

IS THERE A TRADE-OFF BETWEEN CAPITAL ADEQUACY AND PROFITABILITY?

(Empirical Study on Commercial Banks in Indonesia)

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Abstract

This study aims to find out the impact of Capital Adequacy Ratio (CAR) and Third Parties Fund towards Lending and Return on Asset (ROA). The population in this study are all of Public Banks in Indonesia registered in Indonesia Stock Exchange in the period of 2012-2015. The Sample taken by purposive sampling of 15 Public Banks in Indonesia. This study uses data panel in the form of Public Banks financial report registered in Indonesia Stock Exchange. The used analytical method of this study is path regression analysis. The result of this study shows that Capital Adequacy Ratio (CAR) gives negative impact and significant towards Return on Asset. The finding of this research is lending becomes mediator between third parties fund (funding) and Return on Asset. Third Parties Fund has high contribution in increasing profitability through Lending.

Keywords: Capital Adequacy Ratio, Funding, Lending, Return on Asset

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JEL Classification: G23**Introduction**

The fundamental propose of banking business is to get optimal benefit by providing financial service for the people. The main function of bank is to collect funds in the form of deposit and providing them for investment (Oldfield, 1976). Banks obtain benefit through loan and make expenses related to the criterion (Acharya, 2003) which means that the larger banking organization, the larger benefits and expenses as well. The competition among national banks and international banks and new technology changes lead to a great changes in financial dan monetary banks (Spathis, Kosmidoua & Doumposa, 2002), thus, identifying the impact to the benefits of the banks is the main purpose of research in business field nowadays (Baggs & Brandor, 2006).

Under the Law No.10 year 1998 article 1 section 2 on banking said that banks are business agency which collects funds from people in the form of deposit and distribute them to the people in the form of credit and/ or in other form in order to increase people's living standard. 2 kinds of banks in Indonesia are Public Bank and Rural Bank BPR). Credit is the main revenue of a bank and also has higher risk in the business, therefore, in managing credit needs good management of credit, from the amount of credit, rate of interest finding, credit procedure, lending analysis, till controlling non-performing loan. The regulation of Bank of Indonesia number: 13/1/PBI/2011 mentions that factors that influence credit/ loan offer is the internal condition of the bank such as financial aspect whixh can be seen through Capital Adequacy Ratio (CAR) and Third Parties Fund (funding) the bank has been collected.

Financial performance is one of the benchmark of management success in managing resources optimally (Nuresya, 2008). For bank financial organization, financial performance shows how the orientation of management in running the organization and accommodating management concern (managers), stockholders owner), clients, monitary authority, or people with banking activities. One of the main indicators used as basis in financial is the financial report of the bank. Here is the table of performance development and financial ratio of Public Bank in the period of 2012 - 2015:

Table 1. Performance development and financial ratio of Public Bank in the 2012 - 2015

Ratio	2012	2013	2014	2015
ROA	3,11%	3,08%	2,85%	2,32%
Lending	2.597.026	3.158.09	3.526.36	3.903.93
		9	4	6
CAR	17,43%	18,13%	19,57%	21,39%
Funding	3.107.385	3.520.61	3.943.69	4.238.34
		6	7	9

Sources: Indonesia Banking Statistic, 2015

Capital Adequacy Ratio (CAR) is the indicator of bank's capability to cover the lowering of assets as the consequent of losing assets caused by risky assets. The greater CAR becomes, then ROA obtained by the bank will also be great, because the greater CAR becomes, then the higher capital of the bank will be, so that causing the bank able to expand their business safely. Business expansion can give effect on financial performance of the bank. If the value of CAR is high (according to Bank of Indonesia's clause 8%) means that the bank is able to run the bank management operation, that beneficial condition will give big contribution in profitability (Mudrajad, 2002).

According to table 1, seen that performance and financial ratio in Public Bank for 2012 – 2015 period had been fluctuated in each year. It also shows that in each year, the profitability ratio on ROA was decreasing meanwhile it were increasing on the CAR side. This phenomenon is in contradiction to the research of Ahmad et.al (2009) and Asikhia and Sokefun (2013) which say that there is positive relation between profitability and adequacy of capital. This relation is an ambiguous relation on bank stability (Eichberger & Summer, 2005). The difference between assets and deposits is called capital in banks and if this ratio is larger, deposits will be safer and at a level the capital will adequate for the enough safety of deposits (Sharpe, 1978).

The first study about adequacy of capital as determinant of bank profitability shows that the high ratio of adequacy of capital indicates that the bank is running carefully and ignoring the trade opportunity which can give potential benefit (Goddard, Molyneux, dan Wilson 2004), that indicates there is negative relation between equity ratio towards assets and bank performance. Some researches relate to Return on Asset (ROA) as a proxy of bank financial performance give different result such as the research of Numair et.al (2015) explains that Capital Adequacy Ratio (CAR) give negative effect on Return on Asset (ROA).

Research on Return on Asset (ROA) as a proxy of bank financial performance give different result such as the research of Sehrish et.al (2011) shows that Third Parties Fund (funding) influencing negatively and significantly on *Return on Asset* (ROA).

Some researches shows that the banks with higher assets performing better than undercapitalized banks. Staikouras and Wood (2003) claims that there is positive relation between equity and bigger profitability among European Union banks. Abreu dan Mendes (2001) also trace the positive effect of equity level towards profitability. Goddard et al. (2004) supports previous research about positive relation between capital ration compare to asset and bank revenue.

Some previous researches explained above shows inconsistent result between adequacy of capital and profitability. According to the business phenomenon and research gap, so to fill out the gap, research on adequacy of capital and bank financial performance adding funding variable with lending as intervening variable expanded. This research means to give empirical proof about the impact of CAR, Funding on Lending and Profitability.

Literature Review

ROA (Return on Assets) is the percentage which shows the company's assets profitability in generating revenue (Tarawneh, 2006) but it is considered as more volatile (Baucus, Golec & Cooper, 1993). *Return On Asset* calculated with the formula of:

$$ROA = \frac{EAT}{TotalAsset} \times 100\% \quad [1]$$

It is the ratio in Percentage of a financial institution's primary capital to its assets, used to calculate of its financial strength and stability (Jagirdar, 1996) and there is a strong positive relationship between profitability and capital adequacy (Ahmad, Ariff & Skully, 2009). This ration is formulated as :

$$CAR = \frac{Capital}{Risk - weightedasset} \times 100\% \quad [2]$$

Lending is distributing credit or fund in million rupiah. Funding is resource of third parties fund or people's fund, is funds which is from people, both individual or organization obtained by the banks using various deposit product instruments owned by the banks. People's fund is he greatest fund owned by the banks and fit in with its function as collector of fund from excess fund parties in society (Kuncoro and Suhardjono, 2002). The higher funding gets, the higher lending becomes.

Hyphotesis

- H1 : CAR has a significant positive effect on Lending of commercial banks in Indonesia.
- H2 : Funding has a significant positive effect on Lending of commercial banks in Indonesia.
- H3 : CAR has a significant positive effect on the ROA of commercial banks in Indonesia.
- H4 : Funding has a significant positive effect on the ROA of commercial banks in Indonesia.
- H5 : Lending has a significant positive effect on the ROA of commercial banks in Indonesia.

Research Method

This research is using panel data. Secondary data needed in this study is financial report of Public banks and registered in Indonesia Stock Exchange in the period of 2012-2015. The population is 44 Public Banks in Indonesia registered in Indonesia Stock Exchange of 2012-2015 periods. The samples are 15 Public Banks with the criteria of purposive sampling. the variables consist of dependent variable ROA, lending as intervening variable, and Capital Adequacy Ratio (CAR) dan Funding as independent variables. The data analysis method uses path analysis with the sub structural equation:

$$lending = \beta_1 CAR + \beta_2 funding + \varepsilon_1 [3]$$

$$ROA = \beta_3 CAR + \beta_4 funding + \beta_5 lending + \varepsilon_2 [4]$$

Result and Discussion

The data collected from different banks are analyzed in SPSS software and their results are pasted and interpreted as under:

Table-2. Correlation Matrix of Capital Adequacy, Funding, Lending and Return on Assets

		CA R	Funding	Lending	ROA
CAR	Pearson Corr	1	-0,084	-0,072	-0,447**
	Sig. (2-tailed)		0,524	0,585	0,000
	N		60	60	60
Funding	Pearson Corr		1	0,921**	0,654**
	Sig. (2-tailed)			0,000	0,000
	N			60	60
Lending	Pearson Corr			1	0,659**
	Sig. (2-tailed)				0,000
	N				60
ROA	Pearson Corr				1
	Sig. (2-tailed)				
	N				60

**Correlation is significant at the 0,01 level (2-tailed)

Tabel 2 shows that CAR has significant negative correlation on ROA. CAR has negative correlation but not significant on lending. Funding has significant positive relation to Lending and ROA. It indicates that funds used for lending depends on third parties fund.

Table-3. Regression coefficients, standard errors in parentheses, t-values and p-values

Dependent Variable	CAR	Funding	Lending	R ²
Lending	0,005 (0,919)	0,921 (0,000)** *		0,848
ROA	-0,397 (0,000)* **	0,265 (0,224)	0,386 (0,078)*	0,606

The regression result of sub structural equation1 and 2 with path analysis on the table 3 informs that funding has significant positive effect on lending. Lending depend on funding or

third parties fund. CAR has negative effects on ROA. This indicates that there is a trade off between safety factor and the profitability of banks. The better the capital adequacy will lower profitability. The ability of banks in Indonesia to cover the decline in its assets as a result of bank losses caused by assets at risk of banking is high so that bank security is maintained. The use of funds for lending in order to generate profitability to be less effective

Table-4. Hypothesis Test Result

Hypothesis		Sig	
H1	CAR→Lending	0.919	Not Proven
H2	Funding→Lending	0.000	Proven
H3	CAR→ROA	0.000	Not Proven
H4	Funding→ROA	0.224	Not Proven
H5	Lending→ROA	0.078	Proven

Table 4 explains that Capital Adequacy Ratio (CAR) gives insignificant positive effects on lending (H1). It indicates that the capability of the banks in covering the decreasing of its assets as the result of banks' loss caused by risky assets including lending.

This study finds that Capital Adequacy Ratio (CAR) has significant effect on Return on Asset (ROA) in opposite way (H3 not proven). It indicates if CAR increases, so Return on Asset (ROA) will decrease. This result is not in the same line as (Goddard, Molyneux, and Wilson 2004); Ahmad et.al (2009) and Asikhia and Sokefun (2013) who said that adequacy of capital is the bank profitability maker shows that its high explains that the banks is carefully running the management and avoiding beneficial potential trade opportunities. This study's result supports Numair et.al (2015) which states that Capital Adequacy Ratio has negative effect on Return on Asset (ROA). The availability of fund deposited by Bank of Indonesia just for reserve fund and covering their loss as the result of banks' loss caused by risky assets, so lots of idle assets, it can be seen from the average of CAR ration Public Bank 17,47% which is already pass the minimum liability of capital provision 8% from assets considering risks.

This analysis finds that funding has significant positive effect on Lending, it supports the theory mentioned above that with high Third Parties Fund so the banks have the great source of fund to redistribute in the form of lending, which from the lending, the bank will get revenue from the interest of credit will increase the bank lending.

Funding (the Third Parties Fund) gives insignificant positive influence on Return on Asset. This is in the same line as the theory explained above that Lending has positive effect on profitability (ROA). With the high Funding so the banks has greater source of fund to redistribute in the form of lending, which from the lending, the bank will get revenue from the interest of credit will increase the banks profitability or Return on Asset (ROA), however capital used for lending is not only from people's fund (giro, savings and deposits), the banks

use their own assets so it gives impact on funding which influences Return on Asset (ROA) insignificantly.

The result of the effect of Lending on Return on Asset(ROA) shows an significant positive effect at $\alpha 10\%$ ($p=0,078$), it means if Lending increases so does profitability or *Return on Asset* (ROA), however the banks in giving a lend needs good analysis, because distributing credit without a good analysis will only increase non-performing loans that gives impact on profitability of the banks.

Table-5. Direct, Indirect and Total Effect

	Path Coefficient		TE
	DE	IE	
CAR→ROA	-0.397		
Funding→ROA	0.265		
CAR→lending→ROA		0019	-0.395
Funding→lending→RO		0.355	0.620
A			

Table 5 explains about direct and indirect effects. Based on the result of first and second equations shows that variable Lending is not effective in mediating the impact of Capital Adequacy Ratio (CAR) on Return on Asset (ROA). The direct effect of CAR on Return on Asset(ROA is more dominant in the opposite). It indicates that the banks are very carefully in giving loans. The using of assets in Lending is not effective. This is not in the same way with Mudrajat (2002) who mentions that the higher CAR becomes, the higher the bank financial will be, so it supports the banks in expanding their business safer. The expanding of business effects on financial performing. If the value of CAR is high (according to clause of the Bank of Indonesia is 8%) means that the bank can run their management, the advantageous condition of the banks will give high contribution in profitability.

Table 5 informs that the effect of Third Parties Fund on Return on Asset (ROA) through Lending is more dominant than the direct effect. Lending mediates the effect of Third Parties Fund on Return on Asset (ROA). This result indicates that Lending is the dominant factor in earning high profitability and Lending is depending on Third Parties Fund.

Conclusion

In running banking business there is a trade off between profitability and risk safety. The high adequacy of capital is the factor which guarantees the safety of the bank from any risk, on the other hand, using funds ineffectively to earn profit through Lending.

The capital adequacy of commercial banks in Indonesia is quite good. Lending is the determinant factor for profitability. Lending is a mediator for Third Parties Fund and profitability. The Third Parties Fund is the dominant factor which effects Lending.

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