Chinese accounting. The reason is that in some areas Chinese regulations offer considerable discretion to managers and accountants and in some other areas the regulation-setters simply just draw a line by ruling out all other available methods. In fact, it is a great challenge for the government to reach a balance between uniformity and flexibility. On one hand, the regulations contained in the accounting standards cannot be as sophisticated as those in the IASs because doing so will only cause confusion to the newly emerged market. On the other hand, accountants in China are used to the traditional practice to follow detailed and stringent rules. Too much room for judgement given to the planned-economy-style accountants will lead to chaos. Third, how conservative is Chinese accounting? While the traditional Chinese accounting did not pay too much attention to the concept of conservatism or prudence, the principle of prudence was first introduced in the ASBE – Basic Standard. The question as to where Chinese accounting stands at the conservatism/optimism continuum against the IASs was empirically investigated by Chen et al. (1999). They found, on average, the reported earnings determined under the Chinese standards are 20-30 per cent higher than earnings reported under the IASs, indicating that the Chinese regulations are less conservative than the IASs. Fourthly, the issue of secrecy versus transparency refers to the disclosure requirements contained by the accounting regulations. It is acknowledged that China has made enormous efforts in increasing the disclosure transparency by requiring companies, especially listed companies, to disclose more information. However, as argued by Anderson (2000), more information disclosed by the company does not necessarily guarantee the improved transparency and quality of information.

To conclude this section, China's economic development and institutional settings are unique in many ways. Firstly, the whole economic system is in a transitional period in which the planned economy is gradually replaced by the market economy. Secondly, the newly-emerged listed companies are transformed from the former SOEs and display a series of distinctive features. The most significant one is that the nearly two-thirds of the shares are controlled by the government and these shares are

not tradable. Thirdly, despite the phenomenal expansion in size, China's stock market is still a typical emerging market plagued by a host of inherent problems. These problems have distorted the market information such as share prices. Fourthly, from the fund-based accounting system to the IAS-based accounting standards, Chinese accounting has undergone a series of revolutionary changes to bring the accounting regulations in line with both international conventions and the overall economic environment of China. Despite the fact that China has largely adopted the IASs in constructing its accounting regulatory regime, significant differences exist between these two.

The market valuation theory suggests that market value is in a linear relationship with the accounting figures such as book value and net profit. This theory has been tested in most developed markets such as the U.S.A, the U.K., the Netherlands, France and Germany etc. Generally, accounting information is found to be value relevant in these countries, implying that book value and net profit are playing significant roles in explaining the market value. Does the market valuation theory holds in emerging markets such as China? This is an empirical question.

1.2 The Objectives and Implications of the Study

This study will follow the tradition of empirical work in valuation theory by examining the market value of the firm in the form of regression analysis. The empirical study will be conducted at two stages. The emphasis of stage one is placed upon gaining an overall picture of the value-relevance of accounting information in the emerging Chinese capital markets.

In fact, exploring the issue of value-relevance in the context of China is of particular interest. The reasons are twofold. Firstly, China's stock market is an emerging market. Despite its phenomenal expansion in size, the market displays a host of distinctive features which cannot be found in other markets. Putting China in a global perspective, Gao (2002) summarised the characteristics of stock market into 14 points. These points are abnormal performances, tremendous volatility, insulated market, substantial government ownership, irregular expansion, influence of IPOs, typical emerging market, pyramid structure, unstable core, out-performance of micro stocks, incredible speculation, manufacturing orientation, and disappointing earnings of companies. Secondly, China's accounting regulatory system is in a transition from serving the planned economy to suiting the needs of the market economy. While the new regulations have been mostly brought in conformity with international conventions, significant differences between the Chinese rules and those in the IASs still exist. The striking features appearing on both the market side and accounting side seem to raise an intriguing question: Although the market valuation theory is proven to be true in most developed markets, does it hold in the unique context of China? In fact, to address this issue by exploring the association between market information and accounting information in China has both theoretical and practical implications – if the accounting information disclosed by Chinese listed firms is found to be significantly associated with market values, it certainly provides evidence that the market valuation theory holds not only in developed markets but in emerging markets such as China.

In Stage one, two questions will be addressed:

1. Is accounting information provided by Chinese listed firms value relevant? If the answer is yes, are there significant differences in terms of value-relevance of Chinese accounting information existing during the studied period and across industrial sectors?
2. Is there any other accounting information playing significant roles in explaining the market value of listed firms? If yes, what is that?

Based upon the findings of stage one, the study at stage two will keep a sharp focus on the unique ownership structure in the Chinese listed companies. As discussed earlier, nearly all listed companies in China are transformed from the former SOEs. To ensure the control over the listed firms, the government on average holds two-thirds of the total shares in the forms of state shares and legal-person shares. What is more, the shares held by the government are not tradable on the open markets. China's corporate ownership structure featured by the exceptionally high level of government shareholding is distinctively different in comparison with the rest of the world. This actually provides an excellent laboratory for researchers to explore the market valuation from the perspective of ownership structure. As pointed out earlier, the excessive government shareholding has been the source of all sorts of problems prevailing in the Chinese stock market e.g. weak corporate governance, worsening agency problems, distortion of market prices and ferocious speculation etc. All these issues have been explored and acknowledged by a wide range of people such as policy makers, market regulators, researchers, managers and investors. However, how does the market as a whole view the government shareholding? Does the government shareholding increase or decrease the market value of the listed firms in China? Does the state shareholding differentiate from the legal-person shareholding in explaining the market value? These questions are of particular importance because the research findings will enable us to understand a series of fundamental issues in the context of China and these issues are:

1. Is the government shareholding as a whole (state and legal-person shareholding) playing a significant role in explaining the market values of listed firms? If yes, what exactly is the association between the government shareholding and market values?

2. If the state ownership is taken alone, does it influence the market value of listed firms? Again, if the answer is yes, how do we associate it with the market values?
3. Do the legal persons play a significant role in explaining the market value of listed firms in China? If yes, does the role of legal persons differentiate from that of the state?

1.3 A Brief Introduction to the Methodology

As for the methodology, there are three models available in the finance theory and practice (Ohlson, 1995, Palepu et al., 2004). These models are:

Firstly, the discounted dividends model (DDM model) suggests that the value of any financial claim is simply the present value of the cash payoffs that its claimholders receive and is expressed as follows:

$$V_t = \sum_{i=1}^{\infty} \frac{DIV_t}{(1+r_e)^i} \quad (1.1)$$

Whereby V_t is the equity value of the firm at time t , DIV_t the dividend at time t , and r_e is the cost of equity capital.

Secondly, the discounted abnormal earnings model (DAE model) suggests that the value of a firm's equity consists of two parts: the opening book value of equity and the present value of future abnormal earnings (Palepu et al., 2004). This model is frequently expressed as follows:

$$V_t = BVE_0 + \sum_{i=1}^{\infty} \frac{NI_i - r_e BVE_{i-1}}{(1+r_e)^i} \quad (1.2)$$

Whereby V_t is the equity value of the firm at time t , BVE_0 the beginning book value of a firm's equity, NI_t the net income at time t , BVE_{t-1} the book value of a firm's equity at time $t-1$, and r_e the cost of equity capital.

Thirdly, the modified Ohlson Model builds up a linear link between the market value of a firm and the information contained in the financial statements – book value in the balance sheet and net profits in the income statement (Ohlson, 1995). It can be expressed in a regression model as follows:

$$MV_{jt} = \alpha_0 + \alpha_1 BV_{jt} + \alpha_2 E_{jt} + \varepsilon \quad (1.3)$$

Where MV_{jt} is the market value of the equity of firm j at time t , BV_{jt} the book value of the equity of firm j at time t , E_{jt} the accounting earnings for firm j at time t , ε the error term. Note that the modified Ohlson model can be interpreted as an empirical version of the DAE model, but can be interpreted with and without the restrictions imposed by the DAE model.

With the DDM model being the foundation of the market valuation theory, the DAE model and modified Ohlson model are the further developments. In this sense, these three models are theoretically consistent with each other. Therefore, it will not make any difference by choosing different models in this study. However, in practice, the application of the DDM model and DAE model is severely restricted by a number of factors. The major obstacle comes from the difficulty in obtaining reliable dividends data for the DDM model and estimating abnormal earnings and cost of equity capital for the DDM model and the DAE model. However, the modified Ohlson model builds up a linear link with the market information, e.g. market capitalisation and share prices and accounting information, e.g. book value and net profits. For this reason, the modified Ohlson model is universally used in the field of market valuation. Therefore, I will use this model as a foundation model throughout the study.

Adopting the above model, accounting researchers have carried out numerous studies (e.g. Landman 1986; Barth 1991; Barth et al., 1996; Eccher et al., 1996; Burstaher & Dichev 1997, Stark and Thomas, 1998; Arce and Mora, 2002) to explore the relative accounting information content in various countries. On the whole, they have found the evidence of value-relevance of both the balance sheet and income statement information in developed markets including the U.S., Canada, Australia, the U.K. France, Netherlands, Germany, Belgium, Spain and Italy etc.

This study extends this line of inquiry into the emerging Chinese stock market. As discussed earlier, because of the unique institutional setting of the Chinese market

and significant differences between the Chinese accounting regulations and international conventions, the result of this study have far-reaching implications for both theory and practice in China and beyond. After all, accounting and financial reporting play a vital role in an efficient market. Major accounting standard-setting bodies such as the Financial Accounting Standards Board (FASB) and the International Accounting Standards Committee (IASC) have adopted this investor-oriented information usefulness perspective and specially stated that the primary purpose of accounting is to meet the needs of capital markets. Consequently, it is not surprising that an important objective of the Chinese accounting reform is to improve the usefulness of financial reporting in the stock market (Winkle et al., 1994, Xiang, 1998, Chen et al., 1999, Chen and Su, 2001).

1.4 Organisation of the Thesis

The remainder of this thesis is organised as follows: Chapter 2 provides the general background information relevant to this study including the features of the planned economy, the economic growth, economic reforms and open-up policies and the resultant changes, the SOE reform and listed companies and the development of the stock market. In particular, it will take a close look at the problems facing the listed companies and stock market in China.

Chapter 3 focuses on the construction of the accounting regulatory framework. The whole accounting regulatory regime will be historically examined from three dimensions: 1) the development of the Accounting Law and the other related laws; 2) the promulgation of accounting standards; and 3) the change of accounting system. This chapter will also make comments on the whole process of accounting reform by addressing two questions: First, what has China achieved in pushing the accounting reform ahead? Second, what has driven China's accounting regulatory system to go so far?

The major theme of Chapter 4 is still on Chinese accounting. However, it puts Chinese accounting regulations in an international context by addressing the major differences between the Chinese generally accepted regulations and the International Accounting Standards. The four-dimension approach used by Roberts (2002) will be taken in this chapter to obtain an insight into what position Chinese accounting stands in these four continuums. What is more, the financial reports from a company will be utilised as an example to illustrate the puzzles of Chinese financial reporting.

Chapter 5 carries out the regression tests for stage one. The central task of stage one is to address two questions: Firstly, is accounting information provided by Chinese listed firms value relevant? If yes, are there significant differences in terms of value-relevance of Chinese accounting information existing during the studied period and across industrial sectors? Secondly, is there other accounting information playing significant role in explaining the market value of listed firms? If yes, what is that?

The study at stage two is to be assigned to Chapter 6. Based upon the findings in stage one, this chapter takes a sharp focus upon the unique ownership structure of Chinese listed companies and the effects of different types of shareholding on the market value of listed companies. In particular, three questions will be empirically investigated: Firstly, is the government shareholding as a whole (state and legal-person shareholding) playing a significant role in explaining the market value of listed firms? If yes, what exactly is the association between the government shareholding and market value? Secondly, if the state ownership is taken alone, does it influence the market value of listed firms? Again, if the answer is yes, how does it associate with the market values? Thirdly, do the legal persons play a significant role in explaining the market values of listed firms in China? If yes, does the role of legal persons differentiate from that of the state?

Chapter 7 concludes the thesis by summarising the major findings.

Chapter 2. ECONOMIC REFORMS, STOCK MARKET AND ECONOMIC DEVELOPMENT: A HISTORICAL REVIEW

2.1 Introduction

China's rapid economic expansion in economy in the last two decades has drawn a great deal of attention from all over the world and has raised a fundamental question: what has driven China's economy to expand at such a phenomenal pace? It is widely recognised that the economic reforms and open-up policies started from the late 1970s have provided the enormous momentum for the economic growth (Tao, 2004, Fung et al., 2006, Fong and Lam, 2005, Xinhua, 1992). Having realised that the whole country would have collapsed if continuing to stick to the old path, China has started reforming its economic system and opening the door to the rest of the world since 1978. On the principle of 'crossing the river by touching stones', China has taken an irreversible path of economic reforms and open-up policies, which in turn have brought about profound changes in all aspects of the country.

It should be mentioned that the width and depth of the effects of the economic reforms and open-up policies have gone far beyond the scope of this thesis. For this reason, the emphasis of this chapter will be placed on the striking changes which are relevant to this thesis. I therefore will provide a brief portrait of China's economic changes by highlighting four fundamental issues: the SOE reform, privatisation scheme, marketisation process and China's economic integration into the world. These issues are also highly relevant to the spirit of this thesis because, they, combined together, have given rise to the emergence of listed companies and China's equity market and they have provided imperative to construct the accounting regulatory framework. Therefore, it is worthwhile to have a brief look into these issues in order to gain an in-depth understanding of the topics to come.

The remainder of this chapter is organised as follows. Section 2 provides a brief outlook of China's economic development during the last two decades from the

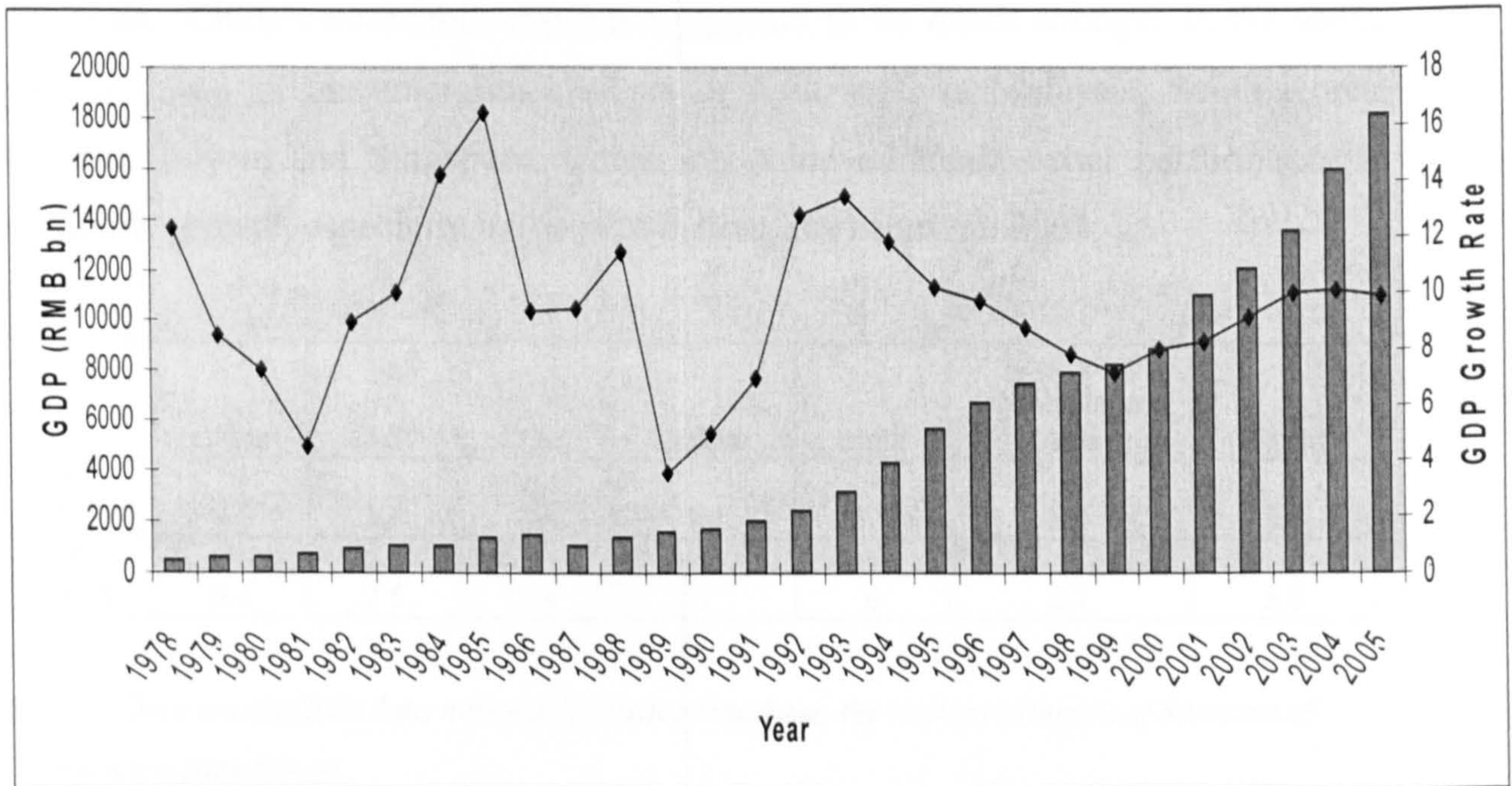
historical perspective. To gain an understanding of the planned economy, the distinctive features of the planned economy is discussed briefly in Section 3. Section 4 reviews the process of the SOE reform by breaking it into four stages. It argues that the emergence of listed companies in China is a historical product of the SOE reform and also identifies the major problems facing the listed firms. In Section 5, the light will be shed on the growth of China's stock market, in particular, the inherent problems that have significant impacts on the market will be discovered.

2.2 What has happened in China during the Past Quarter of a Century?

With the gross domestic product (GDP) growing at an average of 9.5 per cent for 26 successive years, China's economy has been booming since the late 1970s, when China embarked on its economic reforms and open-up policies. At the end of 2005, China's annual GDP exceeded RMB 18,000 billion (USD 2,250 billion). In terms of total GDP, China has outstripped many of the industrialised countries such as the U.K., France and Italy, becoming the 4th largest economic power next to the U.S.A, Japan and Germany. On the purchasing power basis, China is the secondly largest economy in the world only after the U.S.A (Sun and Tong 2002). Within a quarter of a century, China has stood in the world as an emerging economic superpower from the aftermath of continuous political and social disorders such as the Cultural Revolution which has brought the whole country to the brink of collapse. In that sense, it has to be acknowledged that China has achieved a phenomenal success (Jonquieres, 2006).

China's economic growth in the past is better seen from Figure 2.1 that illustrates the GDP and GDP growth covering a period from 1978 through 2005. As can be seen from Figure 2.1, China has witnessed a tremendous expansion in its GDP from RMB 568 billion in 1978 to RMB 18,232 billion in 2005, implying that China's economy has increased by more than 32 times since 1978. GDP has been on the dramatic increase throughout 1980s, but the growth has not been steady with the high of 16.4 per cent and the low of 3.5 per cent. By comparison, the substantial economic growth has taken place since the 1990s, especially 1992, when China announced its central task of economic reforms is to establish the market economy on the Fourteenth National Congress of the Chinese Communist Party⁸. In response to the government's decision, China's economy achieved a remarkable jump at 12.3 per cent in 1992 and 13.4 per cent in 1993. Subsequently, China has experienced a strong and robust economic growth for fourteen consecutive years.

⁸ Due to the one-party political system in China, most of the significant policies of the government are announced in the party conference such as the National Congress of the Chinese Communist party.



Source: Data are from *The Statistic Yearbooks (1978-2005)*, the State Bureau of Statistics of China, www.stats.gov.cn.

Figure 2.1 China's GDP and GDP growth from 1978 through 2005

On average, China's overall economy has increased at 9.5 per cent during the period from 1978 through 2005, with the GDP growth exceeding 10 per cent in 11 out of 28 years. The rapid growth of China's economy is better reflected in Table 2.1 that provides a comparison between China's GDP growth rate and those of the major countries and regions in the world. As can be seen, during the periods from 1991 through 2000 and from 2001 through 2004, the average GDP growth for the whole world is 2.8 per cent and 3.6 per cent respectively. China far outperformed the world with the average growth of 9.7 per cent and 9.4 per cent in the same periods. Furthermore, China's economy has been growing much faster than have the major industrialised countries e.g. the U.S., the U.K. and Japan. Compared with developing countries such as India which is widely regarded as the economic rival of China in

⁹ There are three methods to calculate GDP: expenditure approach, production approach and revenue approach. The GDP data released by the State Bureau of Statistics of China are derived under the production approach.

the future, China's economic expansion appears to be much stronger in the above periods. Even in the emerging markets in Asia such as Malaysia, South Korea, Chinese Taiwan and Singapore, China has achieved much better performance in economic growth, especially in the period from 2001 through 2004.

	China	U.S.	U.K.	Japan	India	Emerging Markets in Asia	World
1991-2000	9.7	3.3	2.4	1.4	5.5	8.1	2.8
2001-2004	9.4	2.5	2.3	1	6	2.7	3.6

Source: Data are the 2004 International Statistics Database, the National Bureau of Statistics of China, www.stats.gov.cn.

Table 2.1 GDP growth rates in some countries and regions from 1991 through 2000 and from 2001 through 2004

What's hidden behind the explosive economic expansion has drawn a great deal of interest across the world (Fong and Lam, 2005). And it is widely believed that the economic reforms and open-policies have been the vehicle through which China's economy has achieved strong and robust growth during the past two and half decades.

Faced with great difficulties resulted from the implementation of planned economy and waves of political and social turmoil during 1960s and 1970s e.g. the Great Leap Forward and the Cultural Revolution, China was eventually determined to reform its economic systems and open the door to the rest of the world. The Third Plenum of the Eleventh National Congress of the Chinese Communist Party (CCP) in 1978 was widely seen as the watershed event in the recent history of China (Jiang, 1997, Zhang, 2005, Wang, 2005, Fung et al., 2006, Fong and Lam, 2005)¹⁰. It was in this party conference that China unveiled the government's ambitions to depart from the old path.

¹⁰ China's unique political setting of one-party-rule implies that the voice of the Chinese Communist Party represents the decision of the government.

It is worth mentioning that the economic reforms consist of a comprehensive set of schemes covering nearly all aspects of the economic system. These schemes were put forth at different times to target different areas and issues. China's economic reform started with the agricultural sector. The first reform scheme was initiated in 1978 with the focus placed upon shaking up the rural economic system. Farmers were allowed to have the usage right of land, grow grain crops and retain a part of the profits they were able to generate. The main objective was to restore the material incentives and production autonomy by encouraging family-based farming and individual responsibility (rather than collective farming as practiced before the reform started). The success in the agricultural sector soon promoted the debate on how to reform the industrial sector. Based upon the experiences accumulated from the agricultural reform, the SOE reform was launched in 1984 to revitalise the ailing state enterprises. The price reform started at the beginning of 1980s to gradually introduce the concepts of the market and market prices. Non-state sectors such as private economy and foreign investments were encouraged to develop to drive the economic expansion and absorb the huge labour force. Finally, the transition of economic system from centralised planning to socialist market was announced by the government in 1992 to further deepen the economic reforms.

It has to be emphasised that China's economic reforms have taken a completely different approach from those of Eastern Europe and the former Soviet Union (Feldstein and Nsouli, 2003, Fung, 2003, Fung et al., 2006, Liu and Garino, 2001). Unlike the above-mentioned countries who transformed the economy by enforcing a set of radical changes together with full-scale implementation of privatisation programme, China's economic reforms have been taking an experimental approach. This approach has eventually led China to take a gradual and steady process in reforming its economic system. Liu and Garino (2001) argue that China's reform experiences have been unique, in the sense that it did not start with a blueprint or a clear picture of market economy, but with a trial-and-error strategy. Indeed, the government's idea of launching economic reforms and open-up policies did not come from a clear picture of the future because there are no experiences to be learned. 'Crossing the river by touching stones' has become the only choice and major principle for the Chinese reformers. The central idea of this principle is to discover truth via a learning-by-doing process. When necessary experience has been

accumulated and lessons learned, progressive improvements followed. In fact the experimental approach is reflected in almost every reform measure taken by the government. For example, the state owned enterprise reform started in 1980 within Sichuan Province (Liu and Garino, 2001). The Sichuan experiment provided the managers of SOEs with both production autonomy and material incentives in order to increase business vitality and improve efficiency. After a trial of four years this experiment was considered successful. The central government then started a full-scale implementation of the methods experimented by Sichuan Province, offering all SOEs with production autonomy and material incentives.

If there is one thing that has reshaped the post-Mao China since the 1970s, it must be the economic reforms and open-up policies, which has not only fuelled the massive economic expansion, but also brought about a series of fundamental changes to the whole country. From the standpoint of this thesis, these changes can be summarised into four major points.

Firstly, among all the changes resulted from economic reforms and open-up policies, the most striking change would be that China has been transformed from a planned economy to a market economy. Although the government did not announce that the ultimate goal of the economic reforms is to establish the socialist market economy until 1992, the marketisation process has started since the early 1980s. To introduce a market mechanism into the whole economy, China started its price reform at the beginning of the 1980s with an experimental out-of-plan market for small commodities that proved successful in reducing supply shortages. This led to a full-scale market price experiment in the late 1980s, which created a mix-up of planned and market economy where almost every good had dual prices¹¹. The 'dual price system' became a playing field where Chinese people, who had lived in a planned economy for almost 30 years, learned the power of market prices. The acquired knowledge and confidence in managing the market then led to the government decision in 1992 to finally free all plan prices and develop a full market economy.

¹¹ The 'dual prices system' is a unique phenomenon in China in the late 1980s and it refers to a situation where goods inside the planned economic system are traded at prices determined by state's plans and the above-plan goods are traded at the market prices.

Since then establishing market economy has become the central task of the economic reforms. Despite the fact that China is still an emerging economy, it has accomplished a significant achievement in establishing the market and making associated institutional arrangements.

Secondly, the whole process of economic reforms and open-up policies can also be interpreted as privatisation. Prior to the reforms, the whole economy of the country was nearly entirely financed, owned and controlled by the state. Due to the ideological concerns deeply rooted in the policy makers, private sectors and foreign investments were completely eliminated from the whole state-controlled system. The government's decision to depart from the 'old path' has in effect opened a door to the non-state economy. Private companies were allowed to develop to fill in the gap left over by the state firms. Towns and villages were given a green light to run the town-owned and village-owned businesses. Foreign investments were attracted to China's market by a series of preferential policies e.g., tax cuts and government subsidies. As a result, the country's overall ownership structure has undergone a revolutionary change from the predominance of state economy to a widely diversified portfolio of business entities. It has to be mentioned that development of non-state economy has been truly phenomenal. Within a period of a quarter of a century, the scale of non-state economy has overtaken that of state economy, becoming the major engine to drive the economic expansion and the main stay of the national economy. According to Fung et al. (2006), non-state-owned and foreign-funded enterprises have contributed over 60 per cent of industrial production in the Chinese economy, while over 90 per cent of Chinese workers are now employed by non-state sectors.

The change in status of non-state economy can also be reflected from the constitutional changes since the privatisation process began. To grant the non-state economy a legitimate status, in particular private sectors, China's Constitution has been revised four times since the early 1980s. In 1982, China made its first constitutional change to allow the establishment of individual enterprises employing fewer than eight employees. In 1988, the constitutional amendment recognised the importance of private enterprises and pointed out that non-state economy is an important supplement to the national economy. In 1999, the issue of protecting private properties was brought to the centre of the Constitution's revision. The latest

and most significant amendment occurred in 2004 with the law stating that both state and non-state economy are indispensable parts of the national economy and the state encourages, supports, and guides the development of non-state sectors.

Thirdly, the SOE reform has been the core of economic reforms since 1984, when the government decided to shift the focus of reforms from rural areas to cities. SOEs built in the planned economy have always been the biggest headache to the government since they suffer a host of problems e.g. a lack of incentives and managerial autonomy, low efficiency, poor operating performance, and serious overstaffing etc. In response to these symptoms, the SOE reform at early stages placed an emphasis upon providing state firms with managerial autonomy and material incentives. A series of measures have been taken, including changing the means of financing from state appropriation to bank loans and the implementation of the Responsibility Contract System, however, these measures have not been satisfactorily effective in improving the profitability of SOEs. It was until 1992 when the government decided to develop the market economy that China started to seek for the underlying cause of the 'SOE syndrome'. The concept of property rights and establishing modern enterprises characterised by clarified property rights and separation of management from ownership have become the major theme of the SOE reform since 1992. As a result, the shareholding system was put on trial in large- and medium-sized state firms, which eventually gave rise to the listed companies and the stock market. Objectively speaking, it might be too early to make any comments on the success of the SOE reform because it is still ongoing and far from completion. However, the ever-deepening SOEs reform has profoundly altered the corporate landscape in China. The SOE reform in China will be discussed in details in Section 3 of this chapter.

Fourthly, internationalisation is another good depiction of what's happened in China over the last two decades. The government's policy to encourage the development of foreign investments and global trading have prompted the emergence of overseas economy, which has experienced an explosive expansion and now become the leading force of the entire economy. In fact, the open-up policies deserves the same level of attention as economic reforms. There is no doubt that China's entry into WTO in 2001 has accelerated the internationalisation process of China's economy.

With nearly USD 500 billion in foreign direct investment (FDI) flooded into China during the past two decades, China has been extremely successful in attracting foreign investments, making it the largest FDI recipient country in the world since 2002 (Sun and Tong, 2002). What is more, China's international trading (the total of imports and exports) hit the record level of USD 1,442 billion in 2005, accounting for over 65% of the total GDP. The rapid development of international trading has made China the third largest leading exporters and importers in the world merchandise trade, next only to the U.S.A and Germany¹².

In short, the rapid economic expansion over the past two decades is only the phenomenon appearing on the surface. Deep inside, the country has undergone a series of fundamental changes which in turn reshaped all aspects of the post-Mao China since the late 1970s. China is currently in a key stage where the whole country is being transformed from a planned economy to a market economy. The rapid rise of non-state sectors is in a striking contrast to the ailing state economy. SOEs reform has profoundly altered China's corporate landscape and eventually given birth to the stock market and listed companies. Foreign direct investments and international trading have made China an importantly part of the world economy.

¹² Source: Data cited in this paragraph are from the Yearly Book of China Statistics 2005 published on the website of Bureau of Statistics of China, www.stats.gov.cn.

2.3 The Planned Economy and State-owned Enterprises

Copying the former Soviet-Union's style, China has adopted the planned economy since 1949 when the P. R. China was founded by the Chinese Communist Party (CPP). The key feature of the planned economy, at the macro level, is that the government plan replaces the market in allocating economic resources through long- and short-term plans (Zhang, 2005). Under the planned economy, a special governmental body, the State Planning Committee (SPC), was established to plan the economic development and formulate targets for all industries. Within the planning system, factories manufacture products according to the plan; farmers plant agricultural products to fulfil the target; wholesalers and retailers purchase and buy goods subject to the plan. Quantities, prices, and varieties of goods are all determined by the SPC. In short, all economic activities and economic resources under the planned economy are driven by the plan, surrounding the plan and reined by the plan.

Another striking feature of planned economy is that public ownership dominates the entire economy and other forms of ownership such as private ownership and foreign ownership are strictly prohibited. Under the planned economy, economic resources are owned by the government and the state represented by the government acts as a huge machine running all types of economic activities through plans and tight control over all economic units e.g., factories, plants, wholesalers, retailers, banks, farms, and mines etc. These economic units usually take two forms in terms of ownership: state owned enterprises (SOEs) and collectively-owned enterprises (COEs). State owned enterprises are entirely owned by the state, while owners of collectively-owned enterprises are a mix of governmental bodies and local non-governmental organisations such as residence committees in cities. In general, state-owned enterprises are the main stay of the economy and collectively-owned ones are viewed as the supplementary part in the institutional arrangements. Although the former slightly differs from the latter in terms of ownership, they are largely the same in

terms of ownership. Therefore these two types of ownership, put together, are called the public ownership¹³.

What's more, SOEs under planned economy are by no means business entities from the perspective of the market economy. SOEs fundamentally differ from business entities in market economy in that the economic units are not geared towards profit-seeking. Rather, they are functioning like different components attached to the state machine. Financed, founded and managed by the government, SOEs under the planned economy simply take orders from the government and fulfil the targets formulated by the SPC. Furthermore, with the government both owning SOEs and running the businesses of SOEs, the management is not separated from ownership.

The planned economy that China has adopted since 1949 has done a pretty good job in assisting the economy to recover from the chaos resulted from years of civil wars at the early stage, especially in 1950s (Zhang, 2005). He argued that centralised plans do work well on some special conditions e.g., the early stage of post-war era when the market is not functioning well. In the absence of the market, the utilisation of administrative forces is needed in that they can allocate economic resources into the most-needed area, thus ensuring the economic development to keep up with the state plan. However, when the order of the market is restored and the economic development back on track, drawbacks of planned economy begin to emerge and eventually outweigh the benefits. As a result, continuing to implement the planned economy will jeopardise the health of the economy.

The fatal drawbacks of planned economy can be identified at two different levels. At the macro level, costs of allocating economic resources by the means of centralised plans are prohibitively high as oppose to the market. Under the planned economy, economic resources are allocated by the means of administrative forces, rather than the market. The nation-wide economy of the state is like a huge firm run by the government with all types of SOEs performing different tasks according to centralised plans. If one sees the whole state as a firm, then a fundamental question

¹³ Just because of this and for simplicity, state owned enterprises and collectively-owned enterprises will be termed SOEs throughout the rest of this thesis.

needs to be addressed: what determines the firm's boundaries? Cabral (2000) argue that the size of the firm is largely determined by costs. If average cost is U-shaped and there is free entry into the industry, then firms tend to produce at the level where average cost is minimised. For example, if there is an optimal size for a cement plant that minimises costs. Plant of much smaller size or much larger size would probably incur a higher average cost and be unable to survive for very long. Following the above argument, one can clearly see that China's practice in implementing the planned economy comes with a huge cost to build up and manage a firm on such a national scale. As a result, the efficiency of allocating economy resources is lowered and ultimately the economy as a whole is harmed.

At the micro level, property rights are not clarified in the state-run economic units and consequently there is no one to be held accountable for the state property. As a matter of fact, the issue of property rights stands at the heart of the problems encountered by China's SOEs. State firms are in theory owned by the state and the government is exercising property rights on behalf of the state. In practice, however, it is unlikely to create an effective mechanism in which the government is held accountable for state enterprises. Management in SOEs takes no responsibility for state properties in that they are acting like government agencies to ensure the SOEs they are in charge to fulfil the targets¹⁴. The fact that property rights are not clarified in state-run enterprise has been the source of all problems with SOEs such as low efficiency, overstaffing and lack of incentive mechanism, etc. These problems are so widespread and serious that it comes as no surprise to see that one-third of SOEs are suffering losses, one-third of SOEs are breaking even and one-third of SOEs are making moderate profits (Sun and Tong, 2003).

¹⁴ Under planned economy, SOEs managers are in fact public servants, rather than entrepreneurs. Most high-level managers in SOEs even carry the hierarchical titles as government officials.

2.4 The SOE Reform and Listed Companies

As mentioned previously, the economic reforms consist of a series of reform schemes targeting different areas of the planned economy. Standing at the heart of the economic reforms, the SOE reform plays a vital role in determining the success of the entire economic reforms because the long-term prosperity of China will not be sustainable without the profit-making business entities (Jiang, 1997). As discussed previously, SOEs under the planned economy have suffered a host of serious problems, with the fundamental flaw being the lack of accountability for state enterprises due to un-clarified property rights. In order to revitalise the ailing state enterprises, the government has taken a series of measures since 1984 and this process is still continuing. According to Sun and Tong (2005), the whole process of SOE reform can be broken into four key stages.

The first stage ran from 1984 to 1987. Inspired by the success in reforming the rural economic system by offering farmers with material incentives and production autonomy, the government started to bring enterprise autonomy and introduce incentive mechanism into SOEs. State enterprises were allowed to retain 3 per cent of their profits so that there were incentives to improve productivity and efficiency. Administration of SOEs was decentralised so the management could enjoy a certain level of autonomy. This in turn gave state firms a formal right to determine above-plan output quantity and retain profits after the fulfilment of planned targets. The rise in autonomy and incentives increased managerial efforts, but did not ensure the accountability of SOEs. As a consequence, SOEs are motivated to bargain with and even to hide profits from the government. This eventually led the government to take further measures which signifies the beginning of the second stage.

The second stage ran from 1987 to 1990. Two significant measures were brought in by the government in this stage. First, SOEs were required to pay taxes instead of turning in profits so no more bargaining on profit sharing is necessary. Second, the funding for the state firm's capital investments, instead of being allocated directly from the government financial reserves, had to come through bank loans. This policy relieved the government's financial burden and made SOEs more cautious in their

use of capital. The intention of these two measures was clear: to encourage the production-unit-style state enterprises to become independent and profit-seeking business entities. However, this goal has not been achieved. Even worse, the shift from state allocation of capital to bank loans has given rise to a huge 'triangular debt' problem. This refers to the fact that a great number of SOEs are in debt to one another. According to Sun and Tong (2003), the average total debt ratio of SOEs was as high as 67.9 per cent in 1994 and 65.1 per cent in 1996. In 1994, 27.6 per cent of the SOEs had total debts higher than their total asset values. Another 21.5 per cent of the SOEs had total debts equal to total equities. The recent study suggests that China's total liabilities for non-performing loans may be as high as \$900 billion (McGregor, 2006b). The principal reason behind the widespread triangular debts is that no legal arrangements were set up to tackle the problem of unsettled debts among SOEs. When a default occurred there was not even a legal recourse by which a creditor can pursue its legal action against the debtor. In fact, a legal arrangement simply could not be established when property rights of state enterprises are not completely clarified.

Faced with the debt problem arising from state bank loans, the government initiated the Contractual Management System (CMS) in the late 1980s, which marked the third stage of the reform process. The focus of the CMS was to separate the government ownership from the control over SOE's operations. According to the CMS, a contract is signed between the government agents and management. The contract ensures that the government keeps its hands off the day-to-day operations and management runs businesses independently. In return, SOEs has to agree on committing a certain amount of tax to the government. Profits after tax are retained by state enterprises. The CMS seems to have worked on the issue of separation of government ownership from control. However, the SOE's obligation was on the profit side, not on the loss side. Profitable SOEs were required to pay taxes but loss-making firms were not fully responsible for their losses whatsoever. The impact of the CMS was investigated by Nolan and Yeung (2001) who point out that the contract system was a crude instrument for allocating the stream of business profits. In particular, it almost fails to achieve its goal of imposing a hard budget constraint on the firm, because of the enforcement problem resulting from uncertainty in the contract specification.

The failure of the SMC to solve accountability problem forced China to think of a more effective approach to reforming state enterprises by tackling the fundamental issue of property rights. The 14th National Congress of the Chinese Communist Party in October 1992 announced the target of constructing a socialist market economy and establishing a modern corporate system, implying the beginning of the fourth stage of the SOE reform. Rather than pursuing the traditional approach of providing SOEs with managerial autonomy and incentives, the central task of this stage was to transform SOEs into 'modern enterprises' adapted to the market economy featured by clarified property rights and the separation of management from ownership. Having these thoughts in mind, the government formulated different remedies to SOEs with different sizes. In December 1994, the State Council proposed a pilot scheme for a few large SOEs. This led to the policy of 'taking a firm grip on the large and letting go of the small'. According to this policy, many weak and small-scale state enterprises were simply sold off to private hands or foreign investors, while some large- and medium-sized SOEs were transformed into shareholding companies, which ultimately evolved into publicly listed companies. By carrying out the experiment on share-holding system in SOEs, the government has shifted a considerable portion of state ownership to either private bodies or other legal persons (institutions), while retaining a state-dominated shareholding position in the stake. As a result, different owners were created and accordingly property rights were clarified to some extent. Corporate governance mechanisms were brought into the share-based company to mitigate the agency problems arising from the separation of management from ownership. Some good-performance companies have gone even further, going public by listing their shares on the Shanghai and Shenzhen stock exchanges.

As can be seen from the above discussion, by comparison with Eastern European countries and the former Soviet Union who have gone from one extreme to another extreme, China has taken a distinctive approach in pushing ahead its SOEs reforms (Liu and Garino, 2001, Sun and Tong, 2003, Fung et al., 2006). From economic units attached to the state machine under the planned economy to 'modern enterprises' with diversified ownership and the separation of management from ownership, China did not take a straight-line route to get to the current position. The measures taken by the government at different stages are simply reflective of the fact that the

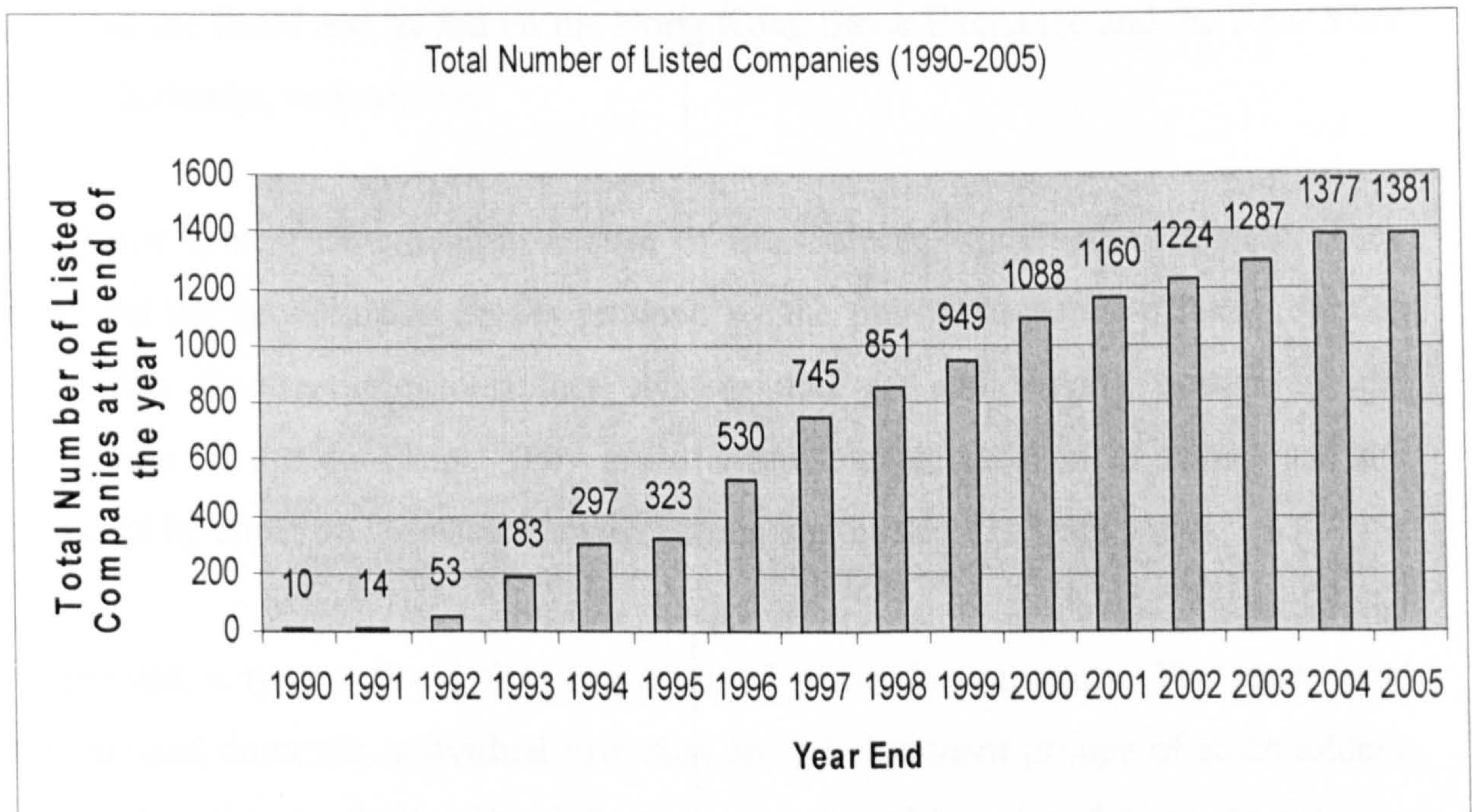
government was learning by doing. The unique institutional setting of China has made it extremely difficult to copy existing experiences from other market-oriented countries. Equally importantly, every measure taken by the government to lead the SOE reform further had to suit the overall economic and political conditions. For instance, the U.K. has been successful in privatising its state-owned utilities companies by issuing shares in the 1970s and the 1980s. However, it was utterly impossible for China to follow the same approach in the 1980s simply because, politically, privatisation is contradictory to the fundamental principle of the Chinese Communist Party and more importantly, stock markets and other related institutions did not come into existence at that time. It was only after the ideological debates were settled and market conditions matured that China started implementing the shareholding system and corporatising SOEs through the issuance of shares.

As discussed earlier in this section, it was the experiment of stockholding system that eventually gave rise to the listed companies. A shareholding system was implemented in the large- and medium-sized state firms because it could, at least theoretically, fulfil a number of objectives. Firstly, with shares being sold to private sectors and other institutions, multiple shareholders are created. Although the state holds majority of the shares in most listed companies, the existence of diversified interest groups in state firms may help clarify property rights¹⁵. Secondly, SOEs could be transformed into independent, profit-seeking and market-oriented business entities as a result of management being separated from ownership. With an effective corporate governance mechanism in place, management is held accountable for the materialisation of the firm's targets and is monitored by a broad range of stakeholders. Thirdly, direct intervention of government is likely to be limited as share-based companies are no longer solely owned by the government. Other types of shareholders e.g. institutions may impose restrictions to the government's influence. Fourthly, private and foreign funds may be channelled into the SOEs who desperately need cash to get out of difficulties. Fifthly, management and staff can be provided with a material incentive by being compensated with shares. Unlike incentives introduced at early stages of SOE reforms which motivated firms to hide

¹⁵ The government on average holds two thirds of the shares of the listed companies in China. Details of shareholding by the government will be discussed in Section 5 of this chapter and Chapter 5.

profits from the government, the share-based incentive appears to be more effective in that share prices are determined by market and they are relatively hard to manipulate. .

Fuelled by the benefits arising from the shareholding system, listed companies have emerged in China since the early 1990s with the establishment of the Shanghai and Shenzhen stock exchanges in December 1990. Fifteen years on, the expansion in the number of companies listed on the two exchanges has been absolutely phenomenal. As can be seen from Figure 2.2, there were merely 10 listed companies back in 1990, however, the number of companies going public went up to 1381 at the end of 2005. Note that the increase from 10 to 1381 has been explosive in that the rise happened within a period of as short as 16 years. In some years such as 1993, one year after the government announced its plan to shift the economic system from a planned economy to a market economy, China witnessed a three-fold increase in the total number of listed companies from 53 to 183.



Source: Data are from www.csrc.gov.cn, the website of the China Securities Regulatory Commission.

Figure 2.2 Total number of listed companies in China from 1990 through 2005

Because the stockholding system is a rather recent development in China, the ownership structure of Chinese listed companies has some unique features not found

in the stock markets of most developed economies. Shares of listed companies are normally classified as A-shares designated for domestic investors and B-, H- and N-shares designated for overseas investors. A-shares are further divided into state shares, legal-person shares and tradable A-shares, and employee shares. State shares are those owned by the state, i.e., the central government and local governments. Legal-person shares are those held by domestic legal enterprises, and non-bank financial institutions. Both state shares and legal-person shares are not tradable on the stock exchanges, but the latter can be transferred to other legal persons upon the approval of the China Securities Regulatory Commission (CSRC). Tradable A-shares, which can be held by Chinese citizens and institutions, are the only class of share that can be traded among domestic investors.

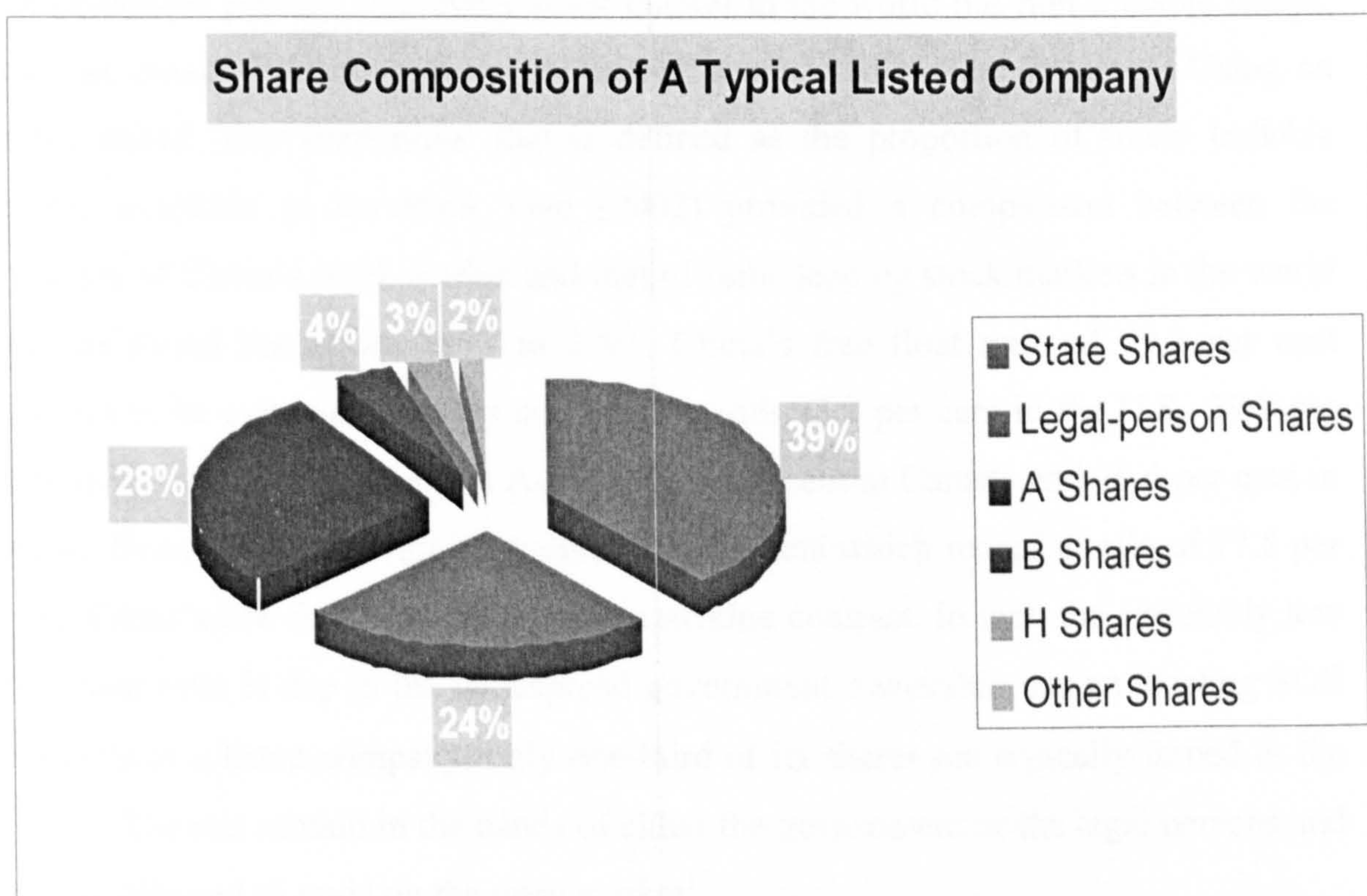
B-, H- and N-shares are those that can only be held and traded by foreign investors¹⁶. The market for B-shares is separated from the A-share market. They are denominated in US dollars on the Shanghai Stock Exchange and in Hong Kong dollars on the Shenzhen Stock Exchange. H- and N-shares are similar to B-shares in nature, except that they are listed and traded on the Hong Kong Stock Exchange and the New York Stock Exchange, respectively.

Employee shares are a unique feature of the Chinese stockholding system. They represent the accumulated profits retained by the pre-initial-public-offering entities under the Contract Responsibility System and are collectively owned by the employees of the company. They are not tradable at the time of listing and are managed by either an investment management committee or a staff union.

At present, a typical listed firm has a mixed ownership structure. The state, legal persons and domestic individual investors are the dominant groups of stockholders, each accounting for 30% of total shares outstanding. Many listed firms do not have employee and foreign shares, and even if they do, these shares on average consist of

¹⁶ These rules have recently been loosened up. Chinese investors have been allowed to invest in the B-share market from January 2001 onwards. As of 1st December 2000, foreign investors could be granted the permit to enter the A-share market under the scheme of Qualified Financial Institutional Investors (QFII).

less than 10% of total shares outstanding when combined (Qi et al., 2000). Although a company has a mix of multiple categories of shares, however, the holder of a share is entitled to the same cash flow and voting right regardless of the share type. The share composition of a typical listed company is illustrated by Figure 2.3.



Source: Data are from www.csrc.gov.uk, the website of the China Securities Regulatory Commission.

Figure 2.3 Share composition of a typical listed company in China

There is strong criticism over the current mix of shares in the listed companies. Especially, the criticism is centred on the excessively high percentage of state shares and legal person shares which are not tradable on the open markets (Qi et al., 2000, Wang and Jiang, 2004, Wang, 2005, Tian, 2001, Easton, 1985, Hovey et al., 2003). Clearly, the government holds the majority of shares in listed companies with the intention that the state will not lose control over the listed companies after state firms go public. Behind this intention is the belief that being a controlling shareholder can prevent the loss of state property. While the government might be right on insisting the control is essential, the fact that state remains the controlling shareholder, in practice, leaves the government in a rather awkward situation. Materialisation of the

theoretical benefits listed previously has been seriously hampered. Even worse, more problems are likely to arise from the state and legal-person shareholding.

Firstly, an effective corporate governance mechanism is unlikely to be established within a listed company that is tightly controlled by the government. It is a commonplace practice that every stock market in the world has non-tradable shares, such as cross-holdings, government-owned shares and private holding. Using an index called 'free float ratio' that is defined as the proportion of freely tradable shares available to investors, Gao (2002) provided a comparison between the liquidity of China's stock market and that of some leading stock markets in the world. He has found that, from 1993 to 2001, China's free float ratio of 29.3 per cent appears to be extremely low by comparison with 93.9 per cent in the U.S., 79.9 per cent in Europe, 87.8 per cent in Austria, 82.0 per cent in Canada and 79.6 per cent in Japan. Even compared with other emerging markets which record a ratio of 77.5 per cent, China's low free float ratio poses a striking contrast. In fact, the extremely low free float ratio is due to the widespread government ownership. As an existing SOE converts to a listed company, only one-third of its shares are typically issued to the public. The rest remain in the hands of either the government or the legal persons and are not allowed to trade on the open market¹⁷.

Excessive government shareholding makes it extremely difficult for the government to impose an effective governance mechanism in listed companies. To float on the stock exchange, an SOE is usually to be transformed to a share-based company with diversified shareholders owning the firm. While the legal form of the company has been transformed, the fundamental issues deeply rooted in the firm have hardly been touched. For example, the board of directors is set up in all listed companies, however, Bai et al. (2004) found that more than one third of the CEOs are also either the chairmen or vice chairmen of the board of directors, which is likely to impede the board from playing an effective monitoring role. Independent directors do exist but

¹⁷ It is widely argued that legal-person shareholding is by nature a type of government shareholding due to the fact that the overwhelming majority of legal persons are actually under the tight control of the government. For this reason, government shareholding is used to include both state shareholding and legal-person shareholding.

they are usually selected and appointed by the government body, the Bureau of State Property Management (BSPM). This actually raises a question as to how independent they can be. The supervisory board is created to ensure the board of directors and management of the company are under scrutiny, but its role is seriously restricted due to their weak enforcement power. As a result, the corporate governance practice in China's listed companies is widely considered poor (Bai et al., 2004, Qi et al., 2000, Sun and Tong, 2003). The reason behind this is clear: excessive government shareholding enables the transformation to occur only at the surface and the corporate governance mechanism is hard to be established.

Secondly, direct government intervention into the firm's day-to-day operation is inevitable. While holding a majority of shares may well ensure the state's control over a firm, it also poses a threat to the goal of SOEs reform: to separate management from the government's intervention. On one hand, the government has been working hard on providing firms with managerial autonomy and pushing state firms to run their businesses independently; on the other hand, the government's majority shareholding makes it perfectly possible for the government to step into the firm's operation. It is well accepted that government's objectives may differ greatly from those of the firms (Sun et al., 2002). While companies consider profit-seeking as the ultimate goal, the government will have to take political and social responsibilities into consideration. In a company with a majority of shares owned by the state, when the government's interest conflicts with that of the firm, it is likely that the government will have to force the firm to compromise using its control. For example, a common headache for Chinese state firms is overstaffing. In order to improve the efficiency, companies would have to lay off excessive employees. However, lay-off plans are frequently under the pressure from the government due to the concern that high level of unemployment could cause serious social and political problems.

Thirdly, the fact that the government remains to be the principal stakeholder could also lead to two types of agency problems. Clessens et al. (2000) argue that there are two types of agency problems in modern firms. The Type I agency problem arises from the separation of management from ownership. The Type II agency problem

refers to the conflict between controlling shareholders and minority shareholders. The separation of ownership and stewardship gives management substantial discretionary power to use the shareholder's resources for personal gains. Hence a set of effective mechanisms e.g. corporate governance is necessary to resolve or at least alleviate the conflicts between the firm's owners and its managers. However, as discussed previously, the function of corporate governance is severely limited by the state's majority shareholding, which could provide management with considerable loophole to abuse the managerial power. For this reason, and coupled with the lagged-behind legislation, lack of transparency and information asymmetry, The Type I agency problems in Chinese listed companies are likely be rather serious. Equally serious is the Type II agency problem. Concentrated equity ownership makes the largest shareholder in an unchallenged position to expropriate minority shareholders. Bai et al. (2004) found that listed companies in China usually have one major owner holding a significant percentage of the shares¹⁸. Hence, the transfer of resources out of listed companies into the parent companies or other related parties is perfectly feasible.

It should be mentioned that the above problems related to the excessively high state ownership have been so serious that the regulators have already brought out plans to reduce the government shareholding in listed companies. On the 4th September 2005, the CSRC promulgated the Administrative Measures on the Split Share Structure Reform of Listed Companies, providing detailed regulations on how to reduce the state and legal-person shareholding. According to the plan, the reduction of state and legal-person shareholding will be carried out on the trial base before it is implemented on the full scale.

The unique ownership structure of Chinese listed companies has attracted a great deal of interest across the world. In the field of market valuation, the majority shareholding by the government and legal persons has also provided an excellent laboratory for investigating the impact of the government control on the market value. Researchers so far have carried out extensive studies on these issues and produced

¹⁸ According to Bai et al., on average, the largest shareholder in listed companies holds 44.8% of the total shares.

inconclusive results (Xu and Wang, 1999, Wang, 2005, Sun et al., 2002, Shi, 2003, Qi et al., 2000, Delios and Wu, 2005, Bai et al., 2004). This thesis will have a close look at the empirical evidence in Chapter 6.

2.5 The Emerging Chinese Stock Market

With no doubt, China's stock market is one of the fastest-growing markets in the entire world. The fact that the stock market is developing fast, however, focuses on only one side of the coin. The other side deserves the same attention: a host of serious problems such as an incomplete corporate governance structure, excessive government intervention into the market, inadequate regulatory capacity, intrinsic structural defects of the market, ferocious market manipulation and all kinds of traps. This section will have a look at both sides of the story by addressing three issues. In particular, it will shed the light on the ongoing problems with the stock market. More importantly, not only will these problems be identified, but also it will focus on analysing the underlying cause of the problems.

2.5.1 Phenomenal growth vs. serious problems: what is the major theme of China's stock market?

China's stock market has experienced tremendous growth in size since the inceptions of the Shanghai and Shenzhen stock exchange (SHSE). As illustrated in Figure 2.2 in the last section, the number of listed companies reached 1381 at the end of 2005 – up from only 10 companies in the early 1990s. As can be seen from Figure 2.4, market capitalisation in China in the last 14 years on the whole has been on the sharp rise, although the increase is not always steady. The MC went up from RMB 105 billion (USD 13 billion) in 1992 to RMB 4,809 billion (USD 580 billion) in 2000 then dropped to RMB 3,243 billion (USD 405 billion) in 2005 following a few ups and downs. By its peak, total MC accounted for more than 50 per cent of GDP in 2000. Within a period as short as 10 years, China's stock market has become the third largest one in Asia based on market capitalisation next to Japan and Hong Kong and this growth is still continuing (Chen, 2003). From 2000 through 2005, China's stock market has raised capital worth a total of RMB 905 billion (USD 113 billion). Trading activities have been extremely active despite the stock market downturn since 2000. Trading volume averaged at RMB 3,887 billion per year (USD 486 billion) within a period between 2000 and 2005, accounting for 22 per cent of the

total GDP in 2005. In 2000, the year before the stock market began to tumble, trading volume hit the record level of RMB 6083 billion (USD 760 billion), 60% per cent of GDP in that year. The phenomenal expansion of the market can also be reflected by the number of stock accounts which rose from 45,000 in 1990 to 73 million at the end of 2005¹⁹.



Source: Data are from www.csrc.gov.cn, the website of the China Securities Regulatory Commission (CSRC)

Figure 2.4 Total market capitalisation of Chinese stock market (1992-2005)

Despite the fact that it has expanded rapidly in size, China's stock market is still an emerging market. The nature of the emerging market can be revealed by a number of significant problems inherent in China's unique institutional arrangements, legal framework and economic conditions. In other words, China's stock market is still in its early stage of development. From the perspective of market valuation, an in-depth understanding of the fundamental problems facing China's stock market is essential because market valuation is based upon the links between equity market information

¹⁹ Statistics cited in this paragraph are all from www.csrc.org.uk, the website of the China Securities Regulatory Commission.

and accounting information. Ignorance of these problems could lead one to jump into faulty conclusions. In particular, market information in China could be misleading and distorted due to the structural defect of the market, the government's excessive intervention and rampant illegal activities e.g., price manipulation, insider trading etc. For example, does the total number of stock accounts of 73 million represent that of investors in the stock market? The answer is obviously no as the number of investors is vastly different from that of stock accounts. First, the same investor has to have one account with the Shanghai Stock Exchange and one with the Shenzhen Stock Exchange, if he or she is to trade stocks listed on both exchanges. These two accounts of the same investor are counted as two. Second, investors often own multiple accounts to hide their identity by opening accounts using borrowed ID cards from others. This is a common practice especially among market manipulators, who have to hide their trade to evade regulators' attention. In fact, some researchers such as Chen (2003) believe that a realistic number of investors is around 10 million or less. Therefore, it would be helpful to provide an in-depth analysis on the principal problems facing the China's stock market. In particular, this section would highlight the issues that are closely associated with market valuation.

2.5.2 Monitoring vs. capital raising: has the stock market been effective in the SOE reform?

As discussed earlier, the emergence of the stock market in China is in fact the product of SOE reform and the process of marketisation. With SOEs being transformed into share-based companies, agency problems began to emerge above the water. Therefore, monitoring and control mechanisms must be created to solve or at least alleviate these problems. Capital markets are regarded by (Jenson, 1993) as one of only four control forces operating in corporations to solve the problems caused by a divergence between managers' decisions and those that are optimal from shareholders' standpoint. The other three are the legal or regulatory system, product and labour markets, and the internal control system such as the board of directors. The stock market, an important part of capital markets, is playing a significant role in linking the stock market and managerial actions, hence monitoring the managers of listed companies and limiting the agency problem. The monitoring function has been

discussed by Young and McGuinness (2001) who posited that the primary benefit of capital markets is their monitoring function and not the raising-capital function with which they are most often associated.

Clearly the market regulators in China established the stock exchanges in Shanghai and Shenzhen in a belief that the stock market can, at least in theory, perform two important functions (Jiang, 1997). First, a well-functioning stock market can provide a monitoring mechanism to the newly-established listed companies, hence minimising the agency problem arising from the separation of management from ownership. In fact, how to monitor managers of listed companies effectively was a huge challenge for the government when the shareholding system was first introduced and internal control system was not in place. Second, an active stock market can also assist SOEs raise much-needed capital. With the SOEs reform going further, the government gradually forced state firms to become independent business entities. Financing is no longer from the government's financial reserves, but from financial institutions such as banks. Lack of financing has always been the bottleneck hampering the development of state firms. Establishing stock exchanges in China obviously opened a door for listed companies to raise the much-needed cash.

While there is nothing wrong with the market's functions identified by the government, the key issue is how well the market is functioning in terms of monitoring management of listed companies and raising capital. After over 10 years of expansion, the stock market has become a significant part of the capital markets in China and has done a great job in raising capital for listed companies. As cited earlier, listed companies have pocketed a total of RMB 905 billion (USD 113 billion) from the hands of individual and institutional investors, within a six-year period from 2000 through 2005. However, the stock market has not been playing a significant role in monitoring managers of listed firms and protecting the interest of investors. This verdict is shared by a great number of researchers such as (Brooks and Rangunathan, 2003, Chen, 2003, Young and McGuinness, 2001). Young and McGuinness (2001) made the comment on the performance of stock markets as follows: "Aside from injecting some much-needed capital into the system, the impact of these reforms (the shareholding system and the resultant stock markets) on company performance up to date has been somewhat disappointing".

This comment has raised two interesting questions: why has the stock market done a poor job in monitoring listed companies and what effect would it have on the SOE reform? To address these questions, one needs to take a deep look at the structural problems facing China's stock market.

There are three ways in which the stock market monitors the managerial actions (Young and McGuinness, 2001). First, shares prices can be used as an aid in making resource allocation decisions. Second, agency problems can be alleviated by linking managers' compensation to the firm's shareholders. Third, an effective takeover market forms a strong external control for underperforming companies. Each of these ways will be discussed here with an explanation of why impediments exist in all three areas in the case of China's stock market.

Firstly, share prices are widely seen as a guide for the performance of both firms and managers. In a developed market, market participants, in particular investors and managers, often look to share prices as indicators of strategic effectiveness of a firm. China's investors also look to share prices when making investment decisions. However, share prices are less likely to function as an effective guide for Chinese managers for various reasons. Most importantly, China's stock market is still emerging, share prices are often determined by factors other than market forces alone. The government is frequently playing a dominant impact on share prices in China's stock market. It is not uncommon that China's market regulators, e.g. the CSRC, frequently intervened into the stock market. When the government sees a lukewarm market, it then encourages investments to the stock market through a series of measures e.g., cutting interest rates²⁰; when the state is concerned with particular market activities, it issues regulations to circumscribe those activities.

²⁰ For example, in order to direct investments to the stock market, the People's Bank of China (PBOC), the China's central bank, cut the interest rates twice in May and September 1996 and introduced interest taxes for the first time. These actions caused an overheated stock market in 1996, which witnessed the greatest increase in stock indices of both Shanghai and Shenzhen stock exchanges (Shanghai Composite Index and Shenzhen Composite Index) since the beginning of China's stock market. This significant event was investigated by Gao (2002), who labelled the huge increase in 1996 "the 1996 oddity".

For example, in order to curb the increasing speculative activities that prevail in the China's stock market, the Shanghai and Shenzhen Stock Exchanges introduced a ceiling scheme that limits the maximum change of stock price to 10 per cent above or below the closing price of the previous trading day since June 1996. Although it was meant to be a remedy to the rampant speculative activities on the China's stock markets, its effectiveness remained questionable. In fact, critics argue that the ceiling scheme is an inappropriate means to correct the distortion caused by the speculation in the long run because it has distorted the prices on the market much like the speculation itself (Peterson et al., 2003, Su, 2003, Gu, 2003). The 10 percent of the maximum set out by the stock exchanges would simply under-price the shares of a good-performance company when the actual price of the share could have gone up by more than 10% in a single trading day without the ceiling scheme in place and vice versa. Not only so, but the implementation of the ceiling scheme has actually put investors at greater risks because investors, restricted by the ceiling, would not be able to withdraw their funds quickly enough when a company's share, or the whole market, takes a tumble.

While how effective the government's policies to direct the development of the market in the long run remains to be seen, excessive intervention and frequent change of policies can jeopardise the health of the stock market and the interest of investors. In particular, market prices are likely to be distorted by political forces, thus affecting the market participant's investment decision and ultimately hampering the stock market's function as a guide for resource allocation.

Furthermore, shares prices can also be distorted by widespread speculation in the developing China's stock market. Unlike developed markets where institutional investors tend to dominate or at least represent a significant portion of the market, China's stock market is largely dominated by individual investors. According to Gao (2002), in the U.S. and Japan, institutional investors account for more than 40 per cent of the total market. In the U.K., insurance companies also hold about one-third of the total market. However, the holdings of institutions in China are estimated at less than 20 per cent of the market. By comparison with individual investors, institutional investors have both expertise and knowledge in analysing market and

financial information and making investment decisions. As a result, share prices in developed markets tend to be more rational and informative with the participation of institutional investors (Quiry et al., 2005). The function of the stock market as a guide for capabilities of management of running businesses can be better performed.

By contrast, the striking feature of China's stock market is the dominance of individual investors which is closely related to widespread speculative activities. The degree of speculation can be measured by the average stock turnover which is calculated as the total annual trading value divided by the average market capitalisation. A higher turnover points to a higher frequency of trading, or a shorter holding period, which in turn implies a greater level of speculation. According to Gao (2002), the average stock turnover from 1994 through 2001 was more than 500 per cent, suggesting that an individual stock changed hands five times a year on average, or the average holding period is merely a little over two months. This is roughly ten times the average turnover of most developed markets. The roots of speculative activities can be found in two fundamental defects in China's stock market. First, the overall investing environment of China's stock market simply does not encourage long-term investment strategies. This is partly due to the nature of a developing stock market. Second, the government's frequent intervention into the market has exacerbated speculation. As discussed earlier, actions taken by the government have significant impacts upon the stock market. Influenced by the government policies, investors tend to place a heavy value on news or rumours of state policies when making their investment decisions.

Secondly, in a well-functioning stock market, agency problems can be alleviated by linking managers' compensation to the firm's value. Agency theory, though controversial, is still the predominant paradigm in corporate governance theory. Grounded in neoclassical economics, it naturally posits that managers are driven by self-interest. Aligning the interest of principals (shareholders) and agents (managers) is considered the central issue in improving company performance (Young and McGuinness, 2001). Linking managers' compensation to the firm's value is likely to drive managers to maximise corporate earnings and share prices. Managers' compensation usually consists of three parts: 1) fixed salaries and benefits, 2) bonus linked to the firm's operating performance, and 3) options and/or shares linked to the

firm's market performance. In developed countries, options and shares are increasingly used by companies and in some firms have become the major part of the managers' compensation. By awarding stock options to managers, managers' personal gains are closely linked to the market performance. Hence, managers' motivations are geared towards maximising the value of the company. Compared with bonus which depends on the company's operating performance, the advantage of options and shares lies in that share prices are not apt to be manipulated²¹.

However, China is moving slowly in this direction. Due to the legal restraints, stock options have not been implemented by the market regulators. Management shares are only a negligible part of the total shares outstanding in the stock market. The stock-related compensation of Chinese managers has been investigated by Bai et al. (2004) who have found that top managers in China's listed companies typically own very little of their companies' shares, on average only 0.1 per cent. Instead, currently the compensation to Chinese managers is usually based upon the operating performance measured by accounting figures. To reach the profit targets stipulated in the contract, managers can easily manipulate the accounting figures. In fact, accounting fraud, such as false financial reporting and profit management etc., is so widespread that no one group should take the blame. The nature of the premature accounting regulatory system has provided management with plenty of opportunities to juggle accounting numbers. The weak internal control mechanism in China's listed companies and poor practice of auditing enabled Chinese managers to conduct profit management nearly 'worry free'. Without the market performance-linked compensation in place, compounded with Chinese managers' astonishing 'capability' of manipulating accounting figures, firm's performance in the stock market has drifted away from the fundamentals of the firm. In other words, managers are not bothered by share prices. As long as accounting figures meet the target, managers' personal gains are guaranteed. This is actually contrary to the government's purpose of establishing the stock market. Above all, the stock market could be used to align the interest of

²¹ The fact that share prices and options are not apt to be manipulated by comparison with accounting figures does not necessarily mean that they cannot be manipulated. Even option itself can be manipulated somehow, e.g. backdating options when shares were low.

shareholders and management. If managers no longer look to stock prices for assessing performance, why is the stock market needed?

Thirdly, a well-developed stock market can form a strong external control mechanism to listed companies. In an efficient market, a firm's performance can soon be incorporated by share prices. Hence, under-performed companies are likely to have lower share prices and become the targets of takeover. In order for the stock market to perform effective control over management of listed companies, two factors are vital: an efficient stock market and an active takeover market. In the case of China however, neither of these two factors are ripe enough for the stock market to perform its function.

According to Quiry et al. (2005), the market efficiency theory classifies capital markets into three types: 1) a strongly efficient market in which the prices of financial securities at any time rapidly reflect all available relevant information; 2) a semi-strong efficient market which reflects all publicly available information, as found in annual reports, news paper and magazine articles, prospectuses, announcements of new contracts, of a merger, of an increase in the dividend, etc; and 3) a weak-form efficient market in which existing prices already reflect all the information that can be gleaned from studying past prices and trading volumes. What type of market is Chinese stock market in terms of efficiency? The efficiency of Chinese stock market was investigated by Su (2003). He finds that domestic A-share investors, on average, do not correctly anticipate the EPS changes and do not adjust to the new earnings information very rapidly in the markets, indicating that China's stock market is neither strongly efficient nor semi-strong efficient. In fact, this finding does not come as a surprise because a number of reasons can be easily identified to contribute to the low efficiency of the market. First, it is not uncommon that government officials and managers of listed companies to be involved in insider trading of A-shares. Second, as discussed earlier, most A-shares investors are short-term investors who are more likely to speculate based on sentimental factors. Third,

Chinese stock market are segmented both in trading and financial reporting requirements²².

What is more, there is not a takeover market existing in China. In the presence of takeover market, mergers and acquisitions (M&A) can play a significant role in disciplining management of listed companies simply because firms with poor performance are apt to become the targets of takeover and managers risk losing their jobs (Allen, 1997). However, the market-oriented takeover activities in China's stock market are severely impeded by the unique ownership structure of listed companies. As discussed earlier, one of the most striking features of China's listed firms is that government (the state and legal persons) is the principal shareholder who on average owns nearly two-thirds of the total shares. To immunise state-controlled listed companies from any attacks, the government further regulates that these shares are not tradable on the open market. Even transfers between legal persons are subject to the approval of the CSRC and other related government authorities. All these in effect have built a fence by which China's listed companies are protected from private and foreign hands. While the effectiveness of this policy remains to be seen, the negative impact on the market has been fairly significant. With two-thirds of the shares in the hands of the state being non-tradable, market-driven takeover activities simply cannot take place in the stock market²³. When takeover occurs, it is usually because the government requests a healthy firm to take over an ailing one. Managers in China's listed companies hence face much less pressure in comparison with their Western counterparts.

In summary, the stock market established by the government was meant to provide a monitoring mechanism to the listed companies transformed from SOEs as well as raising much-needed capital. While the stock market has done a terrific job in raising cash from private pockets, the function to effectively monitor the management of

²² Companies issuing A-shares only are required to prepare for financial reporting based on Chinese GAAP. However, companies issuing both A- and B-shares should report financial accounts based on Chinese and international GAAP.

²³ According to Anderson (2000), merger and acquisition activities have been increasingly active since 1990 in China. However, the vast majority of M&A undertakings are driven and/or participated by the government. Market-driven takeovers are fairly rare in China's stock market.

listed companies has been restricted by the inherent defects of the stock market. These problems can be summarised as follows. First, shares prices can be used as an aid in making resource allocation decisions. However in the context of China, political forces such as government intervention and change of regulations, other than market forces, have played a significant role in affecting share prices, hence distorting the information contained in share prices. The distortion is further exacerbated by the excessively speculative investing culture. Second, agency problems arising from the separation of management from ownership can be alleviated by the stock market. But the interest of managers is not well aligned with that of shareholders through stock options and/or shares due to the legal and institutional limitations. Linking managers' compensation to accounting profits can only fuel the rampant accounting fraudulence such as profit management and false financial reporting. Third, the stock market can be utilised as an external control mechanism as long as it is efficient and takeover activities can happen without the influence of non-market forces. However, by holding nearly two-thirds of the total shares, the government has built up a solid fence to 'protect' the state-controlled listed companies against any potential takeovers. Managers under this shelter tend to face less pressure. Based upon the above, it can be concluded that the stock market has been largely ineffective in assisting the SOE reform due to the problems identified in the above analysis.

2.5.3 Law vs. order: has the stock market built upon a solid institutional foundation?

As discussed earlier, despite the phenomenal growth in size, the stock market in China is still at its infancy and displays a series of typical features characterised by emerging market. One of the most distinctive features is the disorder of the market and lack of institutional infrastructure. A brief review of the recent history reveals that the development of stock market in China in a sense came from the desperate needs of cash and control over the share-based companies, rather than from a well-planned blueprint guiding the long-term future. Once again, the trial-and-error strategy has been taken in developing China's stock market. In fact, when both of China's stock exchanges were established in December 1990, the legal system has not been put in place and the whole stock market was built upon a fairly poor

institutional infrastructure. According to Gao (2000), there were no laws to govern corporations until 1994, and there were no laws to regulate securities until 1999. Open-ended mutual funds were created as recently as 2000, and a draft of investment company law was not passed until 2003. Not surprisingly, China's stock market has been plagued by rampant fraud and even illegal activities. Behind these activities are the fundamental and structural problems deeply hidden in the seemingly success of the stock market.

The current state of China's stock market is frequently described as a market full of traps. As a result, market order was damaged and investor confidence was hit. Fraudulent and illegal activities are so widespread that they are widely considered one of the most serious problems facing the Chinese stock markets (Anderson, 2000; Chen, 2003; Gao 2002). These activities in practice take a range of forms, but market manipulation and fraudulent financial reporting happen the most frequently. While the perpetrators should be held accountable for these wrongdoings, a close examination reveals that it is the stock market built upon the poor institutional infrastructure has provided the loophole for these activities to take place.

Firstly, market manipulation has been a continuing problem on the Chinese stock market since the very beginning. The Securities Law, which was passed in December 1998 and became effective on 1st January 1999, addresses manipulation and prohibits anyone from carrying on combined or successive sales or purchases by building up an advantage in terms of funds or shareholdings or using one's advantage in terms of information, thereby manipulating securities trading prices, whether independently or in collusion. Manipulation carries both civil sanctions under the Securities Law and criminal penalties under the Criminal Law. Despite the threat of sanctions, manipulation has never shown any sign of decline. One question then comes to mind. Why is manipulation so rampant in China's stock market? Apart from the political and cultural reasons, one needs to seek for the answer from the inherent defects of the market.

As revealed by Anderson (2000), the Chinese stock prices are easy to manipulate because of the relatively small number of shares and the growing demands for those shares. While it is understandable that there are not too many shares available on the

market when the development is at an early stage, the real reason for the small number of shares can be attributed to the market segmentation. It is well known that China's stock market has been segmented by two political forces since it was established. First, shares are classified into tradable shares and non-tradable shares. With nearly two-thirds of the total shares owned by the state being illiquid, the left-over tradable shares account for only one third. Second, the number of shares available for domestic investors is further restricted by the separation of the A-share market and the B-share market. There are two sub-markets, the A-share market and the B-share market, coexisting in China but these two markets are isolated from each other. Domestic investors are forbidden from entering the B-share market and foreign investors are not allowed to engage in transactions on the A-share market. Restrained by these policies, the scale of the emerging stock market has been greatly cut down, hence making manipulation relatively easier. Another question is worth thinking: who is manipulating the market? In fact, investors are aware that prices are usually affected by the trading of 'jigou', a term that literally means organisations with lots of capital available for stock speculation and powerful political background. In a country deeply plagued by corruption such as China, it is not uncommon for politicians to get involved in under-the-table businesses (Dyer, 2006). When appropriate legal arrangements have not been brought in place, the 'jigou' with the back-up of high-ranking politicians often have unrivalled advantages, such as exclusive access to insider information, powerful social networking and large sums of capital, etc. As a matter of fact, most of manipulative activities on China's stock market are controlled by these 'jigou'.

Secondly, fraudulent financial reporting by listed companies is a commonplace phenomenon in the current global stock markets. Not only does it cause huge damage to investors, but also it undermines the stock market's function to allocate resources and puts the health of stock markets at substantial risks. In the context of China, listed companies issuing fraudulent financial reporting appears to be even more serious due to the nature of emerging markets and the transitional economy. In theory, there are various common reasons attributable to fraudulent financial reporting. For example, agency problems arise from the separation of management from ownership. According to Cabral (2000), a firm in essence is an aggregation of a series of contacts. The managers' profit-seeking nature, combined with incomplete

contracts based upon accounting figures, has determined that agents (high-level managers of listed company) may have motivations and opportunities to commit fraud to maximise their personal gains. In the meantime, information asymmetries commonly exist in all stock markets. As a result, managers may have more accurate information about the company they work for, compared with external investors or 'outsiders' (Quiry et al., 2005). Asymmetrical information enables managers in listed companies to manage earnings if circumstances permit. While the above reasons can be used to explain fraudulent financial reporting across the world, there are some unique problems rooted in the institutional settings of China's stock market that should be blamed for the rampant fraud.

Some of these problems can be traced back from the beginning of the stock market. One practice that was followed from 1990 to 2000 was that the market regulators adopted a quota system on the number of IPOs for each year. To keep up the IPO with the plan of the government, the CSRC formulated a yearly quota, and allocated it to provincial authorities and ministerial authorities at the central level. Provincial and ministerial authorities then chose and approved candidate issuers, whose application was then submitted to the CSRC for further approval. To meet the requirements set out by the CSRC, a firm seeking listing must go through a multi-step, tightly controlled selection process. To start off, SOEs have to be transformed into share-holding firms. A great deal of 'physical' and 'financial' packaging needs to be done and this job is frequently undertaken and/or facilitated by local governments. Unprofitable assets such as workshops and production lines are normally carved out to boost the overall profitability of the candidates. Small-scale companies might have to 'marry' the other local companies to meet the requirement for minimum size of assets. The CSRC set up a commission consisting of government officials, academics, accountants and lawyers etc to undertake the examination of application materials. The commission then votes on the application and issues a report stating the views reached by the examiners. Companies receiving the final approval can apply to Shanghai and Shenzhen stock exchanges for listing their shares. The quota system has been widely criticised for being political and resulting in approval of low-quality listings (Chen, 2003, Anderson, 2000, Aharony et

al., 2000)²⁴. Most importantly, the implementation of the quota system has actually sown the seeds of widespread market fraud.

First of all, the quota system was meant to ensure that the IPO goes to the centralised plan. However, it has not considered the growing market demands for shares. According to Chen (2003), the national quota was approximately equally divided among the 32 provinces and province-level cities. From 1991 to 2000, each province obtained a quota of about three IPOs. This undoubtedly limited the supply of IPO, made the value of IPO permits extremely high, hence creating a huge opportunity for rent-seeking and bribing activities. For provincial and lower-level governments, the number of local firms made publicly listed has become a major metric of political performance, on which future promotion of local government officials depends. As a result, these government officials are willing to help local companies manipulate financial numbers or commit unmasked fraud, all for the purpose of getting more local stocks traded nationally. Or, when local firms are caught by the media for committing fraudulent financial reporting, local governments or even higher-level authorities could cover up the fraud.

Second, some of the excessively stringent requirements of the IPOs, coupled with the weak enforcement, even lead the listed companies to commit earnings management. For example, a major listing requirement for IPOs is at least two consecutive years of operating profit. Additionally, B-share and H-share firms must be able to generate foreign exchange income in the future to pay dividends in foreign currencies. While these requirements were meant to protect investors, the inflexible accounting-based objectives plus the weak enforcement frequently force firms to take the illegal approach. Driven by the huge windfall from listing, managers have a strong motivation to get their companies listed and are willing to try virtually all means to financially ‘package’ the company in order to meet the targets set out by the CSRC. It has to be mentioned that the room left over for managers to commit the ‘financial

²⁴ The quota system was abolished in 2000 after the Securities Law was enacted. Instead, the approval system was brought in to govern the IPO practices. Under the approval system, provisional and ministerial authorities are no longer involved in the IPO procedures, but the CSRC still have tight control over the number of IPO depending on the market conditions.

packaging' is increasingly restricted as a result of more and more legislation being issued and put into practice. However, the financial packaging has not shown any sign of decline, simply because the incentives are too great and enforcement is not powerful enough (Lu and Fu, 2003).

Third, a listed company typically has to go through the 'physical packaging' to gain the approval from the CSRC, a procedure that usually involves carving out unprofitable units and merging with other profitable companies. Quite often, governments' involvement is behind these activities. As a result, lots of related parties have been created. This actually has given birth to the widespread insider trading. The 'physical packaging' has also been the source of 'tunnelling' problem (Chen, 2003, Bai et al., 2004, He, 2004). According to Bai et al. (2004), a large majority (79 per cent) of the publicly listed firms in China have a parent company. The controlling parent companies can engage in related-party transactions with the listed firms, usually with the latter buying worthless assets from the former at unreasonably high prices or with the latter lending to the former at favourable rates.

The widespread financial fraud can also be attributed to the weak accounting regulatory regime. Traditional Chinese accounting regulatory system was built to suit the needs of the planned economy. While the economic reforms and open-up policies brought about a fundamental shift from planned economy to market economy, accounting as a business language has to keep up with the institutional changes. In practice however, accounting regulations and practice frequently lag behind the changes of circumstances. While the overall business environment in China's market is facing constant changes, the principle of 'crossing the river by touching stones' in the economic reforms has determined that accounting reform will have to follow the same approach. What's more, the promulgation of the Accounting Law and issuance of accounting standards normally have to take a long time and follow stringent procedures due to their legal nature. As a result, new accounting issues keep emerging but the existing accounting regulations are not able to deal with them. The 'grey' zones uncovered by the existing accounting rules have given rise to numerous loopholes for companies to commit all sorts of financial fraud. This probably provides an explanation why the quality of Chinese company disclosure is widely regarded as low.

Problems with the accounting system are not the only reason to question the accuracy of company disclosures. The government, following the lead of other countries, has attempted to protect investors by requiring listed companies to provide information users with more information. However, information disclosure is inconsistent with a general condition of less transparency in China. In fact, mandatory disclosure requirements have not successfully broken up the monopoly that managers enjoy over company information. Due to the severe information asymmetry and weak corporate governance, managers in China enjoy a great deal of autonomy in their positions and often operate outside the sight of central government. Accurate disclosure may reveal inefficiency and mismanagement, two problems that plague China's enterprises, and could result in managers losing their jobs. In addition, managers have almost unfettered access to the company coffer and can use company money to increase their own private wealth, as well as pay bribes to key government officials.

Despite the power that managers have over company information, other persons or institutions have the responsibility to monitor the managers and ensure the truthfulness of company disclosures. Reports from accountants, lawyers, and intermediaries can act as gatekeepers and police the quality of financial information. In fact, all of these groups are subject to liability under the Securities Law for allowing fraud to occur. However, in most fraudulent activities taking place in China, those who profited from the fraudulent financial reporting include the gatekeepers.

The claim that China's stock market was built upon a weak legal foundation may be right when the stock market started. However, this claim certainly underestimates the efforts that the government has put in promulgating laws and regulations to bring the much-needed order in the market. In deed, China has been working extremely hard to construct the legal foundation for the healthy development of the stock market. The Company Law was promulgated in to 1993 and revised twice in 1999 and 2004. The Securities Law was passed in December 1998 and became effective from 1st July 1999. The Accounting Law was first enacted in 1984 and has been revised twice in 1992 and 1999. The Auditing Law was issued in 1994. The market regulator, the CSRC, has issued more than 300 administrative regulations since its establishment

(Anderson, 2000). However, more laws and regulations may not necessarily bring the order to the market. Investors don't need more laws and regulations to protect themselves if the existing ones cannot be effectively enforced. To eliminate the ever-rising crime, China needs to strengthen its power to enforce the existing laws.

It is worth noting that the above mentioned problems inherent in the Chinese equity market can to some extent be linked to the overall investment culture and even the traditional culture of China. Why does the Chinese equity market behave so differently from the markets in the rest of the world? Of course these differences can be explained by the nature of the Chinese developing markets, as presented above. However, to better understand the underlying course of the difference, one needs to think about this issue from the perspective of cultural differences because ultimately it is culture--in particular the investment culture--that is influencing the behaviour of investors.

For example, the excessive speculative activities in the Chinese stock market can be attributed to the 'dream of getting rich quickly' embraced by generations of Chinese people. Unlike investors in the Western world who usually look to long-term returns on investments, most Chinese investors quite often place heavy weight on the short-term speculative returns when investing in the stock markets. China has not got a long history of stock markets therefore it is impossible for people to look at the benefits associated with long-term investments. On the contrary, China's booming stock market, partially caused by the government's quota system, has created ample opportunities for people to become millionaires overnight. Tempted by the widely spread news--or even rumours--that huge profits are made through the day-to-day selling and buying shares, tens of millions of individuals have plunged into the stock markets.

The government frequent intervention into the market might not be fully appreciated by the Western world because they don't understand that, historically, China has

always been a country with a big government but a small society²⁵. Historically, the government has been the almighty body embracing unchallenged power in the entire country ever since Qin Dynasty, the first dynasty that united China in about 200 B.C. This tradition has been further strengthened by the one-party ruling system and centralised planned economy after the Communist Party came to power in 1949. As discussed in previous sections, one can clearly see that the government has always been the ultimate driving force for the development of the stock markets. The government created the market to enable economic resources to flow into the most efficient enterprises and industrial sectors. The government has always shaped the market by issuing various regulations and rules. And of course, the government has the reason and power to intervene into the market when it thinks it is necessary to do so.

In summary, China's stock market has recorded a phenomenal expansion in size since the beginning of the Shanghai and Shenzhen stock exchanges in 1990. However, the market figures such as market capitalization and shares prices can be misleading if one does not gain an in-depth understanding of the inherent problems facing the market. Some of the problems are caused by the unique institutional arrangements. An example would be the quota system adapted by the CSRC to approve the IPO, which has sown the seeds of widespread fraudulent financial reporting. Some of the problems may exist across the world but appears to be more serious in China due to the nature of emerging markets. For example, speculation is a common phenomenon existing in the entire world but it is far more serious in China because China's stock market is dominated by individual shareholders. Some of the problems happen only in China due to the country's unique political and economic conditions, e.g. the government frequently intervenes into the stock market and causes enormous trouble to investors and other market participants. It is important to understand not only these problems but also the underlying cause of these problems. Doing so will give one a much clearer view on what has happened in China's stock market.

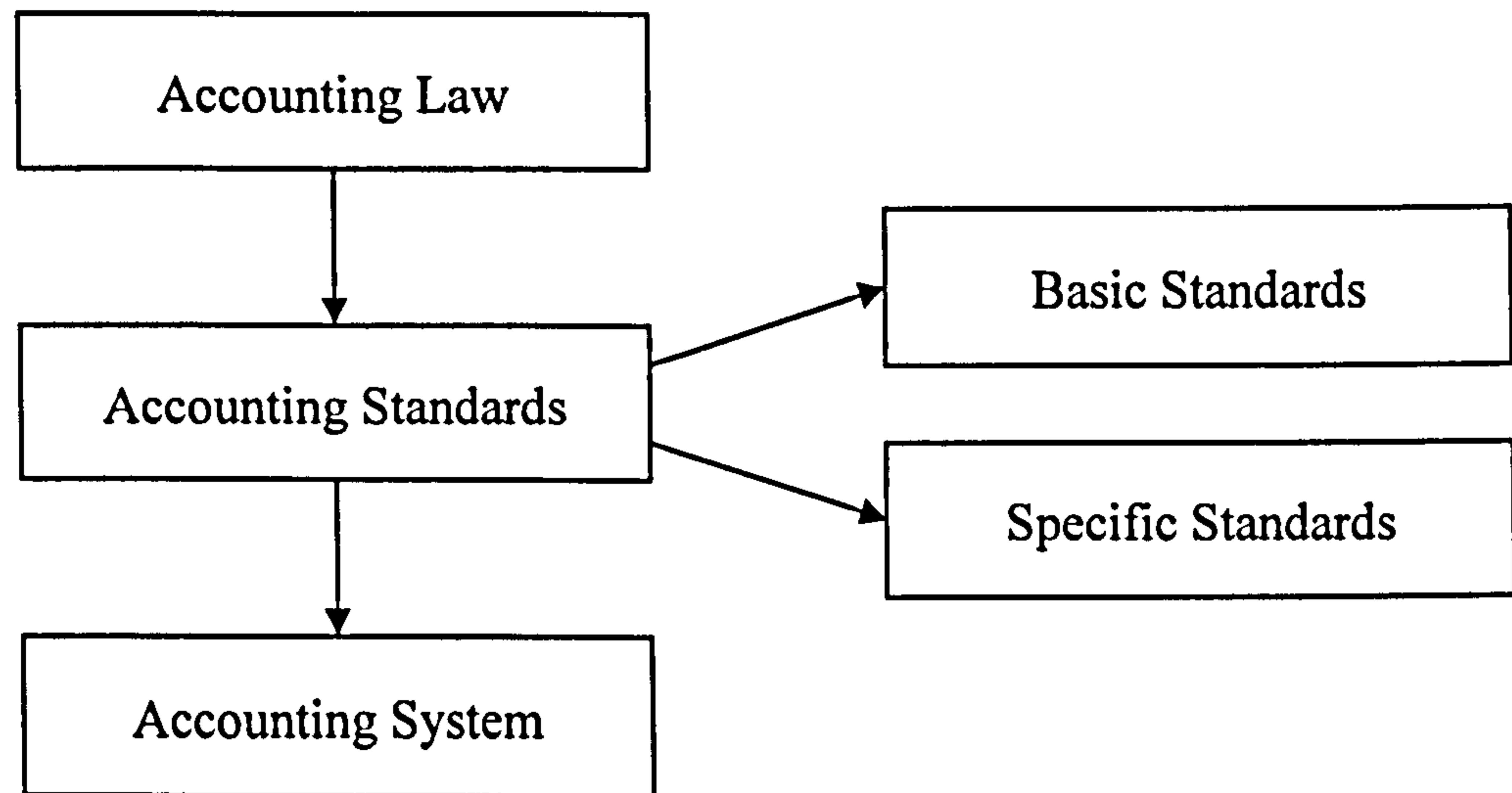
²⁵ 'Big government and small society' is a famous saying in China mainly referring to the fact that the government enjoys unchallenged power in the state affairs but non-government institutions are severely underdeveloped.

Chapter 3. THE ACCOUNTING REGULATORY FRAMEWORK IN CHINA

3.1 Introduction

As discussed in Chapter 2, China has undergone profound changes in the last quarter of a century. These changes have posed serious challenges to the traditional accounting regulatory system that was built to suit the needs of the planned economy. In response to these challenges, accounting as a business language has undergone a series of historical changes. To bring the lagged-behind accounting regulatory system in conformity with the international norms and ever-changing economic conditions in China, the government has made huge efforts to reform the accounting system and construct an accounting regulatory framework. At the end of 2005, the Chinese government made a significant announcement that China has established its own accounting regulatory framework, the Accounting Standards System, based upon the International Accounting Standards (McGregor, 2006a). The accounting regulatory framework can be seen diagrammatically in Figure 3.1.

As can be seen from Figure 3.1, the accounting regulatory framework in China encompasses three levels: the law, the standards and the system. The law refers to the Accounting Law and other laws related to accounting such as the Company Law, the Auditing Law, and the Securities Law. The standards can be broken into two sub-levels: the Accounting Standards for Business Enterprises—Basic Standards (ASBE-BS) providing a conceptual framework of accounting, and 16 specific standards with the detailed prescriptions on accounting recognition, measurement and reporting for specific economic transactions and items. The accounting system is a set of regulations providing detailed code of practices at the operational level and can be seen from the Accounting System for Business Enterprises (ASBE).



Source: Adhikari, A. and Wang, S. Z. (1995) Accounting for China, *Management Accounting*, 22, pp. 27-32

Figure 3.1 The accounting regulatory framework in China

The central task of this chapter is to review the accounting regulatory framework by looking at the accounting reform from three dimensions: the Accounting Law, the accounting standards and the accounting system. The remainder of this chapter is organised as follows. Section 2 holds a brief discussion on the accounting regulatory system prior to the economic reform by highlighting characteristics of the traditional accounting practices. Section 3 summarises the process of accounting reform by discussing the development of accounting legal system, establishment of accounting standards and the change of accounting system. Section 4 discusses the achievement of the accounting reform and analyses the driving forces behind the accounting reforms by looking into the tensions between the ever-changing economic and social conditions and needs for reforming the accounting regulatory system.

3.2 Accounting prior to the Accounting Reform

Prior to the economic reform initiated in the early 1980s, China's economy was exclusively operated by the government under the rigid regime of the centralised planning system (Adhikari and Wang, 1995). In the planned economy, companies usually take two forms of organisational modes: state-owned enterprises and collectively-owned enterprises. The former are directly financed and controlled by the government and the latter have a mixture of ownership between the government and local communities. Broadly speaking, however, they are both state-owned entities. Non-state sectors such as private companies and businesses with foreign involvement are strictly forbidden due to the ideological concerns and the belief that the state control is most effective way of organising production (Winkle et al., 1994, Tang, 2000).

The traditional Chinese accounting practice has been influenced by the information needs of a planned economy and rest heavily upon stewardship objectives (Winkle et al., 1994). Financial reporting of SOEs was exclusively serving the administrative targets of the government. In practice, accounting performs the simple roles of bookkeeping production activities, allocating economic resources, and assisting the government to facilitate economic planning. From the perspective of accounting regulation, the accounting regulatory system is segmented and complicated by financial and accounting rules that differ among enterprises with different types of ownership, among those in different industrial sectors and among those with different business natures (Xinhua, 1992). To provide detailed guidelines on the routine accounting practices, various governmental bodies prescribe more than 40 sets of industry-based accounting regulations (Skousen and Yang, 1988). The prime objective of laying out these regulations was to provide the code of practices at the operational level; however, they were far away from constituting an integral accounting regulatory framework. In short, the accounting regulatory system prior to reform was designed to reflect the goal of the enterprise and to meet the country's planning targets.

Despite the fact that enterprises in different sectors and/or in different ownership categories follow different rules, some of common features of traditional accounting in China can be identified. The distinctive characteristics of Chinese accounting prior to reform are well documented in the accounting literature and they are summarised in Table 3.1.

As can be seen from Table 3.1, while major principles such as accrual accounting, historical costs, going concern and consistency etc., underlying the uniform accounting system prior to the accounting reform are the same as in the industrialised countries, the concept of fund is widely used by the Chinese accountants.

For financial purposes, SOEs were normally required to provide what is called the fund balance sheet and the income statement on the regular basis. The cash flow statement is not required by the pre-reform accounting system. The concept and format of fund-based accounting is illustrated in Table 3.2. As can be seen from Table 3.2, unlike the balance sheet in the industrialised countries which provides an insight into the financial conditions of the company, the fund balance sheet is prepared by state-owned enterprises to record the application and source of the funds, which primarily come from the government's financial reserves and/or state banks. As illustrated by Table 3.2, the fund balance sheet prior to the accounting reform followed the formula 'Application of funds = Source of funds', rather than 'Assets = Liability + Owner's Equity'. The concepts of liabilities and equity appear in the fund balance sheet in the form of fixed funds, current funds and special funds. The western notions of liability and owner's equity could not be found at the Chinese fund balance sheet even though they are in essence the same as source of funds.

Another interesting finding obtained from Table 3.2 is that the assets under the planned-economy accounting are classified into fixed assets, current assets and special-purpose assets. While the accounting terms in fixed assets and current assets are on the whole similar to those in the Western accounting, special-purpose assets might appear unfamiliar to most accountants in the Western world. In fact, special-purpose assets frequently appear in the financial statement of the Chinese state firms and are fairly important part of the assets. In general, the government under the planned economy provides state firms with two different types of financial resources.

The funds allocated to state firms within the short- and long-term plans are categorised as either fixed or current assets depending on the nature of the funds, and the funds beyond the state plans and with special or contingent purposes are classified as special-purpose assets. In the planned economy, the government frequently finds that planning is not the best solution to the constantly-changing balances between demands and supplies. Therefore, special-purpose funds need to be allocated to state firms to meet the special needs of the government.

From Table 3.2, it also appears that the intangible assets such as goodwill, brands, intellectual property, and R&D etc., have not been mentioned in the planned-economy accounting. In fact, intangible assets are to some extent ignored in the planned economy because in an economy dominated by the government force, the market is in its absence. Therefore the notion of market value does not exist in the planned economy. However, to determine the value of goodwill, brands, and intellectual property etc., market value is necessary. If no market comes into existence, the issue of the value of intangible assets is ignored.

ORIENTATION
<ul style="list-style-type: none"> • Primary objective directed toward accountability and stewardship consistent with the needs of planned economy; • Utilises a type of fund accounting; • Emphasis on uniform accounting system for all enterprises to facilitate integrating information into the national economic plan; • Accounting principles are formalised into national law.
ASSETS
<ul style="list-style-type: none"> • Viewed as application of funds provided by the state or by other sources; • Values based on historical costs. Long-term assets depreciated using straight-line method; • Inventories valued at planned price in accordance with the central plan; • Transactions cleared through the state bank on a cash basis resulting in very small amounts of receivables.
LIABILITIES
<ul style="list-style-type: none"> • Viewed as fund sources by the enterprise. A fund source is matched with each asset group; • Major liabilities consist of funds received from the state and bank loans.
EQUITY
<ul style="list-style-type: none"> • Strict distinction between liabilities and equity typically not maintained due to state ownership; • Profits allocated to state funds or enterprise's funds.
REVENUE/EXPENSE/PROFIT
<ul style="list-style-type: none"> • Accrual basis used for revenue and expense determination; • Standards prices utilised based on economic plan.
FINANCIAL REPORTING AND DISCLOSURE
<ul style="list-style-type: none"> • Financial statements include a fund balance sheet reflecting fund applications and sources, an income statement and numerous detailed supporting schedules and cost analyses; • Conventional footnote disclosure lacking due to detailed accounting regulations at the operational level and extensive reporting details; • Financial reports required monthly, quarterly and/or annually.

Sources: Accounting Standards in the People's Republic of China: Responding to Economic Reforms, Winkle et al. (1994), Accounting Horizons, Vol. 8 No. 3.

Table 3.1 Characteristics of Chinese accounting prior to reform

Application of funds	Resources of funds
Fixed assets Historical cost of fixed assets Accumulative depreciation Net value of fixed assets Gain (loss) arising from disposal of fixed assets	Fixed funds State fixed fund
Current assets Raw material Products in process Prepaid expense Finished products Other current assets Products delivered Monetary funds Accounts receivable Amounts paid in advance	Current funds; State current fund Enterprise current fund Current funds borrowing Accounts payable Payment received in advance Other payables Tax payable Depreciation fund payable Total profit payable to the state
Special-purpose assets Special-purpose savings Special-purpose materials	Special funds Special-purpose funds; Special-purpose appropriation;
Total assets	Total fund resources

Source: Accounting for industrial enterprises, 2nd Edition, Shengqiang Wang, China Hunan Renmin Publishing House, 1983

Table 3.2 An example of the fund balance sheet prior to the accounting reform

The objective of reporting an income statement is also fundamentally different from that in the industrial countries. The differences can be seen from Table 3.3. As illustrated in Table 3.3, a state-owned company reports an income statement primarily in order to reflect the allocation of profits, rather than depicting the profitability of a company.

Revenue from sale of products
of which:
Revenue from sales of self-sold products
Less:
Sales tax
Factory cost of product sold
Selling expenses
Technical know-how transfer charge
Profit from sales of finished products
of which:
Profit from sale of self-sold products
Add
Other sales products
Non-operating income
Less
Non-operating expenses
Tax on natural resources
Total net income
Add
Profit transferred from other units
Deficit to be covered by budget
Deficit to be covered by profit of later years
Less
Profit for repayment of capital construction loan
Profit for repayment of specific loan
Net profit of 'three wastes' products left to enterprise
Processing and assembling with supplied materials from abroad
Employee welfare and employee incentive funds sources drawn from profit and repaying loans
Profit allotted to other units
Profit for covering prior year deficits
Subtotal
Less
Income tax payable
Income adjustment tax payable
Contract fee payable
Profit to be turned over the state
Profit retained by enterprise
Un-retained profit.

Source: International Financial Accounting: a comparative approach, 2nd Edition, Clare Roberts; Pauline Weetman; Paul Gordon, Financial Times/Prentice Hall, 2002

Table 3.3 An example of the income statement prior to reform

A close examination of the Table 3.3 could actually produce an interesting finding: profitability levels of SOEs derived from the Chinese income statement under the pre-reform approach is likely to be overstated by comparison with from the IAS method.

First of all, the principle of prudence is not implemented in the traditional accounting practice and this is likely to overstate the profitability level of Chinese SOEs. The most typical example is that assets are not reviewed for impairment losses purposes and impairment losses are not recognised. In fact, under the traditional approach, assets are recorded at historical costs and Chinese SOEs are not required to review the value of assets even if there is evidence that assets are impaired. Therefore impairment losses resulted from the impaired assets were not recognised under the traditional accounting practice. However, according to the IAS 38 Impairment of Assets, an entity shall carry out the impairment review at each reporting date to check whether there is any indication that an asset may be impaired. If an asset is impaired an impairment loss shall be recognised and immediately charged into income statement. By contrast, reviewing the value of assets and recognising impairment losses for Chinese SOEs have never been put into practice under the traditional accounting regulations. As a result, the value of an asset in the fund balance sheet prior to reform may well be overstated when its carrying amount exceeds its recoverable amount. In addition, profitability levels of an SOE are also likely to be overstated because impairment losses are not recognised and charged against profits. This actually reveals a fundamental deficiency of the traditional accounting regulations in China – a lack of principle of prudence. The profit without being charged the impairment loss of the asset, if the asset is indeed impaired, is overstated and therefore can not represent the true profitability of the company.

Secondly, the cost of capital has been seriously understated under the traditional Chinese accounting practices. In fact, the concept of capital did not even exist in the pre-reform accounting due to ideological concerns²⁶. Instead, capital has been

²⁶ Under the planned economy, capital was a sensitive issue because it was regarded as the means of exploiting people. Therefore, capital and cost of capital could never be mentioned in the pre-reform accounting regulations.

replaced by state funds in reality. In the market economy, companies raise capital from capital market through bank loans and the issuance of debt and equity securities etc. Interest charges are a major component of capital costs which should be deducted in computing the net income for an enterprise. However, the capital structure of Chinese SOEs prior to economic reform has determined that China could not adopt the international approach in calculating the net income. It is well known that most SOEs were purely financed by the government through financial appropriations and state bank loans. Capital, usually in the form of fixed and current funds, was appropriated by the government to SOEs as if it were free. The notion of capital charge is not mentioned in the Chinese accounting prior to reform and therefore capital charges have never appeared in the income statement. Ignoring the cost of capital appropriated by the government through state appropriation would undoubtedly lead to the overstated net income.

However, it can be argued that the cost of capital was recognised and accounted for by enterprises borrowing money from state banks because they had to pay interest to the bank and repay the capital within the term stipulated by the contract. This argument was strengthened by the policy 'to switch from state appropriations to bank loans' initiated by the government at an attempt to build up the internal self-constrained mechanism as the enterprise reform continues in the mid 1980s (see Chapter 2 for details). With the financing pipeline shifted from state financial appropriations to bank loans, SOEs had to consider the cost of borrowing and therefore cost of capital emerged. However, bank loans are in essence the same as the state appropriation in that the loans provided by state banks are ultimately from the state. The profitable SOEs are required to make the interest and principal payments but the loss-making SOEs could easily dodge the charges because state banks have neither legal means nor motivations to force the SOEs to make the payment. Financing SOEs from through state appropriation to through bank loans is, in effect, nothing more than giving money to SOEs from one pocket to another. With the concept of cost of capital applying to only those profits earning SOEs, the figures on the income statement of an SOE therefore cannot provide a true and fair indication of the profitability.

Based on the above, one can conclude that computation of profit under the pre-reform Chinese accounting regulations is seriously flawed and the net income appearing on the income statement was overstated. Consequently, the real profitability of SOEs prior to reform could not be truly presented by the income statement.

In fact, from the perspective of the market economy, the net income figures appearing on the income statement simply could not provide the reliable indication of an enterprise's profitability; instead they serve the government as the administrative tool. The fact that SOEs are not independent economic entities but production units attached to the state machinery further suggests that the profit on the income statement is no more than statistical figures. With the government determining prices for almost all products, SOEs under the planned economy had neither choice nor bargain power to purchase the materials needed. Finished products were sold to the designated customers at government-set prices within the macro planning system (Ge, 2000). It seems that the only possibility that an SOE can improve profit is to reduce the costs in manufacturing products and/or delivering services. With fairly limited room left over for an enterprise to manage profit earning, one can clearly see that the profit is actually subject more to the government's administrative objectives and macro planning than to the market and the management of the enterprise.

3.3 The Construction of Accounting Regulatory Framework in China

As discussed in the beginning of this chapter, the accounting regulatory framework encompasses three parts: the laws, the standards and the system. Therefore the whole process of the accounting reform can be better seen from these three dimensions: 1) the development of legislation on accounting; 2) the adoption of accounting standards; and 3) the introduction of the accounting system. This section is attempting to have a historical view on what has happened in China's accounting by looking into these aspects.

3.3.1 The Accounting Law

The Accounting Law was promulgated by the Chinese National People's Congress (CNPC), the supreme legislative body of China, on the 21st January 1985 and became effective on the 1st May. This is the first accounting law in China since 1949.

The ever-deepening economic reforms, coupled with the promulgation of ASBE-BS at the end of 1992, have created disparity between the Accounting Law and the accounting standards. Especially, the economic reforms in China have reached a new stage in 1992 following the government's announcement to switch the economic system from a planned economy to a market economy. Significant disparity between the Accounting Law and the economic conditions started to emerge. In response to these, the Accounting Law was amended in December 1993 for the first time. Note the amendment was primarily targeted upon the significant disparity between Accounting Law and the changing economic conditions. Most of the prescriptions in the Accounting Law remained unchanged due to the uncertainty in the early stage of plan-to-market transition. Nevertheless, compared with the previous law, the revised Accounting Law has made some progress, e.g. the application scope of the Accounting Law has been enlarged from state-owned businesses and non-profit entities to all businesses and non-profit entities, hence strengthening the Accounting Law's protection to the public. In addition, the revised Accounting Law states that the role of accounting is to keep the order in the socialist market economy. This

statement is significant in that it reinforces the idea that accounting in the transitional period must satisfy the needs of a market economy.

The Accounting Law was amended for the third time in October 1999. This amendment has brought about an array of noticeable changes. Firstly, it specifies that the objectives of accounting law are to standardise accounting practices and to ensure the quality of accounting information. Secondly, it requires the legal-person representative of an entity, i.e. the chair person of the board or managing director, to take full responsibilities for the truthfulness and completeness of accounting information. Thirdly, it formulates detailed prescriptions on accounting entries and requires all business and non-profit entities to look into the economic substance of business transactions when recognising and measuring assets, liabilities, equity, revenue, expense and profits. In addition, factors which might lead to manipulation of accounting figures are also identified in the Accounting Law and detailed rules are formulated to prohibit them happening. Fourthly, the revised Accounting Law has shed the light on the importance of a supervisory system encompassing internal monitor, external monitor and government supervision.

3.3.2 The accounting standards

Accounting standards are the main part of the accounting regulatory framework in most market economies. In countries such as U.K. and U.S., accounting standards are usually laid out by the accounting profession. Although there are widely accepted principles and are even mandatory in dealing with accounting issues, they by nature are not legislation.

At the early stage of accounting reform, the financial and accounting theories and accounting standards prevailing in the Western countries caught the interest of the Chinese government. Influenced by these theories and standards, coupled with the increasing demands for bringing the Chinese accounting in conformity with the international convention, introducing accounting standards based on the International Accounting Standards with the consideration of unique Chinese economic conditions was brought to the top of the agenda. The Chinese Institution of Accounting (CIA) in

1987 set up a research panel to carry out a series of studies on accounting standards and relevant theories. In 1988, the Accounting Section of Ministry of Finance (MoF) established a special force encompassing researchers, accountants, lawyers, government officials from both China and overseas to draft the Chinese accounting standards. The effort to promulgate the Chinese accounting standards was also supported by a USD 2.6 million World Bank loan. Deloitte Touche Tohmatsu was working with the MoF to provide consultation (Xinhua, 1992). The primary task is to develop a set of national accounting standards in line with international accepted norms.

In November 1992, the MoF promulgated the Accounting Standards for Business Enterprises-Basic Standards (ASBE-BS), which became effective on 1st July 1993. The purpose of these new standards, as described by Zhongli Liu, the then Chinese Finance Minister, is to 'standardise the financial practice of Chinese enterprise and bring China's accounting system in line with international convention' (Xinhua, 1992). This is the first time for the Chinese government to formulate accounting standards and the birth of ASBE-BS was widely regarded as 'a landmark move to accelerate the process of switching to the market economy' (Xinhua, 1992). The promulgation of the ASBE-BS symbolised that China has made a key step forward in bringing the Chinese accounting in harmony with the international practices.

The ASBE-BS consists of 10 chapters covering general rules, accounting principles, assets, liabilities, equity, revenue, expenses, profits, financial statements and supplementary articles. The ASBE-BS is also widely conceived to provide a conceptual framework that guided the setting of future accounting standards (Adhikari and Wang, 1995; Chen et al., 1997; Chen et al., 1998; Xiao 1999) in that it addresses the most fundamental issues in the field of accounting such as the objectives of ASBE-BS, the users and objectives of financial accounting and reporting, accounting postulates, general accounting principles and qualitative characteristics, elements of financial statements, recognition, measurement, and financial statements. It is also recognised that the promulgation of the ASBE-BS represents a revolutionary progress in the Chinese accounting it that it has brought about remarkable changes to the existing accounting theories and practices. A series of basic accounting concepts and principles were officially codified in the ASBE-BS.

These are entity, going-concern, accounting period, historical cost, accrual accounting, realisation, conservatism, matching principle, distinction between capital and revenue expenditure, consistency, timeliness, etc. The main feature of the ASBE-BS is summarised in Table 3.4.

ORIENTATION:
<ul style="list-style-type: none"> • A uniform accounting system conforming to the International Accounting Standards designed to meet the needs of China's socialist market economy; • These standards are incorporated into law; • The accrual basis, the concept of consistency, the matching of revenue and expenses and the quality of objectivity are all required by the ASBE-BS.
ASSETS:
<ul style="list-style-type: none"> • The use of historical cost for assets is specified and a clear distinction between revenue expenditures and capital expenditures must be made; • Assets should be classified into the usual categories consistent with the International Accounting Standards; • Inventories may be valued using the conventional methods, including LIFO; • Fixed assets may be depreciated using the straight-line or the activity method. Accelerated depreciation may be used upon approval; • Intangible assets, including goodwill, are recognised and are to be amortised over the period benefited.
LIABILITIES:
<ul style="list-style-type: none"> • Liabilities may be classified as current or long-term and liability accounting generally follows the IASs.
EQUITY:
<ul style="list-style-type: none"> • Equity is classified into invested capital, capital reserve, surplus reserve and undistributed profit. Invested capital represents the face value of stock issued and government investment. Capital reserve represents stock premium, asset revaluation increments, donated capital, etc. Surplus Reserve is analogous to appropriated retained earnings and undistributed profit is analogous to retained earnings.
REVENUE/EXPENSE/PROFIT:
<ul style="list-style-type: none"> • Revenues are determined using the accrual basis consistent with the IASs including the completed contract and percentage-of-completion methods for long-term projects; • Expenses are determined using the accrual basis and actual costs incurred. Enterprises using standard or estimated costs must adjust variances to actual at the end of the current month; • The plan for distribution of profits must be shown in the income statement or the notes of the financial statements.
FINANCIAL REPORTING AND DISCLOSURE:
<ul style="list-style-type: none"> • Required reports consist of a balance sheet, an income statement, a statement of changes in financial position (or cash flow statement), supporting schedules, notes and explanatory statements; • Comparative financial statement are required; • Consolidated financial statements are required in cases of 50% or more ownership except for enterprises not suitable for consolidation; • Notes to financial statements must disclose accounting methods adopted, changes in accounting methods, descriptions of unusual items and other details and explanations.

Sources: Accounting Standards in the People's Republic of China: Responding to Economic Reforms, Winkle et al. (1994), Accounting Horizons, Vol. 8 No. 3.

**Table 3.4 Characteristics of the Accounting Standards for Business Enterprises
–Basic Standard**

Following the promulgation of the ASBE-BS, the MoF issued 30 exposure drafts for specific accounting standards between 1995 and 1996. In May 1997, the first specific accounting standard—Disclosure of Related Party Relations and Transactions—came into existence. Until now, the MoF promulgated 16 specific accounting standards. Details of these specific accounting standards are summarised in Table 3.5.

No.	The Specific Accounting Standards	Effective Date
1	Disclosure of Related-Party Relations and Transactions	01/01/1997
2	Events After the Balance Sheet Date	01/01/1998
3	Construction Contracts	01/01/1999
4	Revenue	01/01/1999
5	Changes in Accounting Policy, Accounting Estimates, and Correction of Accounting Errors	01/01/1999
6	Correction of Accounting Errors	01/01/1999
7	Contingencies	01/07/2000
8	Non-monetary Transactions	01/01/2001
9	Cash Flow Statements	01/01/2001
10	Debt Restructuring	01/01/2001
11	Investments	01/01/2001
12	Intangible Assets	01/01/2001
13	Leases	01/01/2001
14	Interim Financial Reporting	01/01/2002
15	Fixed Assets	01/01/2002
16	Inventories	01/01/2002

Source: www.csrc.gov.uk, the website of the China Securities Regulatory Commission

Table 3.5 Specific accounting standards promulgated by the MoF

Note that the order of the above specific accounting standards was basically determined by the extent to which the development of capital markets demanded the specific standards.

Clearly the framework of accounting standards has already taken its form. There are two different levels of accounting standards: the basic standard and the specific

standards. The basic standard stands at the upper tier and is widely regarded as the conceptual framework to lay a foundation for setting up the specific standards. It stipulates the general prescriptions on the fundamental accounting principles and accounting postulates. It also outlines the basic rules on the recognition and measurement of accounting items and the preparation of financial reports. The specific standards deal with specific economic transactions and items, and provide detailed regulations on the recognition, measurement and reporting.

3.3.3 The accounting system

The Uniform Accounting System (UAS) is a set of accounting regulations governing accounting practice in China prior to the promulgation of the Accounting Law and accounting standards. Copying the accounting model of former Soviet-Union, China established the UAS to adapt to the needs of centralised planned economy in the early 1950s. In the 20 years after the 1950s, China has been in a disastrous status under the influence of continuous political chaos such as the Great Leap Forward and the Great Cultural Revolution in the 1960s and the 1970s. The whole country was severely hit and accounting is no exception. As a consequence, the UAS was completely ruined. The accounting practices in China have been isolated from the outside world (Zhuan, 2001).

The government was determined to restore the UAS following the commencement of the economic reforms and open-up policies. The whole process of construction of the UAS can be broken into two stages.

Stage one can be traced back from the 1980s to 1992. In this stage, the emphasis of the effort was placed upon restoring the ruined UAS. The objective of bringing the UAS in line with the international conventions has not been put forth because of the government's indecisive attitude towards establishing market economy in China. One of the striking characteristics in this stage is that the establishment of accounting system was primarily targeted at state-owned businesses and very much industry oriented. Various government bodies formulated different accounting regulations according to the specific nature of the industry. For example, the MoF in 1980

promulgated the Accounting System for State-owned Industrial Enterprises-Accounting Items and Financial Reports. In 1981, two sets of similar regulations came out but they were applied to different industries: the trading and construction sectors. These regulations are the Accounting System for State-owned Trading Enterprises-Accounting Items and Financial Reports and Accounting System for State-owned Trading Enterprises-Accounting Items and Financial Reports. In the years after 1981, more government bodies, e.g. the Ministry of Trade, the Ministry of Agriculture, the Ministry of Forestry, the Ministry of Railways, the Ministry of Transport, the Ministry of Foods and the People's Bank of China—the central bank etc., have produced their own accounting regulatory systems.

What is ironic about the work in this stage is that the so-called Uniform Accounting System was actually a mixture of separate codes of practices issued by various government bodies according to the specific nature of the industry. As a consequence, enterprises in different sectors should apply different regulations when preparing their financial reports. What is more interesting is that all these regulations were applicable to state-owned enterprises only. Accounting regulations for private businesses and foreign investments were largely lacking due to the fact that SOEs were the mainstay of the national economy at the early stage of the economic reform. However, despite the government's failure to put an accounting system universally applicable to all types of enterprises in place, accounting reform is moving in a right direction.

One noticeable move is the introduction of the Provisional Accounting System for Joint-venture Enterprises (PASJE) in March 1985. Although the scope of the PASJE is limited to joint-venture companies only—a negligible part of China's economy in the mid-1980s, historically, it has far-reaching implications for setting up a Chinese accounting regulatory framework. It is also widely accepted that the promulgation of the PASJE has sent out a strong indication of the government's intention to depart from the traditional accounting system and to bring the Chinese accounting in conformity with the international conventions (Xiao, 1999, Chen et al., 1999, Xiang, 1998, Winkle et al., 1994, Zhuan, 2001). A selection of accounting methods, concepts, principles and formats for the first time have been introduced into China from international accounting practice. For the first time, China has included the cash

flow statement as a part of the financial reporting system; for the first time, the conception of paid-in capital has been codified in the mandatory regulations; for the first time, patents and technologies have been recognised as a part of intangible assets. Clearly, importing international conventions into the Chinese accounting practice on such a massive scale has posed a fresh challenge to the traditional accounting system established in the past decades. The promulgation of the PASJE is considered of particular importance because it provides a window for the government to carry out the experiment to bringing the Chinese accounting in line with the international conventions.

Stage two started from 1992, when the government was determined to develop the market economy in China. A series of measures were taken by the government to ensure that market economy will be established with success. Among them the most significant is to deepen the SOE reform by carrying out the experiment of transforming traditional SOEs into shareholding companies with diversified ownership, which resulted in the emergence of listed companies and the stock markets. One of the greatest challenges encountered by the policy makers when allowing diversified investors to be shareholders of listed companies is to protect the interest of individual investors. Once again, the demands for standardised accounting practices and transparent financial reporting arose. In response to the fresh challenges, the MoF enacted the Accounting System for Shareholding Limited Companies (ASSLC) in January 1998. The introduction of the ASSLC signified another significant step forward in the Chinese accounting history in that it has achieved substantial break-through in many aspects. Especially the principle of prudence was introduced and required to put into practice. For example, under the ASSLC, a company is required to implement the principle of prudence when choosing accounting policies. It was further specified that four classes of assets, namely accounts receivable, short-term investments, long-term investments and inventory, should be reviewed periodically, or at least at the end of accounting year. When these assets are found to be impaired, impairment losses should be recognised and charged into the income statement. Accordingly, the impaired assets should also be written down to reflect the current value of the assets. It is worth noting that introducing the principle of prudence by requiring shareholding companies to recognise impairment losses has had a significant impact on the overall 'culture' of

financial reporting and the stock market in China (Lin and Chen, 1999). Although management of listed companies continues to enjoy substantial managerial discretion in preparing financial reports, the room for shareholding companies to overstate accounting profits and value of assets has been severely restricted as a result of impairment losses being recognised²⁷.

As discussed earlier, despite the government's efforts to bring Chinese accounting practices in line with international conventions, the existence of multiple accounting systems promulgated by various government bodies to suit the needs of different industries and applicable to companies with different ownership has caused serious problems and gradually become a stumbling stone hampering the further development of accounting reform. Until the end of 1992, the MoF had issued thirteen sets of accounting systems to cover eight important industrial sectors (Zhuan, 2001). The core problem with these systems lies in the lack of comparability in the accounting information provided by companies owned by different investors and/or in different industrial sectors. To tackle this problem, the MoF promulgated the Accounting System for Business Enterprises (ASBE) on the 29th December 2000. In the mean time, all other accounting systems prior to the ASBE including the ASSLC were abolished. Furthermore, it stipulates that the ASBE will be applied in the shareholding companies first. Other types of companies are also encouraged to implement the ASBE. According to the plan of the MoF, the ASBE will become mandatory to all companies in the foreseeable future.

It is conceived that the promulgation of the ASBE was based upon the ASSLC and the existing accounting standards with consideration of the unique accounting environment and accounting practices in China. By comparison with the ASSLC and other accounting systems segmented by industries and types of ownership, the merits of the ASBE are remarkable and can be summarised as follows:

²⁷ It can also be argued that the introducing impairment losses provides management more opportunities to commit earnings management as reviewing the value of assets and making provisions for impairment losses involve substantial managerial judgement. Therefore, requiring companies to recognise impairment losses is a double-edge sword.

Firstly, the ASBE has a wider scope of application. As discussed earlier, the ASBE is applicable to all types of companies across all sectors and all types of ownership. As specified in Article 2 of the ASBE, with the exception of small-scale companies without external capital and financial & insurance companies, all business enterprises formed in the People's Republic of China should apply the ASBE when preparing financial reports. Clearly, the lines which used to segment accounting practices according to industries and types of ownership have been eliminated as a result of the ASBE being put into practice.

Secondly, the implementation of the principle of prudence has been further strengthened. The principle of prudence is reflected in many aspects of the ASBE. For example, in addition to the four classes of assets which were required by the ASSLC to recognise impairment losses, four more classes of assets have been added into the list: fixed assets, intangible assets, projects under construction and third-party loans.

Thirdly, more room for professional and managerial judgement has been given to accountants and management. For example, accountants are given the right to determine depreciation periods and choose depreciation methods when dealing with deprecation. The proportion of provision for bad debts is also subject to the management's judgement.

Fourthly, more accounting information is required to disclose under the ASBE. Compared with the previous accounting systems, the ASBE has placed more emphasis upon reliability and truthfulness of the accounting information disclosed by the company. In addition to the balance sheet, income statement and cash flow statement, companies are required by the ASBE to report statement of impairment losses, statement of changes in equity, and segmented statement by industries and regions.

3.4 A Further Look at the Accounting Regulatory Framework and the Accounting Reform

Having discussed the changes in Chinese accounting in the previous sections, it is worth summarising the accounting reform that China has carried out during the last decades and the accounting regulatory framework established as a result of the reform. Comments can be made from two perspectives: firstly, what has the accounting reform achieved? Secondly, what are the driving forces behind the accounting reforms? This section will make comments on the current accounting regulatory framework and accounting reform by addressing these two issues.

3.4.1 What has the accounting reform achieved?

As can be seen from the preceding sections, an accounting regulatory framework has taken its form as a result of continuous reform in the past decades. With the Accounting Law and other related statutes laying the legal foundation, the accounting standards constructing a conceptual framework and the accounting system providing detailed instructions at the operation level, the three levels of regulations together constitute an integral regulatory framework.

Standing at the top level of the accounting framework are the Accounting Law and other related statutes including the Company Law, the Auditing Law and the Securities Law. They are enacted by the Chinese National People's Congress (CNPC), the supreme legislative body in China, and therefore they provide a legal foundation for promulgating other regulations.

The accounting standards and accounting system are promulgated by the MoF, the governmental body embracing the power to formulate administrative rules and regulations governing accounting practices. It is noted that the issue of relationship between accounting standards and accounting system has been a widely debated topic in recent years. The common thought is that with accounting standards providing guidance to the formulation of accounting system, accounting standards

stand at the higher level than does the accounting system (Chen et al., 1997, Tang, 2000, Xiao, 1999, Chen et al., 1999). In the whole regulatory framework, the Accounting System for Business Enterprises plays its grass-root role by dealing with detailed instructions at the operational level in implementing the Accounting Law and accounting standards.

There are, however, two competing schools of thoughts as to whether accounting standards can replace the Accounting System for Business Enterprises. Some researchers argue that like the industrialised countries such as the U.K. and U.S. where there are only accounting standards, China does not have to keep the accounting system in place following the promulgation of accounting standards, because accounting standards would be sufficient to regulate the accounting practices. The dual-regulation system would lead to complication and confusion. The opponents insist that the accountants in China are used to the accounting system with detailed instructions on the use of the accounting items, while accounting standards are not easy to be accepted by the accountants in that they give only guidance and principles. Therefore, it is necessary to continue to apply the accounting system even after all accounting standards are issued and implemented. The debate is still going on, however, it does not alter the fact that accounting standards and accounting system will co-exist to govern the accounting practices in the foreseeable future (McGregor, 2006a).

Although the important contents in accounting standards have been incorporated into the Accounting System for Business Enterprises when the MoF considers formulating the ASBE, accounting standards differ significantly from ASBE in terms of the roles they play in the accounting regulatory framework. Accounting standards are utilised to regulate the recognition, measurement and the reporting of transactions based on the substance of businesses, while the ASBE places an emphasis on applying the spirit of accounting standards into specific accounting practices in dealing with accounting items. It is widely conceived that the co-existence of accounting standards and the ASBE in China reflects a combination of the demand for bringing Chinese accounting in line with international conventions and the government's desire to keep the unique accounting tradition in place to adapt to the under-developed accounting professions (Tang, 1999).

As discussed before, the enterprise system reform, as a core part of the economic reforms, has provided momentum for establishing the current accounting regulatory framework. The construction of the accounting regulatory framework as a result of accounting reforms has in turn played a significant role in strengthening the enterprise system in China. One of the core characteristics of the modern enterprise system is the separation of ownership and management, which relies upon the development of the capital market. In a well-developed market, an enterprise can raise capital from the capital market by its performance and investors are able to make investment decisions by obtaining the true and fair accounting information (Allen, 1997). In a listed company with ownership separating from management, investors, especially individual investors, can rely on only the publicly reported information to make investment decisions. Clearly the reliability, fairness and timeliness of accounting information are of particular importance.

To ensure the listed companies do report high-quality accounting information, the accounting standards and accounting system provide a wide range of technical standards for recognising, measuring, recording and disclosing accounting items. The Accounting Law further clarifies the legal responsibilities of directors, accountants and auditors etc, thus offering a set of statutory rules to regulate the accounting practices. As far as the accounting standards and accounting system which have come to existence are concerned, most of the regulations are formulated to tackle the problems facing the enterprises under reform, especially listed companies. For example, among all the specific accounting standards issued so far, the Accounting Standards for Business Enterprises—The Disclosure of Relationship of Related Parties and Transactions was the first specific standard enacted to deal with the widespread problem of insider trading and earnings management through related-party transactions. The introduction of impairment losses in the ASBE was also designed to reduce the possibility for management to manipulate accounting figures.

The construction of the accounting regulatory framework has also helped to shape the capital markets in China. Capital markets seek for efficiency and fairness (Allen, 1997). Capital tends to flow into the companies with higher rates of return in seeking for profits. Investors need relevant information about the performance of the

company to make investment decisions and this information is usually contained in financial reports. Therefore truthful and reliable accounting information is playing a vital role in ensuring the capital market is functioning towards achieving its goals: efficiency and fairness.

The listed companies and the equity market in China emerged as a result of the government's experiment to transform SOEs into shareholding companies. Not surprisingly, all the accounting standards and accounting system were also put forth after 1992. Most of the regulations are required to be applied to listed companies or shareholding companies before they are implemented to all types of enterprises. This to some extent reflects the needs of the capital markets for improving the quality of accounting information. Despite all the problems facing the Chinese accounting regulators, it is an undeniable fact that the quality of accounting information provided by Chinese listed companies is in deed improving (Xiao, 1999). The development of Chinese capital markets would not have been sustainable without the improvement in the quality of accounting information.

Especially, the accounting regulatory system is playing, and will continue to play, an irreplaceable role in protecting the interest of individual shareholders and maintaining order in the capital markets. It is worth noting that the protection of individual investors is of particular importance in the context of China due to the lack of legal protection and information asymmetry. The accounting standards and accounting system promulgated since 1992 have to some extent provided a control mechanism to restrict the management's possibility to report false accounting information. More importantly, the new regulations have increased the comparability among different companies and within the company over different periods.

3.4.2. What are the driving forces behind the accounting reform?

It is well recognised that the accounting environment, among the other factors, plays a substantial role in shaping the accounting regulatory framework (Xiang, 1998). Profound changes in the economic system and massive alteration of the corporate landscape in China have brought increased attention to the importance of the role of

accounting and financial reporting. The sharp increase in foreign direct investments flooding in China, coupled with the establishment of stock exchanges and listed companies, have heightened the needs for a national accounting regulatory framework which is in line with the international norms. On a close examination, one can discover that it is the ever-changing accounting environment that has been shaping the accounting regulatory framework. In China, this accounting environment can be specified as the transition from planned economy to market economy, the enterprise system reform and the integration of China's economy into the globe. Their influences on the accounting regulatory framework will be discussed as follows:

3.4.2.1. The economic transition

The economic reform is in essence a revolutionary transition from the planned economy to the market economy (Zhuan 1999). With new economic phenomena and diversified business forms emerging, fresh demands have been created for reforming the lagged-behind accounting regulatory framework. For instance, the fast-expanding scale of businesses has given rise to the emergence of group companies. Consequentially, the demand has been generated for the promulgation of accounting regulations to deal with accounting treatments on transactions between the parent company and its subsidiaries and transactions among subsidiaries. In the meantime, regulations are also needed to govern the consolidated financial reporting for group companies. The issuance of the Regulations on Consolidated Financial Statements (RCFS) in 1995 has responded to and reflected this demand. What is more, the fast growing economy has also enabled many companies to have become conglomerates with business operations across several sectors. These companies frequently find it extremely difficult to prepare for financial accounts because accounting for businesses in different industries would have to follow different rules. The Uniform Accounting System that was designed to deal with accounting practices according to the industrial sector will have to be substituted with an accounting system that provides a universal code of practices to companies in all sectors. The promulgation of the Accounting System for Business Enterprises (ASBE) and accounting standards has broken the line by stipulating that the regulations are applicable to all companies

across industries. Based upon the above, one can clearly see that every single step that the accounting reform has made was actually pushed by the demands generated by the market-oriented economic reform.

The market-oriented economic reform can be reflected in many aspects, e.g. the increased diversification of ownership structure. As discussed in Chapter 2, One of the most noticeable changes taking place in China since the early 1980s is that the ownership structure has been profoundly altered (Tang, 1999). The dominance of state owned enterprises in the national economy has been challenged by the rising power of non-state ownership of companies, e.g. share-based companies, family businesses, joint-ventures enterprises, foreign-investing firms, etc. Although the newly-emerged enterprises take various forms in terms of ownership, there is one common characteristic among them: property right is clarified. On the other hand, the SOE reform has also made it possible to clarify property rights within SOEs by separating management from ownership and by encouraging diversified investors to own shares of SOEs. To respond to these changes in the ownership structure, new accounting regulations must be put forth to reflect the clear-cut property rights of all stake holders in a company. An accounting regulatory framework that breaks ownership and industry boundaries and provides a fair treatment to all types of owners in a company is therefore necessary.

The market-oriented economic reform has given rise to the growth of financial markets. Companies increasingly rely on financial markets to raise capital. The development of the capital market, especially the equity market, posed fresh challenges to the accounting regulatory framework. It is well recognised that the modern financial markets are built on the efficient information disclosure (Allen, 1997). The core of the information disclosure is the financial information. Timely and reliable financial information is the prerequisite for the health and order of capital markets. As far as the accounting reform is concerned, the rapid development of capital markets has provided a powerful driving force in constructing the accounting regulatory framework. For example, the existing 16 specific accounting standards are promulgated in order to regulate the accounting treatments and information disclosure for listed companies. These standards are applicable to

companies that raise capital from capital markets, e.g. listed companies, before other forms of companies begin to put these standards into practice.

3.4.2.2. The SOE reform

The accounting regulatory system, as an important part of whole economic and social system, is highly dependent upon the other institutional arrangements, especially the enterprise system (Zhuan, 2001). The soaring number of listed companies and the fast development of share-based firms have provided tremendous momentum for the construction of an accounting regulatory system. To push ahead the SOE reform, large and medium-size SOEs were transformed into shareholding enterprises with diversified investors and clarified property rights before they can issue shares and float on the stock market. Foreign and private investors are allowed to hold shares of shareholding companies on the conditions that the state owns the majority of the shares and the enterprises are not in the industries threatening the national security and monopoly (Jiang, 1997). As discussed earlier, despite the majority of state shares in these companies, they resemble the Western enterprises for the following reasons. Firstly, property rights of the stock-based companies to some extent have been clarified after the transformation that involved diversified investments. Secondly, management in the stock-holding companies is separated from ownership. Although the government as the major shareholder still plays a significant role in the company, direct interference from the government can be replaced with professional management. Thirdly, SOEs that act as production units under the planned economy are turned into the profit and investment centres on the ground that they are forced to face the market competition and the state holds limited responsibilities. In short, the share-based companies, especially those listed on the stock exchanges, have been transformed into market-oriented enterprises although they more or less contain some of the attributes of the traditional SOEs.

One of the most common headaches rooted in all modern public companies lies in the agency problem. Cabral (2000) points out that, in general, the managers' objectives differ from those of the shareholders due to the separation of ownership from management. It is therefore inevitable that managers do not always act in the

interests of shareholders and shareholders cannot exercise effective control over managers. Even if shareholders are able to control managers, there is still a problem that managers normally know better than shareholders what is best for the firm, a problem of asymmetric information. The fact that managers possess more information than shareholders makes the agency problem even more irresolvable. It is argued that agency problem can be at least attenuated by internal discipline such as setting up efficient corporate governance and a compensation contract combining fixed wage and profit-contingent compensation and by external disciplines including labour market, product market and capital market. These disciplines, working together, may ensure that the deviations from profit maximisation can not be too large.

The agency problem prevails in all companies where management and ownership are separated. By no means are Chinese listed companies immune from it. In fact, the agency problem of Chinese listed companies is likely to be even more severe than that of their western counterparts, if one takes corporate governance and external discipline mechanism into consideration.

Firstly, corporate governance in most Chinese listed companies suffers a series of inherent problems, one of which is the imbalance of power between the government and individual investors. As discussed in Chapter 2, Chinese listed companies are transformed from SOEs with the dominance of state shares. The government still performs substantial control over the listed companies, whereas individual investors have very little influence. As a result, Bai et al. (2004) argue that effective monitor is not likely to take place within the listed companies where the corporate governance is established based on the former management of SOEs who possess very little know-how and experiences in managing businesses.

Secondly, the market is unlikely to be able to perform an effective external discipline on Chinese listed companies on the ground that the development of the market economy is still at its infancy. The labour market simply can not give pressure onto the managers in poor-performing companies because many high-ranking managers of Chinese listed companies are subject to the appointment of the government who normally assesses the manager's performance from the perspective of the political

and administrative needs (Bai et al., 2004). The information conveyed in the product market is frequently distorted by the government's monopoly. It is well known that some state-controlled listed companies possess unchallenged monopoly advantages in industries such as telecom, automobile manufacturing, banking, utilities, railway and motor transport, petroleum and related products, etc. Therefore it is likely that there is no direct link between the performance of a company and the competency of management. A poor-managed company may perform extremely well simply because it is in a government-monopolised industry. Furthermore, the control mechanism of takeover markets is severely restricted by the shareholding structure of listed companies (Xu and Wang, 1999). In fact, an active takeover market does not exist in China because state shares and legal person shares are not allowed to trade at the stock exchanges. Even though state and legal-person shares are transferable, parties involved must go through a tedious procedure and have their deals approved by the market regulators. As a result, being fired by the board of directors seems to be a far more serious threat to the Chinese managers than an outsider takeover.

The emerging agency problem stemming from the separation of management from ownership, accompanied with severe information asymmetry and weak corporate governance mechanism, has provided management in China's listed companies with ample opportunities to commit fraud in preparing for financial reports. According to Lu and Fu (2003), who have carried out research on the financial fraudulent activities in the China's listed companies, the Shanghai Stock Exchange (SSE) has investigated 346 corporate fraudulent incidents in the SSE between 1994 and 2000, nearly 20% of them are related to the illegal manipulation of accounting information. Activities such as earnings management are considered widespread in China's listed companies. The increasingly rampant financial fraudulent activities have caused tremendous damage to the health and development of stock markets in China. A 'trust crisis' seemed to be inevitable if no measures were to be taken (Lu and Fu, 2003). All these have generated a fresh demand for establishing an accounting regulatory system geared towards protecting a wide range of stakeholders such as investors, creditors, customers and suppliers, etc. An accounting regulatory system that is adapted to the market-oriented economy must be put in place to ensure the provision of high-quality accounting information which can reflect the true and fair view of the financial conditions and profitability of the company. In addition,

accounting information must be complete and comparable and accounting practices must be as uniform and transparent as possible.

3.4.2.3 Internationalisation

With international trading and foreign investments being rare prior to the 1980s, the accounting regulatory system was built upon the isolated and highly centralised planned economy. The success of open-up policies led to a sharp increase in the international trading and foreign investments flowing into China. This posed another challenge to the traditional accounting practices.

Most foreign investors enter the China's market by choosing to set up joint-venture companies with Chinese partners in the early years (Fung et al., 2006). One of the prerequisites under which Chinese enterprises and their foreign partners bond together is that each side ought to have a complete understanding of the financial conditions of their future partners. Financial reports produced by Chinese enterprises under the Chinese accounting regulations, however, always make it impossible for their foreign future partners to understand. The huge accounting gulf between China and the outside world has become a significant hindrance for China to attract more foreign investment. Even after a joint venture was established, the debate on what accounting regulations should be followed remains intense as the Chinese side continues their practice while the foreign partners struggle to persuade their Chinese partners to take the international approach.

The difficulty in communication of accounting information takes place not only when foreign investors form joint ventures, but also when Chinese company seek to list shares overseas or to sell shares to foreign investors. The traditional Chinese accounting practice and the resultant financial reports are so distant from those of the international conventions that the likelihood of success for firms attempting to go public depends on how well the Western accounting firms manage to reconcile two business cultures that are 'worlds apart' (Winkle et al., 1994). In addition, foreign investors in the emerging Chinese stock market frequently have difficulty in

assessing the financial health of companies listed on the stock exchanges due to the lack of specific disclosure requirements (McGrath, 1993).

With China's economic integration into the world accelerating, the insulated traditional accounting practices have increasingly become the stumbling stone for the further development of China's economy. To bring Chinese accounting in conformity with the international norms has become a must-do, rather than an option. To construct an accounting regulatory system that is adapted to China's global economy, China has taken a series of bold steps in introducing the international accounting conventions. As discussed earlier, the first step is the introduction of Accounting Regulations for Joint Ventures in March 1985. Although applied to merely joint-venture companies, this set of regulations was widely regarded as a significant step forward in that it marked a radical departure from the traditional accounting in China and provided guidelines for joint-venture operations by referring to international accounting practices (Ho, 2002). The most significant move is the promulgation of the Accounting Standards for Business Enterprises-Basic Standards and following 16 specific accounting standards. Although differences between the Chinese accounting standards and international accounting standards (IASs) exist in the contents, interpretation and implementation of the standards, China has largely adopted the major principles and concepts from the IASs.

Chapter 4. A FURTHER LOOK AT THE CHINESE ACCOUNTING REGULATORY FRAMEWORK: A COMPARATIVE APPROACH

4.1 Introduction

After more than two decades of efforts to reform the system of accounting, China has constructed its own accounting regulatory framework consisting of accounting laws, accounting standards and accounting system. One of the central focuses of the accounting reform is to bring China's accounting regulations in line with internationally acceptable standards. In practice, the MoF did refer to, and is still referring to, the international conventions contained in the IASs when issuing Chinese accounting standards. Furthermore, as discussed in Chapter 3, the project of promulgating accounting standards was also backed up by the international assistance such as the World Bank loan and Deloitte Touche Tohmatsu. However, it will be wrong to assume that Chinese accounting regulations are identical to the rules in the IASs. Rather, there are substantial differences between the Chinese accounting standards and the IASs.

The differences between the two can be attributed to the unique circumstances of China. Firstly, China is in a transitional period in which the influence of the planned economy still remains and the market-based institutions are under construction. The overall economic, cultural and political environment in which accounting is functioning is fundamentally different from that in the developed markets. Chinese accounting regulations must be built on and be reflective of these unique institutional settings. Secondly, the Chinese accounting profession, e.g. Chinese accountants, has been used to the traditional accounting practice and is still learning how to work in a market economy. Sometimes it is difficult to translate the Western-style accounting concepts and terms into Chinese. Regulations can be issued within a short period of time. However, training the accounting profession towards international practice is a daunting challenge and takes a much longer time. Therefore, to minimise the shock

triggered by the new accounting standards, the MoF often have to make the new standards not only less sophisticated but also more prescriptive than the IASs.

The central task of this chapter is to identify the major differences between the Chinese accounting standards and the IASs. The remainder of this chapter is organised as follows. Section 2 takes a brief look at the differences between the existing standards and the equivalent IASs. Section 3 focuses on identifying the unique accounting items by looking into the consolidated financial reports by a Chinese company, China Petroleum & Chemical Corporation (CPCC).

4.2 Where Does the Chinese Accounting Stand in the Four Spectrums?

The comparative approach taken by Roberts et al. (2002) in studying the international financial accounting attempts to pinpoint the position of a country's accounting regulatory system by looking at four dimensions: 1) professionalism versus statutory control; 2) uniformity versus flexibility; 3) conservatism versus optimism; 4) secrecy versus transparency²⁸. A question was immediately raised: Where does China stand in these four spectrums? Clearly, a brief discussion on China's current position is helpful for one to gain an understanding of China's accounting regulations in the global context.

4.2.1 Professionalism vs. statutory control

Unlike the U.K. where the entire history of accounting practice is strongly dependant on professional expertise, China's regulatory system of accounting is obviously one which relies exclusively upon statutory control (Roberts et al., 2002). While accounting standards are issued, they are issued by the MoF independently of the accounting profession. In fact, the whole process of accounting reform was initiated, pushed ahead and controlled by the government. There are a number of reasons attributable to the China's extreme position on this profession vs. statutory control continuum. First, this government-dominated approach is consistent with the overall culture of 'big government and small society'. Historically, the government has always been a central force in all aspects of the country. The socialist planned economy, together with the one-party political system, enables the government to go even further towards the centralised administration. Second, the government's unchallenged power and authority in governing the accounting practice is in a marked contrast to the new, small and powerless accounting profession. The Chinese

²⁸ Roberts's approach was actually taken from Gray's (1998) accounting values, which were based on Hofstede's (1984) framework. Details of their work can be found from Gray, S. J. (1988), 'Towards a theory of cultural influence on the development of accounting systems internationally', *Abacus*, 24 (1): 1-15 and Hofstede, G. (1984) *Cultural differences: International Differences in Work-related Values*. Beverly Hills, CA: Sage Publications.

Institute of Certified Public Accountants (CICPA), which was established in November 1988, is limited to setting auditing standards and acting as a trade organisation for exams and CPA registration. Therefore, the government is unlikely to give up this power to a professional body unless there is a very good reason to do so.

4.2.2 Uniformity vs. flexibility

Roberts et al. (2002) found it very difficult to locate Chinese accounting in the uniformity/flexibility continuum. The reason for this is the coexistence of accounting standards and accounting system. While the Accounting System for Business Enterprises gives little discretion on how to account for particular transactions or events, some of the rules contained in the accounting standards are very flexible. This does not necessarily mean that the rules in the accounting system contradict with those in the accounting standards. As discussed in Chapter 3, there is a debate as to whether China should keep both these two in the future. It seems that the MoF will carry on the dual-regulation system for quite a long time (McGregor, 2006). The justification for the MoF to use both accounting standards and accounting system lies in that these two are performing different functions in the whole regulatory framework. While the accounting standards provide the basic guidance as to how to treat, recognise and measure transactions or events, the accounting system offers the detailed code of practice at the operational level. Both of these functions are important in the context of China, especially when accounting regulations are just established.

In fact, it is a great challenge for the MoF to reach a balance between uniformity and flexibility. On one hand, regulations contained in the accounting standards cannot be as sophisticated as those in the IASs because doing so will only cause confusion to the newly-emerged market. In other words, the IASs can be used but they have to be simplified to suit the needs of the emerging market. This approach actually makes the MoF to go from one extreme to another in promulgating the Chinese standards. As a result, the MoF either chooses one of the methods available in the IASs or gives accountants complete discretion over the methods. On the other hand, as discussed in

Chapter 3, accountants in China are used to the traditional practice to follow detailed and stringent rules and are not ready for the market-based accounting. Too much room for judgement given to those planned-economy-style accountants will lead to chaos. This is why the MoF issued the accounting system to fill in the gap between the principles of the accounting standards and operations in practice. Of course, when it comes to accounting practice, little discretion is left over to the accountants.

Despite the above, it is still worthwhile to explore the ‘from extreme to extreme’ situation where the rules are extremely flexible in some areas and extremely tight in some other areas.

4.2.2.1 Intangible assets: an example of uniform extreme

For example, the Chinese regulations appear to stand at the side of uniformity extreme when it comes to the accounting treatments for intangible assets. This uniform extreme can be seen from three aspects. First, research and development (R&D). According to the Accounting Standards for Business Enterprises – Intangible Assets (ASBE - IA), all expenditures on R&D are recognised as period expenses when incurred regardless of whether the expenditure happens on the research phase or the development phase. However, the IAS 38 classifies R&D into two phases: the research phase and the development phase and prescribes different recognition rules. Under the IAS 38, expenditures on research and/or the research phase of an internal project shall be recognised as expenses when incurred, while an intangible asset arising from development or from the development phase of an internal project shall be recognised under certain conditions (Article 51-64, IAS 38). In recognising expenditures on development or development phase of an internal project, management and accountants have been given substantial scope for professional judgement under the IAS 38. However, the ASBE-IA has taken a simple approach to uniformity, leaving management no room to exercise subject judgement whatsoever.

Second, measurement of intangible assets after recognition. The ASBE-IA differs from the IAS 38 in measuring an intangible asset after it is first recognised. The IAS 38 gives an entity a choice between cost model under which an intangible asset shall

be carried at its cost less any accumulated amortisation and any accumulated impairment losses after initial recognition, and revaluation model under which an intangible asset shall be carried at a re-valued amount less any accumulated amortisation and any accumulated impairment losses after initial recognition (Article 72-75, IAS 38). Detailed standards as to how an intangible asset is re-valued are prescribed in the IAS 38. However, the ASBE-IA adopts only the cost model and requires an entity to review the carrying amounts of its intangible assets periodically, at least at the end of each year (Article 16, ASBE-IA). Revaluation model mentioned in the IAS 38 has not even been addressed in ASBE-IA, let alone putting the revaluation model into practice.

Third, amortisation. The ASBE-IA departs from the IAS 38 considerably in prescribing issues such as amortisation period, amortisation method and residual value. Firstly, when determining the amortisation period of an intangible asset, the ASBE-IA again takes a much simpler approach than does the IAS 38. The ASBE-IA requires that the amortisation period of an intangible asset be determined by the relevant contract or law. If the contract does not stipulate the beneficial period and the law does not stipulate the effective period, the amortisation period should not exceed 10 years (Article 15, ASBE-IA). The IAS 38, however, does not give a maximum amortisation period to an intangible asset. Instead, it requires an entity to assess whether the useful life of an intangible asset is finite or indefinite. An intangible asset with a finite useful life is amortised and an intangible asset with an indefinite useful life is not (Article 89, IAS 38). Secondly, when choosing amortisation method, the ASBE-IA stipulates that the cost of an intangible asset should be amortised evenly over its expected useful life (Article 15, ASBE-IA), thus taking the straight-line method as the only permitted amortisation method. On the contrary, the IAS 38 allows a variety of amortisation methods, including the straight-line method, the diminishing balance method and unit of production method, to be selected by an entity on the basis of the expected pattern of consumption of the expected future economic benefits embodied in the asset and is applied consistently from period to period (Article 98, IAS 38). Under the IAS 38, management and accountants are given an opportunity to exercise judgement to choose the amortisation method that best reflects the nature of the application of an asset.

4.2.2.2 Inventory valuation: an example of flexibility extreme

According to Roberts et al. (2002), this is perhaps the most surprising instance of extremely flexibility. While it would have been easy to impose a uniform system mandating one particular method, the ASBE – Inventory allows enterprises considerable freedom in how they account for inventory. As stated in Article 17, ASBE, an enterprise should determine the actual cost of inventories transferred out in accordance with the actual circumstances for various types of inventories using methods such as specific identification method, the first-in-first-out method, the weighted average cost method, the moving average cost method, or the last-in-first-out method. The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects should generally be assigned by using the specific identification method. Therefore, under the ASBE – Inventory, Chinese companies are allowed to use FIFO, LIFO, weighted or moving average, or specific methods of valuation, thus all the alternatives permitted by the IAS 2, both preferred and allowed alternatives, are allowed.

4.2.3 Conservatism vs. optimism

While the traditional Chinese accounting ignored the concept of conservatism or prudence, the principle of prudence was first introduced in the ASBE – Basic Standard. As stated in Article 18 ASBE – Basic Standard, the principle of prudence should be followed in reasonably determining the possible loss and expense. However this principle was not put into practice until 1998, when the Tentative Accounting Regulations for Shareholding Companies was issued. According to it, an enterprise should carry out impairment review on its assets periodically or at least at the end of each year, and make provisions for impairment losses on assets that may be impaired in accordance with the prudence principle.

The question as to where the Chinese accounting stands at the conservatism/optimism continuum compared with the IASs was empirically investigated by Chen et al. (1999). They examined the reconciliation statements of between 34 and 50 companies with B shares listed on the Shanghai Stock Exchange

for each of the years (1994 – 1997). They found, on average, the reported earnings determined under the Chinese standards are 20-30 per cent higher than earnings reported under the IASs. After restatement, 15 per cent of the B-share companies changed from a reported profit to a reported loss. Their finding suggests that Chinese accounting standards tend to be significantly less conservative, resulting in earnings that are significantly higher than those based on the IASs. They further identified five items that accounted for the largest differences in the two sets of earnings figures: 1) foreign currency translation; 2) bad debts; 3) fixed assets valuation, revaluation and depreciation; 4) accrued expenses; and 5) long-term investments. Chen et al. (1999) further suggest that these five items accounted for approximately 40 per cent of the differences in reported earnings.

4.2.4 Secrecy vs. transparency

The issue of secrecy versus transparency refers to the disclosure requirements contained by the accounting regulations. To reach any conclusion, it is worthwhile to have a brief look at the disclosure requirements contained in the Chinese accounting regulations. The disclosure requirements can be broken into four categories: initial disclosure, periodic disclosure, non-periodic disclosure and other disclosure. This section will concentrate on those requirements for periodic reporting, in particular, the annual report.

It should be noted that the Accounting System for Business Enterprises has made fairly detailed regulations on disclosure requirement. Not only does the ASBE specify statements to be published, but also it goes on to specify the detailed contents of the notes to the accounting statements. Furthermore, the ASBE prescribes stringent rules regarding the time limits of different periodical reporting.

Firstly, what statements should be produced? According to the ASBE Article 154, Chinese enterprises should produce the following eight statements for the annual reporting. Note that while most of them can be normally found in the Western annual reports, some of them such as the statement of provision for impairment of assets are not.

- a balance sheet
- an income statement
- a cash flow statement
- a statement of provision for impairment of assets
- a profit appropriation statement
- a statement of changes in owners' equity
- a statement of segmental information
- other relevant supplementary statements

Second, what should be explained in the notes to accounting statements? Article 155 stipulates that the notes to the accounting statements should at least comprise the following:

- an explanation of any non-compliance with basic accounting presumptions;
- details of significant accounting policies and accounting estimates;
- an explanation of changes in significant accounting policies and estimates;
- details of contingencies and events occurring after the balance sheet date;
- disclosures of related party relationships and transactions;
- details of the transfer or disposal of significant assets;
- details of business combinations and de-mergers;
- detailed information about significant items in the accounting statements;
- other disclosures that are necessary to enable users to understand and analyze the accounting statements.

Third, when should the Chinese enterprises publish financial reports? Article 158 stipulates that:

- Monthly interim financial and accounting reports should be published within 6 days after the end of the month (deadlines will be extended to take into account of public holidays);
- Quarterly interim financial and accounting reports should be published within 15 days after the end of the quarter;

- Half-year interim financial and accounting reports should be published within 60 days (that is, 2 consecutive months) after the end of the interim period
- Annual financial and accounting reports should be published within 4 months after the end of the fiscal year.

Based on the above, one can see that China has made enormous efforts in increasing the disclosure transparency by requiring companies, especially listed companies, to disclose more information. However, as argued by Anderson (2000), more information disclosed by the company does not necessarily guarantee the improved transparency and quality of information. In other words, the amount of information alone simply does not work. To improve the transparency of the information disclosure, detailed explanation is needed and voluntary disclosure should be encouraged. A company can disclose more information in accordance with the disclosure requirement. However, if the information is not explained in details, or the company hides the information which is not required by the accounting regulations but has significant impacts on the businesses of the company, the information disclosed is simply not able to bring the improved transparency to information users. This is consistent with the argument of Roberts et al. (2002) who pointed out that although the Chinese disclosure requirements do not differ significantly from the IASs, they are generally far less detailed and lack sufficient explanation to be easily and consistently implemented.

4.3 The 'Puzzles' in the Chinese Income Statement and the Balance Sheet

It has to be mentioned that there is not too much literature discussing the differences between the Chinese accounting standards and the IASs. Taking the face-to-face approach, Chen et al. (1999) compared the reported earnings under Chinese standards and the IASs and investigated the differences between the two. They listed the factors that are responsible for the differences between earnings under the Chinese standards and those under the international counterparts. These factors include foreign currency translation, inventory, allowance for bad debts, long-term investment valuation and consolidation, deferred tax and other tax-related items, fixed assets, intangible assets amortisation, equity and cost method, accrued expenses, accrued revenues, and equity adjustments.

While some distinctive differences have been identified in their study, their study suffers two problems with the findings and the method. First, some of their findings are soon out of date due to the fast-changing nature of the accounting reform in China. For example, Chen et al. (1999) pointed out that one of the major differences between the Chinese Accounting standards and the IASs lies in the lack of principle of prudence in the Chinese regulations. Assets such as inventories, accounts receivables, investments, fixed assets and intangible assets etc are valued at historical costs under the Chinese standards, but at the lower of cost and market under the IAS. While it was true that the principle of prudence was not in place when the paper was published in 1999, the MoF soon adopted this principle following the promulgation of the ASBE. Chinese companies have been required to carry out the impairment review on assets and to recognise impairment losses should impairment occurs. Second, the face-to-face approach taken by them seemed to be not powerful enough to carry out an in-depth analysis. Although some of the differences have been identified by comparing the articles specified in both standards, some puzzling accounting items unique to the financial reports by Chinese companies have not been even touched. This is because China's accounting regulatory framework is under construction and some of the accounting treatments are not covered by the existing 16 accounting standards. As a matter of fact, many accounting issues are dealt with by the administrative documents issued by the government bodies such as MoF and

the CSRC. For example, the accounting standards for consolidated accounts have not been issued yet, but merger and acquisition activities have been booming since the 1990s²⁹. To guide the accounting treatments on consolidated accounts, the MoF issued the Tentative Regulations on Consolidated Accounts (TRCA) in 1995. These regulations cannot be found in the existing accounting standards and system.

Based on the above, this thesis is attempting to take a completely different approach to studying the differences by looking into a live example – the details of the income statement and the balance sheet from a Chinese company. In particular, this thesis will discover and explain some of the ‘puzzling items’ universally existing in the Chinese financial reports. By doing so, I believe a better picture on the uniqueness of Chinese accounting will be presented. It has to be stressed that this section will not cover every single difference existing between the financial reports under the Chinese regulations and the IASs. Instead, it will focus on the accounts and regulations that display striking Chinese characteristics.

According to the CSRC disclosure regulations, Chinese companies issuing both A-shares and B-shares (H-shares) are required to publish financial statements that are based on Chinese GAAP, defined by the existing accounting standards and accounting system, and the IASs. And the reported accounting earnings based on current Chinese GAAP are significantly different from those based on the IASs (Chen et al., 1999). This provides a unique opportunity to examine the differences between the Chinese GAAP and the IAS and identify the items contributing the most to the differences.

The 2004 annual reports of China Petroleum & Chemical Corporation (CPCC) were utilised as an example to provide an in-depth examination on the differences between the Chinese GAAP and the IASs. The reasons for choosing the CPCC’s 2004 annual report are twofold. Firstly, as the largest listed company in China by its turnover and market capitalisation in 2004, CPCC is the first Chinese company issuing shares in Hong Kong, New York, London and Shanghai (CPCC, 2004). Its annual report

²⁹ As discussed earlier, the market-oriented takeovers are still rare in China and usually the government is heavily involved in most of the M&A activities.

contains financial statements such as the income statement, the balance sheet and the cash flow statement etc based on both Chinese GAAP and the IAS. This makes comparison more straightforward. Secondly, the Chinese accounting regulation-setters frequently change accounting rules. Therefore the recent accounting reports are more likely to incorporate the up-to-date rules.

In this section, I will focus on the unique features of Chinese financial statements and identify the major differences between Chinese GAAP and the IASs by examining the income statement and the balance sheet prepared by the CPCC in its 2004 annual report.

I begin my task first by looking at the income statement of CPCC. Appendix A, B, C, and D present the income statements and the balance sheets prepared by CPCC under the Chinese standards and the IASs respectively.

4.3.1 Formats of the income statement

As shown in Appendix A and B, the income statement under the Chinese regulations follows a significantly different format from that on the IASs. The Chinese income statement reports earnings at four different levels: profit on main businesses, operating profit, total profit and net profit, whereas the IASs income statement presents earnings following the order of operating profit, profit on ordinary activities before taxation, profit on ordinary activities after taxation, profit for the financial year.

4.3.2 Profit from operations

This is perhaps the most surprising difference between the Chinese practice and the practice permitted by the IASs. Although both income statements report the profit from operations, they in fact are determined by different formulas and therefore contain substantially different economic substance. The income statement based on Chinese regulations determines the operating profit as follows:

Profit from operation = Profit on main businesses (Turnover from main businesses – Cost on main businesses – Business taxes and surcharges on main businesses) + Profit on other businesses – Operating Expenses – Administrative Expenses – Financial Expenses

While the profit from operation in the incomes statement based on the IASs is determined as follows:

Profit from operation = Revenue – Cost of Sales – Operating Expenses – Administrative Expenses

The finance expenses under the Chinese regulations mainly refer to interest expenses incurred during the period (Zhang, 2002). The difference between the profit from operation under the Chinese regulations and the IASs lies in when the interest expense is deducted. The former is derived after the deduction of financial expenses (mainly interest charges); whereas the latter arrives before interest charges are deducted. This significant difference needs to be noticed because although they are the same by the name but actually contain quite different economic substance. Ignoring the difference may lead to mistakes.

4.3.3 Taxes and surcharges on main businesses

In addition to VAT and the corporate tax, Chinese companies are required to pay various taxes and surcharges to the central and local governments. In general, these comprise consumable tax, operating tax, urban maintenance & construction tax, education surcharges etc. Some of the taxes, for example consumable tax, are levied on the companies depending on the industrial sectors, while the other taxes such as operating tax, urban maintenance & construction tax and education surcharge are levied on all companies regardless of their types of businesses. As indicated in Appendix A, CPCC paid up to 16.2 billion yuan (16.3 billion yuan by IASs) taxes on main businesses to the government on top of the corporate tax which amounted up to 16.1 billion yuan (17.8 billion yuan by IASs). The effect of these taxes on the profit

level of is significant as evidenced by the fact that CPCC's extra taxes are roughly as much as the corporate tax. It therefore may be argued that excessively taxation in China might make Chinese companies in a disadvantaged position in terms of profitability. A brief introduction to some of the taxation regulations and rules, mainly promulgated by the State Council, can provide an insight into the Chinese companies' extra tax burden.

4.3.3.1 Operation tax

According to The Contemporary Regulations on Operation Tax (CROT) of P. R. China issued by the State Council in 1993, all companies and individuals providing services such as transportation, construction, finance and insurance, postal and communication, culture and sport, entertainment, hotels and restaurants, etc, transferring intangible assets and selling real estates have to pay the operation tax. A formula to obtaining the total amount of tax is given as follows: Total amount = Total revenue × Tax rate. The operating tax rate is within a range between 3% and 5% for most above-mentioned industries and transactions; however, companies or individuals in some industries such as entertainment may pay the operation tax as high as 20%.

4.3.3.2 Consumable tax

The State Council issued The Contemporary Regulations on Consumable Tax (CRCT) of P. R. China in 1993. According to it, the consumable tax is levied on companies and individuals producing, importing and exporting some specific products such as tobacco, alcohol, cosmetics, jewelleries, fireworks, petrol, diesel and automobile etc. Like the operation tax, the amount of tax is determined by the total revenue and tax rate. However, the consumable tax rate varies significantly from 3% on small-engine minibuses to 45% on tobacco products.

4.3.3.3 Urban maintenance and construction tax

Aiming at funding the construction and maintenance of the infrastructure and public facilities in cities and towns, the State Council issued the Contemporary Regulations on Urban Maintenance and Construction Tax (CRUMCT) of P. R. China in 1985. According to it, all companies and individuals paying VAT and operation tax must pay this tax. The CRUMCT prescribes that urban maintenance and construction tax rates vary from 1% to 7% depending upon whether the major location of the company is in the city, town or country. However, it does not provide detailed regulations on the determination of the total amount a company should pay. Local governments are given the power to make detailed regulations and rules based on the CRUMC.

4.3.3.4 Education surcharge

Chinese companies started paying education surcharge following the State Council issuing The Contemporary Regulations on Education Surcharge (CRES) of P. R. China in 1990. According to the CRES, this particular taxation goes directly into the local education funds. All companies paying VAT and operation tax have to pay education surcharge to the local governments. The tax rate for all companies is 2 per cent with an exception of tobacco companies paying 10 per cent. Again, the CRES did not provide detailed rules on how much education surcharge a company should be paying. Instead, the local governments are given the power to enforce this mandate and are responsible for determining the amount of taxation.

Table 4.1 sums up the basic features of the taxes apart from VAT and corporate tax that Chinese companies have to pay to the government.

Taxation	Applicable to	Tax rate
Consumable tax	companies and individuals producing, importing and exporting some specific products	3-45%
Operation tax	Companies and individuals providing some services, transferring intangible assets and selling real estates	3-20%
Urban maintenance and construction tax	All companies paying VAT and operation tax	1-7%
Education surcharge	All companies paying VAT and operation tax	2%

Table 4.1 Summary of extra taxes and surcharges

Although some of the taxation such as consumable tax and operation tax are applicable to companies and individuals in some specific industries, the above-mentioned extra tax commitments (in contrast with the UK companies who have no such extra liabilities) could have significant effect on the profitability of Chinese companies.

4.3.4 Profit distribution

As shown in the Appendix A, CPCC distributed RMB 6.4 billion (20% of the net profit for the financial year) to the statutory surplus reserve and the statutory benefit reserve before paying off dividends to shareholders. In fact, required by the Company Law, all Chinese companies must retain a certain proportion of net profit for the statutory surplus and statutory benefit reserve. Figure 4.1 provides an illustration on how a Chinese listed company distributes the net profit. As indicated in Figure 4.1, a company should distribute its net profit following these steps:

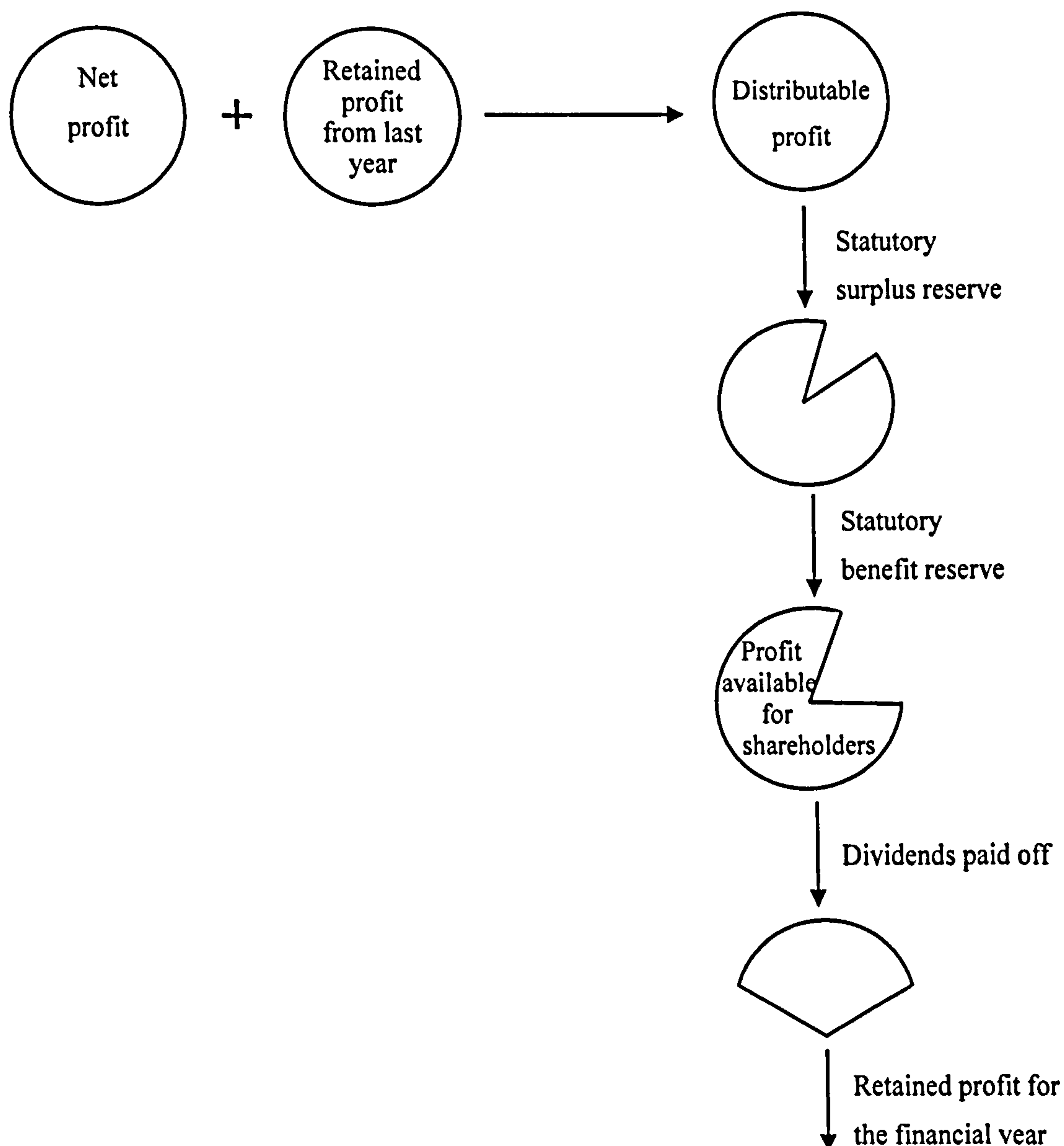
Step 1: The net profit for the financial year must be used to offset against losses during the previous years. A company is not allowed to distribute profits until the previous losses are fully recovered;

Step 2: A company must retain a proportion of net profit for the statutory surplus reserve account and statutory benefit reserve account;

Step 3: Dividends to preferred shareholders to be paid off;

Step 4: An extra amount of profit goes to surplus reserve account as the discretionary surplus reserve;

Step 5: Dividends to ordinary shareholders to be paid off.



Source: H. Ge (2000), How does a company distribute net profit?, in : Financial Accounts in China, 1st Edition, Ch. 8, Z. Lin, China Finance and Economics Publishing House, Beijing

Figure 4.1 How does a Chinese listed company distribute net profit?

From the above, one can see that Chinese listed companies distribute the net profit following a quite different pattern from the U.K. companies. The major difference lies in that the net profit has to go through three filters, namely statutory surplus reserve, statutory benefit reserve and discretionary surplus reserve, before reaching to the ordinary shareholders as dividends. However, U.K. companies usually distribute the net profit by paying off the dividends to the preferred and ordinary shareholders straightaway.

4.3.5 Statutory surplus reserve, statutory benefit reserve and discretionary surplus reserve

As mentioned before, there are three accounts in Figure 4.1 which are rarely seen in the income statement based on the IAS: statutory surplus reserve, statutory benefit reserve and discretionary surplus reserve. These accounts are set up in the income statement in accordance with The Company Law. Table 4.2 sums up the main features of these accounts.

Name of accounts	Purpose of the Account	Rates	Belongs to
Statutory surplus reserve	<ul style="list-style-type: none"> To offset against the previous losses; To pay off dividends in case there is no profit for the financial year; To increase the share capital by transferring from the surplus reserve to the share capital account 	10% of the net profit	Shareholders
Statutory benefit reserve	<ul style="list-style-type: none"> To be spent on staff benefit facilities such as staff accommodation, child care and health care etc. 	5-10% of the net profit	The reserve belongs to shareholders, however management of the company owns the usage right
Discretionary surplus reserve	<ul style="list-style-type: none"> To recover the previous losses; To pay off dividends in case there is no profit for the financial year; 	At the discretion of the board of directors	Shareholders

	<ul style="list-style-type: none"> To increase the share capital by transferring from the surplus reserve to the share capital account 		
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Source: H. Ge (2000), How does a company distribute net profit?, in : Financial Accounts in China, 1st Edition, Ch. 8, Z. Lin, China Finance and Economics Publishing House, Beijing

Table 4.2 Summary of statutory surplus reserve, statutory benefit reserve and discretionary surplus reserve

4.3.6 Unrecognised investment losses

The most unusual item in the Chinese standard-based income statement is the unrecognised investment loss because there is no an such account in the IAS-based financial reporting and it is unfamiliar for most Western accountants. Therefore it is necessary to have some discussion about the nature and effect of this unique Chinese accounting item.

What is the unrecognised investment loss and where does it come from? To answer these questions, one needs to search for the answer from Accounting Standards for Business Enterprises – Investment (ASBE – Investment). According to Article 18 of the ASBE – Investment, a company should account for long-term equity investments adopting the equity method when an investor can control or has significant influence over the investee enterprise. Under the equity method, an investing company adjusts the carrying amount of the investment according to its attributable share of the investee enterprise’s net profit (loss) and recognises the same amount as investment gain (loss) for the current period accordingly. Thus, when a subsidiary makes a profit for the financial year the parent company’s long-term equity investment account increases by the amount of it attributable share of profits, and vice versa.

An important question arises when a subsidiary makes a loss and the amount of adjustment of long-term equity investment resulting from the subsidiary’s loss exceeds the carrying amount of the long-term equity investment in the parent company’s balance sheet. In this case, to what extent should the parent company

adjust the long-term equity investment and recognise the subsidiary's loss? The ASBE – Investment answers this question by stating that an investing enterprise recognises net losses incurred by the investee enterprise to the extent that the carrying amount of the investment is zero. If the investee enterprise makes net profits in subsequent periods, the investing enterprise should increase the carrying amount of the investment above zero at the amount in excess of its attributable share of profits over the share of the unrecognised loss.

The term 'unrecognised losses' was introduced by the ASBE – Investment. However, it was not properly defined by the ASBE – Investment and no guidance as to how to account for it was given either. Failure to provide detailed guidance on this 'grey area' has caused confusion and difficulty at the operational level. In March 1999, in a formal letter to Guangdong Zhongzheng Accounting Firm who made an enquiry about the unrecognised loss, the MoF proposed to set up an account, namely unrecognised investment loss, in the consolidated balance sheet above the account 'retained profit for the financial year'; and the same account appears on the income statement below the account 'minority interests'. This proposal has in effect become the guidance in dealing with this issue in practical terms.

Under this method, the holding company's share of loss of the subsidiary company in excess of the carrying amount of long-term equity investment is recorded as the unrecognised investment loss. The according amount is then put in the income statement as a 'plus' account. The accumulated unrecognised investment loss in the meantime appears on the balance sheet as a 'less' account to decrease the owner's equity. The aim of creating the unrecognised investment loss by the MoF is to balance the accounts in the balance sheet. As the increase in the net profit by the amount of unrecognised investment loss will be brought into the balance sheet as the retained profit for the financial year. The increase in the retained profit for the financial year is then offset by the decrease in the owner's equity brought by the unrecognised investment loss. The result is that there is neither increase nor decrease in the group owner's equity and the consolidated balance sheet is unaffected by the loss produced by the subsidiary.

To exemplify the above method, let's assume that Firm A bought 60 per cent of the ordinary shares of Firm B for RMB 80 million by cash at the beginning of the year and Firm A takes the equity method to account for the investment. Table 4.3 illustrates the accounting method in accordance with the regulations proposed by the MoF.

Accounting treatment under the Chinese equity method	Simplified consolidated balance sheet for the group				
	Cash + Investments \equiv Capital + Liabilities				
Firm A bought 60% of the ordinary shares of Firm B for RMB 80 million by cash at the beginning of the year	- 80	+ 80		0	0
Firm B announced a net profit of RMB 60 million for Year 1		+ 36		+ 36	
Firm B announced a cash dividend of RMB 20 million for Year 1	+ 12	- 12			
At the end of Year 1	- 68	+ 104	\equiv	+ 36	0
Firm B announced a loss of RMB 200 million for Year 2		- 120		- 120	
At the end of Year 2 before adjustment	- 68	- 16	\equiv	- 84	0
<i>Adjustment: the unrecognised investment loss is created to bring the carrying amount of investments back to zero</i>		+ 16 ^a		+ 16 ^b	
				(16 ^a is shown in the owner's equity as a 'less' account and 16 ^b is shown in the income statement as a 'plus' account)	
At the end of Year 2 after adjustment	- 68	0	\equiv	- 68	0
Firm B announces a profit of RMB 100 million for Year 3		+ 60		+ 60	
At the end of Year 3 before adjustment	-68	+ 60	\equiv	- 8	0
<i>Adjustment reversed</i>		- 16		-16	
At the end of Year 3 after adjustment	- 68	+ 44	\equiv	- 24	0

Table 4.3 The way in which the unrecognised investment loss works

As illustrated in Table 4.3, when Firm B, the associated company of the group, made an extraordinary loss of RMB 200 million in Year 2, the attributable share of the loss of the group, which amounts to RMB 120 million, is even greater than the carrying amount of the investment of RMB 104 million. The MoF, however, does not allow the parent company to record the carrying amount of investment as RMB -16 million. Instead, the unrecognised investment loss account, RMB 16^a million, is created as an adjustment amount to bring the carrying amount of investment back to zero. To keep two sides of the equation balanced, capital account on the other side has to increase

by the same amount, RMB 16^b million. As indicated in Table 4.3, the adjustment account 16^a is shown in the owner's equity in the consolidated balance sheet as a 'less' account and 16^b is shown in the consolidated income statement as a 'plus' account. The increase in the capital account of the group actually comes from the income statement as the retained profit for the year. It has to be noted that the adjustment account – unrecognised investment losses – is created by the parent company to keep the both sides of the balance sheets balanced, but appears in the consolidated accounts only.

It is worth noting that the method proposed by the MoF is in fact in accordance with the principle of the Company Law which states that a parent company should be held limited responsibilities for its subsidiaries only. The loss produced by the subsidiary therefore should not be fully borne by the parent company and the full amount of loss does not need to appear on the consolidated financial statements.

Although it is in accordance with the principle in the Company Law, the introduction of the unrecognised investment loss presents a significant flaw and therefore provokes widespread criticism. As can be seen on Appendix A, the net profit of CPCC for year 2004 has increased by RMB 470 million due to the unrecognised investment loss recorded by the subsidiaries for the financial year. This has obviously created a great loophole for management to window dress profits because the net profit of a group is increased as a result of the extraordinary loss produced by the subsidiary. When the loss is great enough, the whole group's loss can even be turned into profit. The consequence is that management has been given an extra vehicle to manipulate the earning figures. There are plenty of examples in the Chinese listed companies where the loophole provided by this accounting treatment has been made the best use. For example, ST Shengtai, a de-listed company, reported a net profit of RMB 12.48 million for the year 2002. However, its net profit was mainly contributed by the unrecognised investment loss amounting up to RMB 67.80 million. Without the unrecognised investment loss, it would have reported a net loss of RMB 55.32 million³⁰.

³⁰ The data presented here are from the financial reports of ST Shengtai 2002.

4.3.7 Accounting for Subsidiaries, Joint ventures and Associated Companies

The definitions of subsidiaries, joint ventures and associated companies are given in the ASBE – Disclosure of Related Party Relationships and Transactions (ASBE-DRPRT), which was issued by the MoF in 1996. According to the ASBE-DRPRT, a subsidiary is an enterprise which is controlled by a parent company; a joint venture is an enterprise whose business activities are, as contractually agreed, jointly controlled by two or more investing parties; and an associated enterprise is an enterprise over which an investor has significant influence and which is neither a subsidiary nor a joint venture of that investor.

Under the Contemporary Regulations for Consolidation of Financial Reports (CRCFR) issued by the MoF in 1995, the parent company should include all its subsidiaries into the scope of consolidation in preparing for the financial reports. The CRCFR states that companies which should be included into the scope of consolidation are the ones whose majority (more than 50 per cent) of equity capital is owned by the parent company, and those who are controlled by the investing company. In some cases, the parent company does not own over half of the equity capital of the investee company, however as long as any of the following criteria is met, the investee company is still considered the subsidiary: 1) the investing company holds more than half of the voting power through certain agreement with the investee company ; 2) the investing company obtains the power to control the operating and financial policies; 3) the investing company can appoint and remove majority of the members of board of directors; 4) the investing company owns more than half of the voting power in the board of directors.

The CRCFR has not provided regulations in dealing with the accounting for joint ventures. However, the Accounting System for Business Enterprises (ASBE) requires the parent company to consolidate the accounts of joint ventures when producing group financial statements. The proportion consolidation approach should be adopted when the consolidating the assets, liabilities, revenue, expenses and profits of joint ventures.

As for the accounting for associated companies, accounts of associated companies should not enter the group financial statements. In accordance with the ASBE-Investment, the equity method should be adopted to account for the parent company's investment in associated companies. Unlike UK companies which usually disclose share of operating profits in joint ventures and associated undertakings in the group P&L account, Chinese companies are not required to put the same information into the consolidated income statement. However, information about the share of investment gains from associated companies can be found in the notes on investment gains.

In Table 4.4, the extract from the notes on investment gains in the CPCC's financial statements, CPCC breaks down the investment gains into two categories: investment gains accounted for under the cost method and investment gains accounted for under the equity method. Moreover, CPCC further discloses the investment gains for the group and the parent company respectively. As can be seen from Table 4.4, the parent company made an investment gain under the equity method totalling RMB 39,292 million in 2004. The group's total investment gain under the equity method is RMB 968 million. Since the investment in associated companies should be accounted for under the equity method, one can see that the group's investment gain amounting to RMB 968 million accounted for under the equity method is therefore the share of profits of associated companies. Furthermore, most of the parent company's investment gains from subsidiaries and joint ventures are eliminated as internal profits or gains when preparing for the group accounts, which explains why there is such a great disparity between the company's investment gain of RMB 39,292 million and the group's investment RMB gain of 968 million.

	The group		The company	
	2004 RMB million	2003 RMB million	2004 RMB million	2003 RMB million
Investment gains accounted for under the cost method	120	71	82	36
Investment gains accounted for under the equity method	968	477	39,292	22,808
Total	1,088	548	39,374	22,844

Table 4.4 The notes on investment gains in the CPCC's financial statements

4.3.8 Investments and investment gains

As stated in the ASBE – Investments, company's investing activities in China take the forms of long-term and short-term investments. Long-term investments are further broken down into long-term debt investments and long-term equity investments. It seems that the Chinese companies have relatively limited means of investments in comparison with the Western companies. This is not surprising because the financial market in China is still at its early stage and the means of investment available for Chinese companies is far from developed. As indicated in Appendix C, the long-term equity investment is CPCC's sole means of investment. CPCC recorded its total investment gains as the aggregate of investment gains accounted for under both the cost and the equity methods.

It is notable that the concepts of fair value and unrealised profits (losses), which prevail in the IASs accounting, have not been mentioned in the ASBE – Investment. According to the ASBE – Investment, an investment, regardless of the types of investments, is recorded at its initial cost on acquisition. However, when it comes to recognising investment profits (losses) and adjusting the carrying amount of investments, different classes of investments should be adjusted by taking different methods. By taking a close look at short-term investments and long-term equity investments accounted for under the cost method, one can examine the major difference between the Chinese standard and its international counterpart.

The ASBE – Investment defines the short-term investment as an investment that is readily realisable and is intended to be held for not more than one year. As far as the short-term investment is concerned, Article 9 of the ASBE-Investments dictates that the cash dividends or interest received from the short-term investment, other than those recorded as receivable items, should be offset against the carrying amount of the investment upon receipt. This is to say that under normal circumstances no investment gains arising from a short-term investment should be recognised. Assume

that Company A receives RMB 1 million as the dividend for its short-term investment in Company B, it should make the accounting entry as follows:

Dr: cash — dividend from company B: 1 million

Cr: short-term equity investment — company B: 1 million

In this case, RMB 1 million does not run through the income statement; instead, the cash received is debited to the cash account and credited to the short-term investment account. The result of it is that the short-term investment is decreased by RMB 1 million. Therefore, for a short-term investment, the carrying amount is normally reduced by the amount of dividends or interests received.

Moreover, short-term investments should be carried at the lower of cost and market value at the end of each period or at least at the end of each year. The difference between cost and market value should be recognised as an investment loss in the current period. In other words, when the market value of a short-term investment falls below the carrying amount at the end of the period, the carrying amount will have to be marked down and an investment loss is recorded accordingly, no matter whether the loss is realised or not. However, in the case where the market value gets above the carrying amount of the investment, mark-up to the market value is not allowed and the short-term investment is carried at the historical cost.

The cost method should be used to account for a long-term investment when an investor does not have control, joint control or significant influence over the investee enterprise. Under the cost method, profits or cash dividends declared to be distributed by the investee enterprise should be recognised as investment gains in the current period. However, the amount of income recognised is limited to the amount received from the accumulated net profits which arise after the investee enterprise has accepted the investment from the investor. The amount of profits or cash dividends declared to be distributed by the investee enterprise in excess of this threshold should be treated as a recovery of investment cost to reduce the carrying amount of investment. The carrying amount of a long-term equity investment accounted for under the cost method should generally remain unchanged, unless

there are additional investments or repayment of investments. In other words, the carrying amount of cost-method long-term equity investment is not subject to adjustment under the normal circumstances. In addition, to implement the principle of prudence, like the short-term investment, the cost-method long-term equity investment is subject to periodical impairment review, at least at the end of the year. If the recoverable amount falls below the carrying amount due to the continuous drop in the market price or the change of circumstances of the investee company, the difference should be recognised as the period loss and the carrying amount must be marked down to the market value.

4.3.9 Long-term equity investments, equity investment differences and goodwill

As shown in Appendix C, the long-term equity investment, as an asset account, is disclosed in the consolidated balance sheet. In addition, a company should report the amount of equity investment difference, as a component of the long-term equity investment, in the consolidated balance sheet. Other significant information such as increases (decreases) in the long-term equity investment, disposal of investment, provisions for impaired investments, amortisation of equity investment difference is disclosed in the notes for the financial statements as shown in Table 4.5.

	Investments in listed companies	Investments in non-listed companies and other equity investments	Equity investment difference	Provisions for value decline in investments	Total amount
	RMB million	RMB million	RMB million	RMB million	RMB million
Balance up to 1 st January 2004	736	10,285	400	(271)	11,150
Increase in investments in the year	–	2,083	169	–	2,252
Adjustments under equity method	54	887	–	–	941
Dividends receivable/received	–	(237)	–	–	(237)
Disposal of investments in the year	–	(429)	–	–	(429)
Amortisation for the year	–	–	(186)	–	(186)
Adjustments of provisions for the year	–	–	–	(82)	(82)
Balance up to 31 st December 2004	790	12,589	383	(353)	13,409

Resource: CPCC's Annual Reports for the period ended 31st December 2004

Table 4.5 The notes on the group's long-term equity investments in the CPCC's financial statements

What is equity investment difference? Is it good will? If it is so, why is it reported in the long-term equity investments instead of intangible assets? According to the ASBE – Investment, the equity investment difference is used to measure the difference between the initial investment cost and the investor's share of the net asset of the investee. When an investor makes an investment to another company and owns control, joint control or significant influence over the investee company, the equity method should be adopted to account for the long-term equity investment. When the initial investment cost exceeds the investor's share of the net asset of the investee, the difference between the two is recorded as the equity investment

difference. The investor then records its long-term investment as the sum of the investor's share of the net asset of the investee company and the equity investment difference. The investor's share of the net asset of the investee company is adjusted for the net profit (loss) of the investee company proportionate to the investor's share of the net asset of the investee. The equity investment difference should be amortised over a period not exceeding 10 years and the amount of amortisation enters the income statement as the period expense.

However, there are possibilities that the initial investment cost falls below the investor's share of the net asset of the investee company. In this case, the ASBE-Investment requires that companies recognise the negative equity investment difference. The long-term equity investment is therefore the result of the investor's share of net asset of the investee company minus the equity investment difference. The equity investment difference has to be amortised within a period more than 10 years and the amount of amortisation then enters the income statement as the investment gain.

It is worth noting that the above accounting treatment for negative equity investment difference was amended by the MoF and a new approach was proposed in the 'Q&A No. 2 on Implementing the Accounting System for Business Enterprises and Related Accounting Standards' issued by the MoF on 17th March 2003. Adopting the new approach, a company, for example, who purchases a total of RMB 12 million worth of net asset of its investee company for RMB 10 million cash, should make its accounting entry as follows:

Dr: Long-term equity investment — XX company 12 million

Cr: Cash 10 million

 Capital reserve — equity investment provisions 2 million

From the above accounting entry, one can see that the excess of the investor's share of the net assets of the investee company over the initial investment cost is not allowed to record as the negative equity investment difference and appear on the balance sheet. Instead, the difference enters straight into the capital reserve of the owner's equity. By doing so, the MoF has taken a more prudent approach to

accounting for the difference. Although the Q&A No. 2 did not provide the reason for the change of the policy, one can clearly see that the result of the new approach has narrowed the possibilities for earnings management activities. The accounting treatment for the negative equity investment difference stipulated by the ASBE – Investment in effect provides a loophole for management to manipulate the earnings because the amortisation of the negative equity investment difference runs through the income statement as investment gains. Companies can increase its net income by under-paying for the investment and/or over-pricing the investee's asset. In a stock market where majority of the shares of the listed companies are non-tradable, valuation of the assets is largely subject to the judgement of management. Consequently, there are an abundance of opportunities for earnings management. The reason for the MoF to change the method to account for the negative equity investment difference is therefore obvious.

It should be pointed out that the equity investment difference in the CPCC's financial statements can be understood as goodwill, but they are not exactly the same. Goodwill, as the non-identifiable intangible asset, is briefly mentioned in the ASBE-Intangible Assets and the Accounting System for Business Enterprises, however, they fail to provide the definition of goodwill and the detailed rules on how to recognise and measure good will. In addition, the ASBE—Intangible assets explicitly points out that regulations in the standard do not deal with goodwill arising from a business combination. As indicated in the note 14 for intangible assets in the CPCC's consolidated balance sheet, goodwill is not reported in the intangible assets. It therefore appears that although goodwill is recognised as part of intangible assets, it does not appear on the account of intangible assets. Instead, it is disclosed as part of long-term equity investment.

It is worth noting that the equity investment difference reported in the CPCC's annual report is not completely the same as goodwill defined in the IFRS 3 – Business Combinations. As defined in the ASBE – Investment, the equity investment difference measures the difference between the investor's initial investment cost and the investor's share of net asset in the investee company. However, the ASBE – Investment does not allow parent companies to record the assets and liabilities of investee companies at fair value. Therefore, the investor's share of net asset in the

investee is recognised as the book value for the purpose of consolidated accounts. The equity investment difference actually is the difference between the investor's initial investment cost and the book value of the investor's share of net asset of the investee. However, under the IFRS 3 – Business Combinations, the fair value of the parent company's investment in subsidiary is set against its share of the fair value of the identifiable net assets in the subsidiary at the date acquisition. If the investment is greater than the share of net assets then the difference is regarded as the purchased goodwill (Elliot and Elliot, 2005). It appears that under the IFRS 3 the group's share of the assets and liabilities of the subsidiary should be re-valued to the fair value prior to consolidation. Goodwill is therefore the difference between the group's initial investment cost and the group's share of fair value of the net assets in the subsidiary. When fair value deviates from book value, which occurs most of the time, the equity investment difference in the Chinese regulations then departs from goodwill under the IASs.

4.3.10 Impairment Losses

The concept of impairment loss was introduced to Chinese companies for the first time in 1998 following the promulgation of The Accounting System for Shareholding Companies. In accordance with the rules set out by the policy, share-holding companies ought to review the value of assets periodically or at least at the end of the year, make reasonable estimates of possible impairment losses (when the assets are impaired) and recognise provisions for impaired assets. Four classes of assets were required by the new regulations to review. They are short-term investments, long-term investment, inventories and accounts receivable. In 2000, the MoF promulgated the Accounting System for Business Enterprises. Four more classes of assets were added into the list: fixed assets, intangible assets, projects under construction and third-party loans.

The ASBE prescribes detailed methods by which the value of the assets should be reviewed and rules on how to measure the provisions for impaired asset and when to reverse the impairment losses. These methods and rules are summed up in Table 4.6.

Assets	Measurement of assets	Provisions for asset impairment	Impairment loss goes to
Short-term investments	Carried at the lower of cost or market price	Difference between the cost of short-term investment and the market price	Investment gains (losses)
Third-party loans	Carried at the lower of amount of the loan or recoverable amount	Difference between the principle of the loan and the recoverable amount	Investment gains (losses)
Long-term investment	Carried at the lower of carrying amount or the recoverable amount	Difference between the carrying amount and the recoverable amount	Investment gains (losses)
Accounts receivable	Carried at the carrying amount less the estimated bad debt loss	Estimated bad debt losses	Administration expenses
Inventory	Carried at the lower of cost or the recoverable amount	Difference between the cost and the recoverable amount	Administration expenses
Fixed assets	Carried at the lower of carrying amount or the recoverable amount	Difference between the carrying amount and the recoverable amount	Non-operating expenses
Intangible assets	Carried at the lower of carrying amount or the recoverable amount	Difference between the carrying amount and the recoverable amount	Non-operating expenses
Projects under construction	Carried at the lower of carrying amount or the recoverable amount	Difference between the carrying amount and the recoverable amount	Non-operating expenses

Table 4.6 Summary of impairment losses and provisions for impaired assets

The ASBE also sets out stringent rules on the disclosure of provisions for impaired assets and impairment losses. In accordance with the ASBE, the provision for impaired fixed assets must be disclosed in the statement of provisions for impairment of assets, separately from the balance sheet.

It should be pointed out that introducing the concept of impairment losses is to implement the principle of prudence. As a result of impaired assets being written off the balance sheet and impairment losses charged against the income statement, the

value of the assets and profitability of a company are likely to be depicted in a more conservative way. The impact of the introduction of these provisions on listed companies was examined by Duan (2002), who found that altogether RMB 21 billion (nearly 0.5% of the total market capitalisation) was written off as the impairment losses by nearly 1,000 listed companies in both Shanghai and Shenzhen stock exchanges in 2001.

Chapter 5. VALUE-RELEVANCE OF CHINESE ACCOUNTING INFORMATION

5.1 Introduction

This chapter follows the tradition of empirical work in valuation theory by examining the market value of the firm in the form of regression analysis. Two generic accounting variables are explored: book value and earnings. As pointed out by Arce and Mora (2002), this study focuses on both book value and earnings for two reasons. First, a central feature of the accounting systems in the world is that the financial statements of companies are comprised of at least two components, namely the balance sheet and the income statement. Second, book value and earnings are the key variables in the theoretical accounting valuation model developed by Ohlson (1995).

The empirical study will be conducted at two stages. Chapter 5 will focus on the study at stage one and Chapter 6 at stage two. The emphasis of stage one is placed upon gaining an overall picture of the value-relevance of accounting information in the emerging Chinese capital markets. In fact, exploring the market valuation in the context of China is of particular interest. The reasons are twofold. Firstly, China's stock market is an emerging market. Despite its phenomenal expansion in size, the market displays a host of distinctive features which cannot be found in other markets. Putting China in a global perspective, Gao (2002) summarised the characteristics of the stock market into 14 points. These points are abnormal performance, tremendous volatility, insulated market, substantial government ownership, irregular expansion, influence of IPOs, typical emerging market, pyramid structure, unstable core, out performance of micro stocks, incredible speculation, manufacturing orientation, and disappointing earnings of companies. Secondly, China's accounting regulatory system is in a transition from serving the planned economy to suiting the needs of the market economy. As discussed in Chapter 4, while the new regulations have been mostly brought in conformity with international conventions, significant differences

between the Chinese rules and those in the IASs still exist. The striking features appearing on both the market side and accounting side of the market valuation theory seem to raise an intriguing question: although the market valuation theory proves to be true in most developed markets, does it hold in the unique context of China? In fact, to address this issue by exploring the association between market information and accounting information in China has both theoretical and practical implications - - if the accounting information disclosed by Chinese listed firms is found to be significantly associated with market values, it certainly provides evidence that the market valuation theory holds not only in developed markets but in emerging markets such as China.

Based upon the above, this chapter will elaborate the following two questions:

1. Is accounting information provided by Chinese listed firms value relevant? If the answer is yes, are there significant differences in terms of value-relevance of Chinese accounting information existing during the studied period and across industrial sectors?
2. Is there other accounting information playing a significant role in explaining the market value of listed firms? If yes, what is it?

Based upon the findings of stage one, the study at stage two will keep a sharp focus on the unique ownership structure in the Chinese listed companies. As discussed in Chapter 2, nearly all listed companies in China are transformed from the former SOEs. To ensure the control over the listed firms, the government holds two-thirds of the total shares in the forms of state shares and legal-person shares. What is more, the shares held by the government are not tradable on the open markets. China's corporate ownership structure featured by the exceptionally high level of government shareholding is distinctively different in comparison with the rest of the world. This actually provides an excellent laboratory for researchers to explore the market valuation from the perspective of ownership structure. As pointed out in Chapter 2, the excessive government shareholding has been the source of all sorts of problems prevailing in the Chinese stock market e.g. weak corporate governance, worsening agency problems, distortion of market prices and ferocious speculation etc. All these

problems have been explored and acknowledged by a wide range of people such as policy makers, market regulators, researchers, managers and investors. However, how does the market as a whole view the government shareholding? Does the government shareholding increase or decrease the market value of the firms in China? Does the state shareholding differentiate from the legal-person shareholding in explaining the market value? These questions are of particular importance because the research finding will enable us to understand a series of fundamental issues in the context of China and there issues are:

1. Is the government shareholding as a whole (state and legal-person shareholding) playing a significant role in explaining the market values of listed firms? If yes, what exactly is the association between the government shareholding and market values?
2. If the state ownership is taken alone, does it influence the market value of listed firms? Again, if the answer is yes, how does it associate with the market values?
3. Do the legal persons play a significant role in explaining the market values of listed firms in China? If yes, does the role of legal persons differentiate from that of the state?

The remainder of this chapter is organised as follows: Section 2 holds a discussion on the methodology by searching for a model used in this study. Section 3 is going to review the arguments surrounding the above three questions in the existing literature. Section 4 describes the data and definitions of the variables used in the regressions. Findings and discussion will be presented in Section 5.

5.2 The Search for the Market Valuation Model: Methodology

5.2.1 The discounted dividends model (DDM Model)

Finance theory has long accepted the discounted dividends model (DDM) as reflecting the correct equity value of a firm (King and Langli, 1998). The discounted dividends model suggests that the value of any financial claim is simply the present value of the cash payoffs that its claimholders receive. Since shareholders receive cash payoffs from a company in the form of dividends, from a theoretical perspective, the value of their equity is the present value of future dividends. The DDM model can be expressed as follows:

$$V_0 = \sum_{t=1}^{\infty} \frac{DIV_t}{(1+r_e)^t} \quad (5.1)$$

Where:

V_0 = the present value of the equity value of the firm

DIV_t = the dividend at time t

r_e = cost of equity capital (assumed constant)

The above equation can also be written as follows:

$$V_0 = \frac{DIV_1}{(1+r_e)} + \frac{DIV_2}{(1+r_e)^2} + \frac{DIV_3}{(1+r_e)^3} + \dots \quad (5.2)$$

The DDM model implies that a firm's equity value is a function of two factors: dividends in different periods and cost of equity capital. Note that the DDM views a firm as having an indefinite life. But in reality firms can go bankrupt or get taken over. In these situations shareholders effectively receive a terminating dividend on their stock.

Substituting accounting variables into the DDM, Ohlson (1991) developed the following expressions relating firm value and accounting variables. Under the assumption of clean surplus accounting, book value of equity changes only with income or loss, net capital investments and withdrawals (dividends) by owners, and all equity effects (other than capital transactions) should flow through the income statement. Thus, assuming no new capital, the expected book value of equity for existing shareholders at the end of year (BVE_1) is simply the book value at the beginning of the year (BVE_0) plus expected net income (NI_1) less expected dividends (DIV_1). This relation can be written as follows:

$$BVE_1 = BVE_0 + NI_1 - DIV_1$$

The above equation can be rearranged as follows:

$$DIV_1 = NI_1 + BVE_0 - BVE_1$$

By substituting this identity for dividends into the dividends discount formula and rearranging the terms, equation (5.2) can be rewritten as follows:

$$V_0 = \frac{NI_1 + BVE_0 - BVE_1}{(1+r_e)} + \frac{NI_2 + BVE_1 - BVE_2}{(1+r_e)^2} + \dots \quad (5.3)$$

This can be rewritten as follows:

$$\begin{aligned} V_0 &= \frac{NI_1 - r_e BVE_0 + BVE_0(1+r_e) - BVE_1}{(1+r_e)} \\ &\quad + \frac{NI_2 - r_e BVE_1 + BVE_1(1+r_e) - BVE_2}{(1+r_e)^2} + \dots \\ &= BVE_0 + \frac{NI_1 - r_e BVE_0}{(1+r_e)} + \frac{NI_2 - r_e BVE_1}{(1+r_e)^2} + \dots - \frac{BVE_t}{(1+r_e)^t} \end{aligned}$$

The above equation can be written as follows:

$$V_0 = BVE_0 + \sum_{t=1}^{\infty} \frac{NI_t - r_e BVE_{t-1}}{(1+r_e)^t} - \frac{BVE_t}{(1+r_e)^t} \quad (5.4)$$

Note that the term $NI_t - r_e BVE_{t-1}$ in Equation (5.4) is defined as the abnormal earnings. Abnormal earnings are net income adjusted for a capital charge computed as the discount rate multiplied by the beginning book value of equity. From the definition, it can be seen that abnormal earnings therefore make an adjustment to reflect the fact that accountants do not recognise any opportunity cost for equity funds used. The final term $\frac{BVE_t}{(1+r_e)^t}$ represents the present value of liquidating book value. As the forecast horizon expands, it becomes inconsequential. The value of equity is therefore the current book value plus the present value of future abnormal earnings.

$$V_0 = \text{Book value of equity} + \text{PV of expected future abnormal earnings}$$

Thus, the discounted abnormal earnings valuation model is

$$V_0 = BVE_0 + \frac{NI_1 - r_e BVE_0}{(1+r_e)} + \frac{NI_2 - r_e BVE_1}{(1+r_e)^2} + \frac{NI_3 - r_e BVE_2}{(1+r_e)^3} \dots$$

Alternatively, Equation (5.4) can be written as follows,

$$V_0 = BVE_0 + \sum_{t=1}^{\infty} \frac{NI_t - r_e BVE_{t-1}}{(1+r_e)^t} \quad (5.5)$$

Note that Equation (5.5) is an approximation because BVE_{t-1} approaches zero as t increases.

5.2.2 The discounted abnormal earnings model (DAE Model)

Equation (5.5) was also called Discounted Abnormal Earnings model (DAE) by Palepu et al. (2004) and was termed the Edwards-Bell-Ohlson Model (EBO) by Bernard (1995). By comparison with the DDM model, the DAE Model has following attractive attributes:

First, estimating the DDM model requires an analyst to forecast the complete future stream of the firm's net dividends. Rather than reflecting wealth creation, however, dividends reflect wealth distributions (Penman, 1992). Further, the timing of dividends is largely discretionary with growing firms often paying little or no dividends. Hence, estimation of the DDM model requires estimation of a terminal value that may be a large portion of total estimated value (King and Langli, 1998). In contrast, relying on known book values and estimated future accounting earnings, the DAE model establishes a bridge between the market value and accounting numbers. Because estimating future earnings is easier than estimating future dividends, the DAE model is an easier and more practical approach than the DDM model.

Second, since both models are defined over an infinite horizon, truncation to finite periods will require estimates of terminal value. However, the future values in the DAE model are abnormal earnings. Normal earnings (earnings that return the equity cost of capital) do not add value to value and may be ignored. Hence, the portion of total value represented by the terminal value is typically much smaller for the DAE model than for the DDM model. This is due to the inclusion in the DAE model of the opening book value, a measure of normal return on the firm's resources.

Third, the DAE model has another intuitive appeal. It implies that if a firm can earn only a normal rate of return on its book value, then investors should be willing to pay no more than book value for the stock. Investors should pay more or less than book value if earnings are above or below this normal level. Thus the deviation of a firm's market value from book value depends on its ability to generate 'abnormal earnings.' The DAE model also implies that a firm's stock value reflects the cost of its existing net assets (that is, its book equity) plus the net present value of future growth options (represented by cumulative abnormal earnings).

It is important to point out that the DAE model expresses firm value as a function of book value and expected future abnormal earnings over an infinite horizon. It can be simplified by making assumptions about the relation between a firm's current and future abnormal earnings. If abnormal earnings are assumed to follow a random walk, implying that the best guess about future expected abnormal earnings are current abnormal earnings. The random walk model can be written as follows:

$$\text{Forecasted } AE_1 = AE_0 \quad |$$

Forecasted AE_1 is the forecast of next year's abnormal earnings and AE_0 is current period abnormal earnings. Under the model, forecasted abnormal earnings for two years ahead are simply abnormal earnings in year one, or once again current abnormal earnings. In other words, the best guess of abnormal earnings in any future year is just current abnormal earnings. Based on the above, all future forecasts of abnormal earnings are simply current abnormal earnings. It is then possible to rewrite value as a perpetuity:

$$V_t = BEV_0 + \frac{AE_0}{r_e} \quad (5.6)$$

Equation (5.6) implies that under the random walk assumption equity value is the function of three factors: book value of equity at the beginning, the abnormal earnings at the beginning and the cost of equity capital.

Despite the attractive attributes the DAE model displays in comparison with the DDM model, the application of DAE model into the market valuation in the context of China is severely restricted by one factor – r_e – the cost of equity capital. The cost of equity capital is not an observable factor and needs to be estimated.

As indicated by Equation (5.5), the market value of a firm is expressed by the sum of the book value of equity plus the present value of expected future abnormal earnings. However, abnormal earnings are not directly observable variables. To obtain

abnormal earnings, three factors need to be known: the net income for the current year, the book value of equity for the previous year, and cost of equity capital. While the first two variables can be obtained from the financial statements, the cost of equity capital needs to be estimated. According to (Quiry et al., 2005), there are a variety of methods in which the cost of equity capital can be estimated. Among all the models the Capital Asset Pricing Model (CAPM model) is currently universally applied in practice. The CAPM model suggests that if all investors hold the market portfolio, the risk premium they will demand is proportional to market beta and it can be expressed as follows:

$$r_e = r_F + \beta * (k_M - r_F) \quad (5.7)$$

Whereby r_e is the required rate of return on a financial asset, r_F the risk-free rate, k_M the required rate of return for the market and β the sensitivity coefficient.

Despite its theoretical soundness and increasing popularity, the CAPM model presents some problems in practice, especially when it comes to determining the risk free rate, the required rate of return of the market and beta. Usually, to obtain these figures, historical figures from the capital market are needed. In many developed markets, there has been a long history of development of the capital markets. Therefore historical data and macroeconomic data are available. However, the capital market in China, in particular the stock market, is a rather recent development. The database for this study covers a period from 1994 to 2001 only. Without sufficient historical information, the task of estimating the cost of equity capital will become 'mission impossible'. This worry is actually shared by Quiry (2005) who pointed out that the 'anticipated' data cannot be observed directly in the market, and so forecasts must be done on the basis of historical data and macroeconomic data. For some countries, such as emerging nations, this is not easy!

5.2.3 The modified Ohlson model

Based upon three assumptions, Ohlson (1995) developed a valuation model that built a direct link between the market value and accounting information contained in the balance sheet and income statement – book value and earnings³¹. This modified model can be expressed as follows:

$$MV_{jt} = \alpha_0 + \alpha_1 BV_{jt} + \alpha_2 E_{jt} + \varepsilon \quad (5.8)$$

Where E_{jt} is the accounting earnings for firm j at time t .

In the field of market valuation, the modified Ohlson Model has been universally applied. By comparison with the DAE model and DDM model, this model exhibits a series of desirable features. Firstly, the modified Ohlson Model is theoretically consistent with the DAE model and DDM model because it is directly derived from the previous models. As pointed out by Ohlson (1955), the valuation model was built upon three straightforward assumptions. The first assumption is that the present value of expected dividends determines the market value. This assumption is actually in the spirit of the DDM model. The second assumption is that accounting data and dividends satisfy a clean surplus relation and dividends reduce book value without affecting current earnings. This clean surplus assumption is actually the one on which the development of the DAE model depends. Secondly, one can see that abnormal earnings which are not directly observable are replaced by accounting earnings which are available from the income statement. In other words, the modified Ohlson model has used the accounting earnings as a proxy for abnormal earnings. This replacement is rather desirable due to the great difficulties in estimating abnormal earnings. Therefore, this study is to use the modified Ohlson model as the foundation model.

³¹ These three assumptions are: 1) the present value of expected dividends determines the market value; 2) accounting data and dividends satisfy the clean surplus relation and dividends reduce book value without affecting current earnings; and 3) a linear model frames the stochastic time-series behaviour of abnormal earnings.

5.3 Arguments Surrounding Value-relevance of Accounting Information in Chinese Equity Market

5.3.1 Question 1: Is accounting information value relevant in China?

To explore this question, I start off my investigation on the relationship between market value and accounting data, including net profits and book value of equity. This is an issue of relative information content as discussed by (Biddle et al., 1997). As mentioned earlier, this study is to adopt the modified Ohlson model framework (1995) which suggests that market value is a simple linear function of earnings and book value, and conduct association tests between the market value and earnings & book value reported by the Chinese listed companies.

The modified Ohlson model is expressed as follows:

$$MV_{jt} = \alpha_0 + \alpha_1 BV_{jt} + \alpha_2 E_{jt} + \varepsilon$$

Where MV_{jt} is the market value of firm (j) at balance sheet date (t), BV_{jt} the book value, E_{jt} the earnings, and ε is a mean zero error term.

Adopting the above model, accounting researchers have carried out numerous studies (e.g. Landman 1986; Barth 1991; Barth et al., 1996; Eccher et al., 1996; Burstaher & Dichev 1997, Stark and Thomas, 1998; Arce and Mora, 2002) to explore the relative accounting information content in various countries. On the whole, they have found the evidence of value-relevance of both the balance sheet and income statement information in developed markets including the U.S., Canada, Australia, the U.K. France, Netherlands, Germany, Belgium, Spain and Italy etc.

This study extends this line of inquiry into the emerging Chinese stock market. As discussed earlier, because of the unique institutional settings of the Chinese market and significant differences between and the Chinese accounting regulations and the IASs, the result of this study have far-reaching implications for both theory and

practice in China and beyond. After all, accounting and financial reporting play a vital role in an efficient market. Major accounting standard-setting bodies such as the Financial Standards Board (FASB) and the International Accounting Standards Committee (IASC) have adopted this investor-oriented information usefulness perspective and specially stated that the primary purpose of accounting is to meet the needs of capital markets. Consequently, it is not surprising that an important objective of the Chinese accounting reform is to improve the usefulness of financial reporting in the stock market (Winkle et al., 1994, Xiang, 1998, Chen et al., 1999, Chen and Su, 2001).

Among the existing literature on market valuation in China's stock market, there are currently two competing schools of thoughts as to whether the Chinese accounting information is value relevant. While the dominant view appears to be that Chinese accounting information is not value relevant or at least not significantly value relevant, there is a belief that the market value can be explained by accounting figures contained in the financial reports published by listed companies in China.

To investigate whether the accounting information is value relevant in Chinese market, one needs to take an in-depth look at the capital market and the accounting system. The unique characteristics inherent in the Chinese capital market and the accounting system have provided ample reasons for researchers to be sceptical about the information content provided by the Chinese listed companies. As discussed by Chen et al. (2001), accounting information in the emerging Chinese market is not as value-relevant as in the developed market for a number of reasons.

First, despite the efforts of the accounting regulation setters to bring the Chinese accounting in line with international conventions, the Chinese accounting system is far from fully-constructed. As discussed previously, in a transitional period in which the old system has been abolished but the new system is still under construction, there are numerous unresolved issues in producing and disclosing accounting information, thus providing companies opportunities to manipulate accounting numbers for various purposes. The quality of accounting information disclosed by the listed companies has therefore been questioned in a large volume of literature (Xiao, 1999, Chen et al., 1997, Anderson, 2000). The quality of accounting

information poses an even bigger question when one takes into consideration the issue of investor protection. The mechanism to protect the interests of equity investors has yet to take its form given the relatively premature stock markets in China. The fact that the Chinese capital market is dominated by the government suggests that the accounting system is far from market oriented. Therefore protecting the interests of equity investors frequently has to give way to various government objectives despite of the slogan of CRSC: investor protection is our top priority. In a market with a severe lack of protection for equity investors, the incentives for listed companies to cheat far outweigh the risks. Therefore, as pointed out by Anderson (2000), company managers and directors might utilise company disclosure to perpetrate fraud so they might gain a listing or boost the stock's price. Investors may not be properly informed through company disclosures and could be at greater risk if they rely on this information.

Second, the accounting and auditing professions in China are not well developed given the relatively short history of the development of stock markets. While it is true that the establishment of the so-called 'Chinese Accounting Standards System' at the beginning of 2006 has symbolised that Chinese national accounting standards have been brought in line with international rules (McGregor, 2006a), the system will not work without enough competent accounting and auditing professionals. Independent auditing is a new phenomenon in China. Although it is required that financial statements of listed companies must be audited by CPAs, the quality of audits in China has been generally perceived to be low (Aharony et al., 2000). A relatively weak monitoring role by outside auditors may contribute to a lack of confidence in and less use of financial statements.

Third, compared to the mature market such as the U. S. and the U. K. market, the Chinese market lacks a sufficient level of corporate governance such as independent outside directors, audit committee, and competition in the managerial labour market, which weakens investor's confidence in their use of accounting information.

Fourth, unlike the U. S. and U.K. market where most transactions are executed by institutional shareholders who have the know-how to analyse and therefore depend on the accounting information, Chinese stock markets are mainly participated in by

individual investors motivated by short-term returns and with limited access to information. The so-called insider information or even rumours, rather than public accounting information released by the listed companies, play an important role in determining share prices. This weakens the investor's reliability upon the financial statements.

However, there are also reasons to believe that accounting information is useful and thus incorporated in stock valuation in the Chinese market. As a new market, it lacks alternative information sources other than published accounting reports such as earnings forecasts and company research by financial analysts, and management's conference calls. While individual investors are active in the market, the investment profession in China is not well established and comprises only a small number of financial analysts and institutional investors. Most transactions are undertaken by individual investors. As a result, price may be less informative and accounting information may contain more surprises in the Chinese market, both of which lead to an increased reliance upon accounting numbers by investors. Second, the government has made considerable efforts since the start of the Chinese stock market to improve accounting and financial reporting. As mentioned before, it has been announced by the government that the Chinese Accounting Standards System has been established and will take effect from 1st January 2007. These efforts may have had a positive impact on the efficiency of the market and the confidence of Chinese investors in accounting numbers.

Since there are reasons both to believe and to be sceptical about the value-relevance of Chinese accounting information, it is more an empirical question of whether accounting information is useful to domestic investors in China as measured by the contemporaneous associations between accounting numbers and stock valuation. Hence, this issue will be explored by providing empirical evidence.

Two existing studies examine the value-relevance of accounting information in China. Focusing on the financial reports prepared under both Chinese GAAP and IASs by B-share companies, Bao and Chow (1999) examine the relative value relevance of two sets of accounting information of Chinese listed companies which issued B shares to foreign investors on the Chinese stock exchanges. Overall, they

find that earnings and book value reported based on both Chinese GAAP and IAS are value relevant, with the latter having greater information content than the former.

However, this study suffers from two potential problems. First, this study utilises B-share prices to proxy for the market value of the firms. This obviously creates a serious drawback in that B-share prices have long been under-priced due to the relatively low trading volume in the B-share market (Gao, 2002). Therefore, including B-share prices and A-share earnings and book value simultaneously in one model may imply an association which is not consistent with actual practices in the market. Second, this study focuses on the B-share market only, but the B-share market has always been dominated by the A-share market. The B-share market is known for its lack of liquidity. As a result, the small trading volume may not allow stocks prices to fully reflect new information in the market. For example, a substantial number of B shares on the Shanghai Stock Exchange are priced under US\$ 0.10. An increase or a decrease in the stock price amounting to one cent (the minimum change) would effectively lead to a suspension of trading due to the trading rule on maximum daily price variation (10 per cent) set by Shanghai and Shenzhen stock exchanges. . Furthermore, B shares are supposed to be traded by investors outside China. These investors may not have access to Chinese GAAP-based financial reports, which are published domestically in Chinese. The reconciliation of GAAP discrepancy is required to be disclosed only with the A-share reports. Consequently, the value relevance of accounting information with respect to foreign investors in the B-share market does not necessarily imply that domestic investors will respond to accounting information in the same way in the A-share market. It is important to point out that the A- and B- share markets Chinese market are actually segmented by the government policy. Foreign investors are not allowed to enter the A-share market and Chinese investors to B-share market. It is likely that these two markets behave substantially differently in terms of incorporating the accounting information. Therefore, focusing on the B-share market which is isolated from A-share market does not provide a full picture of the value-relevance of the Chinese market.

Utilising both the return and price model and using a sample of all listed firms in the Shanghai and Shenzhen Stock Exchanges from 1991 to 1998, Chen et al. (2001)

empirically investigate whether investors in the Chinese stock market perceive accounting information based on Chinese GAAP to be value-relevant. Specifically, they address three research questions: 1) Is the accounting information based on Chinese GAAP value relevant in the Chinese stock market? 2) Does value relevance in China change in a predictable manner? 3) Do investors place more weight on accounting information in companies issuing A shares only relative to companies issuing both A and B shares? They find that, collectively, accounting information is value relevant to investors in the Chinese market.

While it is appropriate that Chen et al. (2001) choose the A-share listed companies as the sample of the research, their study is subject to some restrictions on data. First, the data obtained in the study covers a period from 1990 to 1998. The data from 1990 to 1994 cannot be used for the study because of the relatively small sample size during the early years. Therefore the period studied contains only 4 years, namely 1995, 1996, 1997 and 1998. This short period of time might not pose a problem in the mature and developed market; however, in an emerging Chinese market which is growing at the explosive pace, the study needs to be updated quickly. Second, the study chooses net income per share as the proxy for earnings. However, net income as the measure of earnings suffers from a potential problem in that it incorporates transitory components that could be misleading (Collins et al., 1997). Another measure of earnings, earnings before non-recurring items, is perceived to better capture the permanent component of earnings. However, Chen et al. (2000) have not tried to capture the effect of the earnings before non-recurring items in explaining the value relevance of the accounting information.

This study extends current research in that: 1) it will explore the issue of value relevance by focusing on the A-share market, the dominant stock market in China, by using data exclusively prepared by A-share companies; 2) it will capture the latest change of the market and the accounting system by expanding the data period to 9 years spanning from 1994 to 2001; 3) it will compare the effects of choice of proxies for earnings by using both measures of earnings (earnings before non-recurring items and net income) to test the valuation model. It is important to point out that the value-relevance of accounting information in China is a fundamental issue because accounting information is primary source of public information in the Chinese

market (Chen et al. 2001). After all, the purpose of various measures taken by the Chinese government to improve accounting and financial reporting is to increase the usefulness of accounting information.

To address the above questions empirically, I will estimate the modified Ohlson model by regressing the market value on book value and net income. The investigation will be carried out by taking the following steps:

Step 1: To capture the overall picture of value-relevance of accounting information in the Chinese market, I will run the regression of market values on book values and net income based on the pooled and cross-sectional data. Coefficient of the variables, α_1 and α_2 , and determination coefficient, the adjusted R^2 should be able to provide the preliminary evidence to address the question.

Step 2: To identify the changes over the years, the modified Ohlson model will be estimated by using the yearly data. Changes of the adjusted R^2 will be investigated.

Step 3: To examine the value-relevance differences across sectors, the modified Ohlson model will be estimated by partitioning data into 12 sectors. According to the Mandate on Sectors of Listed Companies (MSLC) issued by the CSRC in 2001, listed companies in China are classified into 13 sectors: farming, forestry, animal husbandry & fishing, mining, manufacturing, utilities, construction, transportation & warehouse, information technology, wholesale & retailing, finance & insurance, real estates, public services, communication & cultural, and conglomerate. Firms in the finance and insurance sector are excluded from this study due to their unique asset make-up and special requirements on financial reporting. I am therefore going to investigate the differences in value-relevance of the accounting information across the remaining 12 sectors.

5.3.2 Question 2: Is other accounting information value relevant?

So far the model I am using to investigate the value-relevance of earnings and book values in the Chinese market is the modified Ohlson model. However some other accounting information, which might contribute to explaining the market value, needs to be examined in order to gain a further insight into the value-relevance of accounting information in the Chinese capital market. It is important to point out that there are limitations in using the modified Ohlson model to examine the value relevance of accounting information in that the modified Ohlson model focuses on only two accounting variables: earnings and book value. Other accounting numbers are not included in the model. However, research work can be conducted by adding some more accounting variables into the modified Ohlson model. The primary objective of this section is to further investigate the effect of adding more accounting variables on the overall explanatory power of the model. If the overall R^2 s increase as a result of adding more accounting variables and the coefficient on the added variables is statistically significant, I shall have a reason to believe that adding the accounting variables might help explain the market value of the firm.

5.3.2.1 Ball and Brown model

Following Ball and Brown (1968) and Beaver et al., (1979) who examine the association between stock returns and accounting earnings, I start off my investigation by a simple model which suggests that market value is a simple linear function of accounting earnings (net income). Letting MV_{jt} represent market value for firm j at time t and NI_{jt} represent the net income for the firm j for the accounting period ending at time t , I initially investigate the following model:

$$MV_{jt} = \alpha_0 + \alpha_1 NI_{jt} + \varepsilon \quad (5.9)$$

Where ε is a mean zero error term which has constant variance σ^2 and $\text{cov}(\varepsilon_i, \varepsilon_j)$ is zero. Model (5.9) can be interpreted that firms are priced by a constant price-earnings multiple if α_0 is zero.

5.3.2.2 Extension of Ball and Brown model: the modified Ohlson model

The second model extends Model (5.9) by including BV_{jt} , the book value for firm j at time t . As a consequence, the model investigated is:

$$MV_{jt} = \beta_0 + \beta_1 NI_{jt} + \beta_2 BV_{jt} + \varepsilon \quad (5.10)$$

Where ε has the same characteristics as Equation (5.9).

Note that Model (5.10) is actually the modified Ohlson model. The modified Ohlson model is widely believed to be superior to the Model (5.9) in that both balance sheet and income statement information, book value and earnings, has been linked to market values. Empirical evidence in the developed markets (Arce and Mora, 2002, Ohlson, 1995, Stark and Thomas, 1998, Ohlson, 1991) suggests that the addition of such a term improves the overall ability to explain market values. However, this line of research has not been extended to the emerging Chinese market. This study will contribute to the literature by investigating the issue whether including both book values and net income will enhance the value relevance in the context of Chinese market.

Another point worth of mention is β_2 , the coefficient of variable BV_{jt} . It is conceived that β_1 measures the relationship between the market value and book value. In the context of China, it shall be expected that β_2 is significantly greater than 1 on the ground that Chinese accounting rules require firms to write down the value of assets under the lower of cost or market accounting, but asset write-ups to the market value are prohibited. As mentioned earlier, Chinese listed firms are required to review the value of eight categories of non-cash assets periodically, at

least at the end of the accounting year, following the issuance of the Tentative Accounting Regulations for Shareholding Companies in 1998 and Accounting System for Business Enterprises in 2000 (Yang et al., 2005). Under these rules, impairment losses should be recognised and the value of the assets written down if the assets are found to be impaired. However, the assets are not permitted to mark upwards in the event that the market value of assets exceeds the book value. As a consequence, it is likely that assets of Chinese firms are under-valued under the prevailing accounting regulations. The divergence of market value from book value caused by the existing accounting practice is expected to be reflected through β_2 which is predicted to be significantly greater than one³².

5.3.2.3 Extension of the modified Ohlson model: the effect of abnormal earnings

It is important to point out that the DAE model expresses firm value as a function of book value and expected stream of future abnormal earnings (Ohlson, 1991, Ohlson, 1995). However, when the DAE model is replaced by the modified Ohlson model, the bottom-line net income was used to proxy for the abnormal earnings due to the fact that the abnormal earnings variable is not directly observable. Although using net income to proxy for abnormal earnings is a common practice in most empirical studies in the field of value relevance (e.g. Harris et al., 1994; Collins et al., 1996; Barth et al., 1998; Arce and Mora, 2000; Chen et al., 2001; Bai et al., 2003; Sami and Zhou, 2004), it is still worthwhile to investigate whether the modified Ohlson valuation model can be better estimated by choosing an alternative proxy for abnormal earnings. After all, there are fundamental differences between abnormal earnings and bottom-line net income. The net income, derived directly from the income statement, has been widely criticised for low-quality and lack of relevance to market value (Stewart, 2002). By contrast, abnormal earnings are net income adjusted for a capital charge computed as the cost of equity capital multiplied by the

³² In the literature, β_2 is often referred to as Tobin's Q if the assets are recorded at replacement cost. Here the assets are shown at realisable value. However, in the active asset markets there will be no difference between replacement cost and realisable value.

beginning book value of equity. Abnormal earnings therefore make an adjustment to reflect the fact that accountants do not recognise any opportunity cost for equity funds used (Palepu et al., 2004).

The next model, therefore, specially investigates the value-relevance of an alternative proxy for abnormal earnings. Abnormal earnings, by definition, can be written as follows:

$$AE_{jt} = NI_{jt} - k_{jt} BV_{j(t-1)}$$

Where:

AE_{jt} is the abnormal earnings for firm j for the annual accounting period ending at time t ;

NI_{jt} is the net income for firm j for the accounting period ending at time t ;

k_{jt} is the cost of equity capital;

$BV_{j(t-1)}$ is the book value for firm j at time $t-1$

Therefore, extending equation (5.10) to reflect abnormal earnings requires the investigation of the following relationships:

$$MV_{jt} = \chi_0 + \chi_1 NI_{jt} + \chi_2 BV_{jt} + \chi_3 (NI_{jt} - k_{jt} BV_{j(t-1)}) + \varepsilon$$

The above equation can be expressed as follows:

$$MV_{jt} = \chi_0 + (\chi_1 + \chi_3) NI_{jt} + \chi_2 BV_{jt} - \chi_3 k_{jt} BV_{j(t-1)} + \varepsilon \quad (5.11)$$

This equation can be written as follows:

$$MV_{jt} = \delta_0 + \delta_1 NI_{jt} + \delta_2 BV_{jt} + \delta_3 BV_{j(t-1)} + \varepsilon \quad (5.12)$$

Where $\delta_3 = \chi_3 k_{jt}$, note that $k_{jt} = k_t = k$ and k is a constant in the regression.

Note that Equation (5.12) does not explicitly include abnormal earnings term. Rather, it includes opening book value, $BV_{j(t-1)}$, as a separate term to capture the capital charge element of abnormal earnings with a coefficient that is freely estimated. As a consequence, if abnormal earnings are to be regarded as helpful in explaining market value I would expect:

$$\delta_3 < 0$$

5.3.2.4 Further extension of DAE model: the effect of dividends

The other potential problem that the modified Ohlson model suffers is that dividend has not been considered in estimating the model. Note that the modified Ohlson model is built upon the theoretical foundation that equity value is the present value of future dividends. Therefore, dividends play a critical role in explaining the market value of the firm. By comparison with earnings and book values whose value relevance has been documented in a large volume of accounting literature, dividends frequently provide even more reliable and useful indication of the profitability and financial conditions of the firm. The market therefore places heavy weight on the dividend policy when valuing the market price of the firm. The financial information that investors obtain from companies may be biased by selective disclosure or even manipulative accounting. Managers are naturally inclined to present the company in the best possible light, even if the image they convey does not represent the truth. Companies that are really profitable will therefore seek to distinguish themselves from others that are not, through policies that latter cannot imitate because they lack the resources to do so. Quiry et al. (2005) argue that paying dividends is one such policy because it requires the company to have cash. A company that is struggling is not able to imitate a company that is prospering. For this reason, dividend policy is a mean of signalling that cannot be faked, and managers often use it to convince the market that the picture of the company they present is the true one.

Not only are dividends more reliable in providing the true picture of the financial conditions of the company, but also dividend policy is widely viewed as a way for

the company's managers to signal the growth opportunity of the company. Companies frequently show the market that they have a plan for the future and are anticipating certain results through their dividend policies. If a company maintains its dividend when its earnings have decreased, that signals to the market that the decline is only temporary and earnings growth will resume. Furthermore, dividends are widely seen as a better signal of future abnormal earnings than abnormal earnings itself.

To assess the effect of dividends, I further extend the Model (5.12) by including a dividend variable into the model.

$$MV_{jt} = \phi_0 + \phi_1 NI_{jt} + \phi_2 BV_{jt} + \phi_3 BV_{j(t-1)} + \phi_4 DIV_{jt} + \varepsilon \quad (5.13)$$

It is important to appreciate that in the theoretical model $BV_{j(t-1)}$ would disappear as an explanatory variable once dividends are introduced. To see this note that from the accounting identity:

$$BV_{j(t-1)} + NI_{jt} - DIV_{jt} = BV_{jt}, \text{ or, } BV_{j(t-1)} = BV_{jt} - NI_{jt} + DIV_{jt}$$

Therefore we can have the following equation by substituting the above identity into Equation (5.11):

$$MV_{jt} = \chi_0 + (\chi_1 + \chi_3 + \chi_3 k) NI_{jt} + (\chi_2 - \chi_3 k) BV_{jt} - \chi_3 k DIV_{jt} + \varepsilon$$

As can be seen from the above equation, $BV_{j(t-1)}$ disappears as the dividend variable is introduced. This, of course, assumes that the stock market understand the accounting structure. In reality, it may well be that the market as a whole does not fully appreciate the above theory. Therefore, including $BV_{j(t-1)}$ into the model as stated in Model (5.13) can be used as one of the methods to test the market's capabilities of understanding market valuation theory.

5.4 Variables and Data

5.4.1 Discussion of the variables

Before running regressions, a brief discussion on the above variables is provided as follows:

5.4.1.1 MV_{jt}

For the dependant variable, the market value for a firm in a given calendar year is measured at two different dates: one on the 30th April of the next year or the nearest trading day and the other on the 31st December of the year or the nearest trading day. The reason to measure the market value in 4 months after the balance sheet date is that Chinese listed companies are required to disclose their annual accounts by the 30th April of the next year. The market value around 4 months after the balance sheet was taken to ensure that the information in the financial statement for a given financial year is reflected in the market price. Also, I take the market value measured at the end of the year to further examine whether market value measured at different dates will make a difference in applying the above valuation model. Note that estimating the modified Ohlson model by taking market values at two different dates will be applied in addressing question 1 only. If there is no significant difference, the rest of the study will use the market value data at the end of the year. If the market value at the 30th April of the next year is found better than that at the end of the year in estimating the model, the former will be used for the rest of the study.

Tests on whether the market value at the end of April of next year is preferable over the market value at the end of the year have been undertaken by regressing the two market values on book value and net profits separately. However, no significant difference between these two sets of market values has been identified³³. Therefore, I

³³ The empirical results are presented in the Appendix E

will use the market value at the end of the year. The reason for this is that if the market value at the end of April of next year is used, I will lose the sample in 2001 because the MV_{jt} in 2001 is measured at the market value at the 30th April 2002. However, data in 2002 is not available.

5.4.1.2 E_{jt}

Note that E_{jt} in the model refers to the bottom-line accounting earnings, namely the net profit. From the economic perspective, however, the net profit based on the generally accepted accounting principle is somehow subject to serious distortions (Palepu et al., 2004). The most evident example is the treatment of R&D. The accounting rules in China, as well as elsewhere, requires firms to expense research outlays immediately when they are incurred. Clearly, some research expenditures have future value while others do not. However, because Chinese GAAP does not allow firms to distinguish between the two types of expenditures, it leads to a systematic distortion of reported accounting numbers including the net profit. As a consequence, accounting earnings under the current Chinese regulations normally include an expense investment in intangibles such as R&D expenditures. To restore the distortions caused by accounting rules and to capture the effect of R&D in explaining the market value, Stark and Thomas (1998) investigated the empirical relationship between market value and earnings by segmenting the measure of earnings into two components— $(E_{jt} + RD_{jt})$ and RD_{jt} . Based on the evidence from the UK market, they find that market value is better explained if earnings are segmented into R&D expenditures and earnings plus R&D expenditures.

It therefore would be ideal for this study to adopt the same method to examine if this is the case in the emerging capital market, the Chinese stock markets. However, the R&D data in most Chinese listed companies are not available as Chinese companies are not required to disclose R&D expenditures in financial reports. Further research in this area is needed to examine the effect of R&D expenditures in explaining market value when the R&D data are available.

Furthermore, to extend the line of research of Chen et al. (2001), this study is going to use both net profit, the bottom-line figure from the income statement, and earnings before exceptional items to proxy for the earnings. It is widely accepted that net earnings before non-recurring items might be preferable to net income as the exceptional items have little associations with the ordinary operations of the firm (Arce and Mora, 2002). A true and fair picture of the profitability of the firm can be seriously biased as the result of the non-recurring items, such as disposal of assets and subsidies from the government etc., being included. As mentioned before, to incorporate transitory components in the net profit could mislead investors (Collins et al., 1997). However, the empirical evidence supporting the preference of earnings before non-recurring items over net profits as the proxy for abnormal earnings seems to be lacking in the literature. Therefore it would be rather interesting to see if there is any significant difference by using these two sets of data in the context of Chinese equity markets. Using data for both net profits and earnings before exceptional items, this study will investigate the difference between net profits (NP) and earnings before exceptional items (EBEI) based on the empirical evidence. It is noted that the earliest year in which Chinese listed companies were required to disclose EBEI in the financial reports was 1999. Therefore, the data for testing the difference between NP and EBEI cover a three-year period from 1999 to 2001. If EBEI is found not to be superior to NP in explaining the market value of the firm, NP data will be used throughout this study because NP data span an eight-year period from 1995 to 2001.

Tests on whether earnings before exceptional items are preferable over net profits have been carried out by regressing the market values on book value and earnings before exceptional items, and on book value and net profits separately. However, no significant difference between these two market values has been identified³⁴. For the reason suggested earlier, net profits will be used throughout the study.

³⁴ The empirical results are presented in the Appendix E

5.4.1.3 BV_{jt} and $BV_{j(t-1)}$

Book value is measured as the sum of the shareholder equity plus various reserves at the end of the year. To be more specific, BV is derived from the following equation:

$$BV = \textit{Share capital} + \textit{Capital reserve} + \textit{Surplus reserve} + \textit{Retained profits for the financial year}$$

It should be noted that benefit reserve in the owner's equity, which accounted for 5-10 per cent of the profits after tax, has not been included in the book value as the fund in this account is solely used to provide benefits for employees and managers of the firm. Although in nature it belongs to shareholders of the firm, in practice shareholders don't have any beneficial interests in this fund. Including the benefit reserve would therefore overstate the book value of equity.

5.4.1.4 DIV_{jt}

Cash dividends for common shares for firm j at time t are taken from the database to capture the effect of including dividends into the model.

5.4.2 Description of the data

The sample of listed companies used in this study was obtained from the China Stock Market and Accounting Research Database (CSMSAR database) jointly produced by the Research Centre for China Accounting and Finance Hong Kong Polytechnic University and Shenzhen GTA Information Technology Limited Corporation, and China Corporate Governance Research Database (CCGR Database) produced by the Shenzhen GTA Information Technology Limited Corporation. The databases consist of enterprises which issued A-shares on both Shanghai Stock Exchange and Shenzhen Stock Exchange from 1992 to 2001. However, this study selected a period spanning from 1994 to 2001 for two reasons. Firstly, China experienced a substantial change in its accounting practices in 1993 following the promulgation of ASBE – Basic Standard by the MoF, which became effective on 1st July 1993 (Sun and Tong, 2003). In effect, ASBE – Basic Standards brought China’s accounting practices much in line with international conventions. This study excludes the data before 1994 to ensure the relative consistency of the accounting regime and to facilitate the comparability of the data across years. Secondly, China established the Shanghai and Shenzhen stock exchanges in December 1990. At the early stage of development of the stock markets, the number of listed companies was significantly smaller than that in later years. As indicated in Chapter 2, there were altogether 10, 14, 53 and 183 listed companies on both the stock exchanges in 1990, 1991, 1992 and 1993 respectively. These are negligible by comparison with more than 1000 listed companies after 2000. This study excludes the data in the earlier years to eliminate the problems caused by small samples and to ensure the steadiness of the data.

For a firm to enter into any annual cross-section, it must satisfy, for that year, the following condition:

1. All the required data described above must be available for that calendar year from the CSMAR Database.
2. Firms in the financial sector (insurance, banks, investment companies etc.) are excluded from the data due to their unique characteristics. Accounting

practice for these firms is so distinct that their valuation parameters are likely to be substantially different from that for industrial firms.

3. Firms with negative book value are also excluded from the data because negative book value derived from the above formula is mainly caused by the extraordinary losses for the year, but bears no economic sense.

It should be stressed that data in year 1994 are used in this study; however, they are not presented in the tables for analytical purposes. This is because the opening market value (MV_{t-1}) is used to deflate all the variables in the regression models. Following the methods taken by Stark and Thomas(1998), all the variables in the regression models are deflated by the opening market value (MV_{t-1}) to correct the heteroscedasticity problem. Data in year 1994 cannot be used for analytical purposes because the closing market value data (MV_t) in 1993 are needed to get the deflated data for 1994. However, data before 1994 are not included in the databank used by this study for the reasons mentioned earlier.

The sample selection criterion results in sample size of 174 firms in 1995, 243 firms in 1996, 362 firms in 1997, 493 firms in 1998, 594 firms in 1999, 740 firms in 2000 and 914 firms in 2001. In total, the pooled number of observations for this study is 3520. The distribution of sample firms by exchanges and years is presented in Table 5.1.

Year	Shanghai Stock Exchange	Shenzhen Stock Exchange	Total
Total	1823	1697	3520
1995	97	77	174
1996	144	99	243
1997	209	153	362
1998	261	232	493
1999	306	288	594
2000	357	383	740
2001	449	465	914

Table 5.1 Sample distribution of firms by years and stock exchanges

As further investigation over the market valuation of Chinese equity market across industrial sectors will be carried out as the study goes deeper, it is therefore useful to present the sample distribution by sectors and years. As mentioned earlier, Chinese listed companies are classified into 13 sectors and finance and insurance companies are excluded from this study, the sample distribution by sectors and years is presented on Table 5.2. Two striking features about the samples are worth mention. Firstly, more than 50% of the observations are clustered around the manufacturing industry in this study, indicating that manufacturing companies are the dominant factor of the equity markets in China. Secondly, there are only 16 observations in the mining industry. This study will further exclude the mining industry from the sample due to the exceptionally small sample size.

Sector	Year							
	1995	1996	1997	1998	1999	2000	2001	Total
Agriculture	2	2	6	8	10	15	23	66
Mining	0	0	1	1	2	3	9	16
Manufacturing	78	112	162	229	298	399	519	1797
Utility	6	8	12	17	18	24	33	118
Construction	1	2	3	7	9	12	16	50
Transportation & Warehousing	4	6	12	15	21	25	32	115
Information Technology	13	14	21	28	33	41	47	197
Retail & Wholesaling	20	31	49	67	75	76	85	403
Services	16	21	25	27	26	28	27	170
Real Estate	2	4	12	22	24	32	36	132
Communication & Culture	5	5	5	6	6	8	9	44
Conglomerate	27	38	54	66	72	77	78	412
Total	174	243	362	493	594	740	914	3520

Table 5.2 Sample distribution of firms by years and industrial sectors

The summary descriptive statistics of the variables used in the study are presented in Table 5.3.

Variable	Mean (million)	S.D. (million)	Minimum (million)	Median (million)	Maximum (million)
<i>Panel A: Pooled data</i>					
MV	3,261.20	5,744.47	195.00	2,247.63	299,123.42
BV	834.67	2,385.38	-1,923.00	508.50	139,040.00
NP	59.00	261.79	-2,257.00	38.91	14,018.00
DIV	29.02	125.00	-13.50	4.40	6,936.00
<i>Panel B: Data in different years</i>					
1994					
MV	1,469.27	2,165.33	195.00	832.65	14,997.00
BV	610.77	1,100.50	68.12	345.83	10,586.00
NP	79.51	141.36	-26.06	41.20	1,493.47
DIV	38.66	83.00	0	15.00	818.75
1995					
MV	1,281.30	1,962.13	205.25	672.11	14,803.00
BV	651.89	1,143.26	65.80	353.75	10,565.00
NP	64.71	167.40	-254.10	28.18	2,126.80
DIV	39.05	75.67	0	18.43	851.50
1996					
MV	2,210.24	3,993.95	301.98	1,260.46	43,005.00
BV	599.55	1,058.23	51.43	333.97	11,940.00
NP	48.36	96.65	-234.22	30.07	1,144.82
DIV	19.73	60.53	0	0	858.00
1997					
MV	2,580.63	3,419.07	397.78	1,608.21	31,860.00
BV	661.12	1,037.52	7.80	393.54	12,593.00
NP	53.85	98.49	-515.64	39.48	794.35
DIV	26.10	54.17	-13.50	6.90	526.62
1998					
MV	2,463.74	2,435.84	292.30	1,742.29	20,880.00
BV	713.77	963.42	-320.07	465.84	12,581.00
NP	44.03	134.80	-1,044.00	41.16	809.46
DIV	18.16	52.41	-1.19	0	620.69
1999					
MV	3,050.67	3,123.91	572.84	2,191.13	31,992.00
BV	749.56	995.48	-1,285.00	509.68	12,959.00
NP	56.51	120.31	-956.98	41.94	834.60
DIV	20.69	52.91	0	0	588.00
2000					
MV	4,783.25	4,452.26	965.76	3,558.77	69,942.00
BV	919.74	1,364.24	-1,320.00	592.08	25,282.00
NP	68.80	176.30	-934.79	44.91	2,992.10
DIV	31.47	81.06	0	11.50	1,722.15
2001					
MV	3,985.55	9,943.44	573.09	2,660.15	299,120.00
BV	1,132.12	4,520.33	-1,923.00	635.37	139,040.00
NP	62.56	483.04	-2,257.00	35.71	14,048.00
DIV	39.67	231.31	-0.30	9.61	3,936.00

Table 5.3 Basis descriptive statistics for variables

Panel A shows the basic descriptive statistics for the cross-sectional and pooled data. The average market value, book value, net profit and dividend for ordinary shareholders are RMB 3,261.20, 834.67, 59.00, and 29.02 million respectively. What strikes out of these figures is the great divergence of the market value and book value, with the former nearly 4 times as high as the latter. A number of factors are likely to be able to explain the difference. First, the Chinese stock market experienced explosive growth during the 1990s (Gao, 2002). The impressive returns delivered by the fast-growing market attracted the investments to flood into the stock market. As a consequence, market demands for shares grew at a massive pace. As discussed in Chapter 2, the imbalance between supply and demand was further worsened by the government's quota system, which considered listing for state-owned companies exclusively. A large number of non-state-owned companies were kept out of the game. Unsurprisingly, share prices were driven to a sky high during the 1990s. Second, the accounting practice prohibiting revaluation of assets upwards to the market value can partially explain the divergence between market values and book values. As discussed in Chapter 3 and 4, under the existing regulations, eight classes of assets are required to mark downwards if assets are found to be impaired. However, revaluation of assets upwards to the market value is not permitted by the existing regulations. The effect of these accounting practices is that assets are likely to be under-valued, hence causing the market value to depart from the book value.

Panel B presents the statistics by years. Overall, the average market value of the listed company in China has been on the increase from RMB 1,469.27 million in 1994 to RMB 3,985.55 million in 2001 with slight fluctuations in 1995, 1998 and 2001. The similar trend could be observed by looking at the median value.

The most striking phenomenon is the huge increase in the mean value of market value occurring in 2000. The average market value jumped from RMB 3,050 million to RMB 4,783 million, an increase of more than 50%. The median value provides the similar story (from RMB 2,191 million to RMB 3,558 million). By sharp contrast, the increase in the average book value (from RMB 749 million to RMB 919 million) was only 23%. The story behind the abnormal increase in the market value is intriguing. Again, political power was playing a vital role in this wave of unusual price increase. An editorial published by The People's Daily, a powerful propaganda

tool of the government, on 19th May 1999, has signalled the government's determination to develop the stock market (He, 2004). Unsurprisingly, investments in shares peaked in the following year, hence pushing share prices and market values to a new high.

Another point worth noticing is the sharp decline in 2001. The market value soared up to RMB 4,783.25 million in 2000 and then plunged significantly to RMB 3985.55 million in 2001. The reason for this sharp downturn is mainly attributed to the issuance of 'The Contemporary Measures to Raise Capital for Social Security Funds by Decreasing the State Share-holding in the Listed Companies' by the State Council on 13th June 2000. The new policy required listed companies to sell the state shares to the public at market prices. Capital raised through the sales of state shares would be injected into the social security funds. The government's decision to sell the non-tradable state shares at the price of tradable shares has caused panic and anger among investors. With investors pulling capital out of the stock markets, the market value of the firm could only go down, triggering the most serious market crash since the beginning of the stock market in China since the 1990s. In response to the pressure from the market, the State Council finally abandoned the policy in June 2001. However, feared that the government is likely to issue the similar policies in the future, the stock market has not fully recovered.

5.5 Findings and Discussion

5.5.1 The overall picture of value-relevance in China

Estimating the modified Ohlson Model for the pooled cross-section and time-series sample as well as for each year, I obtained the results of regressions in Table 5.4. Before jumping into findings and discussion, one needs to be reminded that all the variables in the equation has been deflated by the opening market value, $MV_{j(t-1)}$. The reason for this is, as discussed earlier, to correct the heteroscedasticity problem.

As shown by the coefficients for net profit and book value based on the pooled data, the two independent variables, net profit and book value, are both significant at $\alpha < 0.01$ level. This suggests that overall the accounting information reported by the Chinese listed firms is playing a significant role in explaining the market value. It also indicates that investors in the Chinese equity markets do rely on financial reports when making investment decisions. In addition, the regression results from the yearly sample lend further support to the claim that net profit and book value provide explanatory power to the market value. As shown in Table 5.4, with the exception of the book value in 1999 and 2000, net profit and book value are consistently perceived as value relevant (at $\alpha < 0.01$ level) by investors in China in most of the years studied although coefficients vary substantially from year to year.

To further investigate the question of whether Chinese accounting information is value relevant, the modified Ohlson model has been estimated based on the data across sectors and the regression results are presented in Table 5.5. It can be found that the coefficients for book value are significant at $\alpha < 0.01$ or $\alpha < 0.05$ levels in all the sectors studied, and coefficients for net profit are significant $\alpha < 0.01$ or $\alpha < 0.05$ levels in most sectors with the exception of transportation & warehousing, social services and real estate. Overall, these results provide further empirical evidence to suggest that book value and net profit do play a significant role in valuing the listed firms across various industries. Based upon the regression results from the pooled, yearly and across-sector sample, it seems that I can conclude that accounting

information as reflected in the income statement and balance sheet is value relevant to investors in the Chinese equity market.

It seems that the results of this study is consistent with those of Bao and Chow (1999) and Chen et al. (2001), who documented the value-relevance of Chinese accounting information in their studies. These results are particularly intriguing if one takes into consideration all the seemingly convincing reasons listed by those who are sceptical about the value-relevance of Chinese accounting information. Despite the fact that Chinese equity market is an emerging market and the development is at the early stage and despite all the criticism over the quality of Chinese accounting information and the legal settings of accounting regulatory framework, financial reports disclosed by Chinese listed companies do contain significant value-relevance not only on the pooled basis, but also across years and sectors. In particular, the record of value-relevance of accounting information can be traced back to as early as 1995. As can be seen from Table 5.4, coefficients for book value and net profit are both significant at $\alpha < 0.01$ level, suggesting that accounting information such as book value and net profit do provide key information in terms of valuing listed companies even in 1995, when the Chinese stock market was at its infancy and Chinese accounting regulatory system just began to undergo a dramatic transition to cater for the needs of fast development of equity markets.

	α_0	α_1	α_2	<i>Adjusted R</i> ² (%)	F	No. of obs.
Pooled Data	0.84*** (44.69)	3.33*** (13.85)	1.20*** (21.40)	22.9	524.19	3504
2001	0.67*** (41.07)	0.83** (2.39)	0.62*** (8.03)	9.3	47.53	914
2000	1.56*** (32.99)	4.01*** (5.92)	0.30 (1.83)	7.0	28.86	740
1999	1.17*** (26.47)	4.13*** (7.57)	0.15 (1.04)	11.1	37.91	594
1998	0.90*** (16.72)	2.99*** (6.56)	0.565*** (3.75)	13.8	40.36	493
1997	0.89*** (13.00)	4.12*** (6.75)	1.05*** (5.46)	22.6	53.75	362
1996	0.52*** (4.62)	3.45*** (6.37)	2.18*** (12.30)	56.2	156.32	243
1995	0.67*** (14.55)	1.38*** (3.62)	0.27*** (3.04)	13.1	14.05	174

$$\text{Equation: } MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$$

Notes:

MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;

$MV_{j(t-1)}$: Market value of the equity for firm j at the beginning of fiscal year t;

NP_{jt} : Reported net profit for firm j for fiscal year t;

BV_{jt} : Reported book value for firm j for fiscal year t;

All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;

Table 5.4 Regression of market value on net profits and book value for pooled and yearly sample

	Intercept	α_1	α_2	Adjusted R^2 (%)	F	No. of obs.
Pooled Data	0.84*** (44.69)	3.33*** (13.85)	1.20*** (21.40)	22.90	524.19	3520
Agriculture	0.70*** (6.44)	5.76*** (4.10)	1.32*** (4.06)	37.70	20.67	66
Manufacturing	0.82*** (29.87)	4.29*** (12.52)	1.13*** (13.60)	25.20	302.92	1197
Utility	0.72*** (6.93)	4.42** (2.85)	1.14*** (4.46)	25.20	20.70	118
Construction	0.65*** (4.08)	9.70** (2.74)	1.26** (2.13)	25.70	9.47	50
Transportation & Warehousing	0.79*** (7.35)	1.59 (1.42)	1.37*** (4.33)	16.80	12.53	115
Information Technology	0.94*** (11.28)	3.62** (2.91)	1.26*** (3.99)	11.90	14.19	197
Retail & Wholesaling	0.87*** (17.56)	2.04** (2.81)	1.03*** (6.76)	21.30	55.33	403
Real Estate	0.66*** (7.87)	0.28 (0.30)	2.04*** (9.21)	36.50	49.49	170
Social Service	0.75*** (7.74)	-0.35 (-0.27)	1.85*** (5.21)	16.10	13.58	132
Communication & Culture	0.96*** (6.00)	4.07** (1.88)	0.92** (1.91)	10.70	3.58	44
Conglomeration	0.93*** (17.39)	3.27*** (4.90)	1.14*** (7.39)	21.60	57.51	412

$$\text{Equation: } MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$$

Notes:

MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;

$MV_{j(t-1)}$: Market value of the equity for firm j at the beginning of fiscal year t;

NP_{jt} : Reported net profit for firm j for fiscal year t;

BV_{jt} : Reported book value for firm j for fiscal year t;

All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;

Table 5.5 Regression of market value on net profits and book value for pooled and sector sample

5.5.2 Time series trend

It is worth mentioning that the adjusted R^2 , termed as explanatory power, presented in Table 5.4 gives an indication of how much of variation of market value is jointly explained by book value and net profit combined (Collins et al., 1997). The adjusted R^2 for the cross-sectional time series regression indicates that earnings and book values jointly explain about 23 per cent of the cross-sectional variation in the market value of Chinese listed companies. The result is substantially lower than that of the Collins et al. (1997), who carried out a study on the changes in the value-relevance of earnings and book values in the U.S. market over the past forty years and documented a joint explanatory power of 54 per cent for earnings and book value in the U.S. market.

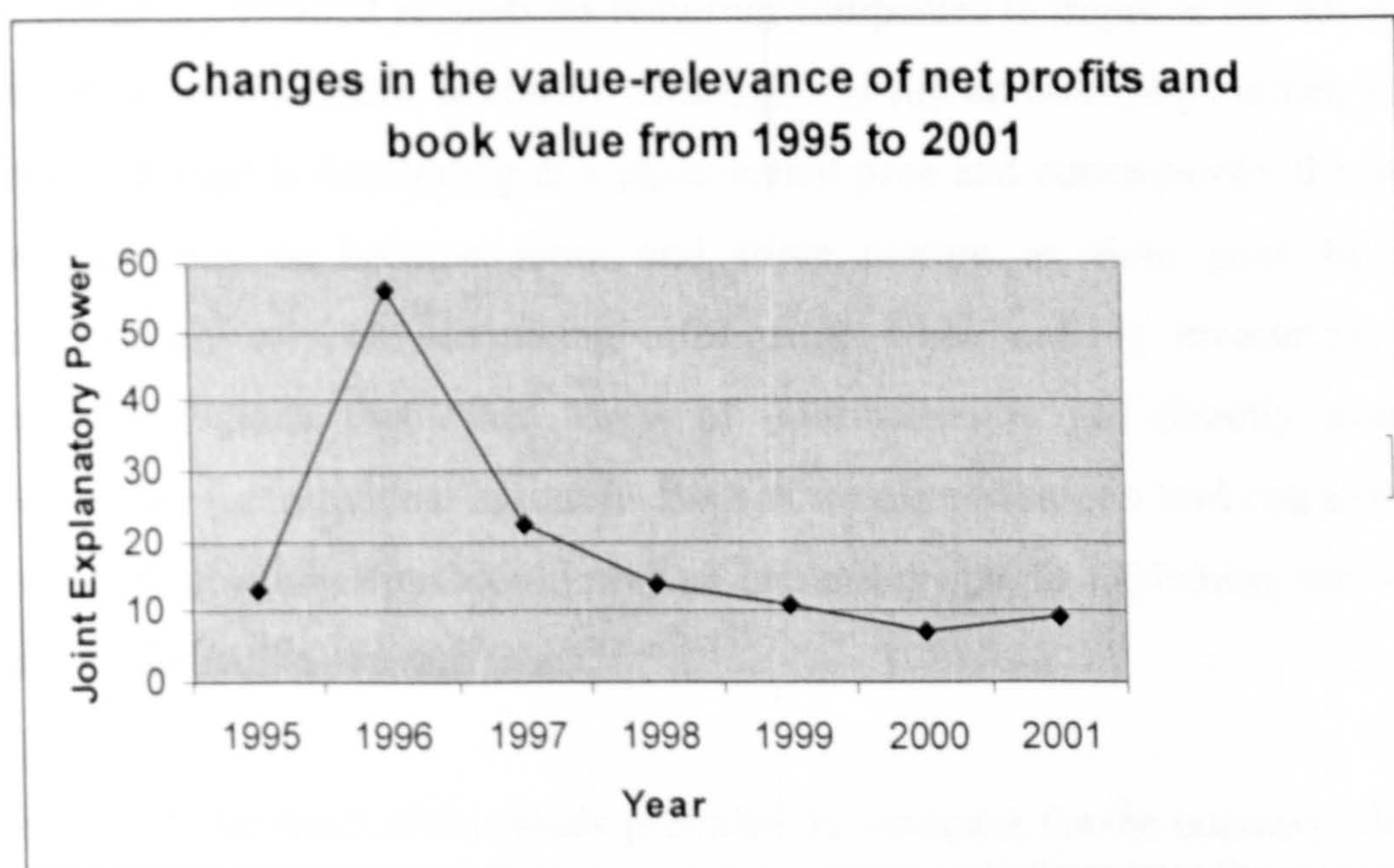


Figure 5.1 Changes in the value-relevance of net profit and book value from 1995 to 2001

Changes in the joint explanatory power of net profit and book value in the Chinese equity markets from 1995 to 2001 are presented in Figure 5.1. As illustrated by Figure 5.1, the joint explanatory power of net profits and book value increased dramatically from 13.1 per cent in 1995 to 56.2 per cent in 1996, and then plunged to 22.6 per cent in 1997. During the period between 1997 and 2001, the joint explanatory power of net profit and book value continued to decline, reaching the

lowest level of 7 per cent in 2000, before bouncing back to 9.3 per cent in 2001. Overall, with the exception of 1996 and 2001, the power of accounting information in explaining the market value the firms has been on decline during the period studied.

In fact, it comes as a surprise to observe the general declining trend in terms of the joint explanatory power of net profit and book value in the Chinese equity markets. One would expect that the accounting information reflected in the financial reports provide increasing explanatory power for two reasons. Firstly, with the government endeavouring to reform the accounting system by issuing regulations in line with international conventions, the quality of accounting information reported by the Chinese listed firms is expected to improve. Furthermore, as discussed in Chapter 4, more financial information is available to investors as the government issues increasingly detailed regulations requiring companies to improve the transparency of information disclosure. Secondly, although it is still an emerging market, the Chinese equity market is developing at a phenomenal pace and consequently the market as a whole tends to become more and more mature as time goes by. Investors increasingly rely on accounting information when making investment decisions, especially given that other forms of information is not directly available and accessible for individual investors. Both of the above reasons lead one to believe that accounting information would play an increasing role in explaining the variation of the market value of listed firms.

However, the result of this study provides the evidence for the contrary. One possible explanation would be that the declining explanatory power of net profit and book value might be caused by the sudden impact of government policy. As mentioned previously, Chinese accounting was undergoing a revolutionary reform to meet the changing economic and social environment. To construct the accounting regulatory framework in accordance with international conventions and the needs of Chinese economic development, the government has laid out a large quantity of new regulations and rules in a relatively short space of time. Take accounting standards for example, the MoF has issued 16 specific accounting standards within a period of 5 years from 1997 to 2001 since the Accounting Standards for Business Enterprises-Basic Standards was promulgated in 1992, when China determined to incorporate the

international accounting standards into its own accounting system. What's more, it is not surprising to see the issued regulations to be frequently amended. For instance, the Accounting Law was first enacted in 1985 but has been amended 3 times since then. China Security Regulatory Commission (CSRC) first issued the Standards of Contents and Format of Information Disclosure by Publicly Listed Companies in 1994 and modified it nearly on the yearly basis. The issuance of regulations at such a rapid pace and frequent change of policies would without any doubt bring radical changes to the financial reporting by the listed companies.

For example, to implement the principle of prudence, the MoF in 1998 issued a mandate requiring Chinese share-holding companies to review the value of assets at the end of the accounting year and recognise impairment losses on four types of assets, namely short-term investments, long-term investments, trade accounts receivable and inventories if the assets are found to be impaired. In 2000, the scope of assets which are subject to recognition of impairment losses has been extended to fixed assets, intangible assets, projects under construction and third-party loans. The purpose of requiring companies to recognise impairment losses is obvious: to squeeze 'water' out of profit and asset figures by implementing the principle of prudence and thus improve the quality of accounting information reported by the Chinese listed companies. However, introducing such a policy has triggered a series of avalanches in the emerging Chinese stock market. The direct impact of writing off impairment losses is reflected in the plunge of profitability and book value of assets reported by the listed companies. It is reported that a staggering RMB 21 billion of impaired assets was written off as a result of listed companies implementing the new rules in 2001 (Duan, 2002). The total impairment losses recognised in 2001 also slashed the book value of assets for over 1000 listed companies by nearly 2 per cent.

It can be clearly seen that both net profit and book value of assets have been dramatically affected by the introduction of the concept of impairment losses. The introduction of new regulations has produced a huge gap between the accounting figures under the old accounting regime and the new accounting regulatory framework. As a consequence, accounting practices and accounting information such as net profit and book value reported under the new regulations diverge significantly from those under the old rules. The equity market, especially investors in the market,

will have to make sudden reactions to the 'shock' produced by the newly-issued policies in a relatively short space of time. It is therefore understood that the equity market as a whole will behave in an unpredicted pattern to incorporate the new policy.

In fact, the argument that the equity market reacted to the introduction of impairment losses in an unpredicted fashion is supported by the statistics presented in Table 5.4. As can be seen from Table 5.4, coefficients for book value in 1999 and 2000 are not significant and adjusted R^2 , the joint explanatory power of book value and net profits, has been on decline since 1998, the year in which the concept of impairment losses were introduced. In 1999 and 2000, book value was unable to play its role in explaining the market value of the firms simply because 'water' has been effectively squeezed out and the book value figures subject to impairment losses did not mean the same as those before the introduction of the new regulations. Investors, regardless of whether they are institutions or individuals, and the equity market chose not to rely too much on the book value figures reported under the new rules in valuing the listed firms. With book value providing little indication of market value, it is easily understood that the joint explanatory power of net profits and book value dropped to 7 per cent in 2000. However, year 2001 showed the sign that the market 'shock' caused by the government policy started to disappear as evidenced by the significance of book value at $\alpha < 0.01$ level and the increase in the joint explanatory power of net profit and book value. It is worth noting that government introduced impairment losses with the intention of improving the quality of accounting information and ultimately protecting the interests of investors. However, the 'shock' caused by the good-intention policy was significant and immediate. In practical terms, it seems that the result of this study also suggests that the government should take the 'shock effect' into consideration when issuing new rules to regulate the market and accounting regime because new rules do have a significant impact on the whole market and the pattern of the impact is often not predictable.

The other possible reason for the unpredicted trend in terms of market valuation in the Chinese equity market might be attributed to the relatively short period being studied. Using data over the past 40 years, Collins et al. (1997) document the joint value-relevance of earnings and book value has increased slightly. However, as

mentioned previously, this study covers a period of only 8 years from 1994 to 2001 due to the short history of Chinese equity market and limited availability of the data. The short period of time makes it impossible to observe a pattern without being affected by the noises and shocks inherent to the equity market. To obtain a better picture on the overall trend in terms of the market valuation, the period being studied needs to be extended and therefore the study aiming at obtaining a long-term pattern should be carried out in the future.

5.5.3 Other factors apart from net profit and book value

In this section, the line of research has been extended to investigate the effect of some other factors apart from net profit and book value on the market valuation in the Chinese equity market by adding some more accounting variables on to the modified Ohlson models. The fundamental issue to be addressed is whether there are other factors contributing significantly to the market value of listed companies in the Chinese equity market.

Equation	α_0	α_1	α_2	α_3	α_4	α_5	α_6	Adjusted R^2 (%)	F	No. of obs.
5.1	1.17*** (104.76)	5.37*** (22.86)						12.90	522.50	3520
5.2	0.92*** (69.22)	13.30*** (38.31)	-15.20*** (-28.79)					29.50	737.50	3520
5.3	0.77*** (43.46)	10.70*** (26.53)	-12.50*** (-22.03)	0.69*** (11.99)				32.30	559.39	3520
5.4	0.80*** (44.21)	9.77*** (23.06)	-12.70*** (-22.46)	1.55*** (11.00)	-0.97*** (-6.68)			33.10	435.89	3520
5.5	0.79*** (44.79)	12.00*** (26.04)	-14.70*** (-25.21)	1.44*** (10.36)	-0.80*** (-5.53)	-7.75*** (-11.27)		35.40	386.62	3520
5.6	0.73*** (34.75)	11.80*** (25.53)	-14.20*** (-24.13)	1.46*** (10.54)	-0.86*** (-5.99)	-5.29*** (6.40)	0.12*** (5.28)	35.90	329.30	3520

Equation 5.1: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \varepsilon$

Equation 5.2: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 D_{np} * NP_{jt} / MV_{j(t-1)} + \varepsilon$

$D_{np} = 0$ where $NP_{jt} > 0$; otherwise $D_{np} = 1$

Equation 5.3: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 D_{np} * NP_{jt} / MV_{j(t-1)} + \alpha_3 BV_{jt} / MV_{j(t-1)} + \varepsilon$

Equation 5.4: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 D_{np} * NP_{jt} / MV_{j(t-1)} + \alpha_3 BV_{jt} / MV_{j(t-1)} + \alpha_4 BV_{j(t-1)} / MV_{j(t-1)} + \varepsilon$

Equation 5.5: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 D_{np} * NP_{jt} / MV_{j(t-1)} + \alpha_3 BV_{jt} / MV_{j(t-1)} + \alpha_4 BV_{j(t-1)} / MV_{j(t-1)} + \alpha_5 DIV_{jt} / MV_{j(t-1)} + \varepsilon$

Equation 5.6: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 D_{np} * NP_{jt} / MV_{j(t-1)} + \alpha_3 BV_{jt} / MV_{j(t-1)} + \alpha_4 BV_{j(t-1)} / MV_{j(t-1)} + \alpha_5 DIV_{jt} / MV_{j(t-1)} + \alpha_6 D_{div} + \varepsilon$

$D_{div} = 0$ where $DIV_{jt} > 0$; otherwise $D_{div} = 1$

Notes:

MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;

$MV_{j(t-1)}$: Market value of the equity for firm j at the beginning of fiscal year t;

NP_{jt} : Reported net profit for firm j for fiscal year t;

BV_{jt} : Reported book value for firm j at the end of fiscal year t;

$BV_{j(t-1)}$: Reported book value for firm j at the beginning of fiscal year t;

DIV_{jt} : Reported dividend for firm j for fiscal year t;

$D_{np} = 0$ when $NP_{jt} > 0$; otherwise $D_{np} = 1$;

$D_{div} = 0$ when $DIV_{jt} > 0$; otherwise $D_{div} = 1$

All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;

Table 5.6 Regression of market value on various accounting variables

5.5.3.1 Starting point: net profit and P/E ratio

As can be seen from Table 5.6, Equation 5.1 was constructed to examine the linear relationship between market value and net profit. In addition, special attention will be focused upon the coefficient for net profit as it provides an indication of the price/earning (P/E) ratio. Unsurprisingly, the regression result indicates that the significant (at $\alpha < 0$ level) linear relationship between market value and net profit does exist in the Chinese equity market. Net profit alone provides 12.9 per cent of the variation of the market value as evidenced by the adjusted R^2 . However, the coefficient of net profit being equal to 5.37 comes as a great surprise because this figure is significantly lower than the average P/E ratio in the Chinese equity market.

In fact, the unusually high P/E ratio has been a great concern in the Chinese equity market. Gao (2002) reported an average P/E ratio of 44.2 for the Chinese market, far higher than average level of (23.4) the world as a whole. Two factors are widely believed to be attributable to the P/E ratio being pushed to the sky high level. Firstly, stock market bubble exists in the Chinese equity market. As discussed in Chapter 2, shares that can be traded on the open market have become the scarce resources in China due to the fact that two thirds of the shares are in the hands of the government and they are not tradable. The quota system which is used to approve the listing of shares on the stock exchanges further limits the number of shares available for trading, thus exacerbating the imbalance between the supply and demand. On the other hand, demands for tradable shares as a means of investments have roared following a series of interest cuts by the People's Bank of China (PBC), the Chinese central bank since 1998. The soaring demands combined with the limited number of shares available for trading have pushed stock prices to go up despite the disappointing earnings reported by the Chinese listed companies. Secondly, putting China's equity market in an international perspective, Gao (2002) pointed out that the stock market in China is isolated from the international markets. The non-convertible Chinese currency, Renminbi, acts as a high wall separating China from the rest of the world's markets. Since the capital cannot move freely across the border, Chinese investors have no alternatives—they are operating in a closed or insulated market. Such encapsulation has resulted in a huge difference between the

P/E ratio of Chinese companies listed in domestic and overseas markets. Most of companies operating in China but listed elsewhere have normal P/E ratio. For example, those for China Mobile, China Unicom and Legend—all components of the Heng Seng Index—range between 11 and 29.

The coefficient for net profit (5.37), although highly significant, seems to provide little explanation to the sky high P/E ratio in the Chinese equity market. To conduct further investigation into the cause of the unusually low coefficient for net profit, differential effects of positive net profit and negative net profit reported by the listed companies on the market valuation need to be addressed. As evidenced by previous discussion, investors in China do heavily rely on net profit, the key indicator of corporate profitability, when making investment decisions. Therefore investors in the market will beyond any doubt react differently to the positive and negative net profit reported by the listed companies. More interestingly, it is found from the sample that there are altogether 351 samples that report the negative net profit out of the 3,520 observations. An interesting question is worth being explored: will the coefficient for net profit increase if one controls for the negative net profit.

5.5.3.2 A further look at net profit: positive vs. negative

Equation 5.2 was constructed to investigate the effect of negative net profit reported by the listed firms on the market valuation. A dummy variable D_{np} was introduced to differentiate the positive from negative net profit. D_{np} was defined as 0 when sample companies report a positive net profit, otherwise D_{np} equals 1.

The results of regression of market value on net profit with the effect of negative net profit being added are presented in Table 5.6. As illustrated by Table 5.6, coefficients for both net profit and $D_{np} * NP$ ($\alpha_1 = 13.30$; $\alpha_2 = -15.20$) are both significant at $\alpha < 0.01$ level. The significance of variable $D_{np} * NP$ and the sign of α_2 being negative are particularly interesting since the results strongly suggest that investors in Chinese stock market do differentiate between positive and negative net profit when valuing the listed companies. When a company reports positive earnings that

information is soon incorporated by investors and accordingly market value increases to respond to the 'good news'. A reported loss leads to a decrease in the market value as evidenced by the sign of α_2 being negative.

Another point worth mention is that the explanatory power of net profits has more than doubled from 12.90% to 29.50% as a result of including the dummy variable D_{np} into the model. This finding is interesting because the variation of market value is much better explained by differentiating the effect of positive earnings from the negative earnings.

What is more exciting about the results lies in the significant increase in coefficient for net profits (α_1) from 5.37 in Equation 5.1 to 13.30 in Equation 5.2. Although still far lower than the P/E ratio equal to 44.3 reported by Gao (2002), nevertheless, the coefficient for net profit has more than doubled as Equation 5.1 is replaced by Equation 5.2. It appears that the coefficient for net profit in Equation 5.2 is likely to provide a better indication on the P/E ratio than in Equation 5.1. Given the above, one can also conjecture that the unusually low coefficient for net profits in Equation 5.1 might be caused by the effect of negative net profit in the sample.

As discussed earlier, differentiating positive from negative net profit by introducing a dummy variable has brought about multiple benefits for the study. The ability of explain market values has been significantly improved. Coefficient for net profits is able to provide a better indication of the P/E ratio. The impact of negative earnings has been identified. It can be concluded that Equation 5.2 is superior to Equation 5.1 in explaining the market value. Therefore, this study will include the dummy variable, D_{np} , into the model throughout this section.

5.5.3.3 Modifying the modified Ohlson model

In Equation 5.3, the dummy variable D_{np} is included. The coefficients for three variables ($\alpha_1 = 10.70$; $\alpha_2 = -12.5$; $\alpha_3 = 0.69$) are all significant at $\alpha < 0.01$ level, suggesting positive and negative net profit are consistently playing the opposite roles

in explaining the market value as the book value variable is included. The coefficient for book value ($\alpha_3 = 0.69$), as expected and as tested in the previous section, is continuing to be significant in, however, it has dropped from 1.20 in the DAE model to 0.69, less than 1, in the Equation 5.3. Moving from Equation 5.2 to Equation 5.3, one can find that joint explanatory power increases from 29.50 per cent to 32.30 per cent as a result of including the book variable into the model, suggesting the market value of listed companies is further better explained by adding the book value variable.

To further investigate the effect of positive and negative net profit on the modified Ohlson model. The pooled cross-section and yearly data are used to run the regressions of market value on positive & negative net profits and book value. The results, together with the regression results based on the original model, are presented in Table 5.7.

Data	Equation	α_0	α_1	α_2	α_3	Adjusted R^2 (%)	F	No. of obs.
Pooled Data	OE	0.84*** (44.69)	3.33*** (13.85)	1.20*** (21.40)		22.9	524.19	3520
	ME	0.77*** (43.46)	10.70*** (26.53)	0.69*** (11.99)	-12.50*** (-22.03)	32.30	559.39	3520
2001	OE	0.67*** (41.07)	0.83** (2.39)	0.62*** (8.03)		9.30	47.53	914
	ME	0.64*** (38.63)	4.38*** (5.69)	0.47*** (5.78)	-5.11*** (-5.14)	11.70	41.39	914
2000	OE	1.56*** (32.99)	4.01*** (5.92)	0.30 (1.83)		7.0	28.86	740
	ME	1.45*** (30.82)	12.00*** (10.71)	-0.07 (-0.42)	-13.90*** (-8.72)	15.60	46.52	740
1999	OE	1.17*** (26.47)	4.13*** (7.57)	0.15 (1.04)		11.1	37.91	594
	ME	1.05*** (23.34)	10.50*** (10.48)	-0.10 (-0.74)	-10.50*** (-7.44)	18.60	46.04	594
1998	OE	0.90*** (16.72)	2.99*** (6.56)	0.57*** (3.75)		13.8	40.36	493
	ME	0.67*** (13.45)	13.00*** (14.86)	0.35** (2.33)	-15.10*** (-12.82)	35.30	90.65	493
1997	OE	0.89*** (13.00)	4.12*** (6.75)	1.05*** (5.46)		22.6	53.75	362
	ME	0.58*** (9.02)	14.80*** (13.97)	0.82*** (4.99)	-16.90*** (-11.58)	43.60	93.87	362
1996	OE	0.52*** (4.62)	3.45*** (6.37)	2.18*** (12.30)		56.20	156.32	243
	ME	0.47*** (5.12)	10.30*** (13.82)	1.58*** (10.35)	-12.10*** (-11.36)	71.40	202.77	243
1995	OE	0.67*** (14.55)	1.38*** (3.62)	0.27*** (3.04)		13.1	14.05	174
	ME	0.66*** (14.92)	2.55*** (5.46)	0.16* (1.85)	-4.32*** (-4.02)	20.20	15.59	174

Original equation: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$

Modified equation: $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \alpha_3 D_{np} * NP_{jt} / MV_{j(t-1)} + \varepsilon$

Notes:

MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;

$MV_{j(t-1)}$: Market value of the equity for firm j at the beginning of fiscal year t;

NP_{jt} : Reported net profit for firm j for fiscal year t;

BV_{jt} : Reported book value for firm j for fiscal year t;

All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;

Table 5.7 Regression of market value on net profits and book value for pooled and yearly sample: on original and modified models

To facilitate the comparison, regression results based on both the original and modified models are shown together. As can be seen from Table 5.7, the coefficients for net profit variable have increased considerably across all years being studied as the dummy variable is introduced in the model. In most years (except for 1995 and 2001), α_1 goes up from less than 5 in the original model to more than 10 in the modified model. In 1995 α_1 increased from 1.38 to 2.55; and in 2001 α_1 from 0.83 to 4.38. This suggests that ability of net profit to explain market values has improved significantly during the period studied. Book value remains insignificant for 1999 and 2000 despite the modification of the model, providing strengthening evidence that Chinese equity market was radically affected by the ‘shock’ caused by the government’s policies requiring listed companies to recognise impairment losses in 1998 and 2000. The effect of the ‘shock’ can also be seen from Figure 5.2. As illustrated by Figure 5.2, the joint explanatory power of net profits and book value has been considerably boosted following the introduction of the dummy variable, D_{np} . However, the overall trend remains unchanged. In particular the decline in the adjusted R^2 in 1999 and 2000 observed in both models has provided further evidence to explain the market ‘shock’ following the government’s policies.

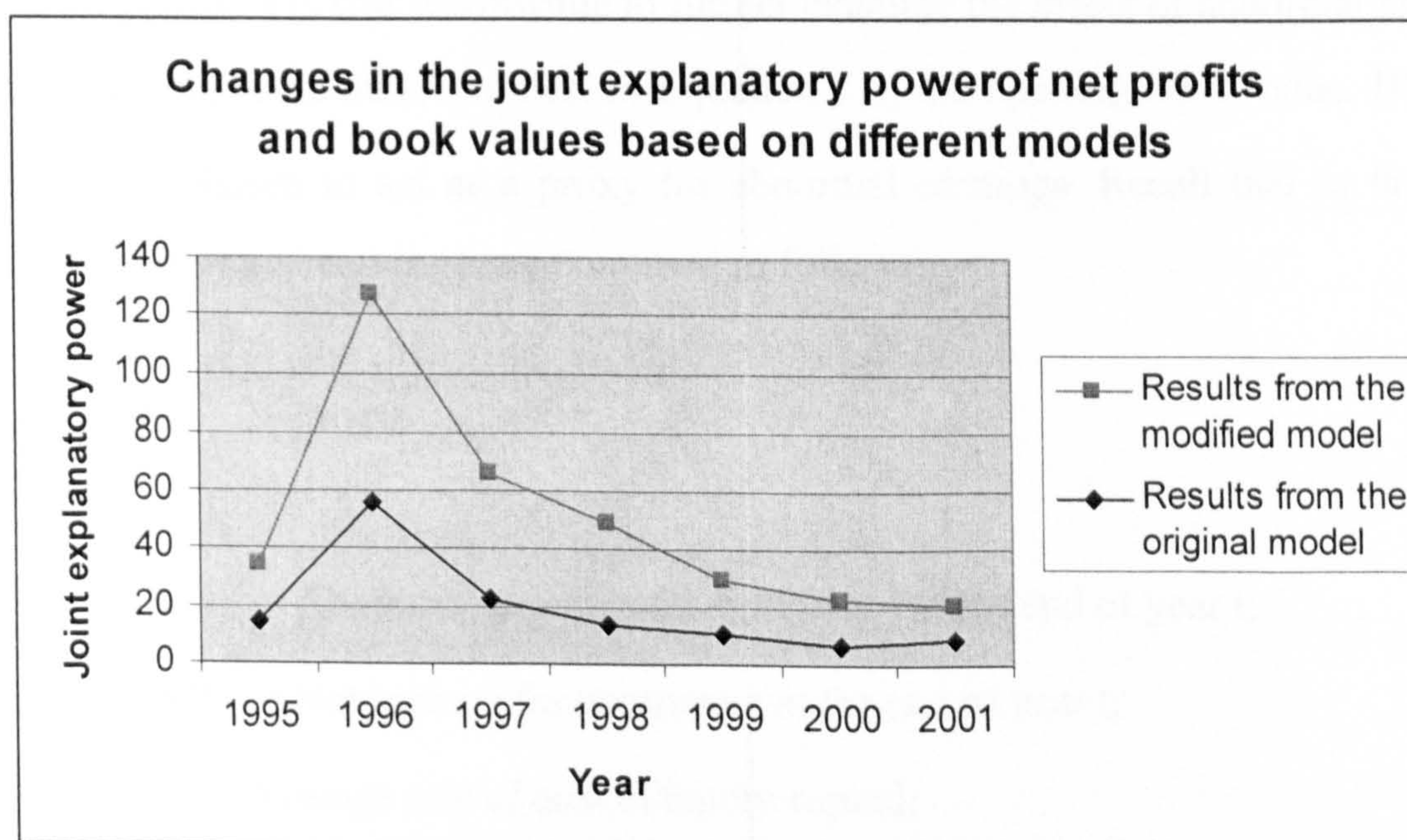


Figure 5.2 Changes in the joint explanatory power of net profits and book values based on different models

5.5.3.4 Abnormal earnings and opening book value

The purpose of establishing Equation 5.4 is to investigate the effect of abnormal earnings. As discussed previously, the DAE model establishes a linkage between market value and abnormal earnings & book value by expressing the book value in a linear relationship with abnormal earnings and book value. Abnormal earnings are defined as the difference between net earnings and cost of equity capital. Theoretically, abnormal earnings shall be superior to net profits in estimating the regression model. However a practical problem arises when using abnormal earnings for estimating the DAE model because the cost of equity capital is not directly observable. Although cost of equity capital could be estimated by using the CAPM model, the relatively short history of Chinese equity market makes it impossible to make a reliable estimation of β and market risk premium (Quiry et al., 2005). To solve this problem, the DAE model has been modified and the net profit variable has been used to proxy for the abnormal earnings. As evidenced by the regression results in Table 5.4, 5.5, 5.6 and 5.7, the net profit variable is found to play a significant role in explaining the market value in the Chinese equity market.

Nevertheless, it is still worthwhile to further examine the effect of abnormal earnings by selecting some other proxies. In Equation 5.4, the opening book value, $BV_{j(t-1)}$, has been chosen to act as a proxy for abnormal earnings. Recall that in the DEA model, abnormal earnings are expressed as follows:

$$AE_{jt} = NP_{jt} - r_e * BV_{j(t-1)}$$

Where: AE_{jt} = Abnormal earnings for company j at the end of year t;

NP_{jt} = Net income for company j at the end of year t;

r_e = Average rate of cost of equity capital;

$BV_{j(t-1)}$ = Book value of equity for company j at the beginning of year t.

Extending Equation 5.3 to reflect abnormal earnings requires the investigation of the following relationship:

$$MV_{jt} = \alpha_0 + \alpha_1 NP_{jt} + \alpha_2 BV_{jt} + \alpha_3 D_{np} * NP_{jt} + \alpha_4 (NP_{jt} - r_e * BV_{j(t-1)}) + \sigma$$

Reorganising the above expression yields to the follow equation:

$$MV_{jt} = \alpha_0 + (\alpha_1 + \alpha_4) NP_{jt} + \alpha_2 BV_{jt} + \alpha_3 D_{np} * NP_{jt} - \alpha_4 r_e * BV_{j(t-1)} + \sigma$$

The above equation provides a theoretical justification that opening book value variable, $BV_{j(t-1)}$, is the suitable proxy for abnormal earnings in explaining market values of listed firms. Stark and Thomas (1998) generated a similar equation and pointed out that opening book values can be interpreted as the accounting value placed on assets which generates the income stream. Note that Equation 5.4 does not explicitly include an abnormal earning term. Rather, it includes opening book value as a separate term to capture the capital charge element of abnormal earnings with a coefficient that is freely estimated. As a consequence, I would expect:

$$\alpha_4 < 0$$

if abnormal earnings is to be considered helpful in explaining market value.

The results of regression of market value on positive and negative net profits, closing book value and opening closing book value are presented in Table 5.6. Coefficients for the three variables used in Equation 5.3 ($\alpha_1 = 9.77$; $\alpha_2 = -12.70$; $\alpha_3 = 1.55$) are all significant at $\alpha < 0.01$ level in Equation 5.4, suggesting the roles that these accounting variables are playing in explaining market value in Equation 5.4 remain unchanged. In addition, the coefficient (α_4) for the added variable, opening book value, is -0.97 and highly significant (at $\alpha < 0.01$ level). The sign of the coefficient showing negative provides empirical evidence to support my conjecture that opening book value in Equation 5.4 is to capture the capital charge element of abnormal earnings. This finding is consistent with that of Stark and Thomas (1998), who document the significantly negative coefficient for opening book value in the similar model for the U.K. market. Furthermore, as found in Table 5.6, adjusted R^2 , the

joint explanatory power of independent variables has achieved a slight increase from 32.30 per cent to 33.10 per cent with an opening book value variable being introduced into the model. Again, it can be concluded that adding an opening book value term which attempts to capture the capital charge element of abnormal earnings results in a further improvement of the model's ability to explain market value.

5.5.3.5 Dividends: good or bad news?

To examine the impact of dividends, Equation 5.4 was further extended by adding one more variable: dividends. Equation 5.5 specifies the equation. As mentioned earlier, finance theory has long accepted that the equity value is the present value of future dividends (Palepu et al., 2004). In addition, in developed markets, dividends are frequently conceived to be able to provide more reliable indication of a company's profitability, long-term future growth and financial health than net profits and book value (Emery et al., 2004). However, the Chinese emerging equity market differs considerably from the developed markets in that listed companies in China seldom pay off dividends to their investors. Among 3,520 observations in this study, 1,777 observations show the dividends as 0, suggesting that more than half of the listed companies never pay off dividends to shareholders at all during the period from 1995 to 2001. As a matter of fact, Chinese listed companies have seemingly justifiable reasons not to pay off dividends. Firstly, there is no legislative requirement that listed companies pay off dividends to investors. Whether or not to pay off dividends is largely at the discretion of the management of listed companies. Secondly, it is not uncommon for many profitable companies choose not to pay off cash dividends because they are at early stage of development. Cash flow generated by the company is frequently re-invested to the operation to fulfil greater ambitions. Thirdly, it is widely conceived that investors in the Chinese equity market do not place heavy weight on dividends paid by the listed companies. For the vast majority of individual investors in China, the purpose of investment in the stock market is to seek for short-term speculative opportunities, rather than long-term returns (Gao, 2002). Therefore capital gains generated from investing activities have dominated dividends, the indicator of long-term returns, in the Chinese equity market.

The results of regression of market value with the added dividends variable are presented in Table 5.6. As can be seen from Table 5.6, coefficients for variables such as positive and negative net profits, opening and closing book value ($\alpha_1 = 12.00$; $\alpha_2 = -14.70$; $\alpha_3 = 1.44$; $\alpha_4 = -0.80$) are all consistently significant at $\alpha < 0.01$ level and the signs of the coefficients remain unchanged, indicating that theoretical robustness of Equation 5.5 in terms of linking market value and accounting information is not affected by adding the dividends variable into the model.

Another finding out of these results is that the dividends variable is statistically significant at $\alpha < 0.01$ level, which suggests that dividends are not completely ignored by the investors in the Chinese equity market. Contrary to the above-mentioned belief that investors in China place little weight on dividends when valuing listed companies, the market as a whole does pay close attention to the dividends paid by the listed companies to investors. However, the sign of the coefficient for dividends variable being negative ($\alpha_5 = -11.27$) comes as a great surprise. If this is the case, obviously, the Chinese equity market does not see listed companies paying off dividends as good news. Rather, paying dividends frequently results in considerable decline in the market value of listed companies. It appears that this finding has provided empirical justification that Chinese listed companies do not pay off dividends at the early stage of development. Cash is playing a critical role in the development of a company and is the scarcest resource in the emerging capital market such as China in which companies crave for capital to achieve a long-term development (Delios and Wu, 2005). Investors in China would prefer listed companies to retain the cash for future development to boost the long-term performance. Interestingly, this logical finding seems to disprove the widely-spread perception that Chinese individual investors usually seek for the short-term speculative opportunities and do not account for long-term performance when making investment decisions.

Furthermore, it is found that there is an increase in the joint explanatory power from 33.10 per cent to 35.40 per cent as the dividends variable is included. Although the increase in adjusted R^2 is slight, this result is providing statistical evidence that the

model's ability to explain market values has been further boosted as a result of dividends being considered in market valuation.

5.5.3.6 A further look at dividends

As discussed earlier, more than half of, 1,777 out of 3,520, the sample companies do not pay off dividends to their investors. The question of whether there is significant difference in terms of market value between companies paying off dividends and companies paying nothing is therefore worth being explored. A dummy variable, D_{div} , is created. D_{div} is defined as 0 where sample companies paying off dividends, and otherwise D_{div} equals 1. Equation 5.6 is then constructed to include the dummy variable D_{div} in an attempt to further investigate the effect of dividends on the market value in the Chinese equity market.

Regression results of Equation 5.6 are presented Table 5.6. As shown by the t statistics, all independent variables including the dummy variable, D_{div} , are highly significant at $\beta < 0$ level. The signs of coefficients used in previous models remain unchanged. What is more, the adjusted R^2 , has seen a slight increase from 35.40 per cent to 35.90 per cent. Again, it can be concluded that Equation 5.6 keeps the theoretical consistency with the previous models and is better able to explain the market value by including the dummy variable, D_{div} , into the model.

Note that the coefficient of dummy variable, D_{div} , is significant and equals 0.12, greater than 0. This result is interesting because it suggests that companies which do not pay off dividends are systematically better valued than firms paying off cash to investors in the Chinese equity market. Given the previous discussion on Equation 5.5, this finding can be understood to provide strengthening evidence to support the claim that Chinese investors tend not to see listed companies paying off cash dividends as 'good news'. On the contrary, paying off dividends destroys the market value of listed companies as evidenced by the finds from both Equation 5.5 and 5.6.

In summary, this section applies a number of accounting variables which are theoretically relevant to market valuation into the modified Ohlson model in the unique context of Chinese equity market. Putting the regression results of 6 equations together, a few basic conclusions can be drawn. Firstly, all the accounting variables tested across all the models are found to be significantly different from zero. It can be suggested that accounting information reported by the Chinese listed firms including positive net profits, negative net profits, closing book value, opening book value, dividends etc together are playing significant roles in explaining the market value. Positive net profit and closing book value are found to be positively related with the market value. Negative net profit reported by the listed companies lead to a considerable decrease in the market value because investors see negative net profit as an indication of poor performance. Opening book values are proven to be negatively related to market values in that they represent the capital charge element of the abnormal earnings. Paying dividends in the Chinese equity market results in the destruction of market value since cash is expected to be retained by the companies and be invested for the future investment. Based on the above, it can be concluded that although the Chinese equity market is an emerging market and China is developing its share-holding and share-trading systems in a way that differs hugely from the rest of the world (Tian, 2001), the finance theory in terms of market valuation established in the developed market still holds firmly in the Chinese market.

Secondly, as can be seen from the increase in the adjusted R^2 with more variables being added into the model, the joint explanatory power of variables witnesses a consistent and dramatic increase from 12.9% in Equation 5.1 to 35.9 per cent in Equation 5.6. This shows that the models' ability to explain market values of listed companies is substantially improved as more accounting information is taken into consideration.

Chapter 6. OWNERSHIP STRUCTURE AND MARKET VALUATION

6.1 Introduction

An interesting feature of Chinese listed companies is that nearly all firms are transformed from state enterprises. To be a listed company, a SOE must first be restructured to a stock company by selling shares to its own employees and other SOEs etc. at a price around the book value of equity. After the stock company is formed and the listing criteria are satisfied, it can apply for the approval of listing from the CSRC and the stock exchanges. Upon the approval, the firm usually sells about one third of ownership to the general public at the time of IPO. The shares of listed firms are split into non-tradable shares, namely state shares and legal-person shares, and the tradable shares, namely the A-shares, B-shares and H-shares etc. Therefore, a typical listed company has a mixed ownership structure. It is noted that all types of shares of a listed company have the same voting rights and cash-flow rights, which means that one share is entitled to one vote. There is no cross-listing between the Shanghai Stock Exchange and the Shenzhen Stock Exchange (Xu and Wang, 1999). Table 6.1 presents an overview of the percentage of the total shares in each of the different share classes from 1993 to 2001.

Ownership identity	1993	1994	1995	1996	1997	1998	1999	2000	2001
State	45.25	43.67	37.20	34.03	31.03	33.70	35.85	38.97	33.27
Legal Person	26.87	22.04	28.34	30.96	32.93	30.73	28.27	24.54	25.26
Employee	2.22	0.99	0.35	1.15	2.01	2.01	1.19	0.64	0.83
A-share	14.59	21.18	20.36	21.06	22.44	23.67	26.13	28.55	32.84
B-share	5.88	6.11	6.40	6.20	5.95	5.22	4.56	4.01	3.29
Other Shares	5.10	6.01	7.36	6.61	5.65	4.67	4.00	3.29	4.51
Total	100	100	100	100	100	100	100	100	100

Source: Data are from the website of the China Securities Regulatory Commission: www.csrc.org.cn

Table 6.1 Ownership structure of Chinese listed firms (1993-2001)

As mentioned in the previous section, state shares reflect the interests of the state in the company, normally represented by the government body, the State Property Management Bureau (SPMB). Central and local governments have the right to appoint government officials as an agent to exercise ownership rights on the state-controlled firms. For most listed companies, the state is the largest shareholder. As Table 6.1 indicates, state ownership has always been the dominant factor, accounting for 37 per cent of the interests of the listed company in 2001 despite the overall declining trend in the period between 1993 and 2001.

Legal person shareholders emerged as a form of ownership when the government established the domestic stock markets in 1990. As part of its economic reform plans, the central government aimed to reduce government intervention in state-owned enterprises and to encourage profit-seeking incentives and competition, thus enhancing the efficiency and profitability of SOEs (Delios and Wu, 2005). In practice, legal persons refer to domestic institutions including stock companies, non-bank financial institutions and other companies etc. They bear a certain level of resemblance to the institutional shareholders in the U.S. and the U.K. market in monitoring the performance of listed companies. However, their roles are substantially limited in that legal-person shares are not open for public trading. Transferring shares among legal persons is allowed, however it must be subject to the approval of the government and transfer price is usually unknown to the public. From Table 6.1, one can see that legal persons own on average 27 per cent of the interests of the listed firms through 1993 to 2001 with a range between 22.04 per cent and 32.93 per cent.

A-shares are owned and traded by Chinese domestic individual residents or institutions, but are not allowed to be owned by foreign investors. A-shares are the only type of tradable shares that can be publicly traded among domestic investors on stock exchanges. Usually, the market price of a listed company refers to the price of A-shares. Table 6.1 shows that A-shares account for some 23 per cent of all the firm shares. In addition, the percentage of A-shares has been on the continual rise from 14.59 per cent in 1993 to 32.84 per cent in 2001. It is worth noting that A-shares have overtaken legal-person shares from 2000.

B-shares were initially available exclusively to foreign investors and some authorised domestic securities firms. From 2001 onwards, domestic individuals have been allowed to invest in the B-share market. The B-shares market is separated from the A-share market in that investors can only use foreign currencies to invest in B-shares (US dollars on the Shanghai Stock Exchange and Hong Kong dollars on the Shenzhen Stock Exchange). Foreign shares are the shares that are issued on overseas stock markets such as the Hong Kong Stock Exchange (H-share) and the New York Stock Exchange (N-share). These shares, together with the employee shares, typically make up around 12% of the total outstanding equity.

Ownership structure has been found to be significantly associated with firm value. Prior research in China and elsewhere indicates that the ownership structure, among the other factors related to corporate governance, has a significant impact on firm performance. Using pooled firm-level data from 1993 to 1995, Xu and Wang (1999) investigated whether ownership structure significantly affects the performance of publicly listed companies within the framework of Chinese corporate governance. They found that the firm's profitability is positively correlated with the fraction of legal-person shares, but it is either negatively correlated or uncorrelated with the fractions of state shares and tradable A-shares held mostly by individuals. Focusing upon the government shareholding, Tian (2001) documented the large equity holdings of the government and found that corporate value decreases with an increased size of government shareholding when the government is a small shareholder. When the government shareholding is sufficiently large, corporate value goes up with the increased government shareholding.

Table 6.1 suggests that the state, legal persons and domestic individuals are the three largest groups of shareholders. Each of the three ownership identities averages a holding of 30 per cent of the total outstanding shares. Such unique ownership structure of Chinese listed companies provides an excellent laboratory for investigating the impact of ownership by type of shareholder on firm performance. In particular, with non-tradable shares accounting for nearly two thirds of the whole market, state shares and legal-person shares have attracted a great deal of interest around the world. Therefore examining how the Chinese market interprets the roles of these types of shareholdings is the focal point in this chapter.

This remainder of this chapter is organised as follows. Section 2 reviews the arguments in the existing literature surrounding the effects of ownership structure on the firm value. Section 3 introduces the methodology taken in this chapter. Empirical results will be presented and findings will be discussed in detail in Section 4.

6.2 Arguments Surrounding the Relationship between Ownership Structure and Market Value

6.2.1 State ownership and market value

The Chinese government carried out the experiment of share-holding system in a belief that creating different types of owners in a company could help establish an enterprise system with diversified ownership structure and clear-cut property rights, thus putting the much-needed corporate governance in place and ultimately improving the efficiency. When an SOE is transformed to a listed company, part of the ownership and control of public assets are also shifted to the hands of institutional and private investors. From the sole owner of the SOEs to one of the multiple owners of the share-based companies, from both owning and operating the SOEs to controlling and influencing the shareholding companies, the government appears to have changed its role. As far as the experiment is concerned, it seems that the government has prescribed a right remedy to the long-standing problem facing the SOEs—a lack of a clear-cut property rights. However, it is not clear how exactly the changes in government ownership and role affect firm performance. The existing literature on the relationship between state ownership and firm performance can be broadly broken into two schools of thoughts. While some argue that state ownership is the underlying cause of all sorts of problems facing the listed firms, some other assert that state shareholding is not always bad (Sun et al., 2002, Xu and Wang, 1999, Megginson et al., 1994, Megginson and Netter, 2001, Chen and Wang, 2004, Bai et al., 2004, Tian, 2001). On the whole, these arguments seem to suggest that the government shareholding has a complicated impact on investors' perceptions of firm value.

On one hand, some economists argue that, in a competitive market without significant externalities, government ownership is inferior to private ownership (Sun et al., 2002). Megginson, Nash and Van Randenborgh (1994), among others, provided the empirical evidence for the proposition that government ownership is less efficient than private ownership. Furthermore, Megginson and Netter (2001) pointed out that privatisation results in improved performance. In particular, the

dominance of state shares in the Chinese listed companies has been widely criticised for the excessive intervention of government, lack of liquidity, and the continuation of bureaucratic management style (Chen and Wang, 2004, Wang and Jiang, 2004, Bai et al., 2004). In the context of Chinese listed companies, as discussed in Chapter 2, the core problem with the existence of state share lies in that the corporate governance cannot function efficiently within the listed firms. Although nearly all listed companies have established a whole set of corporate governance mechanism copying their Western counterparts in the industrial countries, they frequently encounter great difficulties when implementing these rules (GTA, 2002). The primary reason for this is that, with the bulk of shares in the hands of the state, management cannot be substantially separated from ownership and the government still enjoys direct and/or indirect control over the board to influence corporate policies.

Ironically, this is contrary to the ultimate objective of the government's SOE reform scheme aiming at liberalising management from the intervention of government. Tian (2001) argued that the newly-established publicly listed companies continue to be more bureaucratically than commercially-oriented even after transformation. As a consequence, poor governance practice is still rampant among the Chinese listed companies. For instance, in 2001, the largest shareholder of Meiyerya, which had been a profitable company, colluded with other related parties and embezzled RMB 368.8 million or 41 per cent of the company's total equity. In the same year, the largest shareholder of Sanjiu Pharmacy extracted RMB 2.5 billion or 96 per cent of the company's total equity (Bai et al., 2004). The underlying cause of the above-mentioned problems is the lack of effective corporate governance.

Another fatal flaw of state ownership in the listed companies is political interference (Tian, 2001). Based on the voting rights from the majority holding shares, the government enjoys and exerts direct control over the corporate management. In some listed companies, with the state being the dominant shareholder, even directors and board members are appointed by the government. However, the profit-seeking objective of the company does not always coincide with the fast-changing political needs of the government. When political objectives conflict with corporate goals, the government always pursues its political interests by forcing management to

compromise. And this usually comes at the expense of corporate profitability. For example, it is well known that the long-standing problem of inefficiency of state-owned companies can be attributed to severe overstaffing in the state firms. However, the Chinese government frequently finds itself in a dilemma in seeking for a solution to the problem: to improve the efficiency of the state-owned companies, tens of millions of workers need to be laid off; on the other hand, sky-high unemployment level will undoubtedly give rise to social unrest. In a country where stability overrides everything, to improve the efficiency of state-owned companies simply by making employee redundant will have to give way to the political challenge—to keep the social stability³⁵.

On the other hand, state ownership may not necessarily be bad because the companies with substantial state shares could also enjoy a series of benefits that are likely to increase corporate value. Firstly, the government may provide the state-controlled firms with a wide range of preferential treatments (Wang, 2005). In China, the benefit of getting the political support from the government is extremely important. Backed up by the government, firms with a substantial proportion of state shares are frequently seen as an advantage in obtaining bank loans, establishing credibility in the general public, and providing better protection to shareholders' value, etc. Furthermore, the fact that government is holding a majority of shares could also send a strong signal to the market that the company is in a state-monopolised industry, i.e. utility, petroleum and telecommunication industries. Companies in these industries always enjoy extraordinary profits largely thanks to the protection of the government policies. Even more importantly, the Chinese government has put forth a series of policies to revitalise the companies with substantial state share (Sun et al. 2002). These include reducing the tax burden, injecting capital to repay part of the debt, and debt-for-equity swap measure. According to Sun et al. (2002), one successful example is the RMB 30 billion debt-

³⁵ The issue of providing unemployment benefits to laid-off workers has always been the biggest headache for the government to push ahead the SOE reform. In developed countries such as the U.K., laid-off workers can seek for benefits from the government. However, anecdotal evidence in China suggests that a great number of workers are laid off without receiving any benefits at all. To minimise the impact of unemployment on the society, the province-based security funds have been set up by the provincial governments. However, severe under-funding has always been a problem.

for-equity swap of thirteen large petrochemical SOEs. Their average debt ratio was brought down from 76.25 per cent to 47.90 per cent and many of them turned from making losses to gains after the swap.

Secondly, government can also help monitor the management of listed companies. Agency problems (Jensen and Meckling, 1976) arise from the disparity in objectives between shareholders and managers. Monitoring management is one way to reduce such an agency conflict. In developing economies such as China where the development of markets is at its infancy, the legal system to protect shareholders is under construction, and information asymmetry is severe, monitoring management is particularly important (Sun et al., 2002). Especially, in the listed companies with a majority of state shareholding and vastly dispersed individual shareholders, the government is a powerful force to take up the monitoring role in the listed companies. In fact, the government has created a set of mechanisms to monitor the behaviour of management. A governmental body, the Bureau of State Property Management (BSPM), was established at the central and local levels to fulfil the commitment to preserving and increasing the value of state assets in the listed companies. Although the effectiveness of the BSPM is criticised by some researchers such as Xu and Wang (1999), the BSPM has more or less filled in a vacuum in monitoring the management.

Although it is hard for the above arguments to lead to one simple conclusion, the existence of various propositions suggests that government ownership has complicated impacts on the market value of listed companies in China. The great difficulty in establishing effective corporate governance and conflicting interests between the government and management frequently pose a serious threat to the corporate performance, leading researchers to argue that the excessive state shareholding is destroying the value of listed companies. Tian (2001) documents that corporate value decreases with an increased size of government shareholding when the government is a smaller shareholder. Hovey et al. (2003) document a negative relationship between firm value and state ownership. Bai et al (2005) finds that the largest shareholder being the government has negative effects on the firms' market value. However, the monitoring and policy effects provided by the government shareholding may also to some extent offset the problems produced by the

government ownership, and even boost the performance of listed companies. Contrary to other researchers, Sun et al (2002) find that government ownership is actually positively related to firm performance and this positive relationship holds for firms listed on the Shanghai Stock Exchange as well as those on the Shenzhen Stock Exchange. It holds no matter whether government ownership is represented by state share ownership or by legal person share ownership. Such mixed results may simply reflect the complexity of the issue. Therefore the exact relationship between state ownership and corporate value is an empirical issue.

6.2.2 Legal-person ownership and market value

The legal-person identity was created by the policy makers to aid the transition from SOEs to share-based firms. The legal person shareholder category is a mix of various domestic institutions. As discussed previously, it comprises private companies, state-owned enterprises and non-bank financial institutions such as investment funds and security companies (Xu and Wang, 1997). Legal-person ownership is a unique type of ownership in China and is of particular interest in that it combines the merits of both institutional investor shareholding in the industrial countries and state shareholding characterised in China.

Legal-person shareholders in China are somehow acting like the institutional investors in the U.S. and the U.K. markets. Compared with domestic individual investors, legal persons are better equipped with the power, experience, and expertise to monitor the firm's performance (Tan, 2002). In addition, legal-person shareholders frequently have access to corporate inside information, and the right to question chief officers at any time about the operations of the firm. In comparison with government, a legal-person shareholder does not have to consider the same political objectives that are important considerations faced by state shareholders (Claessens et al., 2000). Consequently, legal person shareholders in China are more economically oriented and geared towards profit-seeking. They also have relatively more freedom than state shareholders in deciding how to allocate profits, and in formulating and implementing firm strategy.

However the state-shareholding nature of legal-person ownership deserves the same level of attention. Although legal persons are a mixture of financial institutions, other forms of companies and even private individuals, in practice most of them are largely owned and/or controlled by the government. Delios and Wu (2005) further classify the legal person as state-related legal persons and non-state-related legal persons. They found that the average concentration of state-related legal-person ownership was 27 per cent of all ownership through 1991 to 2001, while non-state-related legal-person owners accounted for 4.5% of all ownership in the same period. More importantly, legal-person ownership suffers the same illiquidity problem as state ownership—both legal-person shares and state shares are not tradable on the open market. Under the existing regulations, legal-person shares are not permitted to trade on the market but transfer of legal-person shares among legal persons is allowed upon the approval of the CSRC. Because of the illiquidity problem shared by both state shares and legal-person shares, it is not surprising to see some researchers such as Sun et al. (2002) even put state shares and legal-person shares into the same category—government shareholding.

Similar to the arguments on state shareholding, legal-person ownership also have complex impacts on the firm value. Firstly, legal-person shareholders play an active role in monitoring the management, thus aligning the interests between the principal-(shareholders) and agents (management). In developing countries as China with weak protection of shareholders and severe information asymmetry, agency problems resulting from the separation of ownership and management are likely to be more serious than in industrial countries. The monitoring role is therefore extremely important. Sun et al. (2002) argue that legal-person shareholders in China are not only better motivated, but also equipped with power, to control and monitor the management. Unlike individual investors who have no control of the management, legal-person shareholders may ensure managers to work in the interests of shareholders through direct control. Compared with state shareholders, legal person shareholders' role in monitoring the management appears to be more effective and less politically-driven. The government exerts its control over the management though the BSMP, however, the BSMP's role in monitoring the management is severely restricted in that the representatives of the BSMP are government officials who have little know-how and incentive to effectively monitor the operation of

management (Xu and Wang 1999). By contrast, legal-person shareholders are more likely to better monitor the firm's management. Besides, legal-person shareholders are largely profit-seeking entities whose interests are closely associated with the performance of the company in which they have interest.

Furthermore, the legal-person shareholder's role in monitoring management appears to be even more important in the context of China where there is no effective external control mechanism due to the lack of an active takeover market (Xu and Wang 1999). An active takeover market plays an essential role in disciplining the management simply because the firm with poor performance is likely to become the target of takeover and managers then face great risks losing their jobs. However, the active takeover market virtually does not exist in China because nearly two-thirds of listed companies' shares are controlled by the government and legal persons, and these shares are not tradable on the open market. Mergers and acquisitions have frequently taken place in China since the early 1990s. However, most of these activities are directly or indirectly operated by the government (Zhang and Jiang, 2002). The lack of an active takeover market gives the China's managers substantial discretionary power to use the firm's resources for personal gains at the expense of shareholders.

Although legal-person ownership can encourage better monitoring, when the concentration of legal-person shareholding reaches a certain high level, it is likely that legal-person shareholders are exposed to the lure to expropriate minority shareholders. A second type of agency problem (principal-principal problem) can arise between large shareholders (legal persons) and minority shareholders (Claessens et al., 2000). Academic studies have provided empirical evidence for the large shareholders' expropriation hypothesis in both industrialised and emerging markets. La Porta et al. (1999) show that greatest source of agency problem stems from controlling shareholders expropriating value from non-controlling shareholders. In East Asian countries, Claessens et al. (2002) find that expropriation of minority shareholders is a rule rather than an exception. Delios and Wu (2005) argue that this exposure is particularly relevant in the context of China as there are weak corporate governance regulations and an under-developed institutional environment. Anecdotal

evidence suggests that large shareholders expropriating minority shareholders is a fairly common phenomenon in the Chinese equity market.

Based upon the above, one can see that the existence of legal-person ownership has complicated impacts on corporate value. On one hand, legal-person shareholders are likely to help increase the value of the company simple because legal persons play a crucial role in monitoring the management and limiting the manager's managerial discretion, hence solving or at least mitigating the type I agency problem (principal-agent problem) between shareholders and management. In China this role is irreplaceable at present in that no other investors can possibly do a better job than legal persons. Investors may see the existence of legal-person ownership as a value-adding factor and thus pay a premium for the firms with substantial legal-person ownership. On the other hand, when the concentration of legal-person ownership reaches a certain level, the type II agency problem (principal-principal problem) arises (La Porta et al., 1999). Legal persons may create conflicts of interests within the firm and collude with managers to benefit themselves at the expense of other shareholders, hence destroying the firm value. Therefore, the exact relationship between legal-person ownership and market value of the listed companies is an empirical issue.

The dual characteristics of legal-person shareholding in the Chinese listed companies and its impact on corporate performance have drawn a great deal of interest in the fields of corporate governance and market valuation. Consequently there is a large volume of literature examining the effects of legal-person shareholding on corporate value. Xu and Wang (1999), Sun et al. (2002), Bai (2003) Delios and Wu (2005), and Wang (2005) have carried extensive research on the legal-person shareholders and how they affect the corporate performance. Xu and Wang (1999) find that firm's profitability is positively correlated with the fraction of legal-person shares. Sun et al. (2002) obtain the similar finding and document the legal persons, along with state shareholders, has a positive and significant impact on firm's performance. Hovey et al (2003) find that the concentration of legal-person shareholding is positively correlated with firm's profitability. By examining changes in the operating performance of Chinese listed companies around their public offerings, Wang (2005) documents a curvilinear relation between legal-person ownership and performance

changes. His finding seems to suggest that performance of the firm with low and high levels of legal-person ownership is positively associated with the legal-person shareholding, while firms with an intermediate legal-person ownership experience a negative relationship between ownership and performance changes. Delios and Wu (2005) provide the evidence for a U-shaped relationship between legal-person shareholding and firm performance. Their finding seems to suggest that legal persons have a positive monitoring effect on the firm's management, but only at high levels of legal-person ownership. In summary, although the above studies adopt different methodologies and produce various conclusions as to the relationship between legal-person ownership and firm performance, there is one thing in common: they all find that legal-person ownership has significant impacts on the performance of the firm.

6.3 Models Development and Methodology

This section continues to explore the issue of market valuation in the context of Chinese listed companies. Rather than focusing on the impact of accounting figures such as net profit, book value, and dividends, etc. which have been investigated in Chapter 5, the emphasis of this chapter is placed on discovering the effect of non-accounting issues such as the ownership structure and ownership concentration. As discussed previously, various categories of shares were created by the policy-makers to aid the transformation from SOEs to share-based companies (Hovey et al., 2003). The non-tradable nature of state and legal-person shares could provide an assurance for the government to exert effective control over the listed companies. However, the effects of these types of shares on the market value remain unclear, or at least inconclusive, among the existing studies.

To study the relationship between market value and ownership structure of listed companies in China, a basic model is constructed as follows:

$$MV_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 NP_{it} + \alpha_3 P_{it} + \varepsilon \quad (6.1)$$

Whereby:

MV_{it} : Market value of firm i at the end of accounting year t ;

BV_{it} : Book value of firm i at the end of accounting year t ;

NP_{it} : Net profit for firm i at the end of accounting year t ;

P_{it} : Proportion of different types of shares in firm i at the end of accounting year t ;

Before testing the above model, two important methodology issues are worth discussing. Firstly, most existing studies examining the impact of ownership of listed firms in China establish the basic model as follows (Xu and Wang, 1999, Sun et al., 2002, Hovey et al., 2003, Bai et al., 2004, Delios and Wu, 2005):

$$P_{it} = \alpha + \alpha_1 P_{it} + \alpha_2 GR_{it} + \alpha_3 GEAR_{it} + \alpha_4 SALES_{it} + \varepsilon$$

Whereby:

P_{it} : Performance of firm i at the end of accounting year t ;

P_{it} : Proportion of different types of shares in firm i at the end of accounting year t ;

GR_{it} : Growth rate of firm i at the end of accounting year t ;

$GEAR_{it}$: Gearing Ratio for firm i at the end of accounting year t ;

$SALES_{it}$: Sales of firm i at the end of accounting year t .

Different studies use the above model in slightly different ways, but the spirit is the same. In general, these studies choose Tobin's Q and market-to-book value ratios as the proxy for the company performance and use sales growth rate, gearing ratios and sales as the control variables to control the effects of company growth, gearing and firm size. However, I did not take the conventional method for two reasons. First, the objective of this section is to examine the relationship between the market value of firms and ownership structure. Tobin's Q and market-to-book value ratio are commonly used to measure the firm performance; however, these measures are highly related to accounting issues since the calculation of these measures significantly involves accounting figures such as book value of assets etc. Therefore these measures are actually the combination of market and accounting figures and they are prone to the biases stemming from the accounting issues. For this reason they might not be the appropriate proxy for the market value of the firms. By contrast, market capitalisation is directly obtained from the market and is not subject to the changes resulting from accounting policies. Therefore using market capitalisation to proxy market value appears to be more objective³⁶. Second, a theoretical connection between the work in this chapter and that in chapter 5 has been established by using Model 6.1. In previous sections, accounting information such as net profit, book

³⁶ It can also be argued that market valuation models, e.g. the modified Ohlson model, are based on the linkage between market information and accounting information. The accounting information such as book value and net profit is somehow subject to managerial judgement and can not be absolutely objective. Therefore, the objectivity of variables discussed here may not pose a serious problem to the study.

value of equity, dividends, abnormal earnings etc has been found to be statistically significant in explaining the market value of the listed firms. This chapter focuses on the effect of ownership structure on market valuation by looking into issues beyond accounting information based upon the results obtained from previous work. It can be seen that Model 6.1 is constructed by adding an extra variable, P_{it} , into the modified Ohlson model, the foundation model of this study. With both accounting (net profits and book value) and corporate governance information (proportion of shares held by different types of shareholders) being put in the same model, BV_{it} and NP_{it} are treated as the control variables and P_{it} is added to examine the effects of different types of shareholding on market value.

Secondly, as discussed in the existing literature, the impact of different types of shareholding on market valuation is complex (Xu and Wang, 1999, Sun et al., 2002, Hovey et al., 2003, Bai et al., 2004, Delios and Wu, 2005). The complexity is mainly reflected on the existence of non-linear relationship between various types of ownership and market performance. Sun et al (2002) document the relationship between government ownership and firm performance in China follows an inverted U-shape pattern. Xu and Wang (1999) identify a U-shaped curve between legal-person shareholding and the performance of companies measured by market-to-book value ratio, ROE and ROA. Similarly, Delios and Wu (2005) also find that the relationship between legal-person ownership and firm performance follows a U-shape pattern. To explore the possible non-linear relationship between different types of ownership and market value, the quadratic and cubic terms are introduced into the model and Model (6.1) is further developed into the models as follows:

$$MV_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 NP_{it} + \alpha_3 P_{it} + \alpha_4 P_{it}^2 + \varepsilon \quad (6.2)$$

$$MV_{it} = \alpha_0 + \alpha_1 BV_{it} + \alpha_2 NP_{it} + \alpha_3 P_{it} + \alpha_4 P_{it}^2 + \alpha_5 P_{it}^3 + \varepsilon \quad (6.3)$$

If α_4 and α_5 are found to be statistically significant, it could suggest that non-linear relationship exists between the market value and different types of ownership.

6.4 Findings and Discussion

The regression results are presented in Table 6.2. As can be seen from Table 6.2, four models are constructed to carry out the tests. The benchmark model takes the original form of the modified Ohlson model and acts as the benchmark in the tests. Model 6.1 is used to test whether there is a linear relationship between market value and different types of shareholding. Model 6.2 and 6.3 are developed to examine the possible non-linear relationship between market value and ownership. In Panel A, the proportion of both state shares and legal-person shares in the listed companies is used to represent P_{it} . The reason to put state shares and legal-person shares together is that these two types of shares bear substantial similarity in terms of liquidity and ownership. As discussed earlier, both state shares and legal-person shares are not allowed to be traded on the open market. More importantly, both types of shares are ultimately owned by the government. Although some legal persons are private owners, overall their control over the listed companies is at present negligible. Some researchers even treat the combination of state share and legal-person shares as government shares (Sun et al., 2002 and Tian, 2003). For simplicity, I also name the congregate of state shareholding and legal-person shareholding as government shareholding in this study³⁷.

In order to obtain a picture on the effect of government shareholding on the market value in a broad sense, I first put state shares and legal-person shares in the same category as government shares. I then investigate the impact of state shares and legal-person shares on the market value of firms respectively by differentiating the former from the latter. As discussed earlier, although state shares and legal-person shares are widely regarded as the shares owned by the government, significant differences do exist between the two. Therefore, it would be expected that they play different roles in explaining the firm value.

³⁷ For simplicity, the term 'government shareholding' or 'government ownership' represents the aggregation of state and legal-person shareholding and will be used throughout the study.

Equation	α_0	α_1	α_2	α_3	α_4	α_5	Adjusted R^2 (%)	F	No. of obs.
Panel A: P_{it} = State + Legal Person									
BM	0.31*** (9.87)	2.57*** (23.81)	2.14*** (5.80)				51.40	439.44	835
6.1	0.17** (2.29)	2.62*** (24.07)	2.09*** (5.68)	0.35** (2.09)			51.70	298.01	835
6.2	0.47*** (5.16)	2.64*** (24.71)	2.05*** (5.67)	-2.08*** (-4.35)	3.86*** (5.40)		53.20	238.38	835
6.3	0.46*** (4.79)	2.64*** (24.64)	2.08*** (5.71)	-2.30*** (-4.10)	5.35** (2.49)	-1.97 (-0.74)	53.20	190.71	835
Panel B: P_{it} = State									
6.4	0.32*** (8.82)	2.57*** (23.81)	2.13*** (5.78)	-0.051 (-0.50)			51.20	292.78	835
6.5	0.32*** (8.78)	2.58*** (23.98)	2.08*** (5.67)	-0.59*** (-3.06)	1.44*** (3.28)		51.80	224.96	835
6.6	0.33*** (8.55)	2.58*** (23.98)	2.07*** (5.65)	-0.56** (-2.76)	0.82 (0.89)	0.97 (0.75)	51.80	179.90	835
Panel C: P_{it} = Legal Person									
6.7	0.27*** (6.95)	2.58*** (23.77)	2.11*** (5.72)	0.19* (1.81)			51.20	292.47	835
6.8	0.29*** (6.91)	2.57*** (23.66)	2.12*** (5.74)	-0.05 (-0.20)	0.45 (1.05)		51.20	219.65	835
6.9	0.29*** (6.82)	2.57*** (23.68)	2.13*** (5.78)	-0.38 (-1.23)	2.36** (2.05)	-2.21* (-1.79)	51.30	176.83	835
<p>Benchmark Model: $MV_{it} / MV_{i(t-1)} = \alpha_0 + \alpha_1 BV_{it} / MV_{i(t-1)} + \alpha_2 NP_{it} / MV_{i(t-1)} + \varepsilon$</p> <p>Model 6.1: $MV_{it} / MV_{i(t-1)} = \alpha_0 + \alpha_1 BV_{it} / MV_{i(t-1)} + \alpha_2 NP_{it} / MV_{i(t-1)} + \alpha_3 P_{it} + \varepsilon$</p> <p>Model 6.2: $MV_{it} / MV_{i(t-1)} = \alpha_0 + \alpha_1 BV_{it} / MV_{i(t-1)} + \alpha_2 NP_{it} / MV_{i(t-1)} + \alpha_3 P_{it} + \alpha_4 P_{it}^2 + \varepsilon$</p> <p>Model 6.3: $MV_{it} / MV_{i(t-1)} = \alpha_0 + \alpha_1 BV_{it} / MV_{i(t-1)} + \alpha_2 NP_{it} / MV_{i(t-1)} + \alpha_3 P_{it} + \alpha_4 P_{it}^2 + \alpha_5 P_{it}^3 + \varepsilon$</p> <p>Notes:</p> <p>$MV_{it}$: Market value of the equity for firm i at the end of fiscal year t;</p> <p>$MV_{i(t-1)}$: Market value of the equity for firm i at the beginning of fiscal year t;</p> <p>P_{it} : Proportion of different types of shares in firm i at the end of accounting year t;</p> <p>NP_{it} : Reported net profit for firm i for fiscal year t;</p> <p>BV_{it} : Reported book value for firm i for fiscal year t;</p> <p>All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;</p>									

Table 6.2 Regression of market value on various types of shareholding

6.4.1 Government ownership and market value

Panel A in Table 6.2 presents the empirical results of examining the relationship between government ownership and the market value of listed firms in the Chinese equity market. From Model 6.1, it can be clearly seen that the coefficient for proportion of government shares in a listed company ($\alpha_3 = 0.35$) is significant different from zero at $\alpha < 0.05$ level. The sign of the coefficient and the significance level lead me to draw a preliminary conclusion that when state ownership and legal-person ownership are treated as a whole they are positively associated with the market value of the listed firms. The significant impact of government ownership on the market value of listed firms is in support of Sun et al. (2002) who argue that the signalling effect, monitoring role and policy role resulted from government ownership in the Chinese listed companies could assist boost the performance of the listed companies. They document that the government ownership has a significant and positive impact on firm performance. It can also be found from Model 6.1 that the coefficient for book value, α_1 , is 2.62 with a t-statistic of 24.07 and the coefficient for net profit, α_2 , is 2.06 with t-statistic of 5.68, hence providing an indication that book value and net profit are still significantly and positively associated with the market value of listed firms in China even after the ownership variable is introduced.

The possible non-linear relationship between government ownership and market valuation is explored by introducing the quadratic and cubic terms in Model 6.2 and 6.3. One striking finding is that α_3 is -2.08 and α_4 is 3.86 at $\alpha < 0.01$ level in Model 6.2. There appears to be a quadratic relation between the market value and state ownership and legal-person ownership combined in the Chinese equity market. Interestingly, this quadratic relation has been strengthened by the results from Model 6.3. As can be seen from the regression results from Model 6.2 and 6.3, the signs of the coefficients do not change as the cubic term is introduced in Model 6.3 with α_3 equal to -2.30 $\alpha < 0.01$ level and α_4 is 5.35 at $\alpha < 0.05$ level. The coefficient for the cubic term is insignificant with a t-statistic of -0.74. It therefore can be concluded that a quadratic relation exists between government ownership and market value. It is

worth noting, however, that the signs of estimated coefficients with P_{it} and P_{it}^2 indicate a U-shaped curve, thus suggesting that the value of firms decreases with the proportion of state shares and legal-person shares combined when P_{it} is low and increases when P_{it} is high. It can also be found from the coefficients of α_3 and α_4 in the Model 6.2 and 6.3 that the turning points are relatively stable in the 22-27% range of shareholding by the state and legal persons. This U-shaped relationship between market value and government ownership is best depicted by Figure 6.1. This finding lends a further support for Tian (2001) who documents that the firms are valued lower when the shareholding stake of the government is higher, but after a certain threshold corporate value increases with the size of state's shareholding stakes.

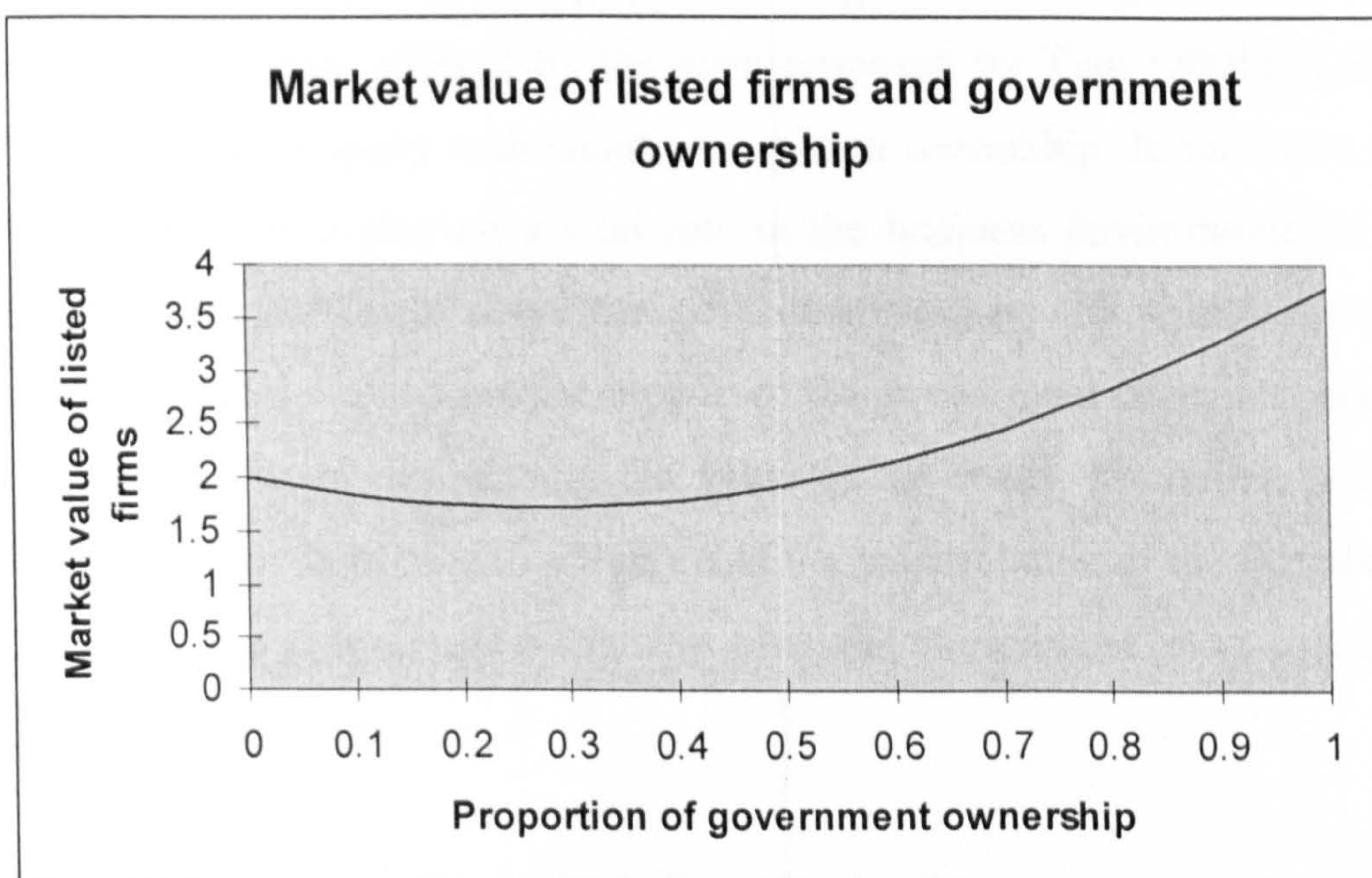


Figure 6.1 Government ownership and market value of listed firms in China

The U-shaped relationship between the firm value and shares held by the government can be explained by the arguments existing in the literature on ownership and market valuation. As discussed previously, with state and legal-person ownership having both positive and detrimental impacts on the value of the firm, the company's market value is then dependent upon the trade-off of two competing forces. When the

government (state and legal persons) owns a small stake in a company, the detrimental effect of state ownership seems to dominate the positive impact, thus destroying the value of listed firms. As argued by Morck et al. (1988), when a legal person or the government owns a small stake in a company, it may try to collude with management for undertaking business operations or investments that will benefit itself but harm the firm's value. The monitoring role that the government and legal persons could play in the listed company may be severely restricted due to their relatively small interest in the company and the resulting voting rights. As a consequence, management in a company with small proportion of state shares and legal-person shares are likely to enjoy more discretionary power to obtain personal gains at the expense of shareholders. Furthermore, the fact that the government holds a small stake in a listed company also seems to send a strong message to the equity market that the company is unlikely to get preferential treatments from the government. The 'policy role' played by the government argued by Sun et al. (2002) and 'helping hand' offered by the state proposed by Tian (2001) seem to be less effective in a company with small government ownership. It has to be stressed that the government is playing a vital role in the business environment of China. In a country such as China where the government enjoys the absolutely unchallenged power to lead the economy, the support of the government frequently adds extremely valuable merits in determining the value of the firms. Therefore, based upon the above, it is not surprising to observe that the market value of the firm decreases with the size of the government ownership when the government owns a small proportion in the listed company.

When the government's equity holding in the firm increases to a certain level the rising positive impacts of the government ownership begin to dominate the detrimental effects. In a company with majority state and legal-person shareholding, the block-holder's goal coincides with that of outside shareholders—to maximise the firm's value. The market value of the firm is therefore likely to increase with the government ownership because investors anticipate the convergence of interest at a high level of government shareholding. The high proportion of state and legal-person shares in a listed company may also provide an incentive for the government to effectively monitor the management of the company simply because the government's interests are highly associated with the performance of the company.

Note that the monitoring role in the current Chinese equity market is extremely important given the weak corporate governance, severe information asymmetry and a lack of legal protection for minority shareholders (Wang 2005). Investors therefore place heavy weight on whether the company is subject to effective monitoring when making investment decisions. Legal persons are believed to be equipped with expertise and power to perform the monitoring role, therefore investors would rather pay a premium to the company with high level of government equity holding. What's more, companies with substantial government and legal-person shareholding are also likely to win the political and economic support from the government. As discussed earlier, the core objective of the SOE reform is to revitalise the poorly-performing state owned companies. To facilitate the transition from state-owned enterprises to listed companies the government has taken a series of measures. These include reducing the tax burden, injecting capital to repay part of the debt, and the debt-to-equity swap. All these measures have been taken on board by the equity market and seem to have contributed to the increase in the market value of the listed companies.

Not even so, the companies with high level of state and legal-person shareholding are also likely to be in a government-monopolised industry. By looking into the average government (state plus legal-person) shareholding in the sample by industries, one could gain a clearer idea on what types of companies in terms of ownership are enjoying the benefits resulting from the government monopoly.

Industry	Mean	Median	Minimum	Q1	Q3	Maximum
All Companies	0.58671	0.60000	0.00000	0.50204	0.71188	0.93965
Agriculture	0.44001	0.44001	0.41947	0.41947	0.46055	0.46055
Manufacturing	0.59615	0.59953	0.28415	0.50324	0.68399	0.91016
Utilities	0.6801	0.6223	0.4836	0.5764	0.8508	0.9387
Construction	0.7044	0.6671	0.6671	0.6671	0.7628	0.7628
Transport & Warehousing	0.5721	0.5346	0.5039	0.5218	0.5884	0.8006
Information Technology	0.5468	0.5670	0.0000	0.4881	0.7225	0.8149
Retail & Wholesale	0.5972	0.6015	0.0859	0.5153	0.7223	0.8138
Real Estate	0.5887	0.6325	0.0000	0.5470	0.7256	0.8814
Public Services	0.5493	0.5739	0.2199	0.4444	0.5846	0.8007
Media & Culture	0.6298	0.6298	0.1834	0.5416	0.8700	0.8831
Conglomerate	0.5421	0.6000	0.0000	0.3954	0.7279	0.9397

Table 6.3 State and legal-person shareholding by industrial sectors

As the mean and median values in Table 6.3 indicate, companies in industries such as construction, utilities and media & culture have the highest government (state plus legal-person) shareholding. These industries, in particular the utilities, are believed to be vital to the national economy and therefore they are under the protection of government monopoly. Also note that it is not surprising to witness the high proportion of government ownership in the media & culture sector given the government's long history of using the media as a propaganda tool. To exert control over the companies in these industries, the government naturally holds a majority of shares in the company. As shown by Table 6.3, the government on average holds 68.01 per cent of the total shares in the utilities companies and maximum government shareholding reaches up to 93.87 per cent. Perotti (1995) suggests that companies in regulated industries tend to enjoy the benefits related to the lack of competition and protection of government policies and therefore are likely to

outperform the companies in other industrial sectors. Sun et al. (2002) provide evidence that the firms in the regulated (government-monopolised) industries, such as utilities, perform better than those in the non-regulated sectors.

It is worth mentioning that the linear relationship between government ownership and market value observed from Model 6.1 may not necessarily contradict with the U-shaped curve illustrated from Model 6.2 and 6.3 when the quadratic and cubic terms are introduced. Note that the turning point the U-shaped curve derived from Model 6.2 and 6.3 is in a range between 22-27 per cent, meaning that when the government ownership of a listed firm falls below 22-27 per cent, the market value of the company decreases with the size of the government ownership. However, when the government ownership reaches this threshold, increased government equity holding tends to push the market value up. However, this threshold of 22-27 per cent is far lower than the average government shareholding of 58.67 per cent in the sample, as shown in Table 6.3. The Q1 value of 50.20 per cent for the government shareholding further means that over 75 per cent of the listed companies in the sample have more than half of their equity owned by the government. Therefore it can be concluded that overall the U-shaped curve exists between government ownership and firm value and this curve has a longer tail towards the right. The linear relationship observed from Model 6.1 without including the quadratic and cubic terms captures only part of the curve after the government ownership reaches the turning point.

6.4.2 State ownership and market value

Panel B of Table 6.2 presents the results of investigating the relationship between state shareholding and market value. After discovering the impacts of the government ownership by combining the state and legal-person shareholders together, it is worthwhile to split up the state and legal-person shareholding and explore the effects of these two types of ownership separately. After all, distinct differences exist between state shareholders and legal-person shareholders, especially when one sees legal persons as business entities with the ultimate goal of profit maximisation and

the state shareholders as the government representatives who frequently have to put the social welfare objectives as a priority.

As shown in Model 6.4, the coefficient for state ownership, α_3 , is -0.051. However it cannot be rejected that α_3 is not significantly different from 0 because the t-statistic is -0.50. Therefore, state ownership alone in this model does not seem to provide any explanation to the market value of the listed firms. This result is strikingly different from what is obtained from Model 6.1 when the state and legal-person ownership are combined together. However, this result seems to be consistent with the findings of Xu and Wang (2002), Hovey et al. (2003), and Wang (2005) whose studies suggest state ownership alone is not associated with the corporate profitability and performance.

Following the method used in Panel A, the quadratic and cubic terms are included in the model to further investigate the possible non-linear relationship between state ownership and market value of listed firms. As shown in Panel B of Table 6.2, the coefficients for P_{it} and P_{it}^2 ($\alpha_3 = -0.59$; $\alpha_4 = 1.44$) in Model 6.5 are both statistically significant at $\alpha < 0.01$ level. In Model 6.6, α_3 is significant at $\alpha < 0.05$ level, but neither α_4 nor α_5 shows any statistical significance at all. All these suggest that there appears to be a quadratic relationship existing between the proportion of state shares in the listed company and the firm value. It is worth noting that the signs of estimated coefficients for P_{it} and P_{it}^2 indicate that this relationship is graphically a U-shaped curve with the turning point occurring at P_{it} equal to 20 per cent. This suggests that firm value first declines with the increase in the proportion of state shares, then goes up with the increase in state ownership, when the state's equity holding surpasses the 20 per cent level. This relationship is better seen from Figure 6.2.

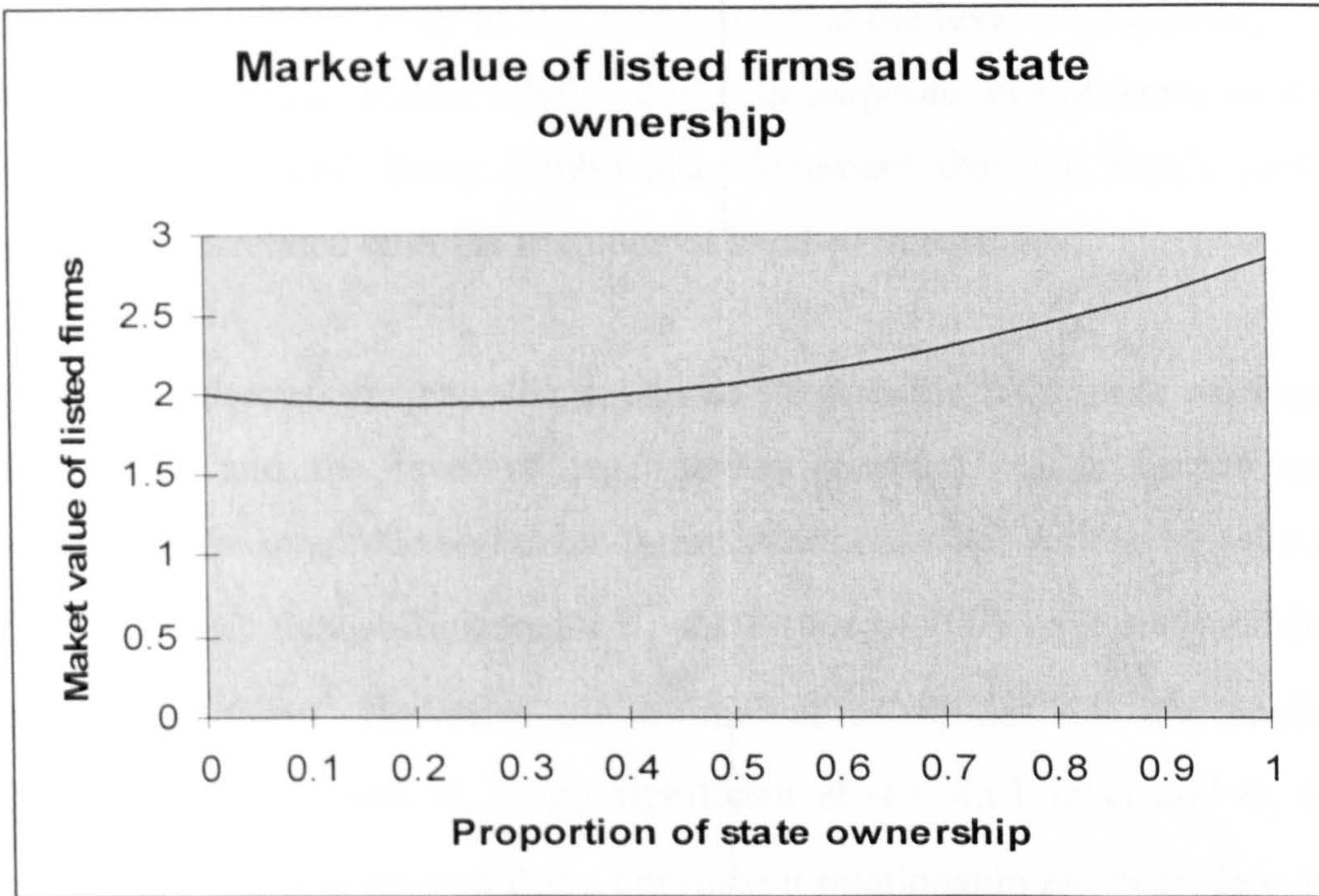


Figure 6.2 State ownership and market value of listed firms in China

The U-shaped association between state ownership alone and firm value seems to be consistent with the finding obtained from Panel A when state and legal-person ownership are combined together. It therefore can be understood that this finding has strengthened the conclusion drawn in the preceding section: the U-shaped relationship exists between government ownership and firm value and this conclusion holds not only when state and legal-person ownership are combined together but also when state shareholding is considered alone.

6.4.3 Legal-person ownership and market value

When the initial investigation on the possible linear relationship is carried out in Model 6.7, a moderate positive relationship between legal-person shareholding and firm value is reported as evidenced by α_3 which is significant at $\alpha < 0.1$ level in Panel C of Table 6.2. This finding offers preliminary evidence that legal-person shareholding tends to increase the market value of listed firms. It comes as no surprise as it reinforces the findings of most literature studying the impact of ownership structure in the context of Chinese equity market. Using three-year data

from 1997 to 1999, Hovey et al. (2003) find that the level of ownership of shares by legal persons has a positive relationship with corporate performance as measured by Tobin's Q. Xu and Wang (1999) also document that the firm's profitability is positively correlated with the fractions of legal-person shares.

Like the previous sections, the existence of possible non-linear relations between firm value and the level of legal-person shareholding is further explored by embracing the quadratic and cubic terms into the model. As can be seen from Panel C of Table 6.2, the coefficients for P_{it} and P_{it}^2 ($\alpha_3 = -0.05$; $\alpha_4 = 0.45$) in Model 6.8 are both insignificant. However, the estimation of Model 6.9 has produced some interesting results with α_4 being significant at $\alpha < 0.01$ level and α_5 at $\alpha < 0.10$ level. This seems to suggest that a curvilinear relationship has been detected between the market value of the listed company and the level of legal-person equity holding³⁸. This relationship is best depicted by a figure, which I have created in Figure 6.3.

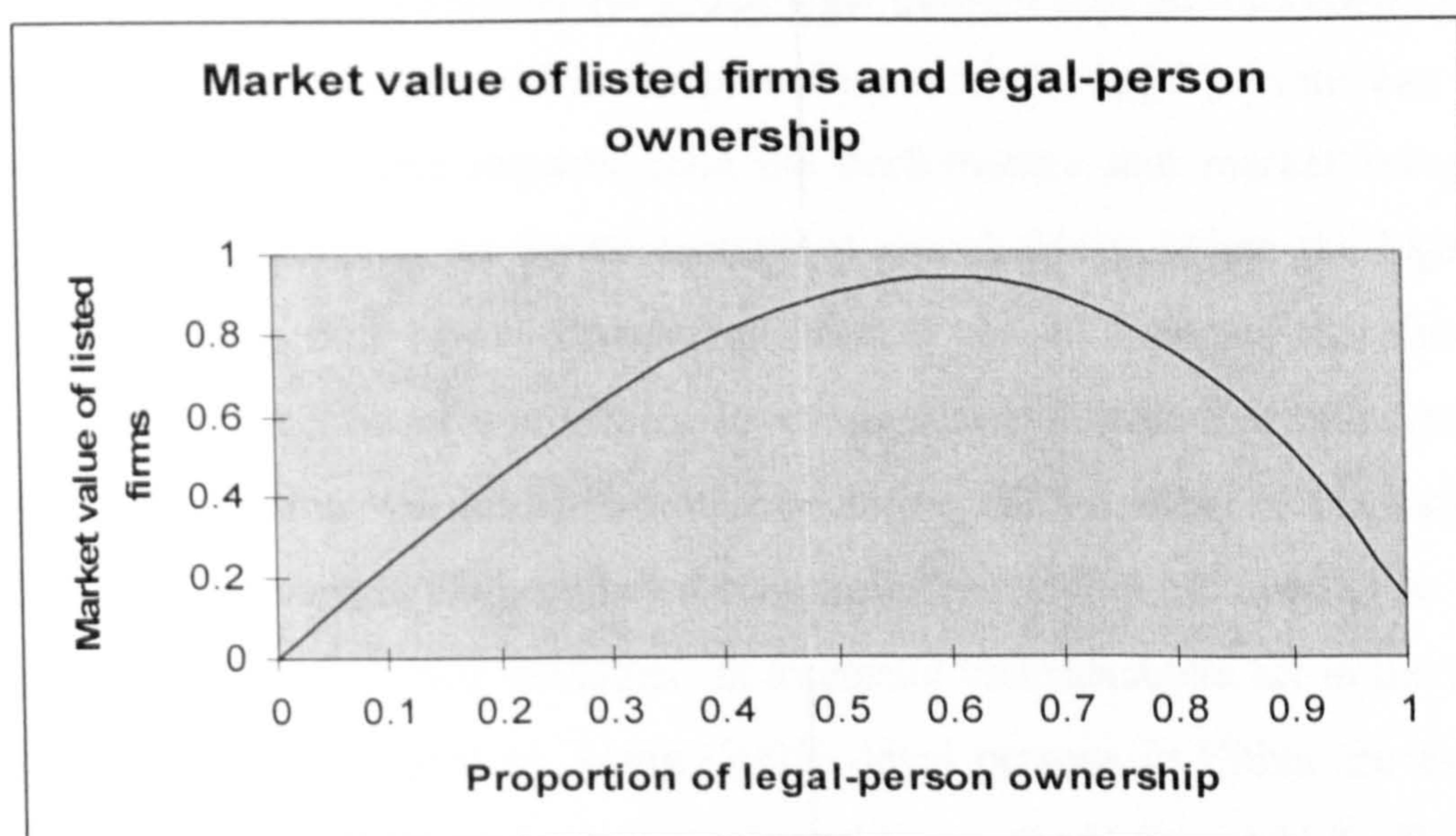


Figure 6.3 Legal-person ownership and market value of listed firms in China

³⁸ It has to be admitted that this regression result of Model (6.9) has provided some evidence for the hump-shaped relationship between market value and legal-person shareholding; however, the relationship is not too significant.

This hump-shaped curve between market value and legal-person shareholding is obviously opposite to the U-shaped relation found in the previous sections when the impacts of government ownership and state ownership are combined and examined. It clearly suggests that the market value of listed companies goes up with the increase in the fraction of shares held by legal persons and after reaching a turning point a further increase in the legal-person shareholding would lead to a decline in the market value. This finding is of particular interest because the largest legal persons in Chinese listed companies are usually institutions ultimately controlled by the government (Hovey 2003). And more importantly, legal-person shares, together with state shares, are in a same category labelled as non-tradable shares. Therefore intuitively it should be expected that association between legal-person shareholding and market value would follow the same pattern as that between state shareholding and market value.

The hump-shaped relationship between legal-person ownership and market value can be explained by the particular roles that legal persons play in the context of Chinese equity market. As discussed in the preceding sections, legal persons can have both beneficial and adverse impacts upon the performance and market value of listed companies depending on the percentage of shareholding. When the legal persons' equity holding falls below the turning point, it can be expected that the beneficial effects dominate the adverse effects. Investors thus anticipate that an increase in legal person ownership will lead to an increase in the market value of the listed firm. In fact, legal persons in Chinese listed companies are widely believed to be playing an active role in monitoring management to ensure that managers act in the interests of shareholders. As argued by Wang (2005), legal persons in China are analogous to institutional investors in the industrial world, e.g. the U.S. and U.K. They are well equipped with almost everything that is needed to monitor the management of listed companies, such as expertise, experience, ability, voting power and authority. Most importantly, unlike state shareholders who frequently have to strike a balance between seeking for profits and reaching social welfare targets, they are business entities ultimately pursuing profit maximisation. Their interests in the listed companies are closely tied up with the performance of the company. To protect their own interest legal persons are highly motivated to monitor management effectively. As a matter of fact, both the government and individual investors would anticipate

legal persons to fulfil the monitoring role simply because the former lacks motivation and the latter is short of expertise.

What is more, legal-person owners in practice help to increase or strengthen the alignment of interests between managers and shareholders (Hovey et al. 2003). They do this via their direct control. When they have a substantial representation in a company's board of directors, they have the power to change the management team when it is needed. Empirically, Xu and Wang (1999), Sun et al (2002), and Bai et al. (2004) all found that the concentration of legal person shareholding is positively correlated with firm performance, which is consistent with the idea that legal-person shareholders are playing an effective role in monitoring the firm's management.

The fact that legal-person ownership helps to increase the market value of listed firms through playing the monitoring role does not necessarily mean that the higher concentration of legal-person ownership will lead to higher market value of the firm. When the level of legal-person shareholding reaches a certain high level, 60 per cent in this study, the type II agency problem (principle-principle) arises between majority shareholders and minority shareholders (La Porta et al., 1999). As indicated by Figure 6.3, when legal persons' ownership exceeds 60 per cent, an increase in the shareholding would lead to a decline in the market value. This suggests that investors in the Chinese equity market welcome legal persons to own the shares up to a certain level. However, too many shares owned by legal persons tend to give rise to the fear that legal person might be exposed to the lure to expropriate minority shareholders. This fear is likely to be turned into reality given the fact that China's equity market is at its infancy and there is a severe lack of legal protection to the minority shareholders. Corporate governance regulations are weak. Majority shareholders enjoy more discretionary power to expropriate minority shareholders due to the information asymmetry. In fact, the events that majority shareholders expropriate minority shareholders occur so frequently and commonly in China that Claessens et al. (2002) claim that expropriation to minority shareholders is a rule rather than an exception. Responding to the above fear and events, market value goes down with the increased legal-person shareholding.

From the investors' perspective, the hump-shaped relationship between legal-person ownership and market value also reflects the complication in the market's attitude towards legal person shareholders. Investors need legal-person shareholders because the market relies on legal persons to monitor management but in the meantime minority investors also fear legal persons because too many shares in the hands of majority shareholders would expose them to the risks being expropriated by block holders. It is this mixed attitude towards legal persons that change the directions of the hump-shaped curve.

Note that a U-shaped relationship between government ownership and market value is discovered when legal-person and state shareholding are combined together and when state ownership is considered alone. However, when legal-person ownership is separated from state ownership, the relationship between legal-person ownership and market value appears to be a hump shape. This is a rather interesting finding because it strengthens the idea that legal-person shareholders in the Chinese equity market actually have dual characteristics. It carries distinct features of state owners in that both state and legal-person shares are non-tradable and most of legal persons are directly and indirectly controlled by the government. It is therefore no surprise to discover that the U-shaped relationship between state shareholding and market value remains unchanged even when both state and legal-person ownership is incorporated into the model. Including legal-person ownership as a part of government ownership appears not to affect the overall relationship. On the other hand, when legal-person ownership is separated from state ownership and is treated as a stand-alone variable in the model, its unique feature, the resemblance to institutional investors, appears to emerge. That is, at low levels of ownership, legal persons tend to perform the monitoring role in the listed firms. When legal persons' equity shareholding exceeds a certain proportion they are prone to the lure to expropriate the minority shareholders.

Chapter 7. SUMMARY AND CONCLUDING REMARKS

This study focuses on the issues of value-relevance of accounting numbers and the relationship between different types of shareholding and the market value of the listed firms in the Chinese emerging stock market. The market valuation theory suggests that market value is in a linear relationship with the accounting figures such as book value and net profit. This theory has been widely accepted and tested in most developed markets such as the U.S.A, the U.K., the Netherlands, France and Germany etc. Generally, accounting information is found to be value relevant in these countries, implying that book value and net profit are playing significant roles in explaining the market value. Does the market valuation theory holds in emerging markets such as China? This is an empirical question; it is also the major objective of this thesis.

China's economic development and institutional settings are unique in many ways. Firstly, the whole economic system is in a transitional period in which the planned economy is gradually replaced by the market economy. Secondly, the newly-emerged listed companies are transformed from the former SOEs and display a series of distinctive features. The most significant one is that the nearly two-thirds of the shares are controlled by the government and these shares are not tradable. Thirdly, despite the phenomenal expansion in size, China's stock market is still a typical emerging market plagued by a host of inherent problems. These problems have distorted the market information such as share prices. Fourthly, from the fund-based accounting system to the IAS-based accounting standards, Chinese accounting has undergone a series of revolutionary changes to bring the accounting regulations in line with both international conventions and the overall economic environment of China. Despite the fact that China has largely adopted the IASs in constructing its accounting regulatory regime, significant differences exist between the two.

The whole study has been divided into two stages. In stage one, the central task is to investigate whether the accounting information reported by China's listed companies is playing a significant role in explaining the market value. Stage one tries to explore two questions:

1. Is accounting information provided by Chinese listed firms value relevant? If the answer is yes, are there significant differences in terms of value relevance of Chinese accounting information existing during the studied period and across industrial sectors?
2. Is there any other accounting information playing a significant role in explaining the market value of listed firms? If yes, what is that?

In stage two, the focus of the study is shifted on the unique ownership structure of the listed companies in China. The central task in this stage is to investigate whether there is significant association between the market value of listed firms and different types of shareholding, in particular, the state shareholding and legal-person shareholding. This stage attempts to answer three questions:

1. Is the government shareholding as a whole (state and legal-person shareholding) playing a significant role in explaining the market values of listed firms? If yes, what exactly is the association between the government shareholding and market values?
2. If the state ownership is taken alone, does it influence the market value of listed firms? Again, if the answer is yes, how does it associate with the market values?
3. Do legal persons play a significant role in explaining the market value of listed firms in China? If yes, does the role of legal persons differentiate from that of the state?

The results of this study suggest that the accounting information as reflected in the income statement and balance sheet is highly value relevant to investors in the Chinese equity market. This is consistent with that of Bao and Chow (1999) and Chen et al. (2001), who documented the value-relevance of Chinese accounting information in their studies. The finding that the accounting information plays a significant role in explaining the market value in the context of China is particularly intriguing. Despite the fact that Chinese equity market is an emerging market and despite all the criticism

over the quality of Chinese accounting information and the legal settings of accounting regulatory framework, financial reports disclosed by Chinese listed companies do contain significant value-relevance not only on the pooled basis, but also across years and sectors. In particular, the record of value-relevance of accounting information can be traced back to as early as 1995, when both the Chinese stock market and accounting regulatory system were at the early stage. The market valuation theory and models have been tested in the developed markets such as the U.S.A, the U.K., France, the Netherlands, and Germany etc. Accounting information has been found to be value relevance in these countries (e.g. Landman 1986; Barth 1991; Barth et al., 1996; Eccher et al., 1996; Burstaher & Dichev 1997, Stark and Thomas, 1998; Arce and Mora, 2002). The results of this study seem to indicate that the market valuation theory holds true not only in the developed markets, but also in emerging markets such as China.

The results also suggest that the value relevance is on the whole in decline within the period studied (1994-2001). This finding comes as a bit of a surprise as one would expect the quality of accounting information disclosed by China's listed companies to improve as a result of the accounting reform. The stock market is also expected to gradually mature as more market regulations are introduced and investors behave increasingly rationally in making investing decisions. The overall decline trend of value relevance could be interpreted by the 'policy shocks' caused by the regulation-setters. Introducing a large number of accounting regulations in a short period of time and frequent change of policies could produce unpredicted effects on the market and the investors' perception of the stock market. Another explanation for the decline in the model's explanatory power is that investors in the early stage of stock market development tend to behave naively, at least in comparison with the investors in the developed markets, when making decisions based on accounting information. Therefore, there is not a clear pattern in terms of how much variation of the share prices can be explained by the accounting fundamentals such as book value and net profits. The decline trend of value relevance might also be attributed to the relatively short period being studied. Using data over the past 40 years, Collins et al. (1997) document the joint value-relevance of earnings and book values has increased slightly. However, this study covers a period of only 8 years from 1994 to 2001 due to the short history of Chinese equity market and limited availability of the data. The short

period of time makes it impossible to observe a pattern without being affected by the noises and shocks inherent to the equity market. To obtain a better picture, the period being studied needs to be extended and therefore the study aiming at obtaining a long-term pattern should be carried out in the future.

Apart from examining the relationship between market value and book value & net profit, this study has extended the line of research to the value relevance of other accounting information such as dividends, positive and negative net profits (losses), and abnormal earnings etc. All of these accounting figures have been proven to be significantly value relevant in the market valuation theory (e.g. Quiry, 2002; Ohlson, 1995), however they have never been tested in the emerging markets such as China prior to this study. The results obtained seem to lead me to believe that the accounting information reported by the Chinese listed firms including positive net profits, negative net profits, closing book value, opening book value, dividends etc together are playing significant roles in explaining the market value. Positive net profits and closing book value are found to be positively related with the market value. Negative net profits reported by the listed companies lead to considerable decrease in the market value because investors see negative net profits as an indication of poor performance. Opening book values are proven to be negatively related to market values in that they represent the capital charge element of the abnormal earnings. Paying dividends in the Chinese equity market results in the destruction of market value simply since cash is expected to be retained by the companies and be re-invested for the future. All the above seem to further suggest that although the Chinese equity market is an emerging market and China is developing its shareholding and share-trading systems in a way that differs hugely from the rest of the world (Tian, 2001), the finance theory in terms of market valuation established in the developed market still holds firmly in the Chinese market.

As for the unique ownership structure and its impacts on the market value, the results seem to suggest that when government shareholding (the combination of state shareholding and legal-person shareholding) is considered, a U-shaped curve is identified between the government shareholding and market value. This indicates that the market value of a firm decreases with the proportion of government shares when the government holds low level of ownership and increases when the government

shareholding is high. The turning point in the U-shaped curve is found to be between 22 and 27 per cent, implying that the range between 22 to 27 per cent is the optimal government shareholding for listed companies. This finding lends a further support for Tian (2001) who documents that the firms are valued lower when the shareholding stake of the government is higher, but after the threshold corporate value increases with the size of the government's shareholding stakes.

If the state shareholding is considered alone, the result from the previous test does not change too much. Again, a U-shaped curve is found to exist between state ownership and the firm's market value. This seems to be consistent with the finding obtained from the previous test when state and legal-person ownership is combined together. It therefore can be understood that this finding has strengthened the conclusion drawn in the preceding section: the U-shaped relationship exists between government ownership and firm value and this conclusion holds not only when state and legal-person ownership are combined together but also when state shareholding is considered alone.

As a final point, when it comes to legal-person shareholding, however, the result seems to support the hump-shaped curve between market value and legal-person shareholding. This finding is obviously opposite to the U-shaped relation observed in the previous tests when the impacts of government ownership and state ownership are examined. It clearly suggests that the market value of a listed company goes up with the increase in the fraction of shares held by legal-persons and after reaching the turning point a further increase in the legal-person shareholding would lead to a decline in the market value. This finding is of particular interest as legal-person ownership is widely regarded as a form of government ownership because the largest legal persons are usually institutions ultimately controlled by the government (Hovey 2003). And more importantly, legal-person shares, together with state shares, are in a same category labelled as non-tradable shares. Therefore intuitively it should be expected that legal-person shareholding would have the same impact on the market value, or at least similar to, as the government ownership. However, the hump-shaped curve obtained in this test suggests that although most legal persons are directly or indirectly controlled by the government, they are playing different roles from the government in explaining the market value.

Clearly, the findings of this study have both theoretical and practical implications. First, it provides empirical evidence for the value relevance in the Chinese emerging market. This has undoubtedly expanded the application scope of the market valuation theory, implying that the market value theory holds not only in developed countries but also in emerging markets such as China. Secondly, the overall decline trend in value relevance observed in this study has triggered the alarming bell for the policy makers in China. While the government issues the accounting regulations with a 'good' intention of improving the quality of financial information, the 'shock' effect produced by the sudden change could actually cause immediate and unexpected effect on the market. Thirdly, the significant association between the market value of listed firms and different types of shareholding is of particular importance in China's stock market. When the stock market was created in the early 1990s, the government's idea was simple: holding a majority of the shares could ensure the government to have a firm grasp onto the listed companies. However, the empirical evidence of this study suggests that while a certain level of government ownership is beneficial to the company's market value, excessively high level of government shareholding damages the firm value. In this study, the optimal government ownership (including both state and legal-person shares) is found to be between 22 to 27 per cent. This finding seems to be consistent with the government's plan to reduce the government shareholding. As this thesis comes to an end, the CSRC has already started to put this policy into practice³⁹.

³⁹ The policy is termed by the CSRC as the Share Structure Reform (SSR). The detailed plan called the Administrative Measures on the Split Share Structure Reform of Listed Companies and was issued in April 2005 and now the CSRC has started to implement it on the experimental basis.

References

- Adhikari, A. and Wang, S. Z. (1995) 'Accounting for China', *Management Accounting*, 22, 27-32.
- Aharony, J., Lee, C. J. and Wang, T. J. (2000) 'Financial packaging of IPO firms in China', *Journal of Accounting Research*, 38, (1), 103-126.
- Allen, L. (1997) *Capital markets and institutions: a global view*. John Wiley & Sons, Inc: New York.
- Anderson, D. M. (2000) 'Taking stock in China: Company disclosure and information in China's stock markets', [Online]. Available at: <http://findarticles.com> (Accessed: 10/12/2004).
- Arce, M. and Mora, A. (2002) 'Empirical evidence of the effect of European accounting differences on the stock market valuation of earnings and book value', *The European Accounting Review*, 11, (3), 573-599.
- Bai, C.-E., Liu, Q., Lu, J., Song, F. M. and Zhang, J. (2004) 'Corporate governance and market valuation in China', *Journal of Comparative Economics*, 32, (4), 599-616.
- Biddle, G. C., Bowen, R. M. and Wallace, J. S. (1997) 'Does EVA beat earnings? Evidence on association with stock returns and firm values', *Journal of Accounting and Economics*, 24, (3), 301-336.
- Brooks, R. D. and Raganathan, V. (2003) 'Returns and Volatility on the Chinese stock markets', *Applied Financial Economics*, 13, (10), 747-752.
- Cabral, L. M. B. (2000) *Introduction to industrial organisation*. The MIT Press: Cambridge.
- Chen, C. J. P., Gul, F. A. and Su, X. (1999) 'A comparison of reported earnings under Chinese GAAP vs. IAS: evidence from the Shanghai Stock Exchange', *Accounting Horizons*, 13, (2), 91-111.
- Chen, C. J. P. and Su, S. C. (2001) 'Is accounting information value-relevant in the emerging Chinese stock market?' *Journal of International Accounting, Auditing & Taxation*, 10, (1), 1-22.
- Chen, S. and Wang, Y. (2004) 'Evidence from China on the value relevance of operating income vs. below-the-line items', *The International Journal of Accounting*, 39, (4), 339-364.
- Chen, Y., Jubb, P. and Tran, A. (1997) 'Problems of accounting reform in the People's Republic of China', *The International Journal of Accounting*, 32, (2), 139-153.
- Chen, Z. (2003) 'Capital markets and legal development: the China case', *China Economic Review*, 14, (4), 451-472.
- Claessens, S., Djankov, S., Fan, P. H. and Lang, L. (2002) 'Disentangling the incentive and entrenchment effects of large shareholdings', *Journal of Finance*, 57, (6), 2741-2772.
- Claessens, S., Djankov, S. and Lang, L. H. P. (2000) 'The separation of ownership and control in East Asian corporations', *Journal of Financial Economics*, 58, (1-2), 81-112.
- Collins, D. W., Maydew, E. L. and Weiss, I. S. (1997) 'Changes in the value-relevance of earnings and book values over the past forty years', *Journal of Accounting and Economics*, 24, (1), 39-67.
- CPEC. (2004) 'Annual Report and Financial Statements, China Petroleum & Chemical Corporation'.

- Delios, A. and Wu, Z. J. (2005) 'Legal person ownership, diversification strategy and firm profitability in China', *Journal of Management and Governance*, 9, (2), 151-169.
- Duan, W. (2002) 'A review of the annual report: The impairment losses of 210 billion yuan in 2001', *China Securities*, 5 June 2002, pp. 4.
- Dyer, G. (2006) 'China party chief sacked in graft scandal', *Financial Times*, 25 September 2006.
- Easton, P. D. (1985) 'Accounting earnings and security valuation: empirical evidence of the fundamental links', *Journal of Accounting Research*, 23, (3), 54-77.
- Elliot, B. and Elliot, J. (2005) *Financial Accounting and Reporting*. Prentice Hall: London.
- Emery, D. R., Finnerty, J. D. and Stowe, J. D. (2004) *Corporate Financial Management*. Prentice Hall: London.
- Feltenstein, A. and Nsouli, S. M. (2003) 'Big bang' versus gradualism in economic reforms: an international analysis with an application to China. IMF Staff Papers
- Fong, W.-M. and Lam, K. C. K. (2005) 'Privatisation and performance', *The Chinese Economy*, 37, (4), 5-27.
- Fung, H.-G. (2003) 'A rise of capitalism in China', *China Business Review*, 2, (1), 1-7.
- Fung, H.-G., Kummer, D. and Shen, J. (2006) 'China's privatisation reforms', *The Chinese Economy*, 39, (2), 5-25.
- Gao, S. (2002) 'China stock market in a global perspective', *Research Report for Dow Jones Indexes*.
- Ge, H. (2000) 'How does a company distribute its net profit?' in Lin, Z.(ed), *Chinese financial accounts*. China Finance and Economy Publishing House: Beijing.
- GTA, S. (2002) *China corporate governance research database user's guide*.
- Gray, S. J. (1988), 'Towards a theory of cultural influence on the development of accounting systems internationally', *Abacus*, 24 (1): 1-15
- Gu, A. Y. (2003) 'A trend towards being normal: the 'A' share experience on the Shanghai stock exchange', *Applied Financial Economics*, 13, (5), 379-385.
- He, Q. (2004) *The trap of modernisation (Chinese)*. Boda Publishing House: Shenzhen.
- Ho, S. S. M. (2002) 'The impact of WTO entrance on accounting reform in China', [Online]. Available at: www.accaglobal.com/pdfs (Accessed: 14/02/2006).
- Hofstede, G. (1984) *Cultural differences: International Differences in Work-related Values*. Beverly Hills, CA: Sage Publications.
- Hovey, M., Li, L. and Naughton, T. (2003) 'The relationship between valuation and ownership of listed firms in China', *Corporate Finance*, 11, (2), 112-122.
- Jenson, M. C. (1993) 'The modern industrial revolution, exit, and the failure of internal control systems', *The Journal of Finance*, 48, (3), 831-880.
- Jiang, Z. (1997) *The report at the 15th National Congress of the Communist Party of China*.
- Jonquieres, G. d. (2006) 'China's industrial policy should think small', *Financial Times*, 06 September 2006.
- LaPorta, R., Lopes-de-Silanes, F. and Shleifer, A. (1999) 'Corporate ownership around the world', *Journal of Finance*, 54, (2), 471-517.

- Lin, Z. J. and Chen, F. (1999) 'Applicability of the conservatism accounting convention in China: empirical evidence', *The International Journal of Accounting*, 34, (4), 517-537.
- Liu, G. S. and Garino, G. (2001) 'Privatisation or competition: a lesson learnt from the Chinese enterprise reform', *Economics of Planning*, 34, (1-2), 37-51.
- Lu, X. and Fu, H. (2003) 'Financial fraudulence in China's listed companies', *Shanghai Stock Exchange Research Report*, 1, (1), 1-93.
- McGrath, N. (1993) 'Sorting out the numbers', *Asian Business*, 9, (1), 102-108.
- McGregor, R. (2006a) 'China adopts accounting standards', *Financial Times*, 15 February 2006.
- McGregor, R. (2006b) 'China bad loans may reach total of \$900 bn', *Financial Times*, 03 May 2006.
- Megginson, W. L., Nash, R. C. and Randenborgh, M. v. (1994) 'The financial and operating performance of newly privatised firms: An international empirical analysis', *Journal of Finance*, 49, (2), 403-452.
- Megginson, W. L. and Netter, J. M. (2001) 'From state to market: a survey of empirical studies on privatisation', *Journal of Economic Literature*, 39, (2), 321-389.
- Morck, R., Shleifer, A. and Vishny, R. (1988) 'Management ownership and market valuation: An empirical analysis', *Journal of financial economics*, 20, (1), 293-315.
- Nolan, P. and Yeung, G. (2001) 'Large firms and catch-up in a transitional economy: the case of Shougang Steel Group in China', *Economics of Planning*, 34, (1-2), 159-178.
- Ohlson, J. A. (1991) 'The theory of value and earnings, and an introduction to the Ball-Brown Analysis', *Contemporary Accounting Research*, 8, (1), 1-19.
- Ohlson, J. A. (1995) 'Earnings, Book Values, and Dividends in equity Valuation', *Contemporary Accounting Research*, 11, (2), 661-687.
- Palepu, K. G., Healy, P. M. and Bernard, V. L. (2004) *Business Analysis & Valuation: Using Financial Statements*. Thomson South-Western.
- Perotti, E. C. (1995) 'Credible privatisation', *American Economic Review*, 85, (4), 847-859.
- Peterson, D. J., Pardee, S. and Wunnava, P. V. (2003) 'Relative development in stock markets: empirical evidence from mainland China and Hong Kong', *Applied Financial Economics*, 13, (4), 309-316.
- Qi, D., Wu, W. and Zhang, H. (2000) 'Shareholding structure and corporate performance of partially privatised firms: Evidence from listed Chinese companies', *Pacific-Basin Finance Journal*, 8, (5), 587-610.
- Quiry, P., Dalocchio, M., Fur, Y. L. and Salvi, A. (2005) *Corporate Finance: Theory and Practice*. John Wiley & Sons, Ltd.
- Roberts, C., Weetman, P. and Gordon, P. (2002) *International financial accounting: A comparative approach*. Financial Times/Prentice Hall: London.
- Shi, D. (2003) 'The empirical research on the capital structure and financing activities for the Chinese listed companies', [Online]. Available at: www.studa.net (Accessed: 31/10/2003).
- Skousen, C. R. and Yang, J. L. (1988) 'Western management accounting and the economic reforms of China', *Accounting, Organizations and Society*, 13, (2), 201-206.

- Stark, A. W. and Thomas, H. M. (1998) 'On the empirical relationship between market value and residual income in the U. K.' *Management Accounting Research*, 9, (4), 445-460.
- Stewart, B. G. (2002) 'Accounting is broken: Here is how to fix it', *EVALuation*, 5, (1), 1-32.
- Su, D. (2003) 'Stock price reactions to earnings announcement: evidence from Chinese markets', *Review of Financial Economics*, 12, (3), 271-286.
- Sun, Q. and Tong, W. H. S. (2003) 'China share issue privatisation: the extent of its success', *Journal of financial economics*, 70, (2), 183-222.
- Sun, Q., Tong, W. H. S. and Tong, J. (2002) 'How does government ownership affect firm performance? Evidence from China's privatisation experience', *Journal of Business finance and Accounting*, 29, (1&2), 1-27.
- Tan, J. (2002) 'Impact of ownership type on environment-strategy linkage and performance: Evidence from a transitional economy', *Journal of Management Studies*, 39, (3), 333-354.
- Tang, W. (1999) *The initial comments on the basic accounting standards and the problems faced by China's financial reporting (Chinese)*. The Global Book Publishing House: Beijing.
- Tang, Y. (2000) 'Bumpy road leading to internationalisation: a review of accounting development in China', *Accounting Horizons*, 14, (1), 93-102.
- Tao, Z. (2004) 'Utilisation of foreign capital and economic growth in China', *The Chinese Economy*, 37, (1), 62-84.
- Tian, L. (2001) 'Government shareholding and value of China's modern firms', *William Davidson Working Paper No. 395*.
- Wang, C. (2005) 'Ownership and operating performance of Chinese IPOs', *Journal of Banking & Finance*, 29, (7), 1835-1856.
- Wang, S. S. and Jiang, L. (2004) 'Location of trade, ownership restrictions, and market illiquidity: Examining Chinese A- and H-shares', *Journal of Banking & Finance*, 28, (6), 1273-1297.
- Winkle, G. M., Huss, H. F. and Chen, X. Z. (1994) 'Accounting standards in the People's Republic of China: Responding to economic reforms', *Accounting Horizons*, 8, (3), 48-57.
- Xiang, B. (1998) 'Institutional factors influencing China's accounting reforms and standards', *Accounting Horizons*, 12, (2), 105-119.
- Xiao, Z. (1999) 'Corporate Disclosure Made by Chinese Listed Companies', *The Journal of Accounting*, 34, (3), 349-373.
- Xinhua. (1992) 'China to adopt new financial accounting standards', *Xinhua General Overseas News Service*, 03 December 1992.
- Xu, X. and Wang, Y. (1999) 'Ownership structure and corporate governance in Chinese stock companies', *China Economic Review*, 10, (1), 75-98.
- Yang, Z., Rohrbach, K. and Chen, S. (2005) 'The impact of standard setting on relevance and reliability of accounting information: lower of cost or market accounting reforms in China', *Journal of International Financial Management and Accounting*, 16, (3), 194-228.
- Young, M. N. and McGuinness, P. B. (2001) 'The missing link: why stock markets have been ineffective in Chinese SOE reform', *Business Horizons*, 44, (4), 55-62.
- Zhang, G. (2002) *The new accounting system for business enterprises and practice (Chinese)*. Lixin Accounting Publishing House: Shanghai.

- Zhang, X. (2005) 'Report on marketisation process in China', *The Chinese Economy*, 37, (6), 68-84.
- Zhang, X. and Jiang, D. (2002) 'Value creation, financial system and economic growth (Chinese)', *Shanghai Stock Exchange Research Report*, 1, (1), 1-242.
- Zhuan, H. (2001) 'A historical review of the accounting reform in China since 1980s (Chinese)', *Journal of Contemporary Accounting*, 2, (1), 109-122.

APPENDICES

Appendix A

The Consolidated Income Statement of CPCC, 31st December 2004, as prepared in accordance with Chinese Accounting Standards

Editor: China Petroleum & Chemical Corporation

Unit: yuan

	Notes	Year 2004 RMB million	Year 2003 RMB million
Turnover from main businesses		590,632	417,171
<i>Less: Costs on main businesses</i>	32	459,207	323,104
Taxes and surcharges on main businesses	33	16,203	13,371
Profit on main businesses		115,222	80,716
<i>Plus: Profits on other businesses</i>		1,102	856
<i>Less: Operating expenses</i>		19,477	14,582
Administrative expenses		23,167	21,219
Financial expenses	34	4,331	4,129
Drilling Costs (including dry well costs)	35	6,396	6,133
Operating Profit		62,953	35,509
<i>Plus: Investment gains</i>	36	1,088	548
Non-operating income		665	292
<i>Less: Non-operating expenses</i>	37	11,171	6,334
Total profit		53,535	30,015
<i>Less: Corporate tax</i>	38	16,060	1,886
Minority interests		5,670	1,886
<i>Plus: Unrecognised investment losses</i>		470	243
Net profit		32,275	19,011
<i>Plus: Retained profits at the beginning of the year</i>		19,975	12,569
Distributable profit		52,250	31,580
<i>Less: Appropriation to statutory surplus reserve</i>	31	3,228	1,901
Appropriation to statutory benefit reserve	31	3,228	1,901
Profit distributable to shareholders		45,794	27,778
<i>Less: Dividends at the end of the year</i>	39	5,202	5,202
Dividends at the middle of the year		3,468	2,601
Undistributed profit	39	37,124	19,975

Sources: CPCC's financial report for the period ended 31 December 200

Appendix B

The Consolidated Income Statement of CPCC, 31st December 2004, as prepared in accordance with the International Accounting Standards

Editor: China Petroleum & Chemical Corporation

Unit: yuan

	Notes	Year 2004 RMB million	Year 2003 RMB million
Turnover and other operating income			
Turnover	3	597,197	429,949
Other operating income	4	22,586	19,052
		619,783	449,001
Operating expenses			
Purchase of oil and oil products & related expense		(443,590)	(313,238)
Selling, general and administrative expense	5	(31,843)	(27,228)
Depreciation, depletion and amortisation		(32,342)	(27,951)
Drilling costs (including dry well costs)		(6,396)	(6,133)
Employee expense	6	(18,634)	(16,972)
Redundancy costs	7	(919)	(1,040)
Taxes apart from corporate tax	8	(16,324)	(13,581)
Other operating expenses	9	(6,666)	(3,975)
Total operating expenses		(556,714)	(313,238)
Operating profit		63,069	38,883
Financial costs			
Interest expenses	10	(4,583)	(4,365)
Interest income		374	322
Losses on translation of foreign currencies		(223)	(450)
Gains on translation of foreign currencies		61	30
Total financial costs		(4,371)	(4,463)
Gains from subsidiaries issuing shares		-	136
Investment gains		111	89
Shares of joint ventures		797	396
Profit on ordinary activities before taxation		59,606	35,041
Corporate tax	11	(17,815)	(10,645)

Editor: China Petroleum & Chemical Corporation (cont.)

Unit: yuan

Profit on ordinary activities after taxation		41,791	24,396
Minority shareholders' interest		(5,772)	(1,972)
Profit distributable to shareholders		36,019	22,424
Basic net profit per share	15	0.42	0.26
Dividends for the year:	16		
Dividends announced in the middle of the year		3,468	2,601
Dividends announced after the balance sheet date		6,936	7,803
		10,404	7,803

Sources: CPCC's financial report for the period ended 31 December 2004

Appendix C

The Consolidated Balance Sheet of CPCC, 31st December 2004, as prepared in accordance with Chinese Accounting Standards

Editor: China Petroleum & Chemical Corporation

Unit: yuan

	Notes	2004 RMB million	2003 RMB million
Assets			
Current assets			
Monetary funds	4	18,280	17,405
Notes receivable	5	7,812	5,953
Trade accounts receivable	6	9,756	9,284
Other receivables	7	12,462	15,457
Prepaid trade accounts	8	4,828	3,904
Inventories	9	63,918	44,915
Total current assets		117,056	96,918
Long-term equity investments (Among: equity investment difference is 383 million yuan, and 400 million yuan for 2003)	10	13,409	11,150
Fixed assets			
Historical costs of fixed assets		519,462	461,128
Less: accumulative depreciation		243,510	213,804
Net value of fixed assets	11	275,952	247,324
Less: Provisions for impairment of fixed assets	11	5,816	1,331
Net amount of fixed assets		270,136	245,993
Materials for projects	12	430	1,226
Projects under construction	13	45,976	28,513
Total fixed assets		316,542	275,732
Intangible assets and other assets			
Intangible assets	14	5,345	4,564
Prepayments expensed in a period longer than one year	15	3,563	97
Total Intangible assets and other assets		8,908	4,661

Editor: China Petroleum & Chemical Corporation (cont.)

Unit: yuan

Deferred tax assets	16	4,166	1,752
Total assets		460,081	390,213
Liabilities and owner's equity			
Current liabilities			
Short-term borrowings	17	26,723	20,904
Notes payable	18	30,797	23,958
Trade accounts payable	19	23,792	22,704
Trade accounts received in advance	20	8,605	5,908
Salaries payable		3,223	1,850
Benefits payable		1,101	1,230
Taxes payable	21	6,741	6,986
Other payables to the government	22	1,519	1,237
Other payables	23	26,459	27,537
Accrued expenses	24	652	303
Long-term liabilities due within one year	25	14,298	8,175
Total current liabilities		143,910	120,792
Long-term liabilities			
Long-term borrowings	26	94,087	79,221
Bonds payable	27	3,500	
Other long-term liabilities	28	820	888
Total long-term liabilities		98,407	80,109
Deferred tax liabilities	16	198	289
Total liabilities		242,515	201,109
Minority interests		31,216	26,077

Editor: China Petroleum & Chemical Corporation (cont.)

Unit: yuan

Owner's equity			
Stock capital	29	86,702	86,702
Capital reserve	30	37,121	36,852
Surplus reserve (Among: Statutory surplus reserve is 9,588 million yuan; 6330 million yuan for 2003)	31	26,116 (713)	19,660 (243)
Unrecognised investment losses			
Retained profits for the financial year (Among: Dividends for 2004 proposed after the date of balance sheet are 6,936 million yuan; 5,202 million yuan for 2003)	39	37,124	19,975
Total owner's equity		186,350	162,946
Total liabilities and owner's equity		460,081	390,213

Resource: CPCC's Annual Reports for the period ended 31st December 2004

Appendix D

The Consolidated Balance Sheet of CPCC, 31st December 2004, as prepared in accordance with the International Accounting Standards

Editor: China Petroleum & Chemical Corporation

Unit: million yuan

	Notes	2004 RMB million	2003 RMB million
Non-current Assets			
Properties, plants and equipments	17	184,123	270,731
Projects under construction	18	46,185	29,354
Investments	20	2,538	2,709
Investments in joint ventures	21	10,222	8,121
Deferred tax assets	27	4,558	3,067
Rents paid in advance		750	810
Long-term advanced payments and other assets		5,947	2,353
Total non-current assets		354,323	317,145
Current assets			
Cash funds		16,381	16,263
Deposits in financial institutions		1,899	2,184
Trade accounts receivable	24	9,756	9,479
Notes receivable	24	7,812	6,283
Inventories	25	64,329	47,916
Advanced payments and other current assets	26	20,094	20,914
Total current assets		12,271	103,039
Current liabilities			
Short-term debts	28	32,307	29,181
Loans from CPCC and other subsidies	28	8,714	4,865
Trades payable	29	23,792	23,319
Notes payable	29	30,797	24,267
Accrued expenses and other payables	30	45,276	43,561
Tax payable		5,391	4,079
Total current liabilities		146,277	129,272
Net total current liabilities		26,006	26,233
Total assets less current liabilities		328,317	290,912

Editor: China Petroleum & Chemical Corporation (cont.)

Unit: million yuan

Non-current liabilities			
Long-term debts	28	60,822	48,257
Loans from CPCC and other subsidies	28	36,765	39,039
Deferred tax liabilities	27	5,636	4,599
Other liabilities		1,008	1,451
Total non-current liabilities		104,231	93,346
Minority interests		31,046	26,051
Net assets		193,040	171,515
Shareholders' equity			
Share capital	31	86,072	86,072
Reserve		106,338	84,813
		193,040	171,515

Resource: CPCC's Annual Reports for the period ended 31st December 2004

Appendix E

1. Comparison between net profits and earnings before non-recurring items

Regression models being tested						
1. $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$						
2. $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 EBNI_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$						
	α ₀	α ₁	α ₂	R ² (%)	F	No. of observations
1	0.78*** (27.34)	2.92*** (5.36)	1.50*** (12.84)	16.6	153.38	1531
2	0.77*** (26.51)	1.32** (1.98)	1.66*** (13.77)	15.3	138.76	1531
<p>Notes:</p> <p>MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;</p> <p>MV_{j(t-1)} : Market value of the equity for firm j at the beginning of fiscal year t;</p> <p>NP_{jt} : Reported net profit for firm j for fiscal year t;</p> <p>BV_{jt} : Reported book value for firm j for fiscal year t;</p> <p>EBNI_{jt} : reported earnings before non-recurring items for firm j for fiscal year t;</p> <p>All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level;</p> <p>The results presented are obtained from the two-year data covering 2000 and 2001 due to the fact that Chinese listed firms are not required to disclose earnings before non-recurring items until 2000.</p>						

2. Comparison between the market value at the end of the year and the market value at the end of the next April

Regression models being tested						
1. $MV_{jt} / MV_{j(t-1)} = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(t-1)} + \alpha_2 BV_{jt} / MV_{j(t-1)} + \varepsilon$						
2. $MV_{jt}^* / MV_{j(y-1)}^* = \alpha_0 + \alpha_1 NP_{jt} / MV_{j(y-1)}^* + \alpha_2 BV_{jt} / MV_{j(y-1)}^* + \varepsilon$						
	α_0	α_1	α_2	R^2 (%)	F	No. of observations
1	1.01*** (39.13)	3.92*** (13.62)	1.16*** (16.26)	23.5	359.48	2333
2	0.81*** (26.12)	4.86*** (11.94)	1.96 (18.59)***	23.4	357.03	2333
Notes:						
MV_{jt} : Market value of the equity for firm j at the end of fiscal year t;						
$MV_{j(t-1)}$: Market value of the equity for firm j at the beginning of fiscal year t;						
MV_{jt}^* : market value of the equity for firm j at the end of next April for the fiscal year t;						
$MV_{j(y-1)}^*$: markt value of the equity for firm j at the end of last April for the fiscal year t						
NP_{jt} : Reported net profit for firm j for fiscal year t;						
BV_{jt} : Reported book value for firm j for fiscal year t;						
$EBNI_{jt}$: reported earnings before non-recurring items for firm j for fiscal year t;						
All variables are scaled by opening market values. Numbers in parenthesis are t-statistics; * statistical significance at 0.10 level; ** statistical significance at 0.05 level; *** statistical significance at 0.01 level.						