

Chinese Banking Reforms: An Analysis and Evaluation of Non-Performing Loans

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Abstract: The objective of this study is to examine the effect of corporate governance, and government influence on non-performing loans of Chinese banks. It is further identified the main causes of non-performing loans in developing and transition economies. The problem of non-performing loans causes inefficiency and non-productivity in the banks. Chinese banking sectors has suffered with this chronic disease. Several reforms and measures have taken to counter with NPLs problem by China. The data on Chinese listed commercial banks over the period of 2000-2013 has used for the analysis. The data of Chinese Banks are collected from CSMAR, a very reputable database of Chinese listed firms and from Almanac of China Finance and Banking a detailed periodic survey book on Chinese banking. The results of this study revealed that after getting privatized, the banking performance of Chinese banks has improved significantly. Further, The results suggest that the corporate governance practices has some influence on Chinese banking sector NPLs such as, board size and board independence are negatively and positively influence the Chinese banking sector NPLs respectively. This result is rather unusual as banking NPLs literature suggested. Our results suggest that a large board size may reduce the banking NPLs in China. However, the increased board independence works oppositely.

Keywords: banks performance, corporate performance, NPL, banking reforms

INTRODUCTION

In developing and transition economies, the importance of a well-functioning banking sector has been acknowledged for economic growth and development (La Porta et al. 2002). In recent years, the

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banking sector reforms have become a high priority policy agenda for these countries. There are many commonalities in banking systems of transition economies, such as poor risk management skills, lack of managerial expertise, weak legal and regulatory framework, and poor oversight of institutions and underdevelopment of credit assessment system. Deregulation and financial liberalization along with the creation of two-tier system are the similarities of earlier market-oriented reforms. The privatization of state-owned banks is the subsequent strategies for financial reforms. The prevalence of state ownership is one prominent feature of banking system in transition economies. The existence of state ownership in banks is based on the argument that those sectors, which has high social return but weak financial standing are unable to attract the private capital, hence the government channel the capital to those sectors and projects, in order to keep their social return high.

The banking system in China is heavily influenced by the state and less skilled in term of credit assessment and risk management. However, the on-going banking sector reforms have significantly improved the asset quality and enhanced the banking sector performances. In wake of these reforms, a significant reduction in 'non-performing loans' (NPLs) are observed with the increase in profitability. It is also a fact that the immediate improvement in the asset quality is not only attributed by the banking sector reforms but also by transferring the NPL's from banks to asset management companies to clean up the balance sheets of state owned commercial banks (SOCB's). Whether the on-going banking sector reforms could make the banking system viable in the long-run or it needs more fundamental changes to improve the asset quality of the Chinese banking sector is unknown and will be examined by this study.

The effect of political culture, corporate governance structure and instability of economic conditions on non-performing loans is rarely addressed in banking literature. This examination has its due importance to identify the main causes of non-performing loans in developing and transition economies. The problem of non-performing loans causes inefficiency and financial burden in the banks. Chinese banking sector has suffered with this chronic disease badly. Several reforms and measures have taken to counter with NPLs problem by the Chinese Government. These reforms include corporate governance settings, macroeconomic stability and ownership restructuring.

This study investigates the impact of corporate governance settings, macroeconomic changes and political factors on non-performing loans of Chinese commercial banks. Since, China is an emerging and transitory economy, therefore, non-performing loans of banks is a common problem. To investigate this issue, a larger data set of Chinese banking NPL's and corporate governance variables have used in this study. The data of Chinese Banks are collected from CSMAR, a very reputable database of Chinese listed firms, from Almanac of China Finance and Banking a detailed periodic survey book on Chinese banking and economic and China Statistical Year Book, from 2000 to 2013.

The objective of this study is two-fold. One is to look at the history of Chinese banking Reforms, and second is to make an analysis and evaluation of non-performing loans in Chinese banks and role of corporate governance in this context.

China has experienced a very rudimentary banking sector reforms during the past three decades. It is important to discuss the outcomes of these reforms and improvement in banking practices in China. Secondly, the non-performing loans are a major concern of Chinese banking. The role of corporate governance in resolving the issue of Chinese banking NPLs is needed to explore further.

The outcomes of this study are very encouraging and give some direction to policy makers in order to understand a serious issue.

This study shows that how corporate governance settings such as board size, board independence, number of supervisors, ownership concentration and association among top ten shareholders affect non-performing loans of banks in China. In addition, the macroeconomic changes such as GDP growth rate and interest rate are also included to determine its impact on non-performing loans of banks.

The second section of this study discusses the Chinese banking sector reforms in detail. The third section provides a comprehensive literature review on non-performing loans, emerging markets banking sector and role of corporate governance. Fourth section of this study explains the methodology and variable construction along with the econometric models to be tested. Fifth section discusses the results and outcomes of this study. Final section summarizes the whole paper and provides a brief conclusion.

CHINA'S BANKING REFORMS

Unlike to some other transition economies of the world, where a shock therapy approach was adopted to restructure their banking sector, China had adopted a rehabilitation approach to restructure its banking sector along with the economic reforms. One of the clear objectives of financial reforms was to restructure the banking sector from state-owned, monopolistic and policy driven to a split ownership, profit-oriented and more competitive one.

First Stage Reforms

Over a span of three decades, the banking sector reforms have been divided into different phases (Tang, 2005). The first phase had started in 1979 until 1984, where the focus was on institutional initial restructuring. During this phase, the PBOC was split into four specialized and one central bank. The PBOC had given a role of central bank but in a restricted manner where it supposed to report the State Council of the country. The four specialized banks, namely Bank of China (BOC), Agriculture Bank of China (ABC), Industrial and Commercial Bank of China (ICBC), and China Construction Bank (CCB) which latterly became China Construction Bank Corporation (CCBC) in 2004, started their operation under specific roles. (Zhang et al., 2012) The segmentation of Big-Four banks was gradually diminished after 1984, when they were allowed to perform commercial banking operation. (Cheng et al., 2010)

In order to make banking sector more competitive, the PBOC lifted restrictions on new entries during mid-1980s. In a period of eight years, from 1985 to 1993, a number of new banks were come into the industry by mergers, restructuring or incorporation with the objective of having more competition with Big-Four banks. (Abiad et al., 2010) These new JSCBs have diverse equity structure included as compared to Big-Four, where the controlling shareholder is the government. The JSCBs equity structure included central government, local government and other private investors and institutions. These banks are also allowed to raise their equity from various channels outside the government and fully responsible for their lending policies.

Another important contribution of that part of banking reform, the foreign banks had gradually allowed by Chinese government to open their branches in China. It was the first time after 1949, that foreign banks had started their operation in China in the beginning of 1978. However, these foreign banks allowed doing their limited business

activities to some specific cities of China. However, in 1990, foreign banks allowed to do foreign currency business in Pudong New Zone in Shanghai. Further, the foreign banks also permitted to expand their operation into 13 other large Chinese cities on the East Coast Mainland in 1992.

More importantly in 1908s, flexible interest rates were introduced by these banking reform which allowed banks to adjust their interest rates on commercial loans within in a certain margin of administrated rate set by the PBC. Specially, small credit cooperatives allowed setting interest rate 30% to 60% higher than the rates set by the Big-Four, the JSCBs and other banks. However, such facility was not available for deposit rates.

Second Stage Reforms After 1994

The government of China was reconsidered its wisdom of pervasive political influence on lending and credit decisions of SOCBs in early 1990, because the asset quality of SOCBs were badly deteriorated. One third of the state owned bank loans were policy loan during that regime. In 1994, the government had established three policy banks to encounter that problem. The purpose of these three policy banks were to strike off state owned bank's policy loans and to increase the pace of transformation of state owned banks into true commercial banks. The China Development Bank, China Export-Import Bank and China Agricultural Development banks are the three policy banks. Unfortunately, the lending decisions by these banks were not basing on true commercial basis due to persistent intervention of the government in lending policy. Therefore, the banking reforms during this phase were considered unsuccessful.

In early 1980s, the PBOC put a token effort in order to determine the bank loans quality, and before 1995, the major banks had their own standards to declare banks loans as non-performing loans. The balance sheets of Big-Four were rehabilitated from non-performing loans by the Chinese government through injecting 270 billion RMB. The SOCBs had given two rounds of bailouts packages by the government in the form of NPLs buyout by the asset management company and capital injection for their capital restructuring. The purpose of creating these asset management companies was to reduce the volume of non-performing loans and to regain the reputé and the international competitiveness of the state owned banks. These AMC were given a budgetary life span of 10 years with the guidance of State Securities

Supervisory Committee of China and Ministry of Finance. Initially in 1999-2000, these AMC's bought 1.4 trillion RMB of non-performing loans at their book values, which was approximately 19% of the total loans of state owned banks. With this purchase, the NPLs ratio of Big-Four was reduced to 25% as compared to 35%, which was before the purchase of these loans. However, in order to divest NPLs of SOCBs in second round, the government had transferred the NPLs of SOCBs to four newly established asset management companies in different time periods, RMB 1.4 trillion in 1999, RMB 475 billion in 2004, and RMB 705 billion in 2005.

Another important achievement of bank reform in China was interest rate liberalization. The interest rate liberalization enhances the role of market forces in resource allocation. During the Ninth Five-year Plan Period in 1995, regulations issued under the title of the PBOC Program of Deepening Interest Rate Reform and marked as the beginning of interest rate liberalization. The intention toward interest rate liberalization had gradually started during the second round of bank reforms in 1994.

LITERATURE REVIEW

The relationship between financial development, bank lending and economic activities at domestic level are investigated in recent years in several studies (Guiso et al. 2004; Becker 2007). To assure the domestic financial development, the role of banks in transmitting the effect of monetary policy and economic fluctuation is also examined in various studies. (Kashyap et al. 2000). Becker (2007) finds that if there is segmentation in the capital markets, then there is a chance of variation of output due to variation of bank lending. Whenever banking systems temporarily break down or operate ineffectively, firm's ability to obtain funds to fuel existing projects and pursuing new endeavors is curtailed. The loan quality in banking institutions has become increasingly complex and profitability becomes a main driver of a bank performance (Berger et al. 2010). Phillips et al. (2014) and Spring (2014) argue that there is a tremendous systematic risk for the banking sector and whole Chinese economy because approximately 40% of the China's economy and 50% of the banking assets are of bad quality. Some loans are considered as non-performing loans when borrower may not able to pay them in partial or full. (Fukuyama et al. 2010)

The Cinderella of its internal functions in Chinese banking sector has been the risk management. The extra influence of the political forces and the government directive on bank's lending decision in China somewhat ignore the standards of risk management resulting in large non-performing loans. Kent (2013) evaluated the risk management practices in Chinese banks and examined the importance of risk management standard in improving the bank's income efficiency. The results of the study supported the argument that there is a significant relationship between risk metrics and bank's income efficiency.

The financial institutions globally have faced banking crisis repeatedly in different forms such as financial crisis of 2008, Mexican crisis 1994-1995 and 1997 Asian crisis, etc. There are number of factors behind these events playing their role. The structure of banks ownership is quite important and interesting here because several factors interact and alter governance, like quality of bank governance. The relationship between bank ownership and performance is unresolved albeit a significant body of literature available on this subject. Following to property rights hypothesis, private enterprise should perform better than the public enterprise (Millward 1980). Berger et al. (2005) suggest that there are two common strategies to privatize state banks, attracting foreign investors and going public. The inclusion of foreign investors into the ownership structure not only bring the much needed capital for the firm but also bring new technology, modern banking, superior managerial skills and advancement in the financial intermediation. Fries et al. (2005) suggest that the foreign ownership in banking sector increase banking efficiency. Bonin et al. (2005) observe during banking privatization it is desirable to include strategic foreign investor. Bradley et al. (2003) argue that IPOs may also be considered as strategic move to increase the publicity and reputation of a firm. Market discipline is also one factor for banks to get public because it encourages managers to increase bank efficiency in order to stay in the market. Jiang et al. (2009) find that public traded firms are more efficient in USA and China respectively.

Recently studies show that Chinese banking sector is a very interesting area for researchers to explore the insights. For example, Berger et al. (2009), Yao et al. (2007) and Jiang et al. (2009) observe that Joint Stock Commercial Banks has better performance than State Owned Commercial Banks but the overall efficiency has also

improved. On the other hand, Fu et al. (2007) and Chen et al. (2005) have different opinions; they think that overall efficiency has declined from 1993 to 2002 as compared to 1985, and also to 1992. The state owned banks are more efficient than joint stock commercial banks. Whereas, those banks which have some foreign ownership are more efficient than those which do not have any foreign ownership in the period of 1994 to 2003 (Berger et al. 2009).

Jiang et al. (2009) observe that minor foreign ownership is better for domestic banks efficiency in long run, whereas, IPOs has its impact on banking efficiency in short run. Wang et al. (2012) applied to bit regression and showed that the bank size and the ownership structure are the main influencing factor for China banking efficiencies; however, capital adequacy ratio has the insignificant impact on efficiency level. Jiang et al. (2013) conducted a study related to static effect of ownership and the dynamic effect of privatization on banks performance in China during 1995-2010. The results suggested that the dynamic private intermediary such as joint stock commercial banks and city commercial banks performed better relative to state owned commercial banks of China. However, the listed banking institutions performed well regardless to ownership structure, because they get extra monitoring and vetting in the capital markets. The privatization of banking institutions has improved the performance in term of revenue inflow and efficiency gains in both short and long run. The positive long run impact on banking performance and efficiency is more important for minority foreign ownership. Further, the interest income efficiency and non-interest income efficiency have also examined for Chinese banks. The results showed that the Chinese banks are more efficient in generating interest income as compared to non-interest income, but the latter has improved significantly in the sampled period.

The privatization reforms have been endorsed by policy makers and academics alike in emerging countries. Ownership concentration plays vital role in financial institutions because it substitutes the board of directors as the main internal mechanism of governance. Casu et al. (2013) and Fujii et al. (2014) conclude that the ownership structure of the banks has its direct effect on bank's performance. Shleifer et al. (1986) reveal that through ownership concentration, corporate control could be enhanced by improving the monitoring of management. With low concentrated ownership, shareholders have low incentive to monitor. With more concentrated ownership, the cost of shirking will

be allocated to large shareholders, who therefore increase the monitoring incentives.

It is very often that privatization resolve obstacles in efficient resource allocation posed by the government control and it becomes easy to removal of government appointed managers whose objective is different from the maximizing of wealth. In contrast, state owned ownership is argued to be inefficient due to the most important agent-principle problem. In state owned enterprises, managers may pursue their own benefits rather than the owners. Further, these banks did not involve many shareholders, who monitor the managerial affairs of the firm nor they have any power to influence or control the management, hence known as free-riders (Huibers 2005).

In the light of above-discussed literature review, this study formulates the following hypotheses to test the role of corporate governance in reduction of non-performing loans in Chinese banking sector. Further, the on-going banking reforms and macroeconomic variables such as GDP growth and interest rates and its relationship with non-performing loans of Chinese banking sector are also examined through these *hypotheses*:

1: The board size has a positive impact on banking NPLs. In this hypothesis, the impact of board size on banking sector NPLs is tested for China.

2: The board independence has a negative impact on banking NPLs.

3: The association among top ten shareholders has a positive impact on banking NPLs.

4: The banking sector reforms (listing of banks on stock market) in form of ownership structure has a negative impact on banking NPLs.

5A: The GDP growth has a negative impact on banking NPLs.

5B: Interest rate spread has a positive impact on banking NPLs.

METHODOLOGY

The Chinese commercial banking system is composed of various components such as State Owned Commercial Banks (SOCBs), Joint Stock Commercial Banks (JSCBs), City Commercial banks (CCBs) and Rural Commercial Banks (RCBs). However, this study has taken a sample of all listed commercial banks of China from 2000-2013. The listed commercial banks of China include all major components of Chinese commercial banking sectors such as JSCBs, CCBs and SOCBs.

Currently, there are sixteen commercial banks of China, which are listed on Shanghai and Shenzhen stock exchanges. After the ownership reforms in different periods, all SOCBs got listed on stock exchanges and became JSCBs. These listed banks are held more than 60% of the commercial banks assets in China by the end of 2013. The majority of share in Chinese banking sector assets are held by listed commercial banks of China. The last ten years market share of major Chinese banks, which include Large Chinese Commercial banks and Joint Stock Commercial banks, show that the market share of major Chinese commercial banks holds more than 60% of the assets in Chinese banking sectors.

The total number of banking institutions in China is more than 3,000 according to the 2013 annual report of CBRC. The majority of banking institutions of China are small and they have their less significance in the financial sector of China. These small banking institutions have a specific role in the country and they operate with a limited scope. These banking institutions are not even listed on the Stock Exchanges of China. Due to this fact, this study include only listed Commercial banks of China, which include Large Commercial Banks which are commonly known as Big Four, Joint Stock Commercial banks and some listed City Commercial banks of China. These banks have a major stake in Chinese banking sector and have their significance in China's financial system. These banks do not have a limited scope of operation. The purpose of including these banks in this study is to analyze the impact of China's Bank reforms especially the ownership restructuring on their banking efficiencies.

The collected data can be found in different and most reliable sources of China such as CSMAR, one of the biggest listed companies' databases of China, and Almanac of China Finance and Banking.

These data provide information as regards that the overall sample has divided into two categories, big-four banks and non-big four banks. The mean total assets of big-four banks are 7,640 billion RMB; however, non-big four banks have only 1000 billion RMB mean total assets. This difference clearly shows the size and influence of big-four banks in Chinese banking sector as compared to other banks. The NPL ratio is 1.97% for big-four banks and 2.97 for non-big four banks, which also shows how Chinese government bailout Big-four bank's NPLs on preferential basis. However, these NPLs ratio are not matched with the NPLs ratio computed by World Bank: 15% for Chinese banks. (*Wall Street Journal*, August 31, 2016).

Our study introduces the suggested panel data econometric model to test the impact of corporate governance practices and macroeconomic variables impact on the banking sector NPLs in China.

Model:

$$LNNPL = \alpha_1 + \beta_1 BS + \beta_2 BIND + \beta_3 ASSSHRD + \beta_4 LIST + \beta_5 GDGP + \beta_6 INTSP + \beta_7 SIZE + \beta_8 LNDPT + \beta_9 LNTPRFT + \sum_{i=1}^n Banktype_i + \sum_{j=1}^m Year_j + \varepsilon_i \quad (1)$$

In the above model, the ‘non-performing loan’ (LNNPL) is analyzed as a dependent variables. The explanatory variables include proxies for corporate governance variables such as ‘board size’ (BS), ‘board independence’ (BIND), and ‘association among top ten shareholders’ (ASSSHRD).

ASSSHRD is determined by the strength of relationship exist among the top ten shareholders of the banks. The measurement of this variable is rather difficult therefore a coding system is used to measure this variable. The codes consist of 1, 2 and 3 which mean that if there is no association among top ten shareholders then it is coded as 1, otherwise 2. If the association among top ten shareholders is unable to determine then it is coded as 3. Whereas $\beta_1 \dots \beta_3$ are coefficients of corporate governance variables respectively. The impact of ownership reforms in Chinese banking sector is proxied by listing process of Chinese commercial banks and the impact of listing is measured in this model. Listing of Chinese Commercial Banks (LIST) on stock market refers to the major banking reform in the country in term of ownership restructuring. It is measured by a dummy variable i.e., if a bank is listed on the stock market during the sample period then it takes a value of 1 otherwise 0; whereas β_4 is the coefficient of listing in this model. The proxies of macroeconomic variables are change in annual GDP growth rate (CGDPG) and interest rate spread (INTSP); whereas β_5 and β_6 are coefficients of macroeconomic variables respectively. There are three control variables introduced in the above model, one is size of a bank (SIZE), second is bank’s deposit (LNDPT) and third is bank’s taxable profit (LNTPRFT); whereas $\beta_7 \dots \beta_9$ are coefficients of control variables respectively. To study the year and bank type effect, two dummy variables one for bank type and other for year are also included in the model; whereas ε_i is a residual error of the model.

RESULTS AND ANALYSIS

This study analyses and determines the impact of corporate governance, bank reforms and macroeconomic changes on banking sector non-performing loans (NPLs) for China. Empirical results are presented in the following Table 2, in order to determine the impact of corporate governance practices, banking reforms and macroeconomic changes on non-performing loans of Chinese listed commercial banks.

The results show that all models are significant at 1% level of significance. The explanatory power of the model 1 is 16%, whereas model 2, 3 have 15%, and model 4 have 20% prediction power.

The corporate governance variable such as BS has negative and significant impact on banking sector NPLs in China at 10% level of significance. This result is consistent with Lipton and Lorsch (1992) and Yermack (1996) that document the negative relationship between board size and firms performance. In board characteristics, board size is an important indicator. What is an optimal size of a board being still under discussion in academic and practitioner forums? Some scholars have suggested that a smaller board is more beneficial for a firm, because it is easier to manage a small board as compared to a large board. Further, large board most of the time become inefficient in making quick decisions. However, some researchers suggested that a large board creates a collective wisdom and better monitors the organizations affairs. The results of this study shows is supported the fact that it is not easy to get easy loans or disburse risky loans in the presence of a large and diverse board, therefore, a large board is helpful in reducing the Chinese banking NPL's. The reduced NPLs play an important role in the performance of Chinese banking.

The impact of 'board independence' (BIND) is positive and significant on Chinese banking NPLs at 5% level of significance in model 1 and 10% level of significance in model 4. The outcome of this result is rather unusual. In most of the academic studies, it is found that there is a positive impact of board independence on firm performance. Such as, Rehman et al. (2016) found that a board size has a positive and board independence has negative and significant impact on NPLs for Pakistani banks. The significance of this result is very important in Chinese banking context. The inclusion of independent directors in board may serve the purpose, if an unbiased procedure is followed for their appointment. In Chinese corporate culture, director appointments either executive or non-executive are often politically influenced. This particular reason diffuses the role of independent directors in a firm.

Therefore, the politically influenced directors may not perform their duties accordingly to a certain standard. However, this result is in line with Klein (2002) which showed a negative impact of BIND on bank performance.

Moreover, ASSSHRD of the banks has insignificant impact on banking NPLs in China. The proposed hypotheses 1, 2, 3 related to BS, BIND, and ASSSHRD in banks and its impact on Chinese banking NPLs are partially rejected.

The banking reforms variables such as LIST on stock market has negative and significant impact on banking NPLs in China at 5% level of significance. This result has also accepted the proposed hypothesis 4 related to ownership structure reforms and NPLs in China.

This finding shows that the political and state interference in the banks causes huge NPLs. The structural reforms in Chinese banking are showing positive signs. The inclusion of private stakeholders in banking system reduces the state and political interference in the banking channels for the disbursement of risky loans; though its impact is not a large yet because still most of the big banks in China are owned by state. However, this result provides some useful guidelines to the policy maker to continue structural reforms in China and promote privatization in order to make banking system more efficient.

The changes in macroeconomic variables in China have a mixed effect on banking NPLs in China. The 'interest rate spread' (INTSP) has positive and significant impact on banking NPLs at 5% level of significance. The findings support our proposed hypothesis 5B related to INTSP and its effect on Chinese banking NPLs. However, growth rate (GDPG) has negative and significant impact on banking NPLs at 5% and 10% level of significance in model 2 and 4 respectively. This result supports our proposed hypothesis 5A regarding GDP growth (GDPG) and banking sector NPLs in China.

The control variables, such as 'size of a bank' (SIZE), have positive and significant impact on Chinese banking sector NPLs. The SIZE is significant at 10% level of significance. However, the 'taxable profit' (PRFT) and 'customer deposit' (DPT) have negative and significant impact on banking NPLs in China. The PRFT is significant at 1% level of significant in model 1 and 3 and 5% level of significant in models 2 and 4, while DPT is significant at 10% level of significance in models 1 to 3, and 5% level of significance in model 4.

Panel Regression- Chinese Banking NPLs

Variable	Model 1	Model 2	Model 3	Model 4
Constant	1.33 (1.48)	0.21 (1.02)	1.52 (1.05)	0.62 (0.60)
BS	-1.87* (-1.66)			-2.36* (-1.65)
BIND	10.19** (2.23)			8.3* (1.83)
ASSHRD	0.91 (1.39)			0.95 (1.48)
LIST			-0.22** (-2.03)	1.91** (2.01)
GDPG		-0.34** (-2.10)		-0.26* (-1.74)
INTSP		4.99*** (2.69)		5.69*** (2.71)
SIZE	0.92* (1.70)	0.44* (1.88)	0.47* (1.89)	0.891* (1.66)
PRFT	-1.37*** (-3.10)	-0.84** (-2.05)	-1.25*** (-2.99)	-1.14** (-2.51)
DPT	-0.065* (-1.96)	-0.05* (-1.73)	-0.064* (-1.90)	-0.067** (-2.00)
Observations	223	223	223	223
chi ²	44.91	44.85	35.52	55.67
R ²	0.1636	0.1531	0.1597	0.2036
P-value	0.00	0.00	0.00	0.00

We note that *, ** and *** show the significance level of 1, 5 and 10% level of significance. The value presented in the table against each

variable are the regression coefficients of the respective explained variable. The values presented in the parenthesis are t-values.

CONCLUSION

The highlight of Chinese banking reform is partial privatization of SOCBs by issuing IPOs and attracted foreign investors by listing these banks on stock markets of the country. The importance of privatization and its positive impact on banking performance is thoroughly discussed and admitted by researchers in banking sector literature.

The results of this study are also consistent with the literature that after getting privatized, the banking performance of Chinese banks has improved significantly.

The privatization strategy for SOCBs is not only improved the banking performance but also it helps the banking sector to move toward modernization and adopt modern banking practices with sound financial and good governance structure in place. The role of corporate governance, macroeconomic changes, ownership structure and political environment on banking sector NPLs in China is examined in this study. The Chinese banking sector NPLs are analyzed based on bank specific characteristics, corporate governance practices and macroeconomic changes in the country.

The results suggest that the corporate governance practices has some influence on Chinese banking sector NPLs such as, board size and board independence are negatively and positively influence the Chinese banking sector NPLs respectively. This result is rather unusual as banking NPLs literature suggested. Our results suggest that a large board size may reduce the banking NPLs in China. However, the increased board independence works oppositely.

In case of banking sector reforms and its impact on banking sector NPLs in China, it shows a healthy sign for Chinese banking. The listing of Chinese commercial banks on stock market has reduced the banking sector NPLs significantly. It shows that the banking sector reforms help a bank to minimize its NPLs. However, the macroeconomic changes in the country can also influence its banking sector NPLs. The results of this study suggest that the higher interest rate spread in one of the reason of higher NPLs in Chinese banking, while the higher growth rate in GDP decrease the banking NPLs in China.

This finding shows that if a country is on a growth track and economy is performing well then there is less chance of banking sector

NPLs accumulation in the country. In case of banking specific variable, it is also observed that the size of a bank is one of the factors of banking NPLs, such as a big bank accumulates higher NPLs comparing to small banks in China. It is also found that a higher amount of taxable profit earned by a bank or large deposit made by customers reduce the banking sector NPLs in China.

REFERENCES:

- Abiad, A.G., E. Detragiache, T. Tressel. 2010. A new database of financial reforms. *IMF Staff Papers*, 57 (2): 281-302.
- Becker, B. 2007. Geographical segmentation of US capital markets. *Journal of financial economics*, 85 (1): 151-178.
- Berger, A.N., D.B. Humphrey. 1991. The dominance of inefficiencies over scale and product mix economies in banking *Journal of Monetary economics*, 28 (1): 117-148.
- Berger, A.N., G.R. Clarke, R. Cull et al. 2005. Corporate governance and bank performance: A joint analysis of the static, selection, and dynamic effects of domestic, foreign, and state ownership. *Journal of Banking & Finance*, 29 (8): 2179-2221.
- Berger, A.N., I. Hasan, M. Zhou. 2009. Bank ownership and efficiency in China: What will happen in the world's largest nation? *Journal of Banking & Finance*, 33 (1): 113-130.
- Berger, A.N., I. Hasan, M. Zhou. 2010. The effects of focus versus diversification on bank performance: Evidence from Chinese banks. *Journal of Banking & Finance*, 34 (7): 1417-1435.
- Berle, A., G. Means. 1932. *The Modern Corporate and Private Property*. New York: McMillian.
- Bonin, J.P., I. Hasan, P. Wachtel. 2005. Bank performance, efficiency and ownership in transition countries. *Journal of Banking & Finance*, 29 (1): 31-53.
- Bradley, D.J., B.D. Jordan, J.R. Ritter. 2003. The quiet period goes out with a bang. *The Journal of Finance*, 58 (1): 1-36.
- Casu, B., A. Ferrari, T. Zhao. 2013. Regulatory reform and productivity change in Indian banking. *Review of Economics and Statistics*, 95 (3): 1066-1077.
- Chang, T.-P., J.-L. Hu, R.Y. et al.. 2012. The sources of bank productivity growth in China during 2002–2009: A disaggregation view. *Journal of Banking & Finance*, 36 (7): 1997-2006.
- Cheng, X., H. Degryse. 2010. The impact of bank and non-bank financial institutions on local economic growth in China. *Journal of Financial Services Research*, 37 (2-3): 179-199.
- Cui, L., F. Jiang. 2009. Ownership decisions in Chinese outward FDI: An integrated conceptual framework and research agenda. *Asian Business & Management*, 8 (3): 301-324.
- Fries, S., A. Taci. 2005. Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries. *Journal of Banking & Finance*, 29 (1): 55-81.
- Fujii, H., S. Managi, R. Matousek. 2014. Indian bank efficiency and productivity changes with undesirable outputs: A disaggregated approach. *Journal of Banking*

- & *Finance*, 38: 41-50.
- Fukuyama, H., W.L. Weber. 2010. A slacks-based inefficiency measure for a two-stage system with bad outputs. *Omega*, 38 (5): 398-409.
- Guiso, L., R. Minetti. 2004. Multiple creditors and information rights: theory and evidence from us firms. Working paper.
- Huibers, F. E. 2005. "Initial public offerings". In G. Caprio, J.L. Fiechter, R. Litan, M. Pomerleano (Eds.). *The Future of State-Owned Financial Institutions*. Washington, DC: Brookings Institution Press, pp. 315-344.
- Jiang, C., S. Yao, G. Feng. 2013. Bank ownership, privatization, and performance: Evidence from a transition country. *Journal of Banking & Finance*, 37 (9): 3364-3372.
- Kashyap, A.K., J.C. Stein. 2000. What do a million observations on banks say about the transmission of monetary policy? *American Economic Review*, 90(3), 407-428.
- Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3): 375-400.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer et al. 2000. Investor protection and corporate governance. *Journal of Financial Economics*, 58 (1): 3-27.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer. 2002. A. Government ownership of banks. *The Journal of Finance*, 57 (1): 265-301.
- Lipton, M., J. Lorsch. 1992. A modest proposal for improved corporate governance. *Business Lawyer*, 48 (1):59-77.
- Matthews, K. 2013. Risk management and managerial efficiency in Chinese banks: A network DEA framework. *Omega*, 41 (2): 207-215.
- Millward, R. 1980. "The comparative performance of public and private ownership". University of Salford.
- Phillips, M.R., J.L. Yung, W. Yung. 2014. Foreign banks in China 2013. *PwC Annual Survey on Foreign Banks*.
- Rehman, R.U., J. Zhang, M.I. Ahmad. 2016. Political system of a country and its non-performing loans: a case of emerging markets. *International Journal of Business Performance Management*, 17(3): 241-265.
- Shleifer, A., R.W. Vishny. 1986. Large shareholders and corporate control. *The Journal of Political Economy*, 94(3, Part 1), 461-488.
- Spring, J. 2014. China's shadow banking sector growing rapidly, third largest in world. Reuter.
- Sun, J., N. Yamori. 2011. The impact of local economic growth on bank profits efficiency: Evidence from city commercial banks in China. *SSRN 1929026*.
- Tang, S. 2005. Review and outlook of China's banking reforms. In *Speech at the Caijing Magazine leadership forum: World and China*.
- Xiaogang, C., M. Skully, K. Brown. 2005. Banking efficiency in China: Application of DEA to pre-and post-deregulation eras: 1993-2000. *China Economic Review*, 16 (3): 229-245.
- Xiaoqing, Maggie F., S. Heffernan. 2007. Cost X-efficiency in China's banking sector. *China Economic Review*, 18 (1): 35-53.
- Xiping, W., & Yuesheng, L. (2007). Banking efficiency in China: application of DEA and Tobit Analysis. *International Conference of Management Science and Engineering of IEEE*.
- Yao, S. 2007. On the efficiency of Chinese banks and WTO challenges. *Applied Economics*, (05): 629-643.

Ramiz ur Rehman, Muhammad Akram Naseem, Muhammad Ishfaq Ahmad and Rizwan Ali

Yermack, D. 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40 (2):185–211.

Zhang, J., P. Wang, B. Qu. 2012. Bank risk taking, efficiency, and law enforcement: Evidence from Chinese city commercial banks. *China Economic Review*, 23 (2): 284-295.