

# OWNERSHIP STRUCTURE AND NON-PERFORMING LOANS: EVIDENCE FROM INDONESIA

Dr. Hamdi Agustin, SE.MM<sup>1</sup>  
Prof. Dr. Dra. Sri Indrastuti, MM<sup>2</sup>  
Siska, SE. M.Si, Ak. CA<sup>3</sup>

<sup>1 2,3</sup> Corresponding author; Faculty of Economics, University Islam of Riau, Jl. Kaharuddin Nasution  
113 Pekanbaru Riau, 28284, Indonesia, Email: [hamdiagustin@yahoo.com](mailto:hamdiagustin@yahoo.com)

## ABSTRACT

*Bank institutions in Indonesia have three form of ownership structure. There are private, government and community development banks. One of the unique banking in Indonesia is that there are community development bank (CDB), which is a government-owned bank districts. This research investigates the effect ownership structure on the nonperforming loans of Indonesia banks. The data used in this research is secondary data with reference to all the Bank in Indonesia for the period 2008-2013. Total population of the study was 124 banks from 2008 up to the period of 2013. Sampling was done by purposive sampling method which gained 45 national private banks, 22 CDB and 4 government banks. The results showed that there are different variables NPL, CAR, LDR and ROA of individual ownership of national private banks, CDB and government bank. ROA and LDR have a significant effect on the NPL. One thing that is very interesting in this study is the ownership dummy CDB positive effect on the NPLs, it indicates that the CDB had a large level of non-performing loans compared to private and government banks.*

**Key words :** Non Performing Loan, community development banks and Private bank.

## A. INTRODUCTION

Companies owned by the government may not be managed efficiently because the board of directors and the management does not hold any shares in the company. This led to the company's performance will be affected (Megginson, et al, 1994; Megginson and Netter, 2001). Agency problems in the context of government ownership is more complicated because the government holds shares in the company on behalf of the people or the people. Because the government led by politicians who do not have any ownership in these companies, then they probably will not be watching the actions of the board of directors or management. In addition, the objectives of the politicians who led a government may differ from an individual who has a business.

Shleifer (1998) and La Porta et al. (2002) stated that the government is likely to meet the political goals that might affect the company's financial performance negatively. This view is supported by Paskelian (2006) and Xu and Wang (1999) which states that the company is not efficient because of agency problems arising from the government's political motives. In addition, the state-

owned bank may have a lower profit due to finance a project that does not bring financial benefits but brings social benefits.

Government ownership seems to explain the behavior of risk taking of bankers and consequently the level of NPLs. Salas and Saurina (2002) argue that to enhance the economic development of the country, government-owned banks have more incentives to fund riskier projects and to allocate more favorable credits for small and medium firms. This inadequate risk taking behavior (compared to the return profile) will lead to a higher level of NPLs. Micco et al. (2004) report that state-owned banks tend to have higher levels of NPLs, due to their weak credit recovery capacity compared to privately owned banks. Others suggest that the interaction between private and government shareholding in the same bank could determine the risk level taken by banks.

Hu et al. (2004) argue that unjustified risky behavior is lower when the two groups check and balance each other. In the opposite, when private and government shareholders collude (especially in societies with little civil disciplines), problem loans will be higher due to risky credit offering. Tian (2000) suggests that under conditions of market imperfection, due to a balancing mechanism between management incentives and bureaucracy forces, a mixed enterprise (joint shareholding of private and government owners) will maximize social surplus. Novaes and Werlang (1995) report lower performance for government controlled banks in Brazil and Argentina due to high proportion of problem loans given to government.

Micco et al. (2004), examining 50000 financial institutions with different ownership types covering 119 countries, conclude that NPLs tend to be higher for banks with government ownership than for other groups. This is explained by the development mandate given to government-owned banks in developing economies. Hu et al. (2004) examining a panel of Taiwanese banks find a positive correlation between capital share owned by the government and the level of NPLs. Garcíya-Marco and Robles-Fernández (2007) examine the relationship between risk taking and ownership structure. They find that commercial banks (mainly private owned) are more exposed to risk than deposit banks (mainly government owned).

Further, by having a lot of literature on the determinants of NPLs of banks across worldwide, it is important to examine in Ethiopia case. This is due to the fact that, it is difficult to make generalization about the NPLs for the developing economy based on the result of developed economy without making any research. Besides, since the majority of bank assets are hold by loans, unless the determinants of NPLs are visualized to enhance the quality of asset, it is hard for the survival the banking sectors.

The adverse effect of NPLs is attributable to bank managers' adverse selection of its borrowers (Brownbridge, 1998). NPLs are determined by different factors such as level of growth economic, inflation, ownership structure, loan to deposit ratio, volume of deposit, return on equity, return on asset, capital adequacy, total loan, liquidity, bank size, excessive lending, interest rate and credit growth. These factors are studied by different researchers in different countries (Boudriga et al., 2009; Ahmad, 2013; Tehulu and Olana, 2014 and etc.).

Generally, the basic motive for this study is that, different studies were done in Western Europe and East African countries (Saba *et al.* (2012), Louzis *et al.* (2010), Badar and Yasmin (2013) and Moti *et al.* (2012). However, the results of those studies were inconsistent. This inconsistency of results might be attributable to the method of data analysis used by different researchers and difference in the economic condition of the countries in which banking sectors are operating. Though, there are a number of studies that are conducted at a global level to examine the determinants of NPLs, most of the studies were made with reference to developed countries like India, China, Japan, Turkey, United of Kindom, Spain, Greece, German, Malaysia and USA. but the uniqueness of Indonesian banking system is that there is another government owned banks category, which is called the community development banks (CDB).

Community development banks in Indonesia exist in every district. They are monetary organizations operated on a local basis. In terms of coverage, their coverage is much smaller than the private and the publicly owned banks. RDB categorized as focused bank, ie the bank with regional focus. RDB thus able to create a healthy banking structure in the country and able to meet the needs of the community and to promote the ongoing economic development of Indonesia. What can be the ownership structure to non-performing loans in Indonesia?. These are the questions that the study wishes to answer.

## **B. LITERATURE REVIEW**

NPLs is likely to hamper economic growth and reduce the economic efficiency. The shocks to the financial system can arise from factors specific to the bank or macroeconomic conditions. In general, the researches adopted in the developed economies have confirmed that macroeconomic conditions affect credit risk. Relative causes of NPLs occurrence cited by some researchers includes; economic condition (Brownbridge, 1998; Jimenez and Saurina, 2006; Das and Ghosh, 2007; Al-Smadi and Ahmad, 2009), interest rate (Fofack, 2005; Jimenez and Saurina, 2006; Al-Smadi and Ahmad, 2009), inflation (Rajan and Dhal, 2003; Al-Smadi and Ahmad, 2009; Pasha and Khemraj, 2009, Farhan *et al.*(2012), Skarica(2013), Klein(2013), Tomak(2013)), credit growth (Keeton, 2003; Boudriga *et al.*, 2009), inefficiency (Peristiani, 1996; Berger and DeYoung, 1997; Kwan and Eisenbis, 1997), profitability (Godlewski, 2004; Marco-Garciya and Robles-Fernández, 2008, Swamy(2012), Selma and Jouini(2013), Bougriga *et al.* (2009)), ownership (Shleifer and Vishny (1986), Micco *et al.* (2004), Hu *et al.* (2004), Berger *et al.* (2005), Iannota *et al.* (2007), Boudriga *et al.* (2009), Ahmad (2013), Adjei-Mensah (2014) and Tehulu and Olana (2014);; Misra and Dhal, 2010).

The existing literature has provided evidence relating the performance comparison between publicly and privately owned banks. Agency costs in the government owned firms can results in the weak managerial rewards, under-utilization and misallocation of resources. Agency cost view illustrates that private firm's mangers do not work at their full potential as compared to private firm's counterpart and usually use most of the resources for their personal benefits. From political corruption aspects state owned banks works to serve the supporters of government, political influence in banks decreases efficiency and loan quality by allocating the funds on political basis (Khwaja and Mian, 2005).

The existing studies have proved that poorer loan quality and high NPLs are mainly associated with government owned banks (Berger *et al.* 2005 and Iannota *et al.* 2007). Iannota *et al.* (2007) also decided that privately owned banks are more profitable than government owned and mutual banks. They found that one of those mutual, private and public banks, publicly owned banks has the highest NPLs and bad loan quality whereas mutual banks government owned has lowest NPLs and high quality loans. Furthermore, Micco *et al.* (2007) have found that privately owned banks has the better performance than all other government owned banks in developing countries. They also find that the government owned banks have higher costs and lower profitability as compared to the private banks, whereas opposite is the case for foreign owned banks.

De Nicolo (2001) and Iannota *et al.* (2007) have suggested that government-owned banks typically represent higher risk than other types of banks. Micco *et al.* (2004) have analyzed the financial institutions with different ownership types covering 119 countries. He decides that non performing loans are tend to be higher for banks with government ownership than for other groups. Hu *et al.* (2004) used a panel of Taiwanese banks and find a positive correlation between capital share owned by the government and the level of non-performing loans. However, Garcia-Marco and Robles-Fernandez (2007) investigated the relationship between risk taking and ownership structure document

that commercial banks (mainly private owned) are more exposed to risk than deposit banks (mainly government owned).

Ahmad (2013) investigate of commercial banks currently operating in Pakistan. Currently there are 30 commercial banks operating in Pakistan which can be divided into three broad categories i.e., public sector, private sector and foreign banks. The studies have found the positive association between NPLs and publically owned or dispersed ownership (Shleifer and Vishny, 1986; Berger et al., 2005; Iannotta et al., 2007; and Nichols et al., 2009).

Tehulu and Olana (2014) investigate the bank specific determinants of credit risk of Ethiopian commercial banks. For this reason causal research design was applied in this study since the objective is to assess cause effect relationship. The sample consists of a panel of ten (10) commercial banks that were registered before 2007 from around 19 banks operating in the country. The period 2007-2011 was chosen just to examine the determinants of credit risk using recent data and recently established banks were not considered to avoid new entrant bias. The studies have found the ownership has a impact on credit risk. This finding shows that government banks were more risky than private banks.

Boudriga et al. (2009) investigate The aggregate banking, financial, economic, and legal environment data for a panel of 59 countries over the period 2002-2006. It develops a comprehensive model to explain differences in the level of NPLs between countries. To assess the role of regulatory supervision on credit risk, the paper uses several interactions between institutional features and regulatory devices. The studies have found The government property are positive and significant, which indicates that state-ownership rises the level of problem loans. This could be explained either by the development mandate given to state-owned banks, especially in developing countries, or by their weaker credit recovery capacities. These combined effects lead to higher credit risk taking and to increased defaults. This result corroborates those of Micco et al. (2004) who conclude that NPLs tend to be higher for state-owned banks on a panel of emerging countries.

## C. METHODOLOGY

This research employs the data from financial statements which consist of 124 commercial banks operated in the Indonesia banking industry. The time period of the study was from 2008 to 2013, the data are taken from banks' annual reports of fiscal year ends on December 31 of each year and the data set consists of 45 private banks, 4 government banks, and 22 community development banks, a total is 71 banks. This studies is using panel data and pooled ordinary least square (OLS). The following model is estimated:

$$NPLS_{it} = \beta_0 + \beta_1 DPRIV_{it} + \beta_2 CDB_{it} + \beta_3 * CAR_{it} + \beta_4 * LDR_{it} + \beta_5 * ROA_{it} + \beta_6 * INF_{it} + \beta_7 * GROWTH_{it} + e_{it}$$

Where  $i$  refers to the bank,  $t$  refers to the years

- NPLS<sub>it</sub> : Non Performing Loans
- DPRIV<sub>it</sub> : Dummy variable taking the value 1 for government bank and 0 for otherwise bank.
- DCDB<sub>it</sub> : Dummy variable taking the value 1 for community development bank and 0 for otherwise bank.
- CAR<sub>it</sub>: : Dummy variable taking the value 1 for foreign exchange bank and 0 for otherwise bank.
- LDR<sub>it</sub> : Dummy variabel taking the value 1 for total equity less than IDR 100 billion while 0 for otherwise total equity.
- ROA<sub>it</sub>: : Return on assets of bank  $i$  in period  $t$ ,

INF<sub>t</sub> : Annual Inflation of Indonesia varibale.  
 GROWTH<sub>t</sub> : Annual Economic growth of Indonesia varibale.

## D. FINDINGS

Table 1. Comparisons of mean of selected variables between different systems of banks

Ratios	Means all bank (%)	Means (%)	p-Value (2 tailed)
NPLs	0.7501		a, d, i
Private banks		0.0199	
CDB		2.0908	
Government banks		1.5900	
CAR	6.9706		a, d, g
Private banks		0.3674	
CDB		18.8155	
Government banks		16.1095	
ROA	1.2505		
Private banks		0.0128	a, d, ns3
CDB		3.4355	
Government banks		3.1585	
LDR	31.3975		a, d, ns3
Private banks		0.9116	
CDB		84.4683	
Government banks		82.4735	

a, b,c, or ns1 shows that the mean difference of a variable between private and community development banks is significant at either 1%, 5%, 10%, or not significant at all.

d,e,f, or ns2 shows that the mean difference of a variable between private and government banks is significant at either 1%, 5%, 10%, or not significant at all.

g,h,i, or ns3 shows that the mean difference of a variable between community development and government banks is significant at either 1%, 5%, 10%, or not significant at all.

Table 3 shows the average ratio of NPLs for all banks under study amounted to 0.7501%. This shows a low enough number that banks avoid from borrowing problems. For each bank ownership, the largest NPLs in the CDB is 2.0908%, but this figure is still below Bank Indonesia's 4%. The lowest NPLs at private banks is 0.0199%, which indicates that private banks are very careful in lending so that the amount of bad loans is very low. The NPLs of the three bank holdings have significant differences, indicating that each of these holdings has different levels of NPLs so that they have different lending risks.

The CAR ratio indicates that private banks are higher than CDB and government banks, of the three holdings having significant differences. This shows the CAR ratios of the three bank holdings have different values, but the CAR ratio is still above the minimum Bank Indonesia requirement of 8%. Average ROA ratio of 1.25% where the highest value in the CDB of 3.43% and the lowest private banks 0.0128%. This shows the benefits of government-owned banks whether CDB or government

banks have no difference and have better performance than private banks. This may be due to government assistance to banks facing financial difficulties. The highest LDR ratio of the private banks with the average of all banks is 88.39%. This shows private banks are very aggressive in lending from government-owned banks.

Table 2. Regression without Adjusting and with Robust Standard Errors  
Dependent Variable: NPL

Variable	OLS without standard errors		OLS with robust standard errors	
	Coef.	p-value	Coef.	p-value
Constan	7.605	0.000***	7.605	0.003***
DPRIV	-1.403	0.080*	-1.403	0.035**
DCDB	0.799	0.326	0.799	0.050**
CAR	-0.001	0.760	-0.001	0.501
LDR	-0.009	0.014 **	-0.009	0.014**
ROA	-1.006	0.000***	-1.006	0.001***
INF	-0.146	0.237	-0.146	0.084**
GROWTH	-0.218	0.432	-0.218	0.592
R-squared	0.2406		0.2406	
Adjusted R-squared	0.2252			
Prob > F	0.0000		0.0022	
Number observation	355		355	

\*, \*\* and \*\*\* denote significance at the 10%, 5% and 1% level, respectively, p-value in parentheses

The result of regression method above, shows variable of PRIV, CDB, LDR, ROA and INF have significant effect on NPLs. These results indicate that the three variables play a significant role in determining the level of NPLs in banks in Indonesia by 50.52%.

CDB has a positive relation on NPLs, it indicates that CDB has higher non-performing loan compared to private banks and government banks. This result is consistent with Shleifer and Vishny (1986), Micco et al. (2004), Hu et al. (2004), Berger et al. (2005), Iannota et al. (2007), Nichols et al. (2009), Boudriga et al. (2009), Ahmad (2013), Adjei-Mensah (2014) and Tehulu and Olana (2014). The positive relation confirms that the control of the owners on the managers is weak, resulting in the asymmetry of information and conflict of interest between owners and managers (Jensen and Meckling, 1976), heading to the decisions that are in benefit to managers. Due to less supervision and control, managers increase the riskiness of the loan portfolio in order to improve the short term cost efficiency. They lend money to the low quality borrowers, resulting in the growth of future NPLs. In CDB, owned banks level of supervision and monitoring is very weak, because large number of stake of dispersed investor are connected. As the stake of individual investor is small therefore they pay less attention on the working and risk exposure of the banks.

Corruption also have played important role in the growth of NPLs in the CDB owned banks. In country such of Indonesia, regulatory and supervisory authorities are very weak in controlling and implementing laws, due to which lenders take full advantage and do not repay loans because they know that no strong legal action will be taken against them because of this rate of NPLs CDB are on the higher side. The other reason for the increase in NPLs is the corruption in the political system of the country. Most of the political owned firms lend funds from the banks and by using the political power and corrupt practices happened by do not repay loan (Khwaja and Mian, 2005). Furthermore, it resulting the management of the banks also by using corrupt practices by lends money to low quality borrowers (Barth, Lin, Lin and Song, 2009), which deciding in the increase in NPLs.

The other main reason for the positive relation between NPLs and CDB owned banks is the lenient credit policies and inefficiency of the credit evolution departments of the banks; because CDB lend money to those who are ready to pay more than others and do not take collaterals rather lend funds on the warranties and political status. Due to all these reason CDB owned banks has high rate of NPLs than other banks (Micco et al., 2007). The positive relation also confirms the findings of Saunders et al., (1990) that in publically owned banks managers can take higher risks due to the weak supervision and monitoring. This results in the increase in loan portfolio riskiness and thus results in the growth of future NPLs.

The CDB are positive and significant. It appears that CDB raises the level of problem loans. This could be explained either by the establishment mandate given to CDB, especially in Indonesia, or by their weaker credit recovery competences. These combined effects lead to higher credit risk taking and to increased defaults. This result confirmed that Micco et al. (2004) who conclude that NPLs tend to be higher for government banks on a panel of developing countries.

The results of current study reject the traditional view of Berle and Means (1933) that concentrated ownership (private ownership) has positive impact on the efficiency and performance of the banks and with concentrated ownership control and supervision on the firm increases, resulting in the achievement of owner's goal. The justification for the positive relation can be that in private owned banks control of the owners on the management is strong, thus owners can influence the risk taking decision of the management and can force the management to increase the riskiness of the loan portfolio by lending funds to the low quality borrowers (Saunders et al., 1990; Laeven and Levine, 2009), resulting in the future growth of NPLs. The results of current study confirm the traditional view of Berle and Means (1933) in case of foreign ownership that concentrated ownership has positive impact on the efficiency and performance of the banks. They further suggested that with concentrated ownership control and supervision on the firm increases resulting in the decline of firm riskiness (Shleifer and Vishny, 1986).

ROA has a negative effect on NPLs, this indicates that the low bank profit caused by high level of bad debts so bad credit very influence to bank profit level. Bad credit will increase the cost of the bank so that the level of bank profit will affect. The LDR variable has a positive effect on the NPLs. This indicates that the loan provided by the bank has the potential to stall so that the larger the loan is given the greater the bad credit experienced by the bank. This may be due to the level of customer's honesty that is still lacking to pay for the loan other than that, the state of the business customers who suffered losses so they cannot afford to pay the loan.

Inflation has a negative effect on NPLs. This indicates that may be due to the decrease in volume of loans granted by banks and the banks becoming more selective of high quality borrowers during high inflation period. The finding is similar to that of Al-Smadi and Ahmad (2009). The results of several studies done by Jimenez and Saurina (2006); Quagliariello (2007) and Fofack (2005) support the idea that high interest rate increase obligation of borrowers and thus increase credit risk.

## **E. CONCLUSIONS**

The result of research indicates that there are difference of variable of NPLs, CAR, LDR and ROA for private banks, CDB and government banks. A very interesting thing in this study is that the ownership dummy of CDB has a positive effect on the NPL, it shows that CDB has a higher non-performing loan level compared to private banks and government bank. This condition are the control of the owners on the mangers is weak, the other main reason for the positive relation between NPLs and CDB owned banks is the lenient credit policies and inefficiency of the credit evolution departments of the banks, Corruption also play important role in the growth of NPLs in the CDB owned banks.

## REFERENCES

- Adjei-Mensah, G. (2014). Executive Compensation, Ownership Structure and Loan Quality of Banks in Ghana. A Thesis Submitted to the University of Ghana, University of Ghana <http://ugspace.ug.edu.gh>
- Ahmad, F. (2013). Ownership Structure and Non-Performing Loans: Evidence from Pakistan. *Asian Journal of Finance & Accounting*, 5(2), 268-288.
- Al-Smadi, M.O., & Ahmad, N.H. (2009). Factors affecting banks credit risk: Evidence from Jordan. Malaysia: Collage of Business, University Utara Malaysia.
- Badar, M., & Yasmin, J. A. (2013). Impact of macroeconomic forces on nonperforming loans: an empirical study of commercial banks in Pakistan. *WSEAS TRANSACTIONS on BUSINESS and ECONOMICS*, 1(10), 40-48.
- Berger, A., Clarke, G., Cill, R., Klapper, L., & Udell, G. (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 and Finance*, 29, 2179–2221.
- Berger, A., Clarke, G., Cill, R., Klapper, L., & Udell, G. (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 and Finance*, 29, 2179–2221.
- Berger, A.N., & DeYoung, R. (1997). Problem loans and cost efficiency in commercial banks. *Journal of Banking and Finance*, 21(6), 849-870.
- Berle, A., & Means, G. (1933), *The Modern Corporation and Private Property*. New York: MacMillan.
- Boudriga, A, Boulila, T. N., & JellouliSana. (2009). Bank specific, business and institutional, environment determinants of nonperforming loans: Evidence from MENA countries. *Journal of Financial Economic Policy*, 1(4), 286-318
- Brownbridge, M. (1998). The causes of financial distress in local banks in Africa and implications for prudential policy. UNCTAD Discussion Papers, United Nations Conference on Trade and Development, 132.
- Das, A., & Ghosh, S. (2007). Determinants of credit risk in Indian State-Owned banks: An empirical investigation. *Economic Issues-Stoke on Trent*, 12(2), 27-46.
- De Nicolo, G. (2001). Size, charter value and risk in banking: An international perspective. Board of Governors of the Federal Reserve System. International Finance Discussion Paper, P. 689.

- Ekanayake E.M.N.N., & Azeez, A.A. (2015). Determinant of non-performing loans in licensed commercial banks: evidence from Sri Lanka. *Asian Economic and Financial Review*, 5(6), 868-882.
- Farhan, M., Sattar, A., Chaudhry, A. H., & Khalil, F. (2012). Economic determinants of non-performing loans: Perception of Pakistani bankers. *European Journal of Business and Management*, 4, (19), 87-99.
- Fofack, H. (2005). Non-performing loans in Sub-Saharan Africa: Causal analysis and macroeconomic implications. World Bank Policy Research Working Paper No. 3769.
- Garcia-Marco, T. and Robles-Fernandez, M.D. (2008). Risk taking behavior and ownership in the banking industry: The Spanish evidence. *Journal of Economics and Business*, 60, 332-354.
- García-Marco, T., & Robles-Fernández, M.D. (2007). Risk-taking behavior and ownership in the banking industry: The Spanish evidence. *Journal of Economics and Business*, 60(4), 332-354.
- Godlewski, C.J. (2004). Bank capital and credit risk taking in emerging market economies. *Journal of Banking Regulation*, 6(2), 128-145.
- Hu, J., Yang, L., & Yung-Ho, C. (2004). Ownership and non performing loans: evidence from Taiwanese banks. *Developing economies journal*, 42(3), 405-420.
- Hu, J.L., Li, Y., & Chiu, Y.H. (2004). Ownership and nonperforming loans: Evidence from Taiwan's banks. *The Developing Economies*, 42(3), 405-420.
- Iannotta, G., Nocera, G., & Sironi, A. (2007). Ownership structure, risk and performance in the European banking industry. *Journal of Banking and Finance*, 31(7), 2127-2149.
- Jensen, M., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency cost and ownership Structure. *Journal of Financial Economics*, 3, 305-360.
- Jimenez, G., & Saurina, J. (2006). Credit cycles, credit risk and prudential regulation. *International Journal of Central Banking*, 2(5), 65-98.
- Keeton, W. R. (2003). Does faster loan growth lead to higher loan losses. *Economic Review*, 84(2), 57-75.
- Khwaja, A I., & Mian, Atif., (2005). Lenders Favor Politically Connected Firms? Rent Provision in an Emerging Financial Market. *The Quarterly Journal of Economics*, 120(4), 1371-1411.
- Klein, N. (2013). *Nonperforming loan in CESEE: Determinants and Impact on Macroeconomic Performance*, IMF working Papers 13(72)
- Kwan, S., & Eisenbis. R. (1997). Bank risk, capitalisation and operating efficiency. *Journal of Financial Services Research*, 12(2), 117-131.

- La Porta , R., Lopez-de-Silanes, F., & Shleifer, A. R. (2002). Government ownership of banks. *Journal Finance*, 57, 265-302.
- Laeven, L., & Levine, R. (2009). Bank governance, regulation and risk taking. *Journal of Financial Economics*, 93, 259–275
- Louzis, D.P., Vouldis, A.T., & Metaxas, V.L. (2010). *Macroeconomic and bank specific determinants of non performing loans in Greece: a comparative study of mortgage, business and consumer loan portfolios*. Bank of Greece, Working Paper, no. 118.
- Marco-Garciya, T., & Robles-Fernández, M.D. (2008). Risk-taking behavior and ownership in the banking industry: The Spanish evidence. *Journal of Economics and Business*, 60(4): 332-354.
- Meggison, W. L., & Netter, J. M. (2001). From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*, 39(2), 321-389.
- Meggison, W.L., Nash, R. C., & Randenborgh, M. (1994). The financial and operating performance of newly privatized Firms: An international empirical analysis. *Journal of Finance*, 49, 403-452.
- Micco, A. and Panizza, U. (2004), Bank ownership and lending behavior. Inter-American development bank. Research Department, *Working Paper no. 520*.
- Micco, A., Panizza, U., & Yañez, M. (2004). *Bank ownership and performance* (IDB Working Paper No. 429). Inter-American Development Bank, Research Department. Retrieved November, 2004, from SSRN: <http://ssrn.com/abstract=1818718> or <http://dx.doi.org/10.2139/ssrn.1818718>.
- Micco, A., Ugo, P., & Monica, Y. (2007). Bank ownership and performance: Does politics matter? *Journal of Banking and Finance*, 31, 219–241.
- Misra, B.M. & Dhal, S. (2010). Pro-cyclical management of banks' non performing loans by the Indian public sector banks. A Research Publication of Bank for International Settlement. Available from <http://www.bis.org/repofficepubl/arpresearch201003.08.pdf> [Accessed October 15, 2010].
- Moti, H., Masinde, J.S., Mugenda, N. G., & Sindani, M.N. (2012). Effectiveness of credit management system on loan performance: Empirical evidence from micro finance sector in Kenya. *International Journal of Business, Humanities and Technology*, 2(6). 99-107
- Nichols, D., Wahlen, J., & Wieland, M. (2009). Publicly-traded versus privately-held: implications for conditional conservatism in bank accounting. *Review of Accounting Studies*, 14, 88-122.
- Novaes, W., & Werlang, S. (1995). In\_ationary bias and state-owned Financial institutions. *Journal of Development Economics*, 47(1), 135-54.
- Pasha, S., & Khemraj, T. (2009). The determinants of nonperforming loans: An econometric case study of Guyana. Presented at the Caribbean Centre for Banking and Finance Bi-Annual Conference on Banking and Finance, St. Augustine, Trinidad.

- Paskelian, G. O. (2006). *Government Ownership, Firm Value and Choice of SEO Methods-Evidence from Privatized Chinese SOEs*. Dissertation Doctor of Philosophy in Financial Economics, University of New Orleans.
- Peristiani, S. (1996). Evaluating the postmerger X-efficiency and scale efficiency of U.S. banks. Federal Reserve Bank of New York, Working Paper No. 9623.
- Rajan, R. & Dhal, S.C. (2003). Non-performing loans and terms of credit of public sector banks in India: An empirical assessment. Department of Economic Analysis and Policy: *Reserve Banks of India, Occasional Papers*, 24(3), 81-121.
- Saba, I., Kouser R., & Azeem, M. (2012). Determinants of nonperforming loans: case of US banking sector. *International Journal of Banking and Finance*, 44, 479- 88
- Salas, V., & Saurina, J. (2002). Credit risk in two institutional regimes: Spanish Commercial and Savings banks. *Journal of Financial Services Research*, 22(3), 203-224.
- Saunders, A., Strock, E., & Travlos, N. (1990). Ownership structure, deregulation, and bank risk taking. *Journal of Finance*, 45(2), 643–654.
- Selma. M., Ahlem & Jouini, F. (2013). Micro and macro determinants of nonperforming; Tunisia. *International Journal of Economics and Financial Issues*. 3(4), 852-860.
- Shleifer, A. (1998). State versus private ownership. *Journal of Economic Perspectives*, 12, 133-150.
- Shleifer, A., & Vishny, R.W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, 94, 461–488
- Skarica, B. (2013), *Determinants of Non-Performing Loans in Central and Eastern European Countries: Working Paper*. No 13-07.
- Swamy, V. (2012). Impact of Macroeconomic and endogenous factors on nonperforming bank assets. *International Journal of Banking and Finance*, 9(1), 27-47
- Tian, G. (2000). Property rights and the nature of Chinese collective enterprises. *Journal of Comparative Economics*, 28(2), 247-268.
- Tehulu, T.A., & Olana, D.R. (2014). Bank- Specific Determinants of Credit Risk: Empirical Evidence from Ethiopian Banks. *Research Journal of Finance and Accounting*, 5(7), 80-85
- Tomak, S. (2013). Determinants of Commercial Banks lending Behavior: Evidence From Turkey. *Journal of Empirical Research*, 3(8), 933-943.
- Xu, X. and Wang, Y. (1999). Ownership Structure and Corporate Performance in Chinese Stock Companies. *Chinese Economic Review*, 10, 75-96.