

PERFORMANCE OF BANKS IN INDONESIA: A COMPARISON BETWEEN COMMUNITY DEVELOPMENT BANKS, GOVERNMENT BANKS AND PRIVATE BANKS

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**PERFORMANCE OF BANKS IN INDONESIA: A COMPARISON
BETWEEN COMMUNITY DEVELOPMENT BANKS,
GOVERNMENT BANKS AND PRIVATE BANKS**

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ABSTRACT

A unique characteristic of Indonesian banking system is the existence of community development banks, which is owned by local governments. This study examines the performance of this type of banks compared to private and federal government banks. The sample of this study consists of 15 community development banks, 56 private banks, and 3 federal government banks from 1995 to 2006. Using panel data methodologies, we find that community development banks perform at least as good as the other types of banks. There are two possible explanations for this finding.

First, the survival of local government depends on the performance of local banks. Mismanagement of banks might indicate the incompetence of local elected officials. Thus the officials have more incentives to monitor local banks. Second, loans are given out only to civil servants. Since it is very difficult to terminate the employment contracts of civil servants, these loans represent low risk investments to the banks. To our knowledge, this is the first study that looks at the performance of community development bank in comparison with other types of banks in Indonesia.

Fields of Research: Corporate Finance; Banking

1. INTRODUCTION

It cannot be denied that banks play an important role in any economy – be it a developed economy, a developing economy or underdeveloped economy. The reason is that banks are able to allocate funds from savers to borrowers in an efficient manner. It is for this reason that banks play an important role in the economic life of a nation because if there were no banks, a great portion of a capital of the country would remain idle.

The principal types of banks in the modern industrial world are commercial banks which are typically private owned banks and government owned banks. The objectives of these two banks are similar where they focus on maintaining higher profitability. These two types of banks can be found in most countries in the world, but the uniqueness of Indonesian banking system is that there is another category of banks, which is called the community development banks.

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 more smaller than the private and the publicly owned banks.

The commercial banks and the community development banks serve different niche of customers. They also have different ways of carrying out their duties and cater for different market. Hence this study will try to identify whether the ownership pattern will affect the bank performance. Research have shown that private banks are better because their motive of profitability will forced them to work hard to ensure that they get the maximum profit as they can. But what about the community banks? They also give loans or credit to local people and perform other functions of a bank – do they perform better than private banks or the other way round? These are the questions that the study wishes to answer.

2. LITERATURE REVIEW

There have been numerous studies on bank ownership and its relationship with performance where performance is measured by return on assets and return on equity. Panayiotis et al. (2006) find that the ownership structure does not play a significant role in banks performance. Barros et al. (2007) use 7,635 observations from 1,384 European commercial banks for a period of 1993 to 2001. Their study finds that ownership structure does play a role in the performance of the banks. These findings are confirmed by Lin and Zhang (2008) where by using data from China for a period from 1997 to 2004, they find that the performance of banks owned by government are typically operating at a lower profit and lower efficiency when compared with private and foreign banks. Micco et al. (2007) find that government owned banks have significant negative relationship with performance in developed countries while foreign banks have positive relationship with performance in these countries. The study finds that government owned banks tend to have a low profit with higher operating costs which is in contrast to foreign banks. Cornett et al. (2010) show that besides having lower profitability state-owned banks also held lower core capital and had greater credit risk compared privately owned banks prior to 2001, that is periods around the Asian financial crisis. Micco et al. (2007) look at the relationship between bank ownership and performance in the industrialized economy and developing countries. The results show that in developing countries, government banks typically have lower profitability, lower margin and higher overhead cost than private banks. This results is in contrast with foreign banks. For industrialised countries, the study find that there is no correlation between ownership and performance. Omran (2007) and Fries and Taci (2005) show that the performance of private banks are better than banks owned by government.

Many studies have documented that banks owned by government normally have lower profit, higher operating costs and low quality of assets compared to banks owned by private party (Berger et al., 2005). Berger et al. (2005) find that government banks in Argentina increase their performance after being privatized. Cornett et al. (2010) look at differences in performance of government owned banks and private banks in 16 countries for the period 1989 and 1998. Overall, they confirm previous findings that government owned banks have lower profit and lower amount of capital, higher risk and less liquid. By using a sample of 100 banks in developed countries, Mian (2006) conclude that the lower performance of government owned banks are the results of inefficient management and they depend on government support to stay alive.

A few studies have also shown that government owned banks distort the economic development of a nation (La Porta et al., 2002; Galindo & Micco, 2004). The reason is that the purpose of these banks are more towards political agenda rather than economic and social agenda. La Porta et al. (2002), for example, show that bank owned by government in 1970's is related to low financial and economic development.

Barth et al. (2004) study find that government owned banks have negative relationship with profit but positive relationship with corruption. Micco et al. (2006) find the lending performance of government owned banks increased as election time gets nearer.

Studies in Indonesia, so far have looked into the performance of banks but did not study the effect of ownership structure on the performance of banks. For example, Surifah (2002) analyze the performance of Indonesian banks before and after economic crisis using the CAMEL (Capital, Assets, Monitoring, Efficiency and Liquidity) ratio. The study show that these ratios differ significantly before and after the economic crisis. Payamta and Machfoedz (2002) evaluate Indonesian banking performance before and after the banks going public while Luciana and Winny (2005) look at factors that contributes to financial distress in banking sector.

3. DATA AND METHODS

The population consists of 102 banks which are 5 government banks, 71 private banks and 26 community development banks. The study did not include foreign banks and mixed bank because of difficulty in getting the data. From the 102 banks, only 74 banks were selected to be the sample. The banks are 56 private banks, 3 government banks, and 15 community development banks, a total of 74 banks altogether. The period under study is from 1995 to 2006. The data are taken from banks' annual reports.

To test if state ownership influences performance of banks, the following model is estimated:

$$ROA_{it} = \beta_0 + \beta_1 * D4GB_{it} + \beta_2 * D4CDB_{it} + \beta_3 * EG_{it} + \beta_4 * D4EQ_{it} + \beta_4 * D4CRISIS_{it} + Z^T \alpha + e_{it}$$

where

ROA_{it} : Return on asset of bank i in period t ,

$D4GB_{it}$: A dummy variable that takes on a value of one if bank i is controlled by central government in period t , zero otherwise,

$D4CDB_{it}$: A dummy variable that takes on a value of one if bank i is controlled by local government in period t , zero otherwise,

EG_{it} : Economic growth experienced in period t where economic growth is measured by GDP growth rate,

$D4EQ_{it}$: A dummy variable that takes on a value of one if bank i has equity in excess of 100 million rupiah in period t , zero otherwise,

$D4CRISIS_{it}$: A dummy variable that takes on a value of one if t is from 1997 to 1999, zero otherwise,

Z : A matrix of control variables, which included natural logarithm of total assets (lnassets), total equity to total asset (E2TA), operating costs to operating income (BO2PO), operating costs to total assets (PO2TA), current assets to total assets (AC2TA) and deposit to total loans (D2LOAN).

e_{it} : error term of bank i in period t .

Variables

The dependent variable is return on assets. The independent variables are as follows:

1. Banks ownership: It has been documented that ownership structure play a role in banks performance. Types of ownership can influence banks decisions. Since there are three types of banks, we use two dummy variables. D4GB takes on a value of one for government-controlled banks and zero otherwise while D4CDB takes on a value of one for community development banks and zero otherwise. Based on the literature, we expect that both coefficients should be negative.

2. Economic growth: We expect that during good period, banks' profits would rise as borrowers are more willing to borrow to finance either their consumption or investment. Given that during the period of this study, Indonesia experienced fluctuating economic performance, we expect that economic growth has a positive impact on ROA.

3. Equity: It is the intention of Indonesian government to increase the equity amount of banks to at least 100 million rupiah to withstand economic uncertainties. This study will test the appropriateness of this decision. If smaller banks are less likely to withstand severe economic downturn, then the coefficient of equity, which will be proxy by D4EQ, should be positive. However, it could also be argued that smaller banks will be more responsible in their lending activities since they know that imprudent lending decision would more likely to lead to bankruptcy as compared to larger banks.

4. Crisis period: Indonesia experienced both economic and political crisis following Asian financial crisis in 1997 that ultimately lead to the downfall of Suharto. Thus it is the intention of this study to investigate if the crisis affects bank performance. We expect that crisis would lead to more uncertainties, less willingness to borrow, and less ability to pay. Thus, crisis would affect ROA negatively. Crisis will be measured by using D4CRISIS, a dummy variable that takes on a value of one for the period from 1997 to 1999, zero otherwise.

5. Control variables: There are six financial control variables that are used in this study. Those variables are:

- A. Capital structure: A bank that carries a high level of debt may face the problem of not being able to service the debt in the future, hence affecting the performance. Capital structure is measured by equity to total assets.
- B. Banks risk: The smaller is the risk, the higher would be the profit, hence the higher the performance. Risk is measured by liquid assets or current assets to total assets.
- C. Efficiency: The more efficient is the bank, the higher will be the profit. Efficiency can be divided into two categories which are cost efficiency and profit efficiency. Cost efficiency is measured by operating cost to operating profit. Profit efficiency is measured by operating profit to total assets.
- D. Size: Size also plays a role in performance. The bigger is the size of a bank, the better would be the performance of a bank. Size is measured by natural log of assets.
- E. Deposits: Deposits given by depositors to a bank can increase the banks profit since they are being serviced by a lower cost of interest. Deposits are measured by deposits to total loan.

4. FINDINGS AND DISCUSSION

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Table 1: Comparisons of mean (standard deviation) of selected variables between different types of banks

Variables	Private banks (n=672)	Community development banks (n=180)	Government banks (n=36)	Significant difference
Total assets	5,888,263,308,119 (17,216,649,359,33)	2,705,277,110,697 (3,388,437,285,49)	65,075,719,062,671 (47,834,105,072,59)	a, d, g
Total equity	325,201,955,434 (2,471,358,412,290)	223,679,169,368 (291,013,420,157)	2,051,270,550,874 (11,089,950,599,00)	ns1, ns2, ns3
Total current assets	4,815,776,275,889 (14,952,155,905,34)	2,571,385,690,471 (3,340,546,189,27)	54,643,861,980,301 (42,156,575,382,13)	a, d, g
Total debt	5,563,061,352,685 (16,148,294,740,00)	2,481,597,941,329 (3,117,959,152,00)	63,024,448,511,797 (42,831,945,446,45)	a, d, g
Total deposit	6,101,843,953,800 (27,396,327,296,33)	1,873,817,998,063 (2,865,820,804,829)	55,903,735,104,231 (45,279,184,243,146)	a, d, g
Total loan	2,301,946,832,554 (5,962,466,543,665)	1,101,807,508,874 (1,624,482,045,201)	29,362,901,495,626 (22,071,834,129,449)	a, d, g
Operating costs	705,859,540,863 (2,472,108,470,777)	117,898,818,331 (144,081,534,062)	9,194,995,073,540 (11,753,955,768,503)	a, d, g
Operating income	720,426,127,403 (2,475,831,402,165)	187,708,216,487 (250,221,517,324)	1,868,839,009,171 (10,843,820,994,740)	a, ns2, ns3
Net income	-121,599,584,877 (2,118,300,115,365)	49,304,411,726 (83,151,837,810)	-1,213,154,933,578 (10,079,114,101,965)	b, ns2, ns3
Return on assets (ROA)	0.293% (9.146%)	1.729% (2.537%)	-6.638% (31.070%)	a, ns2, ns3
Return on equity (ROE)	7.885% (78.592%)	21.770% (95.041%)	81.048% (231.147%)	b, f, ns3
Equity to assets (E2TA)	12.237% (12.755%)	9.181% (3.904%)	-5.428% (35.430%)	a, d, h
Operating costs to operating income (BO2PO)	81.393% (1.89533%)	87.265% (104.67%)	272.092% (649.395%)	ns1, f, i
Operating costs to assets (PO2TA)	8.787% (11.358%)	10.310% (15.455%)	6.573% (31.174%)	ns1, ns2, ns3
Current assets to total assets (AC2TA)	91.618% (18.441%)	92.211% (16.693%)	87.461% (20.843%)	ns1, ns2, ns3
Deposits to loans (D2TPIN)	246.159% (302.217%)	214.261% (210.891%)	267.152% (465.144%)	ns1, ns2, ns3
Natural logarithm of assets (LNASSET)	27.37547 (1.88338)	27.85738 (1.37877)	31.50691 (0.81903)	a, d, g

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 1 shows that in term of size, government-owned banks are the largest followed by private banks. Government banks are about 24 times larger than community development banks and 11 times larger than private banks. Subsequently they have the greatest amount of current assets, debt, deposit, financing, and operational costs. However, in term of profits, either operational or net, their amount is not statistically different from the other two types of banks. In fact, in term of net profit, only community development banks show positive amount. Net profit between community development banks and private banks is significantly different at 5%. Community development banks have better ROA than government or private banks but the different is only significant between community development banks and private banks at 1%. In term of ROE, government banks have the highest ROE but it is not statistically significantly different to community development banks. ROE of either community development banks or government banks is significantly higher than that of private banks.

Table 2 presents the pooled regression results without adjusting standard errors for heteroscedasticity. To ensure that there is no problem of multicollinearity, variance inflation factor (VIF) are estimated and since the results show that the VIF are below 10, there is no problem of multicollinearity. Except for D2LOAN, D4GB, D4EQ, D4CRISIS, the rest of the variables are significant at 1% level. The results show that in term of bank ownership, community development banks have ROA of 2.92% higher than private banks and it is significant at 1%. These results seem surprising from agency theory as managers of community development banks have no ownership interest in banks. Thus we expect that there would be higher agency problem for these types of banks. However, positive coefficient of community development banks could be explained in terms of their lending activities. These banks lend to government staff and it is very difficult to terminate the employment contract of government staff. Thus these types of customers have the ability to pay even during economic downturn and the risk of community development bank is less. Second explanation is that since they only serve in one province they have specialized knowledge about that province. A third explanation is that since the survival of local government depends on the performance of local banks, mismanagement of these banks might indicate the incompetence of local elected officials. Thus the officials have more incentives to monitor local banks. In contrast, government banks have negative relationships with performance and are not significant. Capital structure and size of banks are significant in explaining the performance of a bank. These suggest that bigger banks and banks with lower leverage perform better. One possible explanation is that during this period, there are a lot of uncertainties in Indonesia which affects the relationship between cost and profit efficiencies and performance. Cost efficiency has positive relationship with performance whereas profit efficiency has negative relationship with performance. Liquidity is also related to performance of a bank and is significant at 5% level. The higher is the liquidity of a bank, the higher would be the performance of the bank.

Table 2: Pooled Regression on bank performance without adjusting for standard errors

Number of obs = 888
 F(11, 876) = 116.20
 Prob > F = 0.0000
 R-squared = 0.5934
 Adj R-squared = 0.5883
 Root MSE = .06576

ROA	Coef.	Std. Err.	t	P> t
E2TA	.5541837	.0188272	29.44	0.000
BO2PO	.0036624	.0010445	3.51	0.000
PO2TA	-.0720805	.0173191	-4.16	0.000
AC2TA	-.0400613	.0124216	-3.23	0.001
D2LOAN	.0009689	.0007894	1.23	0.220
D4CDB	.0291628	.0055912	5.22	0.000
D4GB	-.0066652	.0128014	-0.52	0.603
EG	.001654	.0005425	3.05	0.002
D4EQ	.0117712	.0113668	1.04	0.301
D4CRISIS	-.0037163	.0066627	-0.56	0.577
LNASSET	.0058194	.0014585	3.99	0.000
_CONS	-.2020367	.0421534	-4.79	0.000

Table 2 is based on normal standard errors. When we test for heteroscedasticity using Breusch-Pagan test, we find that we can reject the null hypothesis of equal variances. Thus, a better estimation model should account for heteroscedasticity. Table 3 reports the results based on adjusted standard errors using heteroscedasticity-adjusted standard error. We find that only four coefficients are significant as compared to seven previously.

The results in Table 3 confirm that community development banks have positive and highly significant relationships with performance while government banks do not. The results contradicts findings in Micco, Panizza and Yanez (2007) where we find that community development banks perform better than private banks and government owned banks perform as good as private banks. Compared to previous results, the findings also show that capital structure, size and economic growth are significant in explaining bank's performance

Finally, we estimate our model using random effects. The results in table 4 confirm the previous findings where the community developments banks perform better. Government banks maintain the negative relationships with performance and are not significant.

Table 3 : Regression with robust standard errors

Number of obs = 888
 F(11, 876) = 8.37
 Prob > F = 0.0000
 R-squared = 0.593
 Root MSE = .06576

ROA	Coef.	Robust Std. Err	t	P> t
E2TA	.5541837	.0801515	6.91	0.000
BO2PO	.0036624	.0029783	1.23	0.219
PO2TA	-.0720805	.0812699	-0.89	0.375
AC2TA	-.0400613	.0189155	-2.12	0.034
D2LOAN	.0009689	.0009188	1.05	0.292
D4CDB	.0291628	.0037361	7.81	0.000
D4GB	-.0066652	.0324025	-0.21	0.837
EG	.001654	.0009951	1.66	0.097
D4EQ	.0117712	.0236694	0.50	0.619
D4CRISIS	-.0037163	.0071864	-0.52	0.605
LNASSET	.0058194	.0018178	3.20	0.001
_CONS	-.2020367	.0710244	-2.84	0.005

Table 4: Regression with random effects

Number of obs = 888
 Number of groups = 74
 Wald chi2(11) = 1281.29
 Prob > chi2 = 0.0000

ROA	Coef.	Std. Err.	z	P> z
E2TA	.5584666	.018889	29.57	0.000
BO2PO	.0036752	.0010417	3.53	0.000
PO2TA	-.071898	.0174004	-4.13	0.000
AC2TA	-.0421403	.0124499	-3.38	0.001
D2LOAN	.0010005	.0007961	1.26	0.209
D4CDB	.0292798	.0058849	4.98	0.000
D4GB	-.0068172	.0134219	-0.51	0.612
EG	.0016385	.0005394	3.04	0.002
D4EQ	.0107097	.0115586	0.93	0.354
D4CRISIS	-.0036367	.0066287	-0.55	0.583
LNASSET	.0060282	.0015079	4.00	0.000
_CONS	-.2054537	.0433732	-4.74	0.000

The results also show that the economic crisis during the period from 1997 to 2000 does not play any role in the performance of a bank in Indonesia. The Breusch and Pagan Lagrangian multiplier test (LM) test shows that random effect is a better estimation technique compared to pooled OLS. Therefore, our study chooses the random effects model as our estimation technique. The results of random effects model are similar to the results of pooled OLS without adjustment for heteroscedasticity with seven significant variables.

5. CONCLUSION

In this paper, we examine the performance of community development banks, government owned banks and private banks in Indonesia from 1995 to 2006. Our study uncovers interesting results. We find that community development banks perform better than private banks and government owned banks perform as good as private banks. This study also shows that economic growth plays a significant factor in explaining banks performance. However, the study also reveals that dummy for equity is not significant, therefore it shows that Indonesian government decision to introduce equity of 100 m rupiah might not affect performance.

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