

OWNERSHIP CONCENTRATION AND BANK PERFORMANCE: THE ROLE OF BANK INTERNAL GOVERNANCE

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Abstract

This paper examines the effect of ownership concentration on bank performance. Using quarterly data from 54 Indonesian commercial banks over the period of 2002-2008, we find that ownership concentration has adverse impact on bank performance. We then show that the effect of ownership concentration depends on insider ownership and bank commissioners. Our findings highlight that the effect of ownership is complex. Policy makers should consider interaction among various variables, that may affect affect the effectiveness of the regulations.

Keywords: Ownership Concentration, Insider Ownership, Bank Commissioners, Bank Risk Taking, Bank Profitability

1. Introduction

The effect of ownership concentration on performance has been a controversial subject. Ownership concentration entails both benefits and costs. In a world of Barley and Means (1933), dispersed ownership creates separation between control and ownership, which results in suboptimal performance (Jensen and Meckling, 1976). In this situation, ownership concentration enhances power of stockholders to control managers, which results in improved performance. Shleifer and Vishny (1986) point out that ownership concentration enhances corporate control due to an improvement in the monitoring level of management and reduce free-riding resulted from dispersed ownership. Large stockholders borne the most of cost of shirking by managers. .

However, another mechanism may result in different impact of ownership on concentration on performance. With large power, dominant stockholders may expropriate small stockholders. Stulz (1988) questions the advantage of large shareholding, since large shareholders can expropriate the welfare of outside investors. There are other potential costs of high ownership concentration such as excessive monitoring (Burkart et al., 1997), raising the cost of takeover (Kyle and Vila, 1991). Reduced

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liquidity may also reduce informational value of stock price as measure of managerial performance (Holmstrom and Tirole, 1993). Finally, Demsetz (1983) argues that if ownership structure is optimally adjusted to firms' characteristics, then there will be no relationship between ownership and performance.

The impact of ownership is even more complex in banking context. Banks face unique business environment, especially heavy regulation and excessive leverage from deposits and savings. In such situation, there are various potential agency conflicts. Stockholders may face conflict with manager as a result of separation between ownership and control. Separation between control and cash flow rights may result in conflict between majority and minority stockholders (Claessens et al., 2002). Finally, stockholders may collude with managers to expropriate depositors, by taking on excessive risk. This situation may deteriorate capital adequacy ratio and increase in non-performing loans (Boyd et al., 1998). Since regulator attempts to maintain fair business environment, stockholders and managers may face conflict with regulator.

Empirical studies on the effect of ownership on bank performance provide mixed results. Laeven and Levine (2009) show that ownership concentration positively affects bank's risk taking. Iannotta et al. (2007) analyze 181 large banks from 15 European countries and report the opposite, e.g. banks with concentrated ownership tend to have better loan quality, lower asset risk, and lower insolvency risk. More recently, Laeven and Levine (2008), and Shehzad et al. (2010) show that the effect of ownership concentration on bank performance is more complex. Laeven and Levine (2008) argue that the effectiveness of regulation, such as supervisory control and shareholder protection, is affected by ownership structure of the banks. Shehzad et al. (2010) show that the effect of ownership concentration on bank risks depends on shareholder protection and supervisory control. Hence regulators should consider interaction between regulations and ownership structure of banks.

Using Indonesian data, we study the effect of ownership concentration on bank risk and profitability conditional on bank internal governance. Our study comes close to studies by Shehzad et al. (2010) and Laeven and Levine (2008), in the sense that the impact of ownership on performance is affected by other variables. While they show that the effect of ownership concentration on bank performance depends on external factors, which are minority protection and supervisory control, we focus on the question whether internal governance affects the effect of ownership on bank performance. We use two internal governance mechanisms: insider ownership and commissioners.

Insider ownership is defined as stock ownership by commissioners.⁵ In literature of agency theory, managerial ownership is expected to reduce agency conflict, by aligning the interests of stockholders and managers. We use same argument for insider ownership. Sullivan and Spong (2007) show that managerial stock ownership boosts risk-taking strategies indicating that hired managers are more likely to have incentives in line with those of shareholders. However, Saunders et al. (1990) find that stockholders banks (defined as banks in which management own substantial shareholdings) increases risk taking behavior, while management banks (defined as banks in which management own small portion of shareholdings) reduces risk taking behavior. Other papers find U-shaped relationships between managerial ownership and bank risk taking, which is also due to managerial entrenchments (Chen et al., 1998; Anderson et al., 2000).

Bank commissioners represent stockholders to supervise managers. Unlike most of companies in US and Europe which use one-tier system, all Indonesian companies use two-tier model, in which commissioners is a separate entity from management, who serve function as supervisor for management. We argue that commissioners serve similar function to board of executive in western countries. The role of bank board is considered even more important than other stakeholders, since they can be expected to impose governance in banks (Levine, 2004). Basel Committee on Banking Supervision places board of executive as integral part of risk management process in banks (Basel Committee on Banking Supervision). Given the importance of the role of bank board, we also expect that commissioners affect the effect of ownership concentration on bank performance.

While Shehzad et al. (2010) and Laeven and Levine (2008) use cross-country data, we use bank data from same country, which is Indonesia. The use of data from same country ensures the similarity of regulatory and institutional setting among banks. Given the similarity of the setting, we investigate whether the effect of ownership concentration on bank performance depends on internal bank governance, which varies among banks.

Our study is also closely related to banking regulation in Indonesia, especially that relates to bank ownership structure. Indonesian Central Bank pays close attention to bank ownership structure. Various regulation has been issued in search of optimal bank ownership structure. On May 19, 2003, Bank Indonesia (BI) issued a risk management framework (PBI No. 5/8/PBI/2003) for commercial banks. In regards to corporate governance, BI also issued a governance framework as of January 2006 (Rule

⁵ To improve bank governance, Indonesian Central Bank does not allow bank owners to become bank manager. This regulation is different from ordinary corporation in Indonesia, in which owners may also become manager.

number 8/4/PBI/2006). This framework regulates the independencies and transparencies of board of commissioners and directors, committees, obedience function, portfolio allocations, interests conflict management, and the self evaluation of corporate governance. On August 2006, BI further issued the Single Presence Policy (SPP) in order to enhance bank governance through ownership consolidation. Nevertheless, the implementation of these regulatory frameworks remains slow and unsupervised, since no evidence revealing the advantage or the disadvantage of such regulations. This research aims to fulfill this need by providing an extremely comprehensive analysis to investigate the impact of ownership concentration on bank risk management. In the most recent rules (Rule number 12/23/PBI/2010), dated on December 29, 2010, Indonesian Central Bank requires that a bank declare its key stockholder. This stockholder signs agreement with Indonesian Central Bank to take ultimate responsibility for the bank. For example, should the bank becomes insolvent, then this stockholder should add more capital to the bank. Generally the largest stockholder becomes the key stockholder.

We find that ownership concentration has adverse impact on bank performance; Ownership concentration reduces bank profitability and increases bank risks. Consistent with Shehzad et al. (2010) and Laeven and Levine (2008), our findings show that the effect of ownership concentration on bank performance depends on insider ownership and commissioners. Thus the effect of ownership concentration seems to be more complex. Various variables may affect this relationship. We organize our paper as follows. Section 1 describes introduction. Section 2 discusses reseach methodology. Section 3 discusses emprical findings. Section 4 concludes.

2. Research Methodology

A. Data

We collect quarterly financial data from Indonesian commercial banks, from year 2002-2008. We include both public and private banks, and both private and state-owned banks. We exclude local state owned banks, as well as rural banks, foreign banks, and micro banks. We believe that local state owned banks have very different characteristics than commercial banks, since these banks are owned mainly by local state government. We exclude foreign and joint venture banks, since ownership in these banks is recorded as 100% and 99% foreign owned. We also exclude banks with missing data or unusual (outliers) data. Our final sample consists of 54 Indonesian commercial banks, that consists of four state owned banks and fifty private banks, and 24 quarterly data, yielding around 1,200 observations.

We examine whether ownership concentration have impact on bank performance. We measure ownership concentration by calculating the percentage of bank largest shareholder.⁶ For bank performance, we include accounting profitability: Return on Asset and Return on Equity, and several risk parameters: Non Performing Loan, Loan Loss Provision, Capital Adequacy Ratio. Our data show that ownership in Indonesian banks tends to be highly concentrated. The average of first largest shareholder is around 60%. This number is comparable to that of Shehzad et al. (2010). Who report that more than 70% of their sample have ownership of more than 50%. Table 1 report statistic descriptive for variables used in this paper.

== INSERT TABLE 1 ==

Insider ownership is calculated as commissioners who are also registered as stockholders. As part of good corporate governance mechanism, Indonesian Central Bank does not allow stockholders to become managers. The first measurement uses number of bank commissioners who also become stockholders of the banks. Second measurement uses ownership percentage by bank commissioners. Mean of insider ownership in percentage is 0.098% with the range from 0 to 2%. Commissioners variable is calculted as number of commissioners in the bank and numbers commissioners divided by log of total assets. We scale commissioners by log of total assets to the size effect in commissioners variable, that is the larger banks tend to have more commissioners. Number of commissioners ranges from 1 to 12, with the mean of 3.7.

B. Model Specification

Our hypotheses are whether ownership concentration affects bank performance conditional on internal governance mechanisms, which are proxied by two variables: insider ownership and commissioners. Before we examine such effect, we also want to investigate unconditional effect of ownership on bank performance. Thus the models we want to test are:

$$\text{Bank performance}_{(i,t)} = \alpha + \beta_1 \text{Ownership Concentration}_{(i,t)} + e_{(it)} \quad \dots\dots\dots (1)$$

$$\text{Bank performance}_{(i,t)} = \alpha + \beta_1 \text{Ownership Concentration}_{(i,t)} + \beta_2 \text{Insider Ownership}_{(it)} + \beta_3 (\text{Ownership Concentration}_{(it)} * \text{Insider Ownership}_{(i,t)}) + e_{(it)} \quad \dots\dots\dots (2)$$

⁶ We also calculate ownership concentration using other definitions, such as two, three, four, and five, largest ownership, The result show that the first largest provides the best explanatory power, hence we do not report the results using other definitions in this paper.

$$\text{Bank performance}_{(i,t)} = \alpha + \beta_1 \text{Ownership Concentration}_{(i,t)} + \beta_2 \text{Bank Commissioners}_{(i,t)} + \beta_3 (\text{Ownership Concentration}_{(i,t)} * \text{Bank Commissioners}_{(i,t)}) + e_{(i,t)} \quad \dots\dots\dots (3)$$

Following Aiken (1991) and Shehzad et al. (2010), we are interested in testing the following hypothesis:

$$\text{Ho: } \frac{\partial \text{BankPerformance}}{\partial \text{OwnConcent}} = \beta_1 + \beta_2 (\text{InsdOwn}) = 0 \quad \dots\dots\dots (4a)$$

$$\text{Ha: } \frac{\partial \text{BankPerformance}}{\partial \text{OwnConcent}} = \beta_1 + \beta_2 (\text{InsdOwn}) \neq 0 \quad \dots\dots\dots (4b)$$

and

$$\text{Ho: } \frac{\partial \text{BankPerformance}}{\partial \text{OwnConcent}} = \beta_1 + \beta_2 (\text{BankCommissioners}) = 0 \quad \dots\dots\dots(5a)$$

$$\text{Ha: } \frac{\partial \text{BankPerformance}}{\partial \text{OwnConcent}} = \beta_1 + \beta_2 (\text{BankCommissioners}) \neq 0 \quad \dots\dots\dots (5b)$$

It is clear from the equation above that the effect of ownership concentration depends on Internal Governance. We calculate standard errors accordingly using methodology of Aiken and West (1991).

3. Empirical Findings

3.1. The impact of ownership concentration on bank performance

We first examine unconditional effect of ownership on bank performance. Table 2 shows that ownership concentration tends to decrease bank profitability and increase bank risks. Regression coefficients for ROA, ROE, and CAR are negative, while regression coefficients for Loan Loss Provision and Non Performing Loan show positive signs.

== INSERT TABLE 2 ==

This finding seems to be consistent with Laeven and Levine (2009) and Haw et al. (2010). Using data from 10 largest publicly listed banks in 48 countries, Laeven and Levin (2009) find that banks with more powerful owner tend to take higher risks. Similarly, Haw et al. (2010) find that concentrated ownership is associated with higher insolvency risk and greater return volatility for sample of listed commercial banks in East Asia and Western Europe. However, our results are different from those of Hamadi (2010). Hamadi finds that firm performance, measured by Tobin's Q, is positively affected by large shareholders in family firms, but negatively affected by large shareholders organized in voting blocks.

This finding seems to suggest that the cost of ownership concentration in Indonesian context is higher than its benefits. As argued by Shleifer and Vishny (1990), concentrated ownership may create another type of conflicts, which is conflict between majority and minority shareholders. In Indonesian market, on average, founding family still holds around 70% of their shares, leaving the 30% to public investors. Bank shareholders can collude with managers against minority shareholders to take on excessive risk-taking, which in turn may deteriorate capital adequacy ratio and increase in non-performing loans. It is also possible that such effect of ownership concentration on bank performance is related to degree of shareholders protection and supervisory control in Indonesian context. In a country with lower degree of shareholders protection, ownership concentration tends to have negative impact on Capital Adequacy Ratio (Shehzad et al. (2010)). Thus the adverse impact of ownership concentration observed in this paper may be driven by lower shareholders protection in Indonesia.

3.2. The Effect of Ownership Concentration on Bank Performance Conditional on Insider Ownership

In this section, we investigate the impact of ownership concentration on bank performance conditional on insider ownership and commissioners. We use fixed effect pooled regressions to estimate the model (2). Since in multiplicative model, inferences for regression coefficients can not be done independently, we also calculate the marginal effect of ownership concentration conditional on insider ownership and commissioners. We calculate standard errors for multiplicative model using methodology of Aiken and West (1991).

Table 3 shows results from insider ownership regressions. In panel (a), we use number of insider ownership, while in panel (b), we use percentage of insider ownership, for insider ownership variable. The results are consistent with that in table 2. Ownership concentration has negative impact on bank profitability, and increase bank risk. The interaction terms seem to show that insider ownership reduces the adverse impact of ownership concentration on bank performance.

== INSERT TABLE 3 ==

As mentioned before, in multiplicative model, one should interpret the effect of ownership concentration on bank performance conditional on insider ownership. Figure 1 facilitates the interpretations for our multiplicative model. We only take three independent variables: Return On Assets, Non Performing Loan, and Capital Adequacy Ratio, to illustrate our findings. In panel (a), we use number of insider ownership, while in panel (b) we use percentage of insider ownership. Let us start

with Figure 1 panel (a). Ownership concentration has negative effect on Return On Assets when number of insider ownership is small (one or less) and the effect is significant. When number of insider ownership increases, the negative effect of ownership concentration on Return On Assets disappears. In fact, the effect changes into positive ones, although the effect is not significant statistically. This pattern seems to suggest that insider ownership reduces the negative effect of ownership concentration on bank Return On Assets. In panel (b), we observe that ownership concentration increases Non Performing Loan when the number of insider ownership increases, although it is not significant. In panel (c), ownership concentration has negative relationship with CAR. The negative impact becomes larger when number of insider ownership is higher. The effect is significant statistically. Panel (b) show results when we use percentage of insider ownership, rather than number of insider ownership. The result in panel (b) is qualitatively same.

== INSERT FIGURE 1 ==

This finding seems to suggest that insider ownership increases bank profitability but also increases bank risk. This finding seems to be consistent with Saunders et al. (1990), who find that stockholders banks (defined as banks in which management own substantial shareholdings) increases risk taking behavior, while management banks (defined as banks in which management own small portion of shareholdings) reduces risk taking behavior.

3.3. The Effect of Ownership Concentration on Bank Performance Conditional on Bank Commissioners

We expect that commissioners provide ‘check’ to stockholders, thus reducing the adverse impact of ownership on bank performance. Table 4 shows regression results of model (3). Ownership concentration reduces bank profitability, but unlike findings from previous section, ownership concentration reduces non-performing loan and loan loss provision. Ownership concentration still has negative regression coefficients when we introduce commissioners. The interaction terms show that commissioners reduce the negative impact of ownership concentration on bank ROA, ROE, and CAR. However, commissioners reduce the negative impact of ownership concentration on bank Non Performing Loan and Loan Loss Provision.

== INSERT TABLE 4 ==

Figure 2 provides graphical illustration of the effect of ownership concentration on bank ROA, NPL, and CAR, conditional on commissioners. In panel (a), we use number of commissioners, while in panel (b), we use number commissioners divided by log natural of total assets. Panel (a) figure 2 shows that ownership concentration has significant negative effect on Return On Assets when number of commissioners is small. When number of commissioners increases, the effect of ownership concentration on Return On Assets becomes positive but insignificant statistically. For Capital Adequacy Ratio, we observe that the story. Ownership concentration has negative coefficients on Capital Adequacy Ratio when number of commissioners is small. The effect becomes positive and significant statistically when number of commissioners is greater or equal seven. While for ROA and CAR, we observe that commissioners seem to improve bank performance (through ownership concentration), we observe inconsistent finding for NPL. For NPL, the effect of ownership concentration on Non-Performing Loan is negative when number of commissioners is small. As number of commissioners increases, the effect of ownership concentration becomes positive and significant statistically. Thus, when we look at Non-Performing Loan, number of commissioners do not seem to be effective in controlling bank risk taking.

== INSERT FIGURE 2 ==

In panel (b) of the same figure, we observe that as number of commissioners becomes large, ownership concentration has positive effect on Non-Performing Loan, and significant statistically. For CAR, ownership concentration has negative effect when number of commissioners is small and significant statistically. The pattern in figure 2 seems to suggest that ownership concentration increases bank risk taking, and number of commissioners does not seem to be able to reduce the negative effect of ownership concentration. This finding seems to support Pathan (2009) who argues that strong boards tend to increase banks' risk appetite.

4. Conclusion and implication

This paper examines the effect of ownership concentration on bank performance conditional on internal governance mechanisms. We use insider ownership and bank commissioners as internal governance variables that moderate the effect of ownership on bank performance. Examining unconditional effect, we find that ownership concentration reduces bank profitability, and increases bank risks. When we introduce insider ownership and commissioners, as internal governance

mechanisms, we observe that internal governance seems to reduce negative impact of ownership concentration on bank profitability. However, internal governance does not seem to reduce the negative effect of ownership concentration on bank risks. Our results highlight that effect of ownership structure on bank performance is complex. It may be affected by other variables. Policy makers should consider various variables when they want to introduce bank regulations.

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Table 1 Descriptive Statistics of Variables Used

This table reports statistic descriptive for variables used in this paper. The sample consists of around 54 banks and 24 quarters from year 2002 to 2008. Ownership concentration is calculated as the first largest shareholder. Insider ownership is defined as commissioners who are also registered as stockholders.

Variable	Number of Observations	Mean	Standard deviation	Minimum	Maximum
CAR (%)	1374	28.11	32.88	8.64	553.41
ROA (%)	1370	2.18	2.02	-9.43	18.2
ROE (%)	1374	13.71	14.52	-153.51	70.48
Total Assets (Rp million)	1381	18,654,985	47,248,493	53,416	303,435,870
Non Performing Loan (%)	1349	4.65	5.55	0.02	76.39
Loan Loss Provision (Rp million)	1343	449,711.61	1,421,856	0	11,804,003
Equity to Total Assets	1380	0.14	0.087	1.25E-06	0.62
Ownership Concentration (%)	1316	60.45	24.71	13.19	100
Number of Insider Ownership	1400	0.36	0.71	0	4
Percentage of insider ownership (%)	1400	0.098	0.24	0	2
Number of Bank Commissioners	1279	3.00	2.07	1	12
Bank Commissioner divided by log natural of Total Assets	1279	0.25	0.12	0.058	0.68

Table 2. Unconditional Effect of Ownership Concentration on Bank Performance

This table reports regression coefficients of the following model: Bank performance $_{(i,t)} = \alpha + \beta_1$ Ownership Concentration $_{(i,t)} + e_{(it)}$. Bank performance uses Return On Assets (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Loan Loss Provision/Total Loan, Loan Loss Provision/Total Assets, and Ratio of Equity to Total Assets (EQTA). In LLP1, we dividen Loan Loss Provision by Total Loan. In LLP2, we divide Loan Loss Provision by Total Asset. Ownership concentration is calculated as the percentage of the first largest stockholders. The data consists of 54 Indonesian commercial banks, and 28 quarters from year 2002-2008. All regressions include firm fixed effects. P-values are in parenthesis.

	ROA	ROE	CAR	NPL	LLP1 LLP/TL	LLP2 LLP/TA	EQTA
Intercept	2.7648 <0.0001	24.0762 <0.0001	19.6302 (<0.001)	3.5784 (<0.0001)	0.0214 (<0.0001)	0.0105 (<0.0001)	0.08189 (<0.0001)
Own	-0.01524 <0.0001	-0.0529 (0.0781)	-0.1017 (0.0232)	0.0037 (0.7194)	0.000091 (0.1291)	0.000045 (0.0564)	-0.00017 (0.1009)
R2	0.6051	0.4197	0.7498	0.5513	0.5305	0.5126	0.8013
Numb of Obs	1241	1244	1244	1219	1210	1210	1247

Table 3. The Effect of Ownership Concentration on Bank Performance Conditional on Insider Ownership

This table reports regression coefficients of the following model: Bank performance $_{(i,t)} = \alpha + \beta_1$ Ownership Concentration $_{(i,t)} + \beta_2$ Insider Ownership $_{(i,t)} + \beta_3$ (Ownership Concentration $_{(i,t)} * Insider Ownership_{(i,t)}) + e_{(i,t)}$. Bank performance uses Return On Assets (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Loan Loss Provision/Total Loan, Loan Loss Provision/Total Assets, and Ratio of Equity to Total Assets (EQTA). In LLP1, we dividen Loan Loss Provision by Total Loan. In LLP2, we divide Loan Loss Provision by Total Asset. Ownership concentration is calculated as the percentage of the first largest stockholders. The data consists of 54 Indonesian commercial banks, and 28 quarters from year 2002-2008. All regressions include firm fixed effects. P-values are in parenthesis.

(a) Insider Ownership is calculated using number of insider owners

	ROA	ROE	CAR	NPL	LLP1 LLP/TL	LLP2 LLP/TA	EQTA
Intercept	6.6039 (<0.0001)	81.4143 (<0.0001)	63.3125 (0.001)	9.8761 (0.0214)	0.3051 (<0.0001)	0.1292 (<0.0001)	0.1157 (0.0105)
Own	-0.01549 (<0.0001)	-0.0457 (0.1279)	-0.0778 (0.0904)	0.0036 (0.7295)	0.000166 (0.0038)	0.000067 (0.0035)	-0.0002 (0.06020)
Insd	0.0357 (0.8376)	1.3951 (0.3564)	2.8354 (0.2203)	-0.3630 (0.4818)	0,0058 (0.0437)	0.000068 (0.9528)	-0.0132 (0.0153)
Own*Insd	0.0068 (0.0178)	0.0483 (0.0537)	-0.0553 (0.1480)	0.0024 (0.7764)	-0.00003 (0.5457)	0.000021 (0.2836)	0.000065 (0.4653)
Total Asset	-0.2986 (0.0026)	-4.3809 (<0.0001)	-3.1975 (0.0146)	-0.4121 (0.1562)	-0.0206 (<0.0001)	-0.00847 (<0.0001)	-0.00116 (0.7057)
R2	0.6188	0.4511	0.7515	0.5523	0.5920	0.5764	0.8038
Numb of Obs	1238	1241	1241	1216	1207	1207	1244

(b) Insider ownership is calculated using percentage of shares held by insider owners

	ROA	ROE	CAR	NPL	LLP1 LLP/TL	LLP2 LLP/TA	EQTA
Intercept	7.0863 (<0.0001)	87.0852 (<0.0001)	67.8228 (0.0003)	9.0664 (0.0314)	0.321 (<0.0001)	0.1321 (<0.0001)	0.09204 (0.0375)
Own	-0.0145 (<0.0001)	-0.0335 (0.2642)	-0.0824 (0.0712)	0.0043 (0.6754)	0.000189 (0.0009)	0.000079 (0.0005)	-0.0002 (0.0564)
Insd	0.6909 (0.2703)	14.6305 (0.0072)	6.5963 (0.4250)	-0.2139 (0.9068)	0.0385 (0.0002)	0.0088 (0.0313)	0.000426 (0.1208)
Own*Insd	0.0039 (0.6646)	-0.0627 (0.4164)	-0.1343 (0.2526)	0.000051 (0.9984)	-0.0005 (0.0006)	-0.00012 (0.0453)	0.000426 (0.1208)
Total Asset	-0.3237 (0.0012)	-4.7605 (<0.0001)	-3.4604 (0.0082)	-0.3809 (0.1899)	-0.0217 (<0.0001)	-0.0087 (<0.0001)	0.000332 (0.9135)
R2	0.6138	0.4459	0.7514	0.5520	0.5930	0.5758	0.8039
Numb of Obs	1238	1241	1241	1216	1207	1207	1244

Table 4. The Effect of Ownership Concentration on Bank Performance Conditional on Bank Commissioners

This table reports regression coefficients of the following model: Bank performance_(i,t) = α + β_1 Ownership Concentration_(i,t) + β_2 Bank Commissioners_(i,t) + β_3 (Ownership Concentration_(i,t) * Bank Commissioners_(i,t)) + $e_{(i,t)}$. Bank performance uses Return On Assets (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Loan Loss Provision/Total Loan, Loan Loss Provision/Total Assets, and Ratio of Equity to Total Assets (EQTA). In LLP1, we dividen Loan Loss Provision by Total Loan. In LLP2, we divide Loan Loss Provision by Total Asset. Ownership concentration is calculated as the percentage of the first largest stockholders. The data consists of 54 Indonesian commercial banks, and 28 quarters from year 2002-2008. All regressions include firm fixed effects. P-values are in parenthesis.

(a) Number of Bank Commissioners

	ROA	ROE	CAR	NPL	LLP1 LLP/TL	LLP2 LLP/TA	EQTA
Intercept	6.4048 (0.00024)	98.5511 (<0.0001)	59.8324 (0.0023)	10.6937 (0.0161)	0.3476 (<0.0001)	-42088.1 (0.1124)	0.0827 (0.0712)
Own	-0.02988 (0.0009)	-0.1097 (0.0506)	-0.2328 (0.0056)	-0.0311 (0.1115)	-0.00017 (0.1114)	-545.494 (<0.0001)	-0.00049 (0.0117)
JumKom	-0.1670 (0.1506)	-1.7830 (0.0144)	-0.5041 (0.6438)	-0.1167 (0.6398)	-0.00776 (<0.0001)	-4335.24 (0.0031)	0.001223 (0.6308)
Own*JumK	0.00336 (0.0362)	0.0147 (0.1433)	0.0302 (0.0448)	0.00767 (0.0257)	0.000065 (0.0005)	121.0202 (<0.0001)	0.0007 (0.0462)
Total Asset	-0.1993 (0.1600)	-4.5838 (<0.0001)	-2.7195 (0.0401)	-0.4743 (0.1105)	-0.0201 (<0.0001)	4384.29 (0.0141)	-0.00073 (0.8138)
R2	0.4480	0.4321	0.7587	0.5586	0.6014	0.9193	0.8119
Numb of Obs	1172	1175	1175	1150	1141	1141	1176

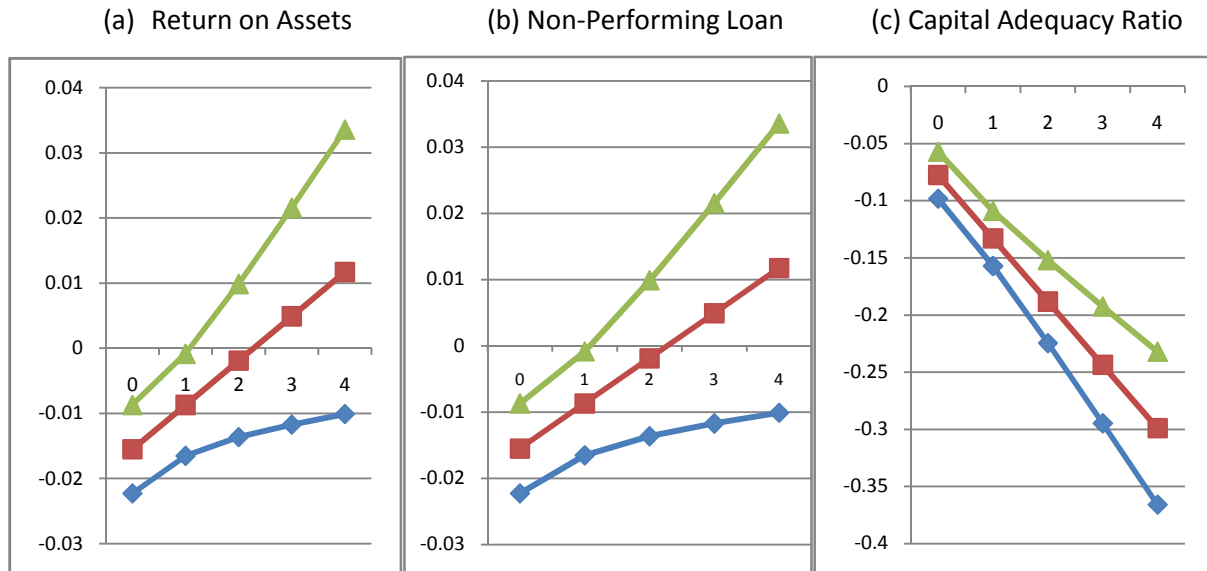
(b) Number of Commissioners Divided by Log Natural of Total Assets

	ROA	ROE	CAR	NPL	LLP1 LLP/TL	LLP2 LLP/TA	EQTA
Intercept	6.4295 (0.0032)	100.9417 (<0.0001)	51.9818 (0.0105)	10.1751 (0.0271)	0.3566 (<0.0001)	-44536.3 (0.1062)	0.0636 (0.1791)
Own	-0.030 (0.0013)	-0.0884 (0.1396)	-0.2184 (0.0148)	-0.0371 (0.0704)	-0.00003 (0.7813)	-567.901 (<0.0001)	-0.00058 (0.0057)
JumKom	-2.6617 (0.1643)	-21.0959 (0.0671)	0.6695 (0.9702)	-3.4187 (0.4009)	-0.0918 (<0.0001)	-77414.4 (0.0014)	0.01291 (0.7576)
Own*JumK	0.0553 (0.0441)	0.1678 (0.3297)	0.4134 (0.1087)	0.1378 (0.0179)	0.000611 (0.0576)	1941.62 (<0.0001)	0.001324 (0.0277)
Total Asset	-0.1987 (0.1600)	-4.8593 (<0.0001)	-2.4067 (0.0683)	-0.4037 (0.1739)	-0.0213 (<0.0001)	4814.75 (0.0072)	0.000612 (0.8426)
R2	0.4479	0.4309	0.7589	0.5581	0.5973	0.9185	0.8124
Numb of Obs	1172	1175	1175	1150	1141	1141	1176

Figure 1. Marginal Effect of Ownership Structure on Bank Performance Conditional on Insider Ownership

These figures show the effect of ownership concentration on bank performance conditional on insider ownership. Thus we show $\frac{\partial BankPerf}{\partial OwnStrc} = \beta_1 + \beta_2 (InsdOwn)$ in the middle line, and upper and lower 95% confidence interval. We illustrate the effect on three bank performances: Return On Assets, Non-Performing Loan, and Capital Adequacy Ratio. In Panel (a) we use number of insider Owners, while in Panel (b) we use percentage of shares owned by Insiders.

(a) Number of Insider Ownership



(b) Percentage of Insider Ownership

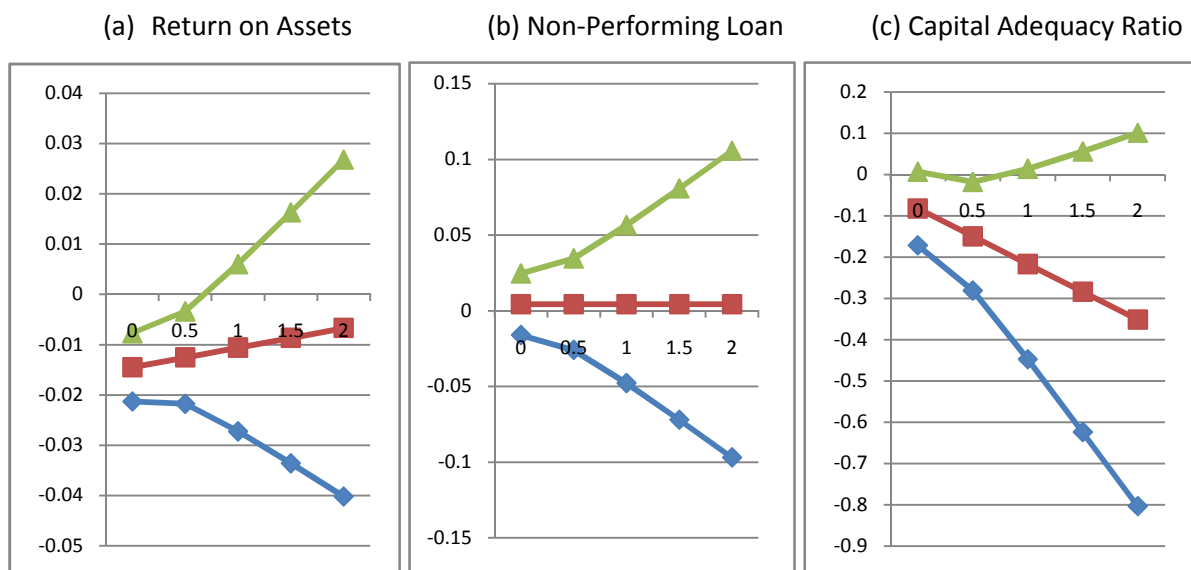
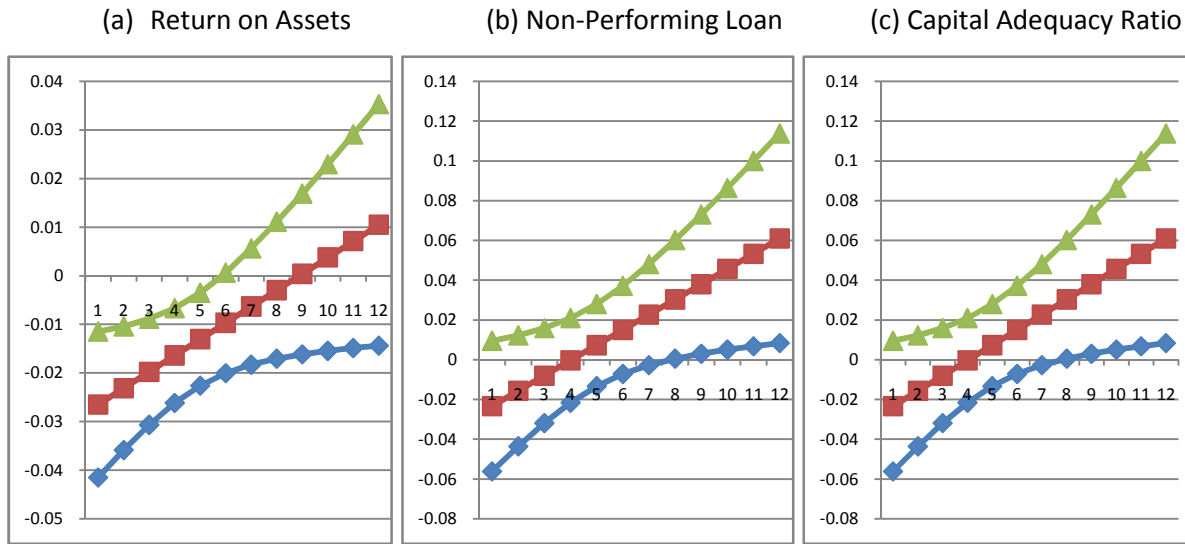


Figure 2. Marginal Effect of Ownership Structure on Bank Performance Conditional on Bank Commissioners

These figures show the effect of ownership concentration on bank performance conditional on insider ownership. Thus we show $\frac{\partial \text{BankPerf}}{\partial \text{OwnConc}} = \beta_1 + \beta_2 (\text{BankComm})$ in the middle line, upper and lower 95% confidence interval. We illustrate the effect on three bank performances: Return On Assets, Non-Performing Loan, and Capital Adequacy Ratio. In Panel (a) we use number of Bank Commissioners, while in Panel (b) we use Bank Commissioners divided by Log natural of Total Assets.

(a) Number of Commissioners



(b) Number of Commissioners divided by Ln of Total Asset

