

## **Financial Liberalization and Corporate Governance in China**

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### **ABSTRACT**

China represents a huge potential market in the world. Its economy has grown by about 9 percent per year since 1978. Ongoing development of the financial equity and bond markets is seen as a way for the Chinese government to privatize its state-owned enterprises (SOEs). We document financial market liberalization, corporate governance issues and the function of offshore markets such as Hong Kong and New York where SOEs are issuing new shares to raise capital. Project finance has also become increasingly important in China.

*JEL: G14, G32, G38*

*Keywords: Financial market liberalization; Corporate control; Accounting information system; Market efficiency*

## I. INTRODUCTION

China is one of the few Asian countries to have weathered the Asian financial crisis of 1997. Its economic growth in terms of Gross Domestic Product (GDP) has averaged about 9 percent per year between Deng Xiaoping's economic reforms in 1978 and the Southeast Asia currency crisis of July 1997.

Chinese economic policies have been viewed as a model for developing countries. Success is attributable primarily to the implementation of different sound economic plans. They include (1) establishment of different economic zones and provision of government incentive packages that promote exports; (2) opening up the economy to foreign investors for joint ventures and investment; and (3) restructuring of the state-owned enterprises (SOEs), which under the protection of the government suffered substantial losses resulting from lack of proper incentives to compete.<sup>1</sup>

The traditional approach to financing in China has been through bank credit and government-issued Treasury bills and bonds. Because the government-controlled banks lack incentives to monitor credit, bank decisions to lend are clearly not based on risk-return analysis. Most lending decisions are a matter of government *policy* or the result of the bank's *guanxi* (connection) with the borrowers. Although Chinese banks have been motivated to lend on a more rational basis in recent years, about 75% of the bank loans have still been channelled to state enterprises. Recent estimates indicate that at least \$240 billion of bank loans are bad, a potential bank insolvency crisis in China just waiting to happen.<sup>2</sup>

A study by Gao and Schaffer (1998) confirms that Chinese banks have indeed provided poorly performing firms with new financing, implying that the recipients are operating under the principle of "soft-budget" constraints. That is, the Chinese government does not cut off financial support (such as bank loans) to poorly managed state-owned enterprises to enforce discipline. Recent efforts to establish asset management firms by engaging in debt-equity swaps for the big four Chinese banks indicate the commitment of the Chinese government to reduce existing bad loans in the banking sector.<sup>3</sup>

SOEs since late 1980 have been allowed to use an alternative approach to raise money by forming limited companies that can issue shares to employees and other SOEs. A news story in *People's Daily* (an authoritative Chinese newspaper) in August 1986 suggests that the issuance of corporate shares is in fact consistent with the Marxist ideal of common ownership of capital: socialism with Chinese characteristics. Later on, Shanghai and Shenzhen stock exchanges were established, allowing firms to raise capital from the public (Chinese residents as well as foreigners).

Our purpose is to examine China's financial liberalization and financial structure. We explore the corporate governance issue for Chinese firms, and examine the role of the domestic capital markets as well as the offshore markets that provide external capital for SOEs (such as Hong Kong and New York). The development of the financial markets (equity and bond markets) in

China represents an important step in the government's efforts to "privatize" SOEs. We present evidence on bond market development and various issues related to project finance, which has become increasingly important.

Our study attempts to identify problems related to the development of the Chinese financial markets and areas that merit future research efforts.

## **II. DEVELOPMENT OF THE DOMESTIC STOCK MARKET**

### **A. Stock Exchanges**

Before 1978, the local and central governments at all levels primarily controlled SOEs. Managers of the SOEs did not have the proper incentives to operate their companies efficiently, and substantial losses were commonly incurred. In the late 1980s, the Chinese government took a significant step to restructure these state enterprises by transforming them into stock companies, which were then expected to improve their performance.

The stock companies and the stock market did not come into existence until the late 1980s. In 1984, a department store in Beijing was allowed to issue shares for the first time in an attempt to improve the company's efficiency and corporate governance. Shares were issued to the company's employees only. In the years following, more and more SOEs have become stock companies by selling shares to their employees as well as to other stock companies or SOEs only. The trading of these shares was thin, and a black market for trading developed.

In 1989, the State Council of China (the executive branch of the Chinese government) decided to establish two stock exchanges to allow SOEs to raise money in a public to mitigate the black market problem. The Shanghai Stock Exchange (SSE), the first stock exchange in China since 1949, was opened in December 1989.

Table 1 shows the total capital raised by private and public offers in Shanghai. The amounts include new stock issues, stock dividends and rights issues. The increasing amount of capital demonstrates the growing importance of funds from private sources that can be raised in China.

The second stock exchange, the Shenzhen Stock Exchange (SZSE), was opened in April 1991, allowing companies in the southern part of China to raise external equity capital. There are no dual listings for both the Shanghai and Shenzhen Stock Exchanges, and thus there are in effect two official national stock exchange systems.<sup>4</sup> To be listed on an exchange, Chinese companies need to seek the approval of the China Securities Regulatory Commission (CSRC), which is similar to the Securities and Exchange Commission (SEC) in the U.S. The CSRC, established in 1992, is not an independent agency but rather is a special interagency committee of the State Council Securities Policy Committee. The CSRC lacks enforcement powers and a national presence; its office is in Beijing. It relies heavily on local authorities for the enforcement of rules and restrictions.

There has been an urgent need for several years for a *securities law* that can define the proper role of the CSRC, and in July 1999, a new law was enacted. The establishment of this important law illustrates the commitment of the government to strengthen the regulation of the stock market and provide a consistent legal framework for the securities industry.

**Table 1**  
Public and private offers of stock in Shanghai (RMB million)

Year	Annual Amount Raised	Cumulative Amount
1981-1986	5.80	5.80
1987	785.55	791.35
1988	63.53	854.88
1989	23.25	878.13
1990	9.00	887.13
1991	132.68	1019.81
1992	12303.75	13323.65
1993	340.50	18664.06
1994	2593.75	21257.81
1995	1707.00	22964.81
1996	3482.55	26447.36
1997	7223.40	33670.76
1998	17056.16	50726.92
1999*	9010.27	59737.19

\* 1999 figures are for Jan through April.

Source: *Shanghai Security Yearbook 1998* (Website address <http://www.csrc.gov.cn/>).

## B. Listing Quota

The CSRC implements a quota system for listing shares on the two exchanges. The quota allocated by provincial authorities for initial approval at the local level but for final approval from the CSRC at the national level. The earlier quota system restricted the amount of the aggregate offering price of new shares to be issued each year. For example, a quota of Renminbi (the Chinese currency, RMB) 5.5 billion was allowed in 1993 [see Kumar et al. (1997) for details]. The quotas for different provinces reflect differing production structure, enterprise base, and political objectives.

The aggregate price quota procedure had several drawbacks. First, critics argue that poor-quality firms were selected because the selection process was primarily political, not related to economic criteria. Thus, it has not been a fair procedure from an economic perspective. Second, the announcement of the annual quota was unpredictable (not on a fixed calendar date). Finally, many small issues were selected for listing because the local

authorities wanted to put more companies into the allowed quota.

A new procedure announced in October 1996 is intended to set a quota that is based on a specified number of issuers instead of the aggregate issuance amount. The objective is to minimize a too many number of firms to be listed on the exchanges [Holmes (1997)].<sup>5</sup>

### **C. Disclosure Requirements for Listed Companies**

Disclosures released by companies help investors make informed decisions about the firm, while information and signals from the financial market in turn help corporate managers make correct investment and financing decisions. Disclosure related to publicly held companies are critical to proper functioning of the stock market. The Chinese companies listed on both the Shanghai and the Shenzhen Stock Exchanges are subject to different levels of regulatory disclosure requirements, including state laws and regulations, the recently published securities law, disclosure requirements of the CSRC, and supplementary rules on information disclosure.

Publicly traded companies in China are required to provide a fairly detailed explanation of the variances between actual and projected results during a fiscal year. Under the current regulations, all listed companies are required to submit regular financial statements and related accounting information to the securities regulatory authorities and at the same time make these statements available to the public.

Annual reports disclosed to the public include a set of audited (and/or consolidated) financial statements, a summary of financial disclosure over the past three years, the performance of outstanding stocks and description of important transactions among related parties and their financial effects. Annual reports also include non-financial information such as a brief background of the company, a message from the chairman of the board and profiles of the board members, a comparative analysis of industry standards, and a description of the major line of business and products provided by the company.

Apart from annual reports, interim reporting is required. If there are significant events that may affect the prices of securities in the markets, the company has to report them within one day of their occurrence. This includes business mergers and acquisitions, default or large debt repayments or resignation and replacement of existing auditors.

### **D. Types of Shares Issued**

Under the old system, almost all Chinese enterprises were state-run companies (i.e., there are collective ownership companies). Starting in the 1980s, China began to form limited companies with shares. Originally these shares were not traded, because the stock exchanges were established only in 1991. Since trading on exchanges started, different types of shares have been created.

The first type of shares is *state shares*, which are held by authorized central government agencies. Of course, the ultimate owner of these state shares is the State Council of China. *Legal-person shares* are the second type, which can be purchased by domestic companies and non-banking financial institutions. The third type of shares is *employee shares*, which represent only an insignificant fraction of the total shares. The fourth type of shares is issued to the individual public and companies (i.e., for Chinese residents only) and is traded on the stock exchanges. These shares are called *A shares*. A shares are common stocks that can be held only by Chinese residents. They include state institutions (legal person) and public shares (including employee shares). While many companies issue shares for both local and foreign investors, some companies issue shares solely for foreigners. Shares held by foreign investors are called *B shares*, which are also traded on the SSE and SZSE.

Table 2 reports the ownership structure weighted by value of the listed shares. In the Shanghai market, the proportion of the state- and B-share (foreign) markets seem to declining while ownership of the legal-person and public share markets seem to increase. In the Shenzhen market, the legal-person and B-share markets are declining in their proportion of

**Table 2**  
Ownership structure of Chinese firms

Weight of ownership of securities by value of shares including listed shares only						
Exchange	Year	Obs.	State	Institution	Public	Foreign
SHANGHAI	1991	6	0.66940	0.03407	0.29653	0.00000
	1992	30	0.53784	0.15194	0.10461	0.20561
	1993	105	0.50357	0.22275	0.14832	0.12536
	1994	170	0.42523	0.25743	0.16638	0.15096
	1995	187	0.40285	0.25760	0.18360	0.15596
	1996	291	0.40767	0.23352	0.22970	0.12910
	1997	382	0.39122	0.24213	0.27549	0.09115
	1998	434	0.41322	0.22447	0.28769	0.07462
	1999	479	0.41583	0.22403	0.29261	0.06753
	SHENZHEN	1991	6	0.10887	0.42301	0.46812
1992		24	0.20155	0.34372	0.30928	0.14545
1993		76	0.30479	0.29207	0.31447	0.08866
1994		119	0.29027	0.30997	0.32989	0.06987
1995		131	0.31165	0.26896	0.31326	0.10614
1996		231	0.35726	0.23792	0.29879	0.10603
1997		357	0.39753	0.20652	0.32380	0.07214
1998		410	0.41356	0.19822	0.32667	0.06154
1999		459	0.41003	0.20422	0.33371	0.05204

Source: *Taiwan Economic Journal* China Database.  
Value of shares is the closing price times the number of shares.

ownership, while the state-share market has increased in percentage. The results seem to suggest both (1) the percentage of state-share ownership may be converging to a *target* ratio on both exchanges and (2) the growing importance of the public share market relative to the B-share market.

Typically different types of shares (state, legal-person, public, and B) are not convertible into another. In particular, the state and legal-person shares are not tradable. In the first exception, 10 million legal-person shares of Dazhong Tax company were converted into B shares in 1994. The conversion of the legal-person shares benefits legal-person shareholders through their capital gain potential, and has in fact improved the liquidity of its B-share market. Consequently, foreigners have a greater percentage of the company than the state.

China has announced a step toward limited privatization by giving government shareholders permission to sell part of their stakes in some listed companies. Ten companies listed on the domestic stock exchanges will be allowed to reduce their government ownership. Each of the ten companies has at least 55% of its equity outstanding in the hands of government shareholders; these shares must be sold at a price not lower than the company net asset's values. The exact time and size of the pending government share sales has not so far been revealed (*Wall Street Journal*, November 30, 1999).

#### **E. A- and B-Share Markets**

Both the SSE and SZSE trade both A and B shares. A shares are denominated in local currency (RMB) and are only for domestic Chinese residents. B shares on the SSE are denominated in US dollars (US\$) on the SSE and in Hong Kong dollars (HK\$) on the SZSE. Although A and B shares are different in terms of ownership, they convey equal rights to the same company such as dividend claims and voting rights. On the SSE, Shanghai Vacuum Electron on February 21, 1992, was the first company to issue B shares, while China Southern Glass was the first company listed on SZSE to issue B shares on

Table 3, Panel A, reports the total number of companies listed on the two exchanges, while Panel B documents the total number of companies issuing A and B shares. Several observations can be made. First, it is clear that some companies have issued both A and B shares; many of the listed companies have A shares only. Second, some companies issue only B shares but not A shares. Finally, the total number of listed firms on both exchanges has been increasing rapidly over time, indicating the need of Chinese companies to raise external capital.

The companies listed on the B-share market are typically large, as well as export-oriented because they need to fulfill dividend payments either in Hong Kong or in U.S. dollars. The listing requirement for firms in the B-share market is more stringent than for the A-share market. The B-share market cannot exceed a ceiling of 25 percent of the total shares. This restriction serves as a control for the foreign ownership in these companies.

**Table 3**  
Listed companies on Shanghai and Shenzhen Stock Exchanges

**Panel A: Number of firms listed on stock exchanges**

Exchange	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	1999
Shanghai	8	30	106	171	188	371	381	438	484
Shenzhen	6	24	77	120	135	351	359	414	419

Source: 1991-1994 data are from *China Securities Market Yearbook*, 1995.  
1995-1999 data are from *Taiwan Economic Journal China Database*.

**Panel B: Number of shares listed on stock exchanges**

Exchange	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	1999
Shanghai A	1	3	4	5	6	7	8	9	
Shanghai B	8	30	101	169	184	287	372	423	433
Shenzhen A	0	9	22	34	36	42	50	52	53
Shenzhen B	6	24	76	118	127	227	350	400	408
	0	9	19	24	34	43	51	54	53

Source: 1991-1994 data are from *China Securities Market Yearbook*, 1995.  
1995-1997 data are from *China Finance Yearbook*  
1997-1998 data are from *Shanghai Securities Daily*, December 31, 1998.  
1999 data are from *Shanghai Securities Daily*, March 31, 1999.

**Table 4**  
Market value of Chinese Stock Exchanges

Exchange	Year							
	1991	1992	1993	1994	1995	1996	1997	1998
Shanghai A (Billion RMB)	2.7589	48.1230	208.6098	247.3692	242.5351	532.7243	823.9591	1128.387
% of GDP	0.13	1.81	6.04	5.29	4.15	7.97	11.22	14.22
Shanghai B (Billion US\$)		0.4932	1.7488	1.3775	1.0643	1.9457	2.1740	1.2867
% of GDP		0.15	0.42	0.24	0.15	0.24	0.25	0.13
Shenzhen A (Billion RMB)	8.0762	45.7537	125.1483	102.7035	86.5564	409.3820	763.9998	940.3678
% of GDP	0.37	1.72	3.62	2.20	1.51	6.12	10.40	11.85
Shenzhen B (Billion HK\$)		3.2344	7.2938	4.6079	5.6069	20.1038	16.7672	11.1569
% of GDP		0.129	0.224	0.10	0.20	0.32	0.24	0.16

Source: *Taiwan Economic Journal China Database*.  
Exchange rate: US\$ is equal to RMB8.279 or HK\$7.8.

Table 4 shows the market capitalization of the A- and B-share markets. Total market capitalization on both exchanges as a proportion of GDP has been increasing. Market capitalization was about 22 percent and 26 percent of GDP in 1997 and 1998, respectively. The size of the Chinese stock market has become comparable to those of the industrialized countries such as the Germany [see Allen and Gale (1995)].

The drop in market value in 1995 from 1994 is due to *adverse* spillover effects from suspension of Chinese Treasury bond futures trading. The government ordered a halt in trading of the Treasury bond futures because of fraud and malpractice among some brokers, causing chaos in the market. Liquidity in the stock market was seriously affected as a result of that event [Poon, Firth, and Fung (1998b)]. Rebounding in 1996, the stock market has continued to grow since then.

Although shares similar to the A and B shares are traded in other countries [Domowitz, Glen, and Madhavan (1997) and Bailey and Jagtiani (1994)], pricing behavior in the China A- and B-share market is unique. While in other countries B-share prices are typically higher than the prices of the corresponding A shares in China B shares are generally traded at a discount to A shares [Wo (1997) and Bailey (1994)]. Market segmentation and liquidity are suggested as the explanation for the price differential in these markets [Poon, Firth, and Fung (1998a) and Wo (1997)].

Although B shares are supposed to be traded by foreign investors (legally), it is well known that some local Chinese are important investors in the B share market [Holmes (1997)]. Apparently, local Chinese investors have some ways to invest in B shares through Hong Kong brokerage houses. These are not many of these investors, so they do not appear to have a significant impact on the market.

It is important to recognize market segmentation between A- and B-share markets. In fact, segmentation is quite apparent, as seen in measures such as price volatility and the impact of political factors on the stock market. While prices in the A-share market are likely subject to political influences because of the local resident requirements, investors in the B-share market are foreigners who tend to value stock according to economic fundamentals.

Table 5 shows the price volatility of the A- and B-share markets. The A-share market is more volatile than the B-share market. Volatility in the A-share market can be explained by speculative investments that come from the "big accounts." (i.e., accounts with large amount of money.) Money in this amount can overshadow the trading of other investors in the market [Holmes (1997)].

The difference in price reaction for the A- and B-share markets can be seen in a few selected instances. The Shanghai A index jumped from 328.85 on July 29, 1994, to 700.58 on August 5, 1994, an increase of 113 percent in the price index in one week. It went on to 1014.46 on September 16, 1994, an increase of over 208 percent in less than two months. A similar thing happened

to the Shenzhen A index. The Shanghai and Shenzhen B indexes did not experience this kind of change during that period.

**Table 5**  
Statistics of weekly index returns (1993/5-1999/3)

Variable	T	Mean	Minimum	Maximum	Std Dev
SH A	300	0.0024	-0.2070	1.1304	0.0868
SH B	300	-0.0025	-0.1952	0.2547	0.0506
SZ A	297	0.0027	-0.2903	0.7418	0.0759
SZ B	297	-0.0016	-0.1738	0.2923	0.0538

Source: Taiwan Economic Journal China Database.

SH and SZ denote Shanghai and Shenzhen stock index, respectively. T is the number of observations.

The large jump in prices was due to the Chinese government's announcement that Chinese financial companies would be allowed to team up with foreign companies to set up joint venture mutual funds to invest in A shares. The index shot up in expectation of a large amount of foreign capital flowing into the A-share market. A recent study by Fung, Lee, and Leung (2000) demonstrates that the A- and B-share markets are segmented because the derived latent variable of the two types of shares for the same company shows very distinct patterns.<sup>6</sup>

The State Council has recently approved regulations governing the establishment of mutual investment funds to address the three most common concerns about the young Chinese capital markets: low liquidity, high volatility and lack of transparency. There are already 80 closed-end mutual funds operating in China, most of them small.<sup>7</sup> Salomon Brothers has teamed up with Shanghai Industrial Investment (Holdings), a business arm of the city government, to form a joint venture asset management company. The new company, the Salomon-Shanghai Industrial Asset Management Company, will manage funds invested in China. A small number of funds are officially sanctioned by the Beijing government.

For international fund managers, passage of rules governing domestic mutual funds increases the chance that more funds will be developed in China. The recent permission for insurance companies to invest their premiums in the stock market is an important step forward in improving market liquidity.

## **F. Stock Trading Mechanism**

Although the state shares represent the controlling ownership of the listed SOEs on both exchanges, these shares are not traded in the market. Initially,

the employee shares were not traded, but now they can be. The legal-person shares, sometimes called C shares, may be allowed to be traded on the Stock Trading Automated Quotation System (STAQS) and the National Exchange and Trading System (NETS) in Beijing (outside the control of CSRC).

STAQS and NETS also trade bonds (primarily government debt) in addition to C shares, but they do not trade A and B shares. Companies trading on STAQS and NETS are not allowed to trade A or B shares on the Shanghai or Shenzhen stock exchanges. Only a limited number of companies trade on the STAQS and NETS.

The trading of shares on all the exchanges (SSE, SZSE, STAQS and NETS) is through an *electronic auto-matching* process, in which transactions are settled only for those brokers who offer the same bid and ask prices. There is no intermediary such as the market maker or specialist system in the U.S. Under such a system, the order book that lists the buying and selling orders for a particular stock at any time during the day is known and available to the public. Information such as the bid-ask spread, trading volume, and price volatility is also available to the public. Information asymmetry to investors will be substantially reduced under such a system.

The United Kingdom and Hong Kong have also adopted such an electronic auto-matching process. A study by Fung, Hwang, and Leung (1998) demonstrates that under this auto-matching system in Hong Kong, the price volatility, bid-ask spread, and volume form a system of endogenous variables. Hypotheses related to the endogenous variables should be examined in future research efforts for comparing the Chinese market to other trading systems.

### **G. Other Over-the-Counter Markets**

In addition to the national stock exchanges (SSE and SZSE), informal share trading began in early 1990 after thousands of enterprises were given the green light to experiment with the shareholding system endorsed by the Beijing government. Many local governments have set up a growing number of local exchanges without approval from the central government to trade the legal-person shares, which are not supposed to be traded in the market except on STAQS or NETS. The precise operations of these unofficial activities are not known, but that there are more than a dozen of these over-the-counter stock exchanges in China, and across the country some 300 companies are believed to have listings on local exchanges.<sup>8</sup>

A better-known example of the over-the-counter market is the one in Zibo, a small northeastern city with four million people. Most of the town's 1554 industrial enterprises have issued shares, and 51 of them are listed on the town's ZBSTAQ, over-the-counter stock market, an imitation of the U.S. Nasdaq stock market.<sup>9</sup>

In early 1998, the government issued an order to clean up the financial markets, including closing down some investment and trust companies and the

over-the-counter stock exchange markets. The effectiveness of this new government policy on these exchanges, however, remains to be seen.

#### **H. Corporate Governance Issue**

Corporate governance is an important issue in the finance literature. Corporate governance describes the institutional arrangements that govern the relationships among shareholders, creditors, and managers. Corporate governance issues relate to control of the firm, selection of officers within the firm, and the agency costs that arise from conflicts of managers and other stakeholders.

Corporate privatization of State-owned enterprises and subsequent listing of their shares on exchanges are clearly useful steps to establish corporate governance as compared to the old system under the control by the state. An important question concerns with the issue whether the performance of companies (measured by profitability or stock returns) with different ownership structures is meaningfully related. Xu and Wang (1998) document a positive relationship between outside ownership concentration (i.e., ownership other than state shares) and profitability (measured by a return on equity). When Chen (1998) examines the association between stock returns and ownership for Chinese companies, however, he finds no positive relationship.

The corporate governance issue for Chinese companies is difficult to validate for two reasons. First, the accounting numbers reported are not necessarily reliable. It is widely believed that over 50 percent of companies are likely to give either inflated or manipulated figures. Second, the financial market may not be efficient enough in reflecting accounting information or other economic fundamentals of the firms, given the short history of the financial market.

### **III. HYPOTHESES AND DATA**

We examine whether profitability measures such as profit margin, return on asset or return on equity embody important information. As many argue that accounting numbers for Chinese companies are subject to manipulation and thus not reliable, we try to see on the issue whether profitability measures are reliable or useful.

Although we have shown in Table 5 that Chinese stock market is volatile, it is important to use market returns, which are an objective benchmark to gauge the information content of profitability measures released by Chinese companies. Thus, we hypothesize that higher profitability will give rise to a high market return if the stock market reflects fundamental information about the company. We also examine whether different measures of agency cost variables (or corporate governance variables) that capture efficiency or inefficiency aspects of the firm have any impact on market returns. Finally, we

examine the hypothesis that the profitability measure can reflect information on the proxies for agency cost variables.

The data used in this study come from the *Taiwan Economic Journal (TEJ)*, which provides financial statement information and stock return data on the Chinese companies listed on the Shanghai and Shenzhen Stock Exchanges. We use annual data between 1993 and 1998 for different profitability measures and other explanatory variables.

One difficulty in the analysis is missing data problem. In order to mitigate the effects of missing data and have a reasonable sample size for consistent analysis, we compile a sample of firms that enable us to conduct the analysis across all hypotheses for the sample period. Within each hypothesis, we select sample firms from our preselected data set for which we have the maximum number of variables. In this way, we ensure all firms in our analysis are comparable within each hypothesis.

#### **A. Results of Relationship Among Different Profitability Measures**

We apply three different measures of profitability under the China Standard Consolidated Accounting (CSCA) and China Standard Accounting (CSA) Methods: profit margin, return on assets, and return on equity. Consolidated financial statements are required for Chinese firms that have 50 percent (or over) ownership of the equity capital in another enterprise. Profit margin is the net income over sales. Return on assets is the net income over total assets while return on equity is the net income over total equity.

Some Chinese firms also report earning figures based on International Accounting Standard Method if these companies issue B shares or off-shore shares in other countries, but there are too few observations under this accounting method for meaningful analysis. Thus, we examine only earning figures under CSCA and CSA methods.

Table 6 reports results of the cross-correlations over time among return on assets (ROA), return on equity (ROE), and profit margin (PM) under the two different accounting methods for the period 1993-1998. The correlation of ROE under the two accounting methods (CSCA and CSA) is quite high, with the exception of 1993. A similar result is also true for ROA. The cross-correlations of ROA and ROE over the 1993-1998 period are high, implying that they move closely together (with the exception of 1997).

The correlation of profit margin (PM) with either ROA or ROE is weaker, and seems quite erratic under either accounting method (CSCA and CSA). In addition, the correlation of profit margin within the two accounting methods is also low. These results suggest that the profit margin figure is likely subject to manipulation and may not be reliable for analysis.<sup>10</sup>

**Table 6**  
Cross-correlations over time among different profitability measures

	1993	1994	1995	1996	1997	1998
ROE (C, S)	0.785	0.992	0.992	0.999	1.000	0.984
ROA (C, S)	0.948	0.881	0.946	0.982	0.967	0.945
PM (C,S)	0.361	0.108	0.078	0.297	0.096	0.056
ROE (C)/ROA (C)	0.676	0.804	0.879	0.899	0.275	0.894
ROE (C)/PM (C)	0.876	0.515	0.730	0.810	0.132	0.338
ROA (C)/PM (C)	0.862	0.594	0.735	0.808	0.526	0.300
ROE (S)/ROA (S)	0.851	0.880	0.909	0.902	0.321	0.934
ROA (S)/PM (S)	0.565	0.332	0.134	0.433	0.014	0.048
ROA (S)/PM (S)	0.229	0.365	0.197	0.490	0.028	0.052
No. of observations	12	73	121	145	329	404

Note: ROE (C, S) represents the correlation between the return on equity (ROE) of the China Standard Consolidated Statement (C) and the China Standard Statement (S). ROA denotes return on assets while PM is the profit margin.

## B. Regression Results of Market Return on Profitability Measure

To examine the hypothesis that the stock market returns can indeed reflect earnings information, we run a set of regressions relating the market returns to the different profitability measures (ROE, ROA, and PM). Table 7 shows the market return/profitability measure regression results for the period 1993-1998. Two interesting points should be noted. First, in the case of the profit margin as the independent variable, we find that the sign is quite erratic under the two accounting methods, indicating again that the unreliability of this variable as an earnings signal to the market.

Second, we find that the regression results for return on assets and return on equity are stable. Particularly, in the more recent years, the regression coefficients are highly significantly at the 5 percent level. The results indicate that investors in the stock market look at these earning figures more seriously in recent years than in the past, and thus support the hypothesis that earnings do provide important information content as reflected in the stock market prices.

We also try to investigate whether the stock returns reflect important information to be captured by other variables believed to have significant impact on the stock prices. This analysis is aimed to shed light on the corporate governance issue.

We first define a set of variables that are presumed to capture the agency cost (or corporate governance proxy) for Chinese firms. Then, we conduct a regression analysis relating the stock return to the set of agency cost variables as follows:

$$R = f(\overset{+}{\%}\text{Duty}, \overset{+}{\text{Rank5}}, \overset{-}{\%}\text{State}, \overset{+}{\%}\text{A-share}, \overset{+}{\%}\text{I-Share}, \overset{+}{\text{Profitability Measure}}) \quad (1)$$

where R is the stock return. All the variables except %-State are hypothesized to have a positive effect on the market return. %Duty is the percentage of shares held by major shareholders with duties in the company relative to the total outstanding shares on the major shareholder list (shareholders with more than 5% ownership of the firms or shareholders who are managers or directors of the firm). Duties in the company include chairman, chairman supervisory, deputy general manager, director, director and deputy general manager, director and manager, director and vice chairman, executive director, manager, senior manager, staff, supervisor, vice chairman, related parties. We hypothesize that the %Duty variable will have a positive impact on the market return.

**Table 7**  
Regression results of market return on different profitability measures as the independent variables

Profitability Measure	1993	1994	1995	1996	1997	1998
<b>Panel A: China Standard Consolidated Accounting</b>						
Profit Margin (PM)	0.7004 (1.94*) [22]	0.1809 (0.81) [82]	-0.1086 (-1.09) [132]	1.1898 (2.57**) [160]	0.2092 (3.16**) [362]	0.0122 (0.46) [450]
Return on Asset (ROA)	2.1565 (1.49) [22]	1.1052 (1.21) [82]	0.3439 (0.96) [133]	3.9285 (3.08**) [160]	2.5769 (4.49**) [365]	1.8708 (2.99**) [451]
Return on Equity (ROE)	0.2097 (0.14) [22]	1.0223 (2.06**) [82]	0.1781 (0.70) [133]	2.1360 (2.54**) [160]	0.0703 (1.41) [365]	1.1015 (3.43**) [451]
<b>Panel B: China Standard Accounting</b>						
Profit Margin (PM)	-0.0232 (- 0.18) [14]	0.0041 (0.29) [83]	0.0115 (8.43**) [134]	0.0007 (4.28**) [164]	0.0001 (1.16*) [434]	-0.000 (-1.21) [573]
Return on Assets (ROA)	4.3752 (1.90*) [15]	0.5601 (0.27) [86]	0.0943 (0.20) [141]	4.2059 (3.13**) [173]	2.2496 (5.05**) [458]	1.4074 (3.52**) [598]
Return on Equity (ROE)	3.279 (2.11*) [15]	0.9757 (2.04*) [86]	0.0077 (0.03) [141]	2.7493 (2.85**) [175]	0.0774 (1.41) [458]	1.0137 (4.20**) [598]

\* and \*\* denote 10% and 5% level of significance, respectively. The intercept is not reported in the regression. T-values corrected for heteroscedasticity are reported in parentheses; the number of observations is reported in brackets.

According to conventional wisdom, the %Duty variable is a proxy measure for stockholders' influence in the firm. This variable can be viewed as a measure to mitigate the agency costs, as manager-owners want to act in their own best interests to increase their own wealth and thus the firm market value.

Rank5 is the percentage of shares held by the first five major shareholders relative to the total shares outstanding. It could be argued that a higher percentage of this variable implies more concentration of shares within a small group of investors. Managers of the firm will attempt to satisfy the scrutiny of these investors. Thus, the agency cost or inefficiency of the firm will likely be reduced, implying a higher market return.

The %State variable is the percentage of shares held by the government (state) in the company. Given the inefficiency and bureaucracy of the SOEs, a higher %State variable will imply more inefficiency for the firm. As a result, the market return will be expected to be lower.

The %A-share variable is the percentage of shares held by the A-share major shareholders relative to the total outstanding shares. The A-share market is typically viewed as speculative in nature, as this market is quite volatile. Thus, a higher percentage of the A-share major share is consistent with the notion of more speculation possibility with more influence in the market. In Table 5, the result indicating that the mean return for the A-share market is higher than the B-share market is consistent with the speculation hypothesis.

The %I-share variable represents the share percentage held by individual major shareholders. We expect this variable to be positively related to the market returns because the higher the percentage, the more monitoring effort there will be, implying less inefficiency or a lower agency cost. As result, the market returns will be positively affected.

For the profitability measure, we employ return on assets (ROA) and return on equity (ROE) in our analysis. We do not report the results using profit margin because it does not indicate consistent patterns in our prior analysis, and the variable may be subject to manipulation.

Table 8 reports the regression results for the 1993-1998 period. We report only ROA under the China Standard Consolidated Accounting method. The results for ROA under the China Standard Accounting and for ROE under either accounting reporting method are qualitatively similar; thus they are not reported here.

Two interesting results are noted. First, the signs for %Duty and Rank5 are mostly negative, contrary to expectation. Some Rank5 coefficients (in 1993 and 1997) are statistically significantly negative. Although these results may be surprising from a *conventional* point of view, they can be explained from a Chinese institutional perspective. The %Duty variable basically represents stockholders who are also affiliated with the companies such as managers or officers. In most of the companies, state shares are usually the greatest percentage of the shareholders. So state shares and Rank5 variables are closely correlated. Thus, %Duty and Rank5 variables can be viewed as *proxy variables for incumbents* of the firm. Given the Chinese corporate structure in

the state-owned enterprises, market participants may not be entirely satisfied with the performance of these incumbents. At the same time, investors (stockholders) do not have the ability to replace them under the corporate governance structure in China. As a result, a higher percentage of these variables would imply higher agency costs and thus a lower market return.

**Table 8**  
Regression results of market return on ROA and other dependent variables

Profitability Measure	1993	1994	1995	1996	1997	1998
Intercept	70.2118 (1.91*)	-31.5193 (-1.88*)	-13.0986 (-2.42**)	112.565 (4.45**)	13.1025 (1.29)	16.9112 (2.34**)
%Duty	-148.594 (-1.08)	-0.1529 (-0.14)	-0.359 (-0.47)	2.0989 (0.48)	-1.3129 (-0.33)	-8.841 (-1.50)
Rank5	-2.5707 (-2.10*)	0.0955 (0.14)	0.0800 (0.35)	-1.1322 (-1.60)	-0.8566 (-3.59**)	-0.2447 (-1.08)
%State	-0.3351 (-0.97)	0.2153 (1.01)	0.0740 (0.80)	0.1587 (0.47)	-0.024 (-0.13)	-0.1429 (-2.11**)
%A-share	1.5953 (1.44)	-0.1385 (-0.20)	-0.1877 (-0.81)	0.4402 (0.65)	0.962 (4.09**)	0.2688 (1.27)
%I-share	-46.7121 (-1.30)	-4.5670 (-0.74)	8.9104 (2.09**)	-2.5569 (-0.34)	1.6328 (0.78)	3.1310 (2.61**)
ROA	2.2480 (1.20)	1.5965 (1.40)	0.2702 (0.77)	4.2355 (3.21**)	2.4825 (4.58**)	1.6310 (2.80**)
No. of Ob.	22	82	133	160	365	451
R <sup>2</sup>	0.4030	0.0501	0.0452	0.0636	0.064	0.0564

\* and \*\* denote 10% and 5% level of significance. T-values corrected for heteroscedasticity are reported in parenthesis. ROA is return on assets.

Second, the signs of the other four variables (%State, %A-share, %I-share and ROA) are consistent with expectations, especially for those that are statistically significant. These results imply that the market (1) values positive earnings information, (2) reflects the negative effect of the State increasing ownership, and (3) reacts positively to a major individual ownership structure.

### C. Regression Results of the Profitability Measure on Agency Cost Proxy Variables and Size

Agency cost variables or corporate governance proxies are not exogenous to firm profitability. It can be argued that profitability is significantly affected by these agency cost variables. To examine the profitability/agency cost relationship, we run a second regression:

$$\text{Profitability Measure} = f(\%Duty, \text{Rank5}, \%State, \%A\text{-share}, \%I\text{-share}, \text{Size}) \quad (2)$$

In Table 9, Panel A displays the regression results for return on assets (ROA) on these agency cost variables along with a size variable (i.e., log of total asset of the firm). Panel B reports on the return on equity (ROE) results. Both panels are based on profitability figures under the China Standard Consolidated Accounting method. Results using the other accounting method are similar, so they are not reported.

The findings of the earning analysis reported in Table 9 suggest several implications. First, the variables %Duty and Rank5 are positive and statistically significant in the earlier periods; toward the later part of the study, they become insignificant or negatively significant. If we interpret the %Duty and Rank5 as proxy variables for incumbents of the firm, the results suggest that they initially have worked hard to improve earnings performance. Their efforts, however, became ineffective later on, a result confirming the market expectations that investors are not totally happy with these incumbents.

During the period 1993-1995, the %State variable is significantly negative for both ROA and ROE regressions. For the more recent period (1996-1998), this variable has an insignificant impact on earnings by both measures. The reversal impact of %State on earning is likely due to the following reason. Current state policy is that state-owned enterprises should run their businesses on a self-sufficient basis in terms of company operations, management, and strategies. The state no longer intervenes much in the firm as in the earlier regime, and thus state ownership does not appear to have a significant impact on the profit of the firm in recent years.

The %A-share variable is negative and significant in 1994-1995 and becomes insignificant in later periods. This finding is consistent with a conclusion that firms are speculative and inefficient. As the Chinese market becomes competitive due to domestic and global forces, inefficiency is reduced over time through corporate restructuring such as mergers and acquisitions, spin-offs and downsizing. The keen competition in the Chinese markets is particular evident during the later period of the study when Asian countries experienced financial problems and there was increasing pressure on these Chinese firms to perform.

**Table 9**  
Regression results of profitability measure as the dependent variable

	1993	1994	1995	1996	1997	1998
<b>Panel A: Return on Asset based on China Standard Consolidated Accounting</b>						
Intercept	6.12309 (1.48)	6.787 (6.64**)	5.7209 (4.82**)	2.6569 (1.60)	3.4132 (2.30**)	1.3613 (2.51**)
%Duty	35.2989 (1.90*)	0.4569 (2.76*)	0.1382 (0.49)	-0.3757 (-2.63**)	-0.5624 (-0.75)	0.1302 (0.34)
Rank5	0.0746 (0.47)	0.2804 (2.78**)	0.0854 (2.35**)	-0.0433 (1.39)	0.0386 (-1.02)	-0.0049 (-0.28)
%State	-0.0304 (-0.70)	-0.0445 (-2.13**)	-0.0338 (-1.75*)	0.0201 (-1.28)	-0.002 (-0.14)	0.0064 (1.09)
%A-share	-0.0302 (-0.16)	-0.2465 (-2.41**)	-0.0993 (-3.00**)	-0.0267 (-1.87)	0.0425 (1.08)	0.0089 (0.52)
%I-share	-3.0226 (-0.61)	-0.144 (-0.17)	0.2599 (0.19)	1.1849 (3.59**)	0.4725 (1.94*)	0.245 (2.58**)
log (asset)	-0.8882 (-1.39)	-0.6658 (-1.67*)	-0.5181 (-1.13)	0.1083 (0.29)	-0.1112 (-0.22)	-0.2846 (-1.73*)
No. of Ob.	22	82	133	160	365	451
R <sup>2</sup>	0.3101	0.2384	0.0879	0.0659	0.0121	0.0402
<b>Panel B: Return on Equity Based on China Standard Consolidated Accounting</b>						
Intercept	15.1174 (3.07**)	13.4043 (1.79*)	10.9626 (4.97**)	4.646 (1.42)	22.378 (1.22)	1.5644 (1.49)
%Duty	29.0158 (1.22)	0.5718 (1.59*)	0.3513 (0.79)	-0.7256 (-3.25**)	0.7786 (0.24)	0.1932 (0.34)
Rank5	0.1614 (0.84)	0.4772 (2.42**)	0.1416 (1.65)	0.0535 (0.75)	-0.0976 (-0.93)	-0.028 (-0.73)
%State	-0.1016 (-2.20*)	-0.0603 (-1.49)	-0.0614 (-1.62)	-0.0478 (-1.45)	-0.2192 (-1.03)	0.0065 (0.56)
%A-share	-0.1292 (-0.56)	-0.4289 (-2.19*)	-0.1653 (-1.99**)	-0.009 (-0.14)	-0.1013 (-0.46)	0.044 (1.26)
%I-share	8.1904 (1.46)	1.391 (0.72)	0.835 (0.43)	1.9891 (3.55**)	-1.2609 (-0.47)	0.4800 (2.42**)
log (asset)	0.4748 (0.63)	1.0889 (1.30)	0.7548 (0.78)	0.19215 (2.17**)	-1.1956 (-0.46)	-0.1012 (-0.29)
No. of Ob.	22	82	133	160	365	451
R <sup>2</sup>	0.488	0.2087	0.0708	0.056	0.0099	0.0246

\* and \*\* denote 10 % and 5 % level of significance. T-values corrected for heteroscedasticity are reported in parenthesis.

The %I-share variable is positive and significant in more recent years but not in the earlier ones. This result supports the argument that a larger major individual shareholder percentage will exert pressure on managers to improve earnings of the firm. This result also supports the contention that the financial

market has a significant positive impact on the real performance of the firm as the financial markets become more organized.

The inclusion of size in the regression analysis (the log of assets) can also serve the purpose of a control variable. As the Chinese economy is opening up, product markets become more competitive. This translates into the negative coefficients for the size variable as a result of the diminishing influence of the size variable on earnings in recent years (1996-1998).

One interesting finding in Table 9 is that R-squares of the regressions in both Panels A and B have diminished over time, reflecting less of an effect of these agency cost variables on earnings. Thus, the variability of earnings of Chinese companies can be explained by other systematic factors (not necessarily related to agency cost variables) that merit future research for identification and analysis.

#### **D. Implications**

Our analysis of the stock return and profitability has several implications. First, the profitability of companies does employ important information, which is reflected in stock market prices. This result is in sharp contrast to the conventional belief that Chinese accounting numbers are basically unreliable. We provide positive evidence indicating the usefulness of accounting numbers in our analysis.

Second, there is an interaction of the stock market and the product market as shown in our analysis. Although this interaction is tentative and preliminary in nature, it does provide an important link suggesting that the Chinese financial market will improve as regulations make operations become more transparent and uniform.

Finally, our results indicate that Chinese firms appear to reduce inefficiencies over time. Of course, a more definite finding remains to be seen as China tries to liberalize its financial market and makes state-owned enterprises more competitive and efficient. Our results do show a positive picture of improvement in the information role of the China financial market, which deserves more investigation.

### **IV. USE OF THE OFFSHORE MARKET**

Chinese companies have issued new shares in external (offshore) markets to raise capital during the past several years. Hong Kong, New York and other markets represent important markets for Chinese initial public offerings (IPOs).

#### **A. Hong Kong Market**

Before reversion to China on July 1, 1997, Hong Kong had been a popular market for Chinese IPOs. Many firms on the Chinese mainland are still planning

to list their shares on the Stock Exchange of Hong Kong (the official exchange in Hong Kong for common shares).

Chinese companies started to issue shares in Hong Kong in 1993. Shares of the mainland Chinese firms issued in Hong Kong are called H shares. The shares of Chinese companies incorporated in Hong Kong and controlled by mainland government entities are listed on the Hong Kong Stock Exchange as "red-chips."

Table 10, Panel A, reports the number of IPO and listed H shares, and Panel B documents the amount of capital raised for the period 1993 to 1998. Panel B shows in the amount of money raised has increased substantially over time. The amount raised was HK\$ 31.369 billion for 41 companies in 1997.

**Table 10**  
Chinese companies listed on the Hong Kong Stock Exchange

**Panel A: Number of Initial Public Offerings (IPO) and listed H shares**

Year	1993	1994	1995	1996	1997	1998
Number of IPOs	6	9	2	7	16	2
Number of Companies	6	17	19	25	41	43

**Panel B: Total Funds Raised by H shares IPO in Hong Kong**

Year	1993	1994	1995	1996	1997	1998
Amount (million HK\$)	8,141.52	9,791.70	1,878.19	6,807.33	31,369.24	3,172.36

Source: Stock Exchange of Hong Kong Ltd., Fact Sheet, 1993-1998.

The H-share and red-chip market has grown dramatically during the last few years. As more Chinese companies are planning to raise capital in Hong Kong, they will come to dominate the Hong Kong financial markets. Currently, Chinese investments in Hong Kong are now second to those of UK firms.<sup>11</sup> Poon and Fung (2000) examine information flows among the Chinese-backed securities (red chips, H shares and Shanghai and Shenzhen shares), and find that red-chip stock prices lead the information flows among these securities.

Given the importance of Hong Kong to China, it is vital for the Chinese government to maintain Hong Kong's status as an international financial center. One argument for the Chinese government not to devalue the RMB following the Asian currency crisis started in July 1997 has been to maintain stability of the Hong Kong dollar, which has been pegged to the U.S. dollar since 1983. Devaluation of the RMB would imply instability of the Hong Kong dollar. If the Hong Kong government cannot defend its currency, it would become difficult for Chinese firms raise new capital in Hong Kong in the future. A counter argument is that devaluation might enable firms in Hong Kong to obtain lower production costs, thus become more competitive, as many Hong Kong local firms have shifted their production to Mainland China.

## **B. U.S. and Other Markets**

Since 1973, Chinese companies have listed shares on the New York Stock Exchange (NYSE) to raise equity. These shares are in the form of American Depository Receipts (ADRs), also called N shares (for New York shares).

Table 11, Panel A, reports the number of companies undertaking IPOs on the NYSE, and Panel B shows the amount of U.S. dollars raised. In 1997, about US\$ 591.8 million was raised. This amount is relatively small compared to that raised in Hong Kong. The New York market does represent another viable market for the Chinese firms for raising money in the future.

There are also about 40-plus state-owned and non-state-owned Chinese companies that have raised capital in other U.S. markets such as Nasdaq for the past several years. For example, Asian Electronics Holding Co. Inc., a private Chinese company listed on Nasdaq, raised US\$ 36.8 million in an IPO on September 25, 1997.<sup>12</sup>

Chinese companies have also listed their shares on the Canadian and London exchanges. For example, Zhejiang Southeast Electric Power, based in the eastern coastal province of Shejiang, became the first Chinese company listed on the London market in September 1997. The IPO is in the form of Global Depository Receipts (GDRs).

In addition, the CSRC has recently signed an agreement with securities regulators in Australia, Singapore, and Tokyo to clear the way for securities offerings. These exchanges seem to have expressed enthusiasm for listing the stocks of Chinese companies.

## **V. DEVELOPMENT OF THE CORPORATE BOND MARKET**

Before 1986, all debt securities in China were Treasury bills, which are placed by state allocation to state enterprises. Voluntary subscription is a recent development.

In 1986, corporate bonds were issued for the first time when their amounts averaged about RMB 8 billion [Kumar et al. (1997, p. 5)]. The total issue of corporate bonds increased to about RMB 13 billion in 1995 [Holmes (1997)]. The Chinese corporate bond market is relatively underdeveloped as compared to its equity market, but a significant increase in corporate bond issues in the future is not expected for two reasons. Investors are not really excited about bonds because bond coupon rates are typically set at an increment below government obligations. If corporate bond yields are not allowed to be determined by market forces, growth in this market is unlikely. In addition, corporate bonds suffer from image problems because of historical defaults by many companies.

**Table 11**  
Number of N shares listed and capital raised on New York Stock Exchange

Year	1993	1994	1995	1996	1997	1998	1999
Number of IPO	1	2	1	1	3	1	0
Number of Companies	1	3	4	5	8	9	9

Source: NYSE homepage.

All are year-end data, except 1999 from July 16, 1999.

**Panel B: Total Funds Raised by all IPO N shares**

Year	1993	1994	1995	1996	1997	1998
Amount (million US\$)	171.28	958.10	166.77	461.13	591.80	232.47

Source: Wardly Card.

Loosely speaking, there are three types of corporate bonds: state investment company bonds, financial bonds, and enterprise bonds. State investment bonds are securities issued by six investment companies: the State Energy Resources Investment Company; the State Raw and Processed Materials Investment Company; the Industrial Investment Company of State Machinery and Electronics; Light Industry and Textile Industry; the State Communications Investment Company; and the State Forestry Investment Company. These bonds are issued to support major state investment projects.

Banks issued financial bonds first to individuals in 1985. The money raised is primarily in support of the bank's long-term loans. They are project-specific and usually mature in five years.

Enterprise bonds are debt securities issued by enterprises with longer than one-year maturities. These bonds were first issued in 1984, initially to employees and clients. More recently, they are issued to the public. Bonds are issued under a quota system administered by local authorities and are for investment purposes.

There are four major bond trading centers in China. They are Wuhan, Shanghai, STAQS, and Shenzhen. Other regional markets exist, but they are very small, and their importance is declining.

Table 12 reports amount and GDP percentages of the different types of corporate bonds issued in Shanghai. State investment bonds and financial bonds have not been popular in recent years, while enterprise bonds have become more important. The total bond issue size is relatively small, about 0.018 percent of GDP for the year 1997.

The underdevelopment of the Chinese corporate bond market is worth closer examination. Bond interest payments by an enterprise in China have not been tax-deductible, implying that there was no tax incentive to issue debt securities. The current law, however, allows bond interest payments to be tax-deductible. Thus, the 100 percent debt solution argument proposed by Modigliani and Miller (1963) should now apply, given a perfect financial market.

**Table 12**  
Bond issues in Shanghai

Year	GDP (Current rice) Billion RMB	State Investment Companies		Financial Bonds		Enterprises		Total	
		Amount Million RMB	% of GDP	Amount Million RMB	% of GDP	Amount Million RMB	% of GDP	Amount Million RMB	% of GDP
1987	1196.25	--	--	31.30	0.00262	616.40	0.05153	647.70	0.05414
1988	1492.83	35.64	0.00239	30.27	0.00203	181.38	0.01215	247.29	0.01657
1989	1690.92	68.21	0.00403	478.63	0.02831	300.00	0.01774	846.84	0.05008
1990	1853.07	30.24	0.00163	306.17	0.01652	491.25	0.02651	827.66	0.04466
1991	2161.78			549.40	0.02541	707.35	0.03272	1,256.75	0.05813
1992	2663.81			160.00	0.00601	1,557.80	0.05848	1,717.80	0.06449
1993	3463.44					760.00	0.02194	760.00	0.02194
1994	4675.94					859.6	0.01838	859.60	0.01838
1995	5847.81					500.00	0.00855	500.00	0.00855
1996	6859.38					1,040.00	0.01516	1,040.00	0.01516
1997	7345.30					1,350.00	0.01837	1,350.00	0.01837

Source: *Taiwan Economic Journal* China Database (GDP).  
*Shanghai Security Yearbook* 1998.

So far there has still not been an increase in corporate debt issues. The reason is likely the negative image of bonds, which may dominate the positive tax effect. This is an important issue to be examined for future research.

The incentive for the purchase of corporate debt is to hold a more senior claim over shareholders in the case of default. Chinese bankruptcy law does not enable debt-holders to take over companies in case of financial problems. Add this to the low-coupon rate argument above, and one can see why investors are not eager to invest their money in bond markets.

Chinese companies have issued debt securities in Hong Kong and the Euromarket in the past several years. These offshore debt markets are important places that generate funds for the Chinese companies; their development merits future closer examination.

China is planning reforms to its sluggish domestic bond market, including the creation of an over-the-counter market, the participation of foreign-invested institutions as underwriters and the unification of two existing bond markets, one run at the country's two stock exchanges and the other at the interbank market.<sup>13</sup> The planned OTC market will enable individuals to gain easier access to the bond market, after insurance companies, brokerages, investment funds and other non-bank financial institutions in 1999 were allowed to participate in the market.

## VI. PROJECT FINANCE

In recent years, China has undertaken numerous infrastructure projects to enable its growth and expansion, and project finance has become critical to China economic development. Project finance enables Chinese companies and

the government in cooperation with foreign investors to undertake large, complex projects that are difficult to manage and to obtain financing while maintaining ultimate control of these projects.

Project finance in China has two important characteristics. First, the finance and the management of the projects are private. Thus, we can regard project finance as an alternative method for a country to privatize its state-owned entities. Second, project finance in China represents a significant step toward financial liberalization

### **A. Legal Framework**

According to Chinese regulations, domestic entities are required to obtain approval from The People's Bank of China for obtaining external commercial loans, while the State Administration of Foreign Exchange (SAFE) will monitor the day-to-day operation of the foreign financing.

Foreign project sponsors and lenders once relied heavily on Chinese government debt guarantees to minimize project risks. With the elimination of government debt guarantees, new Chinese laws make it illegal for government entities such as local governments and their finance bureaus to issue security to any oversea entities without the prior approval of the State Council.

Because the Chinese currency is not fully convertible, only the trade account is convertible into foreign currency. Foreign investors face foreign exchange rate risk when they invest in China. The build-own-operate Circular guarantees the availability of foreign currency in terms of current account transactions such as loan payments, interest, and dividends. Capital account conversion requires prior approval of the SAFE.

### **B. Forms of Project Finance**

Project finance in China is generally of three types-- joint venture, build-operate-transfer (BOT), or the structured finance.

#### **1. Joint Venture**

Joint venture is a common legal form for an infrastructure project investment in China. A foreign partner enlists a local Chinese partner for such a project. Two types of joint ventures for infrastructure projects are equity joint ventures and cooperative joint ventures. An equity joint venture involves profit sharing, and claims to assets are proportional to ownership of the legal entity. Equity contributions have to be more than 25 percent of the total capital requirements. In a cooperative joint venture, negotiation dictates the ownership claims.

## **2. Build-Operate-Transfer (BOT) Project**

A BOT project in China involves a project company incorporated in China and owned by a foreign sponsor that is responsible for building and operating the infrastructure project. New BOT structures differ from past joint venture power projects in the several ways. First, local governments can invite international developers to bid. Second, a special purpose project company can be a wholly owned enterprise as well as an equity joint venture or cooperative venture. Third, the state guarantees the conversion of foreign exchange required for the project company in terms of principal, interest, and dividends. Finally, there are no government debt guarantees in this type of project finance.

## **3. Structured Finance**

The structure of the debt is the key element in a structured financing process; the exact financing mode will depend on negotiations between issuers and creditors. Thus, there is no pre-designed format for this type of financing method.

One common method to raise capital is to borrow money from commercial banks. Another is to raise capital through the international bond market. In this way, the payment of the bonds will be contingent on the performance of the projects. An offshore company will be formed as a project company that issues bonds for debt financing, with the proceeds to be invested in China.

To illustrate, in August 1996, the Zhuhai Highway Company, a Cayman registered subsidiary of Zhuhai municipal government, successfully launched a two-tranche US\$ 200 million revenue bonds. The first tranche was US\$ 85 million, 10-year senior bonds at 9.124 percent interest while the second was US\$115 million, 12-year subordinated bonds at 11.5 percent interest. The bond issue represents the first revenue bond launched in Asia and also the first high-yield bond issued by a Chinese entity. The proceeds were used to finance highway infrastructure projects.

Since 1996, several infrastructure investment Chinese companies have listed their shares on the Hong Kong Stock Exchange. They include Jiangsu Expressway, Shenzhen Expressway, and Zhejiang Expressway. The \$24.5 billion Three Gorges Dam Project spanning the Yangtze River, is in the second phase of construction. The financial package will include state and domestic funds (80 percent) and foreign funds (20 percent). The China Three Gorges Project Corporation is considering an international bond issue and floating an IPO on the Hong Kong Stock Exchange and the NYSE Stock Exchange to raise capital. Financing of the Three Gorges Dam project will involve a combination of bank loans, bond issuance, and equity capital.

## VII. CONCLUDING REMARKS

In our examination of the development of the financial market from the perspective of corporatization, we have documented the evolution of the Chinese stock and the bond markets over the past decade.

The stock market has grown substantially in the past several years. Its size cannot be ignored easily by foreign countries. The recent development that allows the setting up of mutual fund companies with foreign investors represents another important step furthering the growth of the domestic financial market. We expect to see more and more Chinese companies expand to overseas markets such as Hong Kong, the U.S. and Europe in the near future and to list their shares on the exchanges of these countries. Thus, it is clear that the Chinese stock market will become more important in global finance in the future.

The corporate debt market in China is small as compared to the equity market. Growth in corporate bond issue is badly needed, as firms require more and more funds for investment. Policymakers need to consider incentives in terms of tax structure, bankruptcy laws, and trading practices to promote growth in this market.

Project financing in China is growing in importance. The need to fund various infrastructure investments is immediate, as China is trying to preserve economy in the wake of the Asian currency crisis. Project financing can be viewed as a form of privatization because the project management (usually foreign investors) and project financing (in the form of syndicated loans and bond issues) are *private* in nature. These developments would further help the growth of the Chinese financial markets in the near future.

China's membership in the World Trade Organization (WTO) will be an important step toward liberalization of its financial market. Liberalization under the WTO agreement would include (1) opening up the banking industry to foreign investors to conduct business in Chinese currency in different cities in China, and (2) access to the insurance and securities industries for foreigners. The financial landscape in China will change substantially with China's entry into the WTO.

The rapid growth of venture capital funds in China from domestic and foreign investors is also an encouraging sign for the future development of the Chinese financial market. High-tech firms sponsored by venture capital funds are expected to list their shares on exchanges for additional equity capital in the near future. These developments along with the improved conditions with regard to regulations and business environments will enable China to develop a vibrant financial market and ultimately play an important role in global financial markets.

## ACKNOWLEDGMENTS

We thank participants of the research seminar at the University of Missouri-St.

Louis, the China Business Conference in the 21st Century in St. Louis, March 2000 for helpful comments and Patricia Peat for editorial help.

### NOTES

1. SOEs are allowed to form stock companies; bankrupt firms have been allowed to be sold off to the public including foreigners since 1997.
2. See *Business Week*, March 16, 1998, p.46.
3. Four asset management companies, Great Wall, Dongfang, Cinda, and Huarong, have been set up by the Agricultural Bank of China, the Bank of China, the China Construction Bank with five other companies, and the Commercial Bank of China (*Wall Street Journal*, November 8, 1999).
4. On December 28, 1999, China opened the *Shanghai Technology Stock Exchange*, run by agencies under the Shanghai city government, which allows high technology start-up companies to raise equity capital. The exchange has 30 members, mainly brokerage houses and investment firms. The first deal was an underwriting agreement authorizing Shandong Securities, an exchange member, to raise US\$ 24 million for Zhixing Electric, a company that produces electrical converters.
5. Because of the fixed amount of money allowed to be raised on the exchange, local authorities tried to list as many small companies as possible. The quality of these smaller companies was subject to question.
6. The segmentation of the A- and B-share market may be a temporary situation as China has planned to allow foreign funds to invest in the A-share market before the China officially would open its capital account. The most likely model to be used is the so-called Qualified Foreign Institutional Investors (QFII) system, which is used in Taiwan (*Financial Times*, May 24, 2000). The QFII system keeps the inflow and outflow of funds under strict ceilings.
7. *Financial Times*, October 10, 1997.
8. See *Wall Street Journal*, January 26, 1998.
9. *Wall Street Journal*, September 16, 1997.
10. ROA, ROE, and profit margin are measures of profitability ratios with net income as the numerator. It is puzzling that why ROA and ROE give more consistent results than profit margin.
11. *World Daily News*, July 20, 1997.
12. *World Daily News*, September 26, 1997.
13. *Financial Times*, May 19, 2000, p1.

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