

# A study of Listed Banks' ownership structure and its operating Performance

Shi Ruijie

Department of Finance  
Shanghai University  
Shanghai, China  
549586843@qq.com

Ma Jun

Nanjing Chenguang Group Corporation  
Nanjing, China  
20280486@qq.com

Zhang Zhi

China Union Pay  
Shanghai, China  
649011520@qq.com

**Abstract**—The relationship between equity structure of commercial banks and its performance has always been a hot spot in the financial sector, this paper uses the 2007-2013 annual report data to analyses the relationship between ownership structure and performance of three kinds of listed commercial banks (state-owned commercial banks, joint-equity commercial banks, urban commercial banks) in China in order to put forward some policy suggestions for the already listed and upcoming listed Banks. Results show that state-owned commercial banks and joint-equity commercial banks' equity concentration and their proportion of state-owned shares have a negative effect on their performance. The urban commercial banks' equity concentration and their proportion of state-owned shares have a positive effect on their performance. The increase of capital ratio is beneficial to the improvement of all listed banks' performance. In view of these, the paper puts forward some policy suggestions: Optimizing three types of banks' ownership concentration properly; reducing the proportion of state-owned shares; reasonably increasing ownership ratio of excellent foreign banks. In these ways, the banks can optimize their equity structure to improve their operation performance.

**Keywords**- listed bank; ownership structure; corporation performance; capital ratio; comparative study

## I. INTRODUCTION

Since Shenzhen Development Bank and Shanghai Pudong Development Bank have listed in 1991, commercial banks in China have accelerated their pace of listing in the market, with the listing of China Everbright Bank in Shanghai Stock Exchange, there have been 16 commercial banks in the A share market. Commercial banks not only play an important role in regulating economy, creating credit in China's national economy, but also provide a variety of financial services. With the entry of foreign banks, the competitive pressure faced by our banking sector is growing. In this context, how to improve the

operating performance of China's commercial banks has become a hot research.

The banking system in China is the largest and most complex among the countries presently in transition from central planning to market-based economies. In the last two decades, Chinese government-owned banks have undergone a remarkable privatization program that, distinct from the experience of other transition countries has followed an incremental approach to change.

Improving the performance of commercial banks has many methods, this article is to explore how to construct a reasonable equity structure to improve the overall competitiveness of banks. Since most previous scholars research and analyze the listed commercial banks as a whole, ignoring their classification, therefore, the listed commercial banks in China are divided into three categories in this article: state-owned commercial banks, joint-equity commercial banks, urban commercial banks, their ownership structure and operating performance are studied respectively in order to increase the overall competitiveness of different banks.

## II. THE LITERATURE REVIEW

Foreign scholars' research focused on corporate performance and ownership concentration areas, but did not reach a consistent conclusion, the representative views are: John P. Bonin, Hasan, Paul Wachtel used an empirical study of 220 banks and found that the banks' ownership structure has a crucial role, the state-owned banks have the minimum efficiency compared with the foreign banks. Demsetz, Lehn examined the 511 large American companies, analyzed the relationship between concentration of ownership and ROE, concluded that they were not related. Researches can be roughly divided into three areas: The relationship between ownership concentration and operating performance, the relationship between the properties of equity and the operating

performance, equity liquidity and operating performance. They can be summarized as the following four views:

*A. Positive Relationship*

LiWeian found the state-owned properties of major shareholders had no significant relationship with its performance, equity concentration will help improve the bank's operating performance by studying 28 city banks in Shandong and Henan province. Wang Li, Zhang Jintao draw a conclusion that the ownership concentration of joint-stock commercial bank and their performance have a positive relationship according to the data of China's 11 joint-equity commercial banks.

*B. Negative Relationship*

Li Cheng, Qin Xu concluded that the ownership concentration is higher, the worse operating performance of listed banks according to the principal-agent theoretical analysis. Liu Min, Pinghu Jun found that the performance and ownership concentration have a negative correlation by analyzing annual data from 2006 to 2010 of 15 listed banks.

*C. Irrelevant*

Xie Dongbiao's study showed that the proportion of the previous three shareholders does not affect bank performance. Shi Donghui found that there was no significant relationship between ownership concentration and operating performance by using the data of listed companies in Shanghai Stock Exchange.

*D. Curve related*

Wu Dong, ZhouJianping found that when the bank's largest shareholders' stake was below 20%, their ownership and banks' performance has a "U" shaped relationship; when the proportion is more than 20%, their relationship is an inverted "U" shaped relationship by taking advantage the method of SFA. Zheng Lujun, CaoYanqiu concluded that the bank's performance and equity concentration presents a "U" shaped relationship.

There are two major views in the study of ownership property :one is a modest increase in the proportion of foreign shares can improve the operation performance of commercial banks, such as TanXinming、 SongZengji. The other view is there is a negative correlation between state-owned shares and performance , such as Liu Haiyun, Wei Wenjun, Ouyang Jianxin .

III. THE DESIGN AND THEORETICAL ASSUMPTIONS

*A. Sample Selection*

This article's data comes from annual reports of listed commercial banks from 2007 to 2013, the number of samples is 98. Among them, the Industrial and Commercial Bank of China, China Construction Bank, Bank of Communications and Bank of China are views as a class due to the large scale of its share capital and the dominance of state-owned shares .

China Merchants Bank, Shanghai Pudong Development Bank, Shenzhen Development Bank and Huaxia Bank were established by issuing shares, they have the typical features of a modern corporation, therefore, these banks can be studied as a second class.

Bank of Nanjing, Bank of Beijing and Bank of Ningbo can be defined as city commercial banks, they can provide some reference for the development of ready-listed city commercial banks .Therefore, they can be defined as a third class .

*B. The Definition of Variables*

*1) Explanatory variables*

This article uses the ownership concentration and ownership attributes to set the explanatory variables, the concentration of equity is measured by the largest shareholder (CR1), the shareholder proportion of top 5 shareholders (CR5), the shareholder proportion of top 10 shareholders (CR10), the shareholding square proportion of top 10 shareholders, (H10) .

Attributes are measured by the equity proportion of state shares (GYG) and foreign shares (WZG) of the top ten largest shareholder.

*2) Explained variable*

This paper select ROE (R) to measure the operating performance of listed banks.

TABLE I. VARIABLE SETTINGS AND THEIR MEANINGS

symbol	Name Definition	Definition
R	ROE	net profit / net assets
CR1	the largest shareholders' proportion	The shares of the largest shareholder / total equity
CR5	the top five shareholders' proportion	The shares of top five shareholders / total equity
CR10	the top ten shareholders' proportion	The shares of top ten shareholders / total equity
H10	Herfindahl index	The shareholding square proportion of top 10 shareholders
GYG	the equity proportion of state shares	The shares of state shares / total equity
WZG	foreign shares	The shares of foreign shares / total equity

*C. Research Hypothesis*

*1) The relationship between three types of banks' equity concentration and operation performance:* Although single controlling shareholders can reduce the cost of principal-agent to a certain extent, but the existence of a single large shareholder can lead to serious opportunistic behavior, in addition, the concentration of equity is not conducive to the implementation of the supervision mechanism, which will reduce the performance of the bank. Therefore, we assume that:

H1: the first big shareholder shareholding CR1 is negatively related to the bank business performance R;

H2: the sum of the top five shareholders' shareholding CR5 is negatively related to the bank business performance R;

H3: the sum of the top 10 shareholders holding CR10 is negatively related to the bank business performance R;

H4: the top 10 shareholders holding sum of squares H10 is negatively related to the bank business performance R.

The equity of city commercial Banks are relatively dispersed, the existence of multiple shareholders will weaken the control power of the biggest shareholder, thus avoiding the emergence of a dominant phenomenon, form a kind of balance between the shareholders, the supervision of management can improve the efficiency of the Banks, increase the bank's business performance, so we assume that: ownership concentration and management performance are related positively to urban commercial Banks.

2) *The relationship between equity properties and performance*: the administrative goals will affect the performance of bank management, because the country not only pay attention to the management circumstance of themselves, but also should pay attention to the country's macroeconomic goals and the overall level of economic development. The introduction of foreign capital can replenish capital of China, as well as to provide the experience of the advanced management experience. Therefore, we assume that:

3) H5: the proportion of state-owned shares (GYG) is negatively related with the banks' operating performance;

4) H6: capital ratio (WZG) is positively related with the banks' performance

#### IV. EMPIRICAL ANALYSIS

According to the hypothesis H1 to H6, the regression results is as follows:

TABLE II. REGRESSION RESULTS

Models	(1)	(2)	(3)	(4)	(5)	(6)
C	0.8 (3.6)	-0.16 (-0.4)	0.12 (0.64)	-1.05 (-0.73)	0.68 (5.35)	0.15 (1.19)
CR1	-3.5 (-2.19)					
CR5		1.17 (2.16)				
CR10			0.37 (1.04)			
H10				-0.46 (-2.66)		
WZG					2.3 (- 2.93)	
GYG						-0.78 (2.34)
$R^2$	0.18	0.5	0.005	0.16	0.30	0.34
F 数值	4.78	13.49	1.08	1.43	8.58	1.78

From the table 2, we can see that : H2, H3, H4, H5, H6 passed the inspection, the state-owned commercial Banks

is negatively related to business performance. The assumption that state-owned commercial Banks and joint-stock commercial Banks have a negative correlation relationship with the bank's performance is not passed by T test. Therefore we refused the hypothesis H1.

Their banking activity seems to be very peculiar, with a larger share of their funding coming from the wholesale interbank and capital markets, a higher liquidity and lower investments in loans. This different kind of financial intermediation model appears consistent with the existence of conjectural or explicit government guarantees, which in turn allow these banks to avoid the indirect costs – in terms of capital markets effects – of their poorer asset quality and less profitable intermediation activity.

#### V. POLICY SUGGESTIONS

In view of the empirical research results, this paper put forward some advices as the listed banks how to optimize their equity structure to improve their operating performance :

##### A. Reasonable optimization of three types of banks' ownership concentration

According to the results of empirical test, and the statistical analysis description of the ownership structure, China's state-owned commercial Banks and joint-stock Banks of the country's shareholding structure is relatively concentrated, thus to properly reduce the ownership concentration of these two types of Banks, gradually reduce the biggest shareholders' shareholding and the sum of the top 10 shareholders holdings. In addition, we can appropriately introduce the non-state ownership, scattered equity, actively promote employee stock ownership plan to form the balances between shareholders equity structure. In this way ,we can improve the efficiency of Banks. For city commercial Banks, we should improve the equity concentration, moderately increase the first big shareholder shareholding and the sum of the top 10 shareholders holdings, to form a good situation of incentive and constraint between shareholders and ultimately improve the performance of listed Banks as a whole.

##### B. Reducing the proportion of state-owned shares

We must strictly control the state-owned Banks' and joint-stock commercial Banks' state-owned shares proportion, and gradually reduce the proportion of state-owned shares of listed Banks in China, in addition, the patterns of behavior should be optimized for the country investors, state shareholders should strengthen the supervision and management of enterprises, establish an effective incentive mechanism and supervision mechanism. For city commercial Banks, state ownership not only provides an important role in bank credit support, but formed a powerful invisible guarantee due that its equity is scattered. We can consider that moderately increase the proportion of state-owned shares within a certain range to promote city commercial Banks. Our

results concerning risk indicate that public sector banks have poorer loan quality and higher insolvency risk than other types of banks. This result is consistent with the existence of conjectural or explicit government guarantees, which in turn allow these banks to avoid the indirect costs – in terms of capital markets effects – of their poorer asset quality and less profitable intermediation activity. On the other side, mutual banks have better loan quality and lower asset risk than both private and public sector banks.

### C. Reasonably increasing ownership ratio of excellent foreign banks.

Because the ownership ratio of foreign banks has a positive effect on the efficiency of all three types of listed banks, this paper suggests that ownership ratio of foreign banks should be increased reasonably in future listing processes, under the condition that local investment holds controlling interest, so that listed banks can learn the excellent administration experience and introduce advanced techniques of foreign banks. As a result, administration modes and operation ideas of Chinese listed banks can catch up with the tide of international banking development. Chinese listed banks will be motivated to participate in the competition of international finance markets and eventually ameliorate their administration modes and promote their operation efficiency. We argue that the Chinese government selected better banks for privatization, foreign acquisition, and public listing activities in order to attract foreign investors and avoid failure of reform.

## VI. CONCLUSION

We study the relationship between ownership structure of listed banks and the performance, finding that it is common for stated-owned banks to reduce their shares. The results suggest that ownership concentration hurts company performance, possibly due to inefficient management. Our results provide some support for the ongoing bank ownership reform in China. We find the state ownership is negatively related to bank performance, with the Big Four banks, which are the largest banks, observing the worst performance. We conclude that ownership reform of the other Big Four banks, joint-equity banks, and city-level commercial banks should continue to be pushed forward.

Given the different conditions of bank ownership and firm performance in China, we believe that it is important to bear in mind that we should manage the banks according to their specific conditions. More studies should be devoted to understanding in the context of three types of banks.

## ACKNOWLEDGMENT

I would like to express my gratitude to all those who helped me during the writing of this thesis.

First of all, My deepest gratitude is to Professor Wang Guosong, my supervisor, for his constant encouragement and guidance. He has walked me through all the stages of the writing of this thesis. Without his consistent and illuminating instruction, this thesis could not have reached its present form.

Secondly, I would like to express my heartfelt gratitude to my partners, who led me into the world of translation. I am also greatly indebted to the professors and teachers at the Department of Finance, who have instructed and helped me a lot in the past two years.

Last my thanks would go to my beloved family for their loving considerations and great confidence in me all through these years. I also owe my sincere gratitude to my friends and my fellow classmates who gave me their help and time in listening to me and helping me work out my problems during the difficult course of the thesis.

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