Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

IMPORTANCE OF PRIVATIZATION OF COMMERCIAL BANKS (EXPERIENCE OF CHINA'S BANKING SYSTEM)

[1]Mamadiyarov Zokir Toshtemirovich
[1]PhD., Head of the Department of Banking and Investment, Tashkent State University of Economics, Tashkent, Uzbekistan.

[2]Mahmudov Farukh Sayfiddinovich
[2]MSc., Tashkent State University of Economics, Tashkent, Uzbekistan.

ABSTRACT

The method of modifying all processes and assets from public sector to private sector is accepted as Privatization. Privatization is considered as a valuable process to improve the performances of banks as well as increase economy of the country. A lot of studies have been conducted to examine the impact of privatization on bank's profitability using different approaches by previous researchers. According to the findings of prior researchers that there were both positive and negative impacts of privatization upon to bank's profitability.

These descriptive variables of the model have contributed significantly on the bank's profitability; however, the most negative contributor variables are observed in the foreign direct investment ratio and capitalization ratio.

KEYWORDS: ***Bank Profitability, Bank's Financial ratios, Banking Privatization, Ordinary Least Square,***

INTRODUCTION

Banking spheres have changed dramatically throughout world over the last three decades. Recently, the significance of banks' performances and financial conditions are globally discussed particularly in the developing countries. Undoubtedly, it cannot be denied that banking sector plays an important role in the economic growth. As banks have significant role in the monetary policy, analyzing the performance of banking sector is important for owners, investors, depositors and policy makers. In order to raise the bank's performance productively and to make strong internal control different restructuring modifications have been applied. For instance, one of them is privatization program- the mode of transferring all processes and assets from public hands to private one (Khan, 2002). This transformation allows market forces to operate properly, and enhances efficiency and competition between organizations rather than administrative forces. Indeed, governments use privatization policy to develop economy, strengthen the financial health, progress in output, raise production, decrease unemployment and make an effective monitoring system for utilizing government funds. (Angelini and Cetorelli 2003). Primarily, this policy restructuring along with privatization have been employed by developed and developing countries about three decades ago in the early 1980s (Sathye, 2015; Ilyas, 2011; Nazir 2010; Harold 2010; Wang 2013; Janeth and Cosmas, 2014; Habib 2013; Kathanje 2000; Che and Qian 1998; Gupta 2005; Chen et al 2006;).

LITERATURE REVIEW

Privatization is considered to be an apparatus in order to increase the performance, efficiency and profitability of banks.

According to Jensen (1989), that threat of bankruptcy faces private sector, but not public sector relating to efficiency of private firms, because banks constrains operating management in order to waste resources. In addition, privatized banks become highly indebted and mangers in private banks become more allied with shareholder. As a result, it effects negatively on bank's performances. Following

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

study by Kolo and Kikeri (2005) demonstrates that privatization is not universal solution, which could be simply implemented in all countries. Even though some previous studies analyzing the significant changes after privatization such as improvement in output, operating efficiency, increasing investment in capital and high level of profitability. There are varied approaches and policies with specific circumstances of the country and sector.

Several studies were conducted on the analysis of privatization in Chinese bank's profitability. Wang (2011), investigates the influence of privatization on firm's financial performance; a case study of China. 45- Listed banks have been chosen for the study and the data has been obtained from the official websites of chosen private and public banks. The scholar implemented OLS approach to acquire essential results. In his paper, the efficiency and profitability are used as the main elements. The results of study present that switching from government owned sectors to private sectors enabled to improve the operational efficiency and profitability of banks. It is clear evidence that privatization has positively affected on bank's financial performance. Assenting, Chen (2006) and Otchere, Zhang S., (2001) examine the pre and post privatization effects on banks in China using financial ratios and found that privatized banks have higher efficiency and profitability levels relative to public sector.

METHODOLOGY

Numerous previous studies accordingly Goddart et al. (2004) Hassan et al. (2011) and Wang 2011 implemented linear regression model, in order to assess the effects of essential factors on profitability of banks. In this study, I have used regression, to discover the significance and relation of applied variables. In addition, regarding with several researchers works namely Kumbhakar and Sarkar (2003); Olveros (2012) and Habib (2013); in order to analyze the impact of privatization on Chinese banks' profitability, I imposed models of multiple linear regressions. This model is considered as an appropriate model any type of data consisting panel data, cross-sectional and time-series data. I have accepted two appropriate empirical models, to evaluate the profitability of banks in China after privatization. The first model distinctly and separately examines the profitability of private and public banks in China. Therefore, the study includes different bank profitability ratios to interpret and calculate the effects of privatization on the profitability of each type of banks and there will be two regression analysis for this purpose. The second model is for examining the differences of private and state-owned banks' profitability in China. Moreover, this model includes sole regression analysis for those types of banks. The main difference of the below two models is that, in the first model there is less one independent variable namely Ownership. However, this variable is added in the second model and classified as dummy variable (1-private banks), as well as both banks are analyzed within one regression model. Following methodology of one of the researchers Berger et al. (2005), I estimate the following regression models:

Model 1:

$$ROA_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 ETR_{it} + \beta_3 IC_{it} + \beta_4 NIM_{it} + \beta_5 CCR_{it} + \beta_6 CTI_{it} + \beta_7 \ln(size)_{it} + \beta_8 Cpt_{it} + \beta_9 FDI_{it} + u_i \quad (1)$$

Model 2:

$$ROA_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 ETR_{it} + \beta_3 IC_{it} + \beta_4 NIM_{it} + \beta_5 CCR_{it} + \beta_6 CtI_{it} + \beta_7 \ln(size)_{it} + \beta_8 Cpt_{it} + \beta_9 FDI_{it} + \beta_{10} Own_{it} + u_{it} \quad (2)$$

We separated the variables in the models into two categories: profitability variables (dependent variables) and control variables (independent variables).

Here is the description of dependent and independent variables in the models:

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

Dependent variable:

- ROA_{it} is the return on assets which is applied as a dependent variable and measure the banks' profitability

Independent variables:

- β_0 is the constant term of a bank (i) in year (t)
- β' is the coefficient of the set of variables to be estimated of a bank (I) in year (t)
- EPS_{it} is the earnings per share of a bank (i) in year (t)
- ETR_{it} is the effective tax rate of a bank (i) in year (t)
- IC_{it} is interest coverage of a bank (i) in year (t)
- NIM_{it} is the net interest margin of a bank (i) in year (t)
- CCR_{it} is the core capital ratio of a bank (i) in year (t)
- CtI_{it} is the cost to income ratio of a bank (i) in year (t)
- ln $(size)_{it}$ is the natural logarithm of a bank's size (i) in year (t)
- Cpt_{it} is the capitalization of a bank (i) in year (t)
- FDI_{it} is the foreign direct investment of a bank (i) in year (t)
- Own_{it} is the ownership structure of a bank (i) in year (t)
- u_i is the error term of the model

In fact, the OLS (Ordinary Least Squares) estimates are considered as the most appropriate regression estimates. Therefore, I have derived the independent and dependent variables by applying the mode of simple OLS. In order to test OLS coefficients and to know if there is linear relationship and no influence of independent variables on the dependent variable, I implemented the Wald and t-statistic test. So as to, analyse the linear relationship between sum of independent variables and dependent variables, I have applied F-test. I measured the regression's total significance level by using this method. In addition, one famous test called "P-value" is applied to test the estimates on the positive effect of privatization on the profitability of banks in China. The significance levels of independent variables at 1%, 5%, and 10%, there were some prior studies tested their hypothesis relating to this pvalue namely (Sathye (2005); Megginson & Netter, (2001); Kikeri and Nellis (2004) and Vickers and Yarrow (1998)).

The function of research variables

In our study, there are internal and external profitability variables. The internal determinants elucidate bank's financial ratios and the sole external determinant is foreign direct investment (FDI). I have a reason why I have selected only one macroeconomic indicator in this research. Since, I am doing panel data analysis; there is time limitation to evaluate the impact of other macroeconomic variables. In this study, large banks were selected in China and their size very close with one another they showed 41% of total market share in China. With regards, there are 9 specific variables of banks and one Macroeconomic variable namely FDI are the independent variables of the model.

Profitability measures (dependent variable)

In our analysis, I used one measurement to evaluate bank's profitability: Return on Assets (ROA). As ROA is calculated as net income divided by total assets, it allows to generate the banks' profits from the assets. In most cases, if there is higher ROA ratio, bank will have better performance.

Independent Variables

There are different kind of independent variables are included in our analysis. These variables are used as specific factors to measure the profitability of banks such as:

Bank size (LN size) is clarified by bank's logarithm of total assets. In fact, banks with bigger size and with more assets have a tendency to have larger business scopes and more profitable than smaller sized banks. According to Shleifer (1999) there is positive relationship between bank size and bank profitability to certain degree.

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

Core Capital ratio can be defined as the total equity divided by total assets, and it has an ability to show how much risk is covered by the capital of bank. I have applied in this model along with some previous studies (Boycko et al. (1996); Prosser and Graham (1991) as an independent variable and this variable shows borrowings and deposits together with funds. In order to protect depositors and maintain confidence in the banking system, many banking regulators all around the world pay more attention on capital ratios.

Net interest margin can be calculated by deducting the interest expenses from the income of interest over total asset. If market interest rates rise, bank funding costs will rise too. Thus, there interest rates have a considerable effect on banks' net interest margins. It can be used to analyze the investing and lending activities within the banks. According to Brown and Dinc (2005) that, Net Interest Margin is considered as an important variable in the globe to conduct financial analysis, particularly in the evaluation of bank's profitability.

As it was mentioned above that ownership structure is implemented as a dummy variable to assess the profitability of private and state-owned banks. The series of dummy variable is from zero to one. Since, the banks are organized at the highest Shareholder's interest, private banks are predicted to be more productive and profitable than state-owned banks. So, the values of dummy variable are showed for different banks, particularly 1 for private banks and 0 for public banks respectively.

Effective tax rate indicates the bank's ability to allocate its portfolio to decrease its taxes. There is positive correlation between the profitability and effective tax rate, therefore the bank is skilled to transfer the cost of tax to its clients by increasing the interest spread and fees.

Cost to income is identified by the overhead cost ratios to the generated income provisions. Cost to income ratio is considered one of the most essential variables of profitability of banks. An increase in cost to income tends a decrease in operational efficiency, if there is higher level of operational efficiency, there will be higher profit in banks, so it is assumed that cost to income is negatively correlated with bank's profitability (Nuray, 2014; Berger, 1998). In above models it is applied to measure the operational efficiency of banks.

Table 1. the bank's profitability variables

Notation	Variables	Predicted signs
Dependent variable		
ROA	Return on Assets	
Independent variables		
CTI	Cost-to-income ratio	-
CCR	Core Capital ratio	+/-
Cpt	Capitalization	+/-
EPS	Earnings per share	+
ETR	Effective Tax rate	+/-
FDI	Foreign Direct Investment	+/-
IC	Interest Coverage	+
NIM	Net Interest Margin	+
Own	Ownership	+
Ln(Size)	Bank Size	+/-

RESULTS

This section will highlight the final results of statistical and financial analysis of chosen banks in light of the objectives identified for the study.

Descriptive statistics

Table 1 provides information about descriptive statistics of the data such as sample of means, standard deviations, minimum and maximum values.

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

Table 2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	242	.0518595	1.084999	-14	1.14
Earnings per share (Yuan)	242	.3181405	4.65184	-29.43	4.34
Effective tax rate	242	20.74409	73.96858	-110.4	456.26
Interest coverage	242	34.28512	21.561	1	71
Net interest margin	242	1.143636	.8724502	.11	6
Cost to Income	242	59.04607	14.98851	7.01	102
Size (ln)	242	13.27612	.9733544	9.14	15.32
Capitalization	242	4.422562	2.055222	1	15.5
FDI	242	4.992727	1.267447	3.02	6.98
Core capital ratio	242	14.5555	4.959615	5.45	28.04
Ownership	242	.5	.5010363	0	1

As it can be seen from the table 1 above that I have calculated some descriptive statistics to define the basic characteristics of above-mentioned variables in the chosen model. The table above shows that the means of return on assets is 0.0518595 and earnings per share with 0.3181405 during the given period. Interest coverage has a 34.28512 mean with 21.561 standard deviation. Bank size that is measured by the natural logarithm of bank's total assets has a mean of 13.27612 with 0.9733544standard deviation. The variables with highest means and standard deviation are effective tax rate20.74409, 73.96858 and core capital ratio and cost to income with 14.5555, 4.959615 and 59.04607, 14.98851 respectively. The mean of net interest margin indicates 1.143636 along with standard deviation of 0.8724502. The foreign direct investment (FDI) has a mean of 4.992727 with 1.267447 standard deviation. The mean of remaining variables including capitalization and ownership are 4.4225, 0.5 and their standard deviations are 2.055222 and 0.5010363 respectively.

Correlation analysis

(Refer Table 3: Appendix)

In this section correlation matrix is employed, in order to measure the relationship between variables in the chosen model. In addition, this correlation of variables evaluates the profitability of banks regarding earnings per share, bank size, effective tax rate, return on assets (ROA), interest coverage, cost-to-income, capitalization, net interest margin, core capital ratio, ownership dummy and foreign direct investment (FDI). According to several previous studies that if correlation coefficient is higher than 80% or 0.8, it is considered highly correlated and shows the existence of multicollinearity (Wang 2011; Kumbhakar and Sarkar 2003; Sathye 2005; Megginson & Netter., 2001). Nevertheless, Habib (2013), Wong et al., (2007) and Kathanje (2000) argued that the coefficient of correlation can have the index of 75% or 0.75 and if the coefficient of correlation below than 90% or 0.9, there is no severe multicollinearity. Regarding to the results of our correlation analysis the coefficient among two variables namely ROA and ROE is 0.86 or 86% and it indicates very high correlation, so in order to avoid the multicollinearity I ignored this variable from the model (Refer table 4. Appendix).

As it can be clearly dedicated from the table 3 that there are both positive and negative correlation between dependent variable namely ROA and independent variables in evaluating the banks' profitability. It is identified that ROA is correlated negatively with explanatory variables of foreign direct investment and cost to income ratio. However, there are positive correlations with all remaining variables in the model. The percentage of correlation between ROA and FDI is negative (0.1217) and with cost-to-income ratio (0.1728) respectively. The negative correlations illustrate that high level of capital and extraordinary amount of expenses have influences negatively on bank's profitability. However, the effect of foreign direct investment is much lower than the effect of cost-to-income ratio, because the capital is invested from foreign countries in order to improve the national output.

Moreover, the outcomes show that ROA is highly correlated with Bank size at 0.2550, with Earnings per share at 0.2346, with ownership dummy at 0.2044 coefficients. The lowest positive correlation coefficients are observed between ROA and effective tax rate, capitalization, net interest margin, core capital ratio and interest coverage at the rates of 0.0927, 0.0657, 0.0016, 0.0679 and 0.1675 correspondingly. As it dedicated that the ownership is highly and positively correlated with ROA, it confirms that there is positive linear relationship between the profitability of banks and privatization.

Regression analysis

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

In this part of my study, in order to analyse the empirical significance of the research hypothesis regarding the impact of privatization on Chinese bank's profitability, I have implemented several regressions based on the created panel data. In addition, I use the following econometric model, to analyse the regression:

$$ROA_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 ETR_{it} + \beta_3 IC_{it} + \beta_4 NIM_{it} + \beta_5 CCR_{it} + \beta_6 CtI_{it} + \beta_7 \ln(size)_{it} + \beta_8 Cpt_{it} + \beta_9 FDI_{it} + \beta_{10} Own_{it} + u_{it} \quad (2)$$

The table 5 below gives information about t-values, p-values of independent variables, estimated coefficients (Coef.) and standard errors (Std.Err.), F-statistic and R-squared of the regression in this study.

Table 5.

Source	SS	df	MS	Number of obs	=	242
				F(10, 231)	=	7.25
Model	67.7968965	10	6.77968965	Prob > F	=	0.0000
Residual	215.913567	231	.934690765	R-squared	=	0.2390
				Adj R-squared	=	0.2060
Total	283.710463	241	1.17722184	Root MSE	=	.96679

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EPSYuan	.0585774	.0151712	3.86	0.000	.0286858	.088469
Effectivetaxrate	.0003983	.0009206	0.43	0.666	-.0014154	.0022121
Netinterestmargin	.1171468	.0764311	1.53	0.127	-.0334443	.267738
Corecapitalratio	.0332037	.0133997	2.48	0.014	.0068023	.059605
CosttoIncome	-.0043009	.0049137	-0.88	0.382	-.0139822	.0053804
Sizeln	.4062881	.0721917	5.63	0.000	.2640498	.5485264
Capitalization	-.0154173	.0354179	-0.44	0.664	-.0852006	.0543661
FDIbillion	-.1099812	.0530976	-2.07	0.039	-.2145987	-.0053638
Ownership	.2926291	.1438524	2.03	0.043	.0091985	.5760596
interestcoverage	.0067691	.0031181	2.17	0.031	.0006256	.0129125
_cons	-5.493389	1.037211	-5.30	0.000	-7.536992	-3.449786

As it can be detected from the table 5 above that, there are different statistical significance levels of all variables. Majority of variables with the highest significant level at 1% are net interest margin, bank size, interest coverage, earnings per share, ownership dummy, core capital ratio and FDI. The outcomes of our regression analysis show that these variables have significant positive effect on the enhancement of profitability of banks. However, FDI indicates negative influence on the growth of bank's profitability. Nearly, the similar results have also been observed in some researchers' findings (Weintraub et al. 2005' Nuray 2015; Ayesha Kausar 2014, Sathye 2005).

Results indicate that there are greatest positive relationships between ROA and ownership and NIM by 0.292 and 0.117 correspondingly. The increase in these variables has a positive effect on ROA. There is positive relationship between ROA and interest coverage, if interest coverage increases by 1%, ROA will increase 0.031%. This relationship is statistically significant at 5% which is similar to the result found by (Bourke, 1989; Yilmaz, 2013). An increase in interest coverage lead to increase of liquidity of banks and that rises the availability credits as a result the profitability of banks will increase. Also, bank size and ROA are positively correlated, if size increase by 1%, ROA will increase bank size 0.406. This relationship is not statistically significant; however, larger bank brings more profit rather than small sized banks. And, there is positive impact of banks size on bank's profitability (Nuray 2015; Yilmaz 2013; Wong, et al. 2007). There is negative relationship between ROA and capitalization. If CAP increase by 1%, ROA will decrease by 0.015%. This relationship is statistically significant at 5%. The increase of capital results a lessening of external financial prerequisite, however it will increase the performance of banks (Berger 1995). The remaining variables core capital ratio and EPS are positively correlated with ROA and have 1% statistical significance levels.

Additionally, there is positive relationship between private ownership structure and ROA. If private ownership increase, it wills effect positively on return on assets, however, as it can be detected from table 6 that there is not statistical significance level and ownership dummy, private=1. Private

banks have more efficient management on financial assets, Private investors look for to maximize profits, seek out profitable investments prospects, increase the amount of deposits, the results consistent with previous studies (Bonin 2005; Kobeissi and Mian, 2006; Sathye, 2003; Megginson and Netter 2005).

Furthermore, public ownership is positively correlated with ROA (ownership dummy, public=0). If public ownership increases, it will effect positively on return on assets. This relationship is not statistically significant. Government supports public banks and they can provide customer with more credits and investments, these processes lead to increase return on assets, the similar results were observed in several previous studies (Sathye 2003; Mian 2006; Bonin and Allen 2005; Otchere 2007; Goddard et al., 2004).

CONCLUSIONS

Banking sector plays an important role in establishing the efficient network of funds between borrowers and savers. Actually, the effectual creating of this process allows to increase qualified customer services, the flow of capital and profits. In order to make stable economic growth within the country, governments rely on the most significant determinates of financial sector such as the level of savings, investments, enhanced performance of banks. China is classified as a developing country, despite having the world's second-largest economy, and the banking sector is considered one of the vital industries in the development of country. Even though, there are several aspects of banks, this study is focused on the profitability of banks upon to the policy of privatization.

Undoubtedly, privatization is considered one of the commonly used methods to improve the performances of banks as well as increase economy of the country. In addition, the financial reforms improve the competition and enhance the quality of products and services. The mode of transforming all processes and assets from public sector to private sector is accepted as Privatization. Using different approaches, a lot of studies have been conducted to analyze the impact of privatization on the profitability of banks. The empirical literature gives robust suggestion concerning the substantial effects of financial reforms on the performance of banks.

According to the findings of previous scholars that there were both positive and negative impacts of privatization upon to bank's profitability. Obviously, this study has been conducted, in order to investigate the impact of privatization on Chinese bank's profitability over the period of 2006-2016. For this purpose, this study primarily made comparative analysis of selected banks of China, 11 from privatized banks and 11 from public banks. The outcomes of study were achieved with the help of Ordinary Least Square (OLS) relying on the panel data demonstrating bank's financial performances. During the study period, the high level of profitability of private banks were evaluated, however, operating efficiency of public banks was founded to be much lower than public banks. The outcomes of our study are consistent with a number of previous researchers (Nuray 2015; Wang 2011; Ayesha Kausar 2014; Sathye 2005; Berger et al. 2009; Bonin JP, Hasan I, 2005).

Furthermore, state-controlled banks are identified to have a large amount of capital in government reserves that reduce its liquidity risk and it can slowdown the enhancement of profitability. Thus, in order to improve the operating efficiency, private banks have to lessen the number of administrative expenses and non-performing loans.

In conclusion, this study provides the first steps to inclusive empirical analysis of hypothesis the impact of privatization on the profitability banks in China. For this purpose, I have implemented OLS method and chose major twenty-two banks in China for eleven years. The obtained findings may not be unique and excellent, but in future this paper can be improved by using more sample banks and increased number of years. Certainly, future researchers can use this paperwork to conduct related comparisons between different banks in their studies.

REFERENCES

1. *Agricultural Bank of China (2018) [online]; Available from :<http://www.abchina.com/en/investor-relations/performance reports/annualreports /default_2.htm>: Accessed [20 January 2018]*
2. *Allen, F., Qian, J., Qian, M., 2005. Law, finance, and economic growth in China, Journal of Financial Economics 77, 57-116.*
3. *Amel, D., C. Barnes, F. Panetta, and C. Salleo (2004). Consolidation and Efficiency in the Financial Sector: A Review of the International Evidence. Journal of Banking and Finance 28 (10), 2493–2519.*
4. *Angelini, P. and N. Cetorelli (2003, October). The Effects of Regulatory Reform on Competition in the Banking Industry. Journal of Money, Credit, and Banking 35 (5), 663–84.*
5. *Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. Journal of Banking and Finance, 65-79.*
6. *Bonin JP, Hasan I, Wachtel P. Bank performance, efficiency and ownership in transition countries[J]. Journal of Banking & Finance, 2005, 29 (1): 31-53*
7. *Burki, A. A., & Niazi, G. S. K. (2003, November). The Effects of Privatization, Competition and Regulation on Banking Efficiency in Pakistan, 1991–2000. In Regulatory Impact Assessment: Strengthening Regulation Policy and Practice, Chancellors Conference Centre, University of Manchester, Manchester, UK.*
8. *Berger, A.N., Hasan, I., Klapper, L.F., 2004. Further Evidence on the Link between Finance*

and Growth: An International Analysis of Community Banking and Economic Performance, Journal of Financial Services Research 25: 169-202.

9. *Chen, B., Feng, Y., 2000, Determinants of economic growth in China: Private enterprises, education, and openness, China Economic Review 11, 1-15.*
10. *Chen, G., Firth, M., and Rui, O. (1998), "The Economic Performance of Privatized Firms in China", Working Paper, The Hong Kong Polytechnic University.*
11. *Goddard, J., Molyneux, P. and Wilson, J. O. (2004), The Profitability of European Banks: A Cross-Sectional and Dynamic Panel Analysis, "The Manchester School", Vol.72 (3), 363-381.*
12. *Gupta, N. (2005), "Partial Privatization and Firm Performance", The Journal of Finance, Vol. LX, No. 2, pp. 987-1015.*
13. *Hasan, Iftekhar and William C. Hunter. 1996. Efficiency of Japanese Multinational Banks in the United States, Research in Finance 14 JAI Press: 157-173.*
14. *Jensen, Michael, and William Meckling, "Theory of the firm: Managerial Behavior, Agency Costs, and Ownership Structure, "Journal of Financial Economics, 1976.*
15. *Jiang, G., Tang, N., Law, E., & Sze, A. (2003a). Determinants of bank profitability in Hong Kong. HKMA Research Memorandums", HKMA Research Memorandums.*
16. *La Porta, R. and Lopez-de-Silanes (1999), "Benefits of Privatisation: Evidence from Mexico", Quarterly Journal of Economics, Vol. 114 (4), pp. 1193-1242.*
17. *Mamadiyarov Zokir Toshtemirovich, "INNOVATIVE APPROACHES OF REMOTE BANKING TYPES SERVICES IN THE PROCESS OF TRANSFORMATION OF BANKS TO E-COMMERCE", IJIERT - International Journal of Innovations in Engineering Research and Technology, ICDE-2020, ISSN: 2394-3696, Page No. 8-16*
18. *Megginson, W.L., and Netter, J.M. (2001), "From State to Market: A Survey of Empirical Studies on Privatisation", Journal of Economic Literature, Vol. 39, pp. 321-389.*
19. *Otchere, I., and Zhang, Z. (2001), "Privatisation, Efficiency and Intra-Industry Effects: Analysis of China's Privatisation", International Review of Finance, 2, pp. 49-70.*
20. *Sathye, M. (2005). Privatization, performance and efficiency: A study of Indian banks. Vikalpa, 30(1), 7-16*
21. *Saunders, M, Lewis, P. and Thornhill, A. (2016) Research Methods for Business Students (7th edition)*
22. *Saunders, E. Strock, and N. G. Travlos. 1990. "Ownership Structure, Deregulation, and Bank Risk Taking." Journal of Finance 45, no. 2 (June): 643-54.*
23. *Vickers, John, and Yarrow, George, Privatization: An Economic Analysis, MIT Press, Cambridge, Massachusetts, 1988.*
24. *Wang, C. (2005), "Ownership and Operating Performance of Chinese IPOs", Journal of Banking and Finance, 29, pp. 1835-1856.*
25. *Zhang J, Wang P, Qu B. Bank risk taking, efficiency, and law enforcement: Evidence from Chinese city commercial banks[J]. China Economic Review, 2012, 23 (2): 284-295. 179-199.*

APPENDICES

List of Private banks:

1. China Construction Bank (Asia):
2. Bank of China (Hong Kong) Limited:
3. Chong Hing Bank Limited:
4. Citibank (Hong Kong) Limited:
5. CITIC Ka Wah Bank Limited:
6. Dah Sing Bank Limited:
7. DBS Bank (Hong Kong):
8. Bank of Taizhou:
9. Zhejiang Tailong Commercial Bank:
10. Industrial Bank:
11. Bank of Ningbo:

Public (state-owned banks)

1. Agricultural Bank of China
2. Bank of China:
3. Bank of Communications:
4. China Construction Bank:
5. China Everbright Bank:
6. Hua Xia Bank:
7. Industrial and Commercial Bank of China:
8. Postal Savings Bank of China:
9. Bank of Beijing:

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

10. Harbin Bank:
11. China Guangfa Bank:

Table 3. Correlation matrix

	ROA	EPSYuan	Effect~e	Netint~n	Coreca~o	Costto~e	Sizeln	Capita~n	FDIbil~n	Owners~p	intere~e
ROA	1.0000										
EPSYuan	0.2346	1.0000									
Effectivet~e	0.0927	-0.0930	1.0000								
Netinteres~n	0.0016	-0.0301	-0.0394	1.0000							
Corecapita~o	0.0679	0.0307	-0.1180	0.1939	1.0000						
CosttoIncome	-0.1728	-0.3334	-0.1278	-0.0340	0.0410	1.0000					
Sizeln	0.2550	-0.2476	0.2030	-0.2146	-0.1689	0.1278	1.0000				
Capitaliza~n	0.0657	0.1890	-0.2014	0.0830	0.2234	-0.1939	-0.0242	1.0000			
FDIbillion	-0.1217	-0.0935	-0.0849	0.1686	0.1595	0.0313	0.0324	0.2968	1.0000		
Ownership	0.2044	0.1036	-0.0616	-0.1730	-0.0807	-0.3338	0.1780	0.2753	0.0000	1.0000	
interestco~e	0.1675	0.2532	0.1520	0.0764	-0.0353	-0.2405	-0.1483	0.0697	-0.0658	-0.0240	1.0000

Table 4. correlation matrix with roe

	ROA	ROE	EPSYuan	Effect~e	Netint~n	Coreca~o	Costto~e	Sizeln	Capita~n	FDIbil~n	Owners~p
ROA	1.0000										
ROE	0.8641	1.0000									
EPSYuan	0.2346	0.8037	1.0000								
Effectivet~e	0.0927	0.1346	-0.0930	1.0000							
Netinteres~n	0.0016	0.0025	-0.0301	-0.0394	1.0000						
Corecapita~o	0.0679	0.1501	0.0307	-0.1180	0.1939	1.0000					
CosttoIncome	-0.1728	-0.3469	-0.3334	-0.1278	-0.0340	0.0410	1.0000				
Sizeln	0.2550	-0.0364	-0.2476	0.2030	-0.2146	-0.1689	0.1278	1.0000			
Capitaliza~n	0.0657	0.2013	0.1890	-0.2014	0.0830	0.2234	-0.1939	-0.0242	1.0000		
FDIbillion	-0.1217	-0.1441	-0.0935	-0.0849	0.1686	0.1595	0.0313	0.0324	0.2968	1.0000	
Ownership	0.2044	0.1099	0.1036	-0.0616	-0.1730	-0.0807	-0.3338	0.1780	0.2753	0.0000	1.0000
interestco~e	0.1675	0.2701	0.2532	0.1520	0.0764	-0.0353	-0.2405	-0.1483	0.0697	-0.0658	-0.0240

	intere~e
interestco~e	1.0000

Public banks

Source	SS	df	MS	Number of obs	=	121
				F(9, 111)	=	2.87
Model	45.5196503	9	5.05773892	Prob > F	=	0.0045
Residual	195.947809	111	1.76529558	R-squared	=	0.1885
				Adj R-squared	=	0.1227
Total	241.46746	120	2.01222883	Root MSE	=	1.3286

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EPSYuan	.0510895	.0269241	1.90	0.060	-.0022623	.1044414
Effectivetaxrate	.000964	.0016093	0.60	0.550	-.002225	.004153
Interestcoverage	.0070601	.0047632	1.48	0.141	-.0023784	.0164986
Netinterestmargin	.0984149	.1132383	0.87	0.387	-.1259744	.3228042
Corecapitalratio	.0609424	.0270362	2.25	0.026	.0073683	.1145166
CosttoIncome	-.0003708	.0085491	-0.04	0.965	-.0173113	.0165698
Sizeln	.3970927	.1141451	3.48	0.001	.1709067	.6232788
Capitalization	-.0101544	.0643331	-0.16	0.875	-.1376346	.1173259
FDIbillion	-.169098	.1060253	-1.59	0.114	-.3791943	.0409983
_cons	-5.610464	1.614698	-3.47	0.001	-8.810095	-2.410833

Journal DOI: 10.36713/epra1013|SJIF Impact Factor (2020): 7.035 ISSN: 2347-4378
EPRA International Journal of Economics, Business and Management Studies (EBMS)
Volume: 7 | Issue: 2| September 2020 -Peer-reviewed Journal

Private Banks

Source	SS	df	MS	Number of obs	=	121
				F(9, 111)	=	23.46
Model	19.9205645	9	2.21339606	Prob > F	=	0.0000
Residual	10.4728421	111	.094349929	R-squared	=	0.6554
				Adj R-squared	=	0.6275
Total	30.3934066	120	.253278388	Root MSE	=	.30716

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EPSYuan	.0639587	.0077494	8.25	0.000	.0486027	.0793148
Effectivetaxrate	-.0000308	.0004696	-0.07	0.948	-.0009615	.0008998
Netinterestmargin	.1347611	.1036415	1.30	0.196	-.0706115	.3401336
Corecapitalratio	.0014551	.0064155	0.23	0.821	-.0112576	.0141678
CosttoIncome	-.0049013	.0028324	-1.73	0.086	-.010514	.0007113
SizeIn	.3080305	.0568599	5.42	0.000	.1953589	.4207022
Capitalization	-.0224578	.0208488	-1.08	0.284	-.063771	.0188554
FDIbillion	-.0062265	.0250304	-0.25	0.804	-.0558259	.0433729
interestcoverage	.0156683	.0030159	5.20	0.000	.0096922	.0216445
_cons	-3.994167	.8261013	-4.83	0.000	-5.631142	-2.357193