



Effects of Macroeconomics Factors toward Efficiency in Banking

Faaza Fakhrunnas¹, Faiza Husnayeni Nahar^{2✉}, Hilman Fikri Albana³

¹Faculty of Economics and Business, Universitas Islam Indonesia

²Faculty of Economics and Business, Universitas Muhammadiyah Yogyakarta

³Faculty of Economics and Management Sciences, International Islamic University Malaysia

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Abstract:

The main objective of this study is to analyze the effect of macroeconomic factors toward efficiency in Islamic and Conventional Banking. Banking as one of components in financial system that highly contributes to the growth and development of the economy in a country, especially after establishment of the first Islamic bank in Indonesia at the year of 1992. Afterwards, Islamic banking began to develop and start to compete with conventional banking. Hence, in order to survive and do fair competitiveness, Islamic and Conventional banking have to maintain its efficiency. This study uses the methodology of Data Envelopment Analysis (DEA). This study also analyze the macroeconomics factors namely inflation, interest rate of Bank Indonesia and the growth of Gross Domestic Product (GDP) which affects the bank efficiency. Our data is obtained from annual financial statement published by each Islamic and conventional bank and Bank Indonesia starting from 2007 to 2016. This study shows that conventional banks have higher efficiency than Islamic banks, while crisis in 2008 had no significant effect on the efficiency of Islamic and conventional banking. However, a decrease in the level of efficiency that occurs in conventional banking indicates that conventional banking is more sensitive to the crisis.

Keywords: Efficiency, Data Envelopment Analysis, Bank, Macroeconomics Factor

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INTRODUCTION

Islamic banking in Indonesia has grown significantly since its first establishment at the year of 1992 (Abduh & Omar, 2009). Central Bank of Indonesia reported that 13 of Islamic banks have been officially operating in Indonesia within the last two decades. This long process is introduced by Conventional bank which implemented dual banking system. Initially, Conventional bank created Islamic Business Unit to facilitate and promote more segments of population, particularly for Muslim costumers, within 2002 until 2009. Then they converted the Islamic Business Unit into General Islamic Bank afterwards.

Similar to Islamic banking, Conventional banking also shows up some good improvements. Financial Services Authority (OJK) stated that both Conventional and Islamic banking show rapid trend on asset with about IDR 7.387 trillion per December 2017. However, Islamic banking has grown threefold more greatly than Conventional banking in terms of growth, while Islamic banking is less on market share (5.44%) compared to Conventional banking (OJK, 2017).

In order to evaluate banking performance, efficiency can be used as an indicator of banking measurement. Farrell (1957) emphasized that efficiency only concerns on input and output usage of company's production. Within banking context, bank as a financial intermediary would use it to measure the efficiency (Hadad, Santoso, Mardanugraha, & Ilyas, 2003 ; Karim, 2017). Specifically, efficiency can be seen from banking activity, for instance collecting funds from customers and distribute it other customers who need the money (Hassan, Mohamad, & Khaled I. Bader, 2009). Yahya,

Muhammad, dan Hadi (2012) explained that input sector can be calculated from deposits, fixed assets, securities dan derivatives while output is based on interest income, net income and funding.

In addition, banking performance can also be affected by external sector or macroeconomic variables. Many researchers, Masood, Ashraf (2012), Karim, Al-Habshi, Abduh, (2016), Sanwari dan Zakaria (2013) believed that macro economic variables, particularly inflation and economic growth, have huge contribution on the success or failure of the banking performance. It is reported that GDP has negative impact on bank profitability while inflation did not give such significant effect to the profitabilities of the bank. According to Masood and Ashraf (2012), bank with good efficiency and greater asset would probably receive high Return on Asset (ROA). If internal factors of the bank can be maintained appropriately, the external factors can be monitored afterward. Moreover, Amzal (2016) revealed that BI rate also considered as other macroeconomic variables which affected banking performance, specifically on Islamic banking.

In case of Hongkong, Drake, Hall and Simper (2005) explained that macroeconomic variables and regulation affect banking system even though the magnitude of those external factors depend on company size and different financial sector. Moreover, it is stated that financial deregulation and South-East Asean crisis 1997/1998 did not give much significant effect to the banking efficiency. The crisis tends to affect development of macroeconomic factor and property sector.

The banking efficiency decreases gradually due to the crisis in 1998. The banking system has begun to recover their

efficiency loss. Mostly, they experience the losses due to other external shocks, such as terrorism attack that happened on September at New York and Washington DC at the year of 2001, impact of ENRON scandal which leads to economic slowdown worldwide.

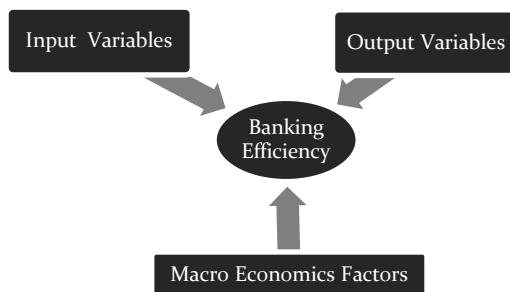


Figure 1. Research Scheme

Other studies, such as Hassan, Mohamad, & Khaled I. Bader (2009), show that banking is basically more efficient by collecting fund on input sectors rather than receiving income and revenue from funding and productive activities at output sectors. Their study revealed that both Conventional and Islamic banking incur loss of opportunity by 27% of revenue if they produce same input. Moreover, the study indicates that banking losses 20.9% of profit as they cannot manage input appropriately (Hassan et al., 2009).

On the other hand, by comparing the efficiency level between Islamic banking and Conventional banking using Data Envelopment Analysis (DEA), this study found that Conventional banking has higher efficiency than Islamic banking as Conventional banking has better management and banking technology system compared to Islamic banking (Ahmad & Rahim Abdul Rahman, 2012).

Over the past two decades, many researchers used DEA as the common method to measure banking performance by evaluating the efficiency score. DEA is

defined as a tool to analyze multifactor productivity in terms of company efficiency measurement where total output is divided by total input of company (Talluri, 2000). Mostly, DEA is used to measure relative efficiency from multiple inputs and outputs in order to help decision maker to manage company effectively (Kuah, Wong, & Behrouzi, 2010).

The aims of this study are (1) to compare the Conventional banking and Islamic banking in Indonesia in terms of efficiency from 2007 until 2016; (2) to analyze macro-economic factors which affect efficiency of Islamic banking and conventional banking; and (3) to determine the vulnerability of banking industry in Indonesia toward macroeconomic factors. Thus, this result is expected to be a benchmark in formulating policies for stakeholder while managing banking productivity and mitigating the risk from macroeconomics variables so that the banking industry can be more resilient to carry out its function as financial intermediary

RESEARCH METHODS

Based on Central bank of Indonesia, bank is divided into many categories, including Conventional bank, Islamic Business Unit, Islamic bank, Islamic and Conventional Rural Bank (BPR). However, due to limited data, this study would be more focus on measuring the efficiency of Islamic bank and Conventional bank. There are 11 Islamic banks and 15 Conventional Banking. Islamic banks consist of Bank BNI Syariah, Bank Mega Syariah, Bank Muamalat Indonesia, Bank Syariah Mandiri, Bank BCA Syariah, Bank BRI Syariah, Bank Jabar Banten Syariah, Bank Panin Syariah, Bank Syariah Bukopin, Bank Victoria Syariah and Bank

Maybank Syariah Indonesia. While, Conventional banks consist of Bank QNB, Bank Windu, Bank Ekonomi, Bank BRI Argo, Bank Sinarmas, Bank Capital, Bank Saudara, Bank Victoria, Bank MNC, Bank Pundi, Bank Artha Graha, Bank Mayapada, Bank of Indonesia India, Bank BNP, and Bank Bumi Arta.

The selection of our data sources in this study was considered based on (a) the total asset of both banks and (b) reserve bank. Conventional bank should have total asset which is no more or less than the asset of Islamic bank. Thus, there will be no widening gap between total asset of Conventional and Islamic bank. Then, the characteristics of Conventional bank should be the same as the Islamic bank, especially its function as reserve bank. In this study, our data were collected from annual financial report of Central bank of Indonesia at the period of 2007 until 2016.

In addition, this study also tried to analyze the causes of crisis in Indonesia at the year of 2008, specifically to know more on impact of crisis on the banking performance (efficiency) at that period.

In this study, Data Envelopment Analysis (DEA) was used as a tool to measure the efficiency of bank based on input and output from each company (Ramanathan, 2003). According to Ascarya (2012), DEA is appropriate model to be implemented in bank as this method can easily detect the

flow of fund from one unit to another unit. Bank as financial intermediary, would collect the fund from the surplus parties and distribute it to the deficit parties (Freixas & Jean-Charles Rochet, 2008). Due to its function, the input variables from this study include total deposito (x_1) and operational cost (x_2), while total payment (y_1) and earning aset (y_2) are included as output variables (Ascarya, 2012). This method would measure the banking efficiency through output from its input. The efficiency formula for Islamic and Conventional banking is:

$$\text{Bank Efficiency}_o = \frac{\sum_{k=1}^p u_k y_{kjo}}{\sum_{l=1}^m v_l x_{ljo}}$$

Explanation:

- M : Input
- P : Output
- U_k : Input portion
- U_l : Output portion
- X_{ij} : Total Input of the bank
- Y_{ij} : Total output of the bank

Basically, efficiency concept is based on microeconomic theory, which is production theory. According to Cobb-Douglas as cited in Hossain & Majumder (2015), production function can be used to know production scale of production process, whether production would be at the position of Constant Return to Scale (CRTS), Increasing Return to Scale (IRTS) or Decreasing Return to Scale (DRTS).

Table 1. Research Variables

Type of Variable	Definition	Unit	Source
Input variable (x_1)	Total Deposit	Million Rupiah	Balance Sheet
Input variable (x_2)	<i>Operational Cost</i>	Million Rupiah	Balance Sheet
Output variable (y_1)	Total Payment	Million Rupiah	Balance Sheet
Output variable (y_2)	<i>Earning Asset</i>	Million Rupiah	Balance Sheet

Source: proceed by researcher

Assumption of *Constant Return to Scale* (CRTS) was developed by Charnes, Cooper and Rhodes (CCR) at the year of 1978. This model assumed that the increasing input by n leads to increase the output by n too. While, in order to analyze IRTS and DRTS, another model was improved by Banker, Charnes, Cooper (BCC) at the year 1984. The Variable Return to Scale (VRS) assumed that the increment of input by n would not increase the output by n either, while the effect could be smaller or larger than total input. Increasing Return to Scale is the condition when the output is larger than input while Decreasing Return to Scale is identified when output is smaller than input (Ascarya & Yumanita, 2006).

This research would focus on using efficiency measurement and looking for the effect of subprime mortgage crisis which occurred in 2008 toward the efficiency level of conventional and Islamic banking. Thus, in order to see the impact of crisis on efficiency, this study will use macroeconomics factors as independent variables and efficiency as dependent variable.

The independent variables consist of inflation, Bank Indonesia rate and *Gross Domestic Product* (GDP). The multiple regressions would be used in further to identify relationship between independent variables and the dependent variable.

RESULTS AND DISCUSSION

The explanation of the result comprises two main outlines: (a) measurement of bank efficiency using DEA, (b) data analysis with multiple regression technique in order to know the effect of macroeconomics variable on efficiency level of the bank from 2007 to 2016.

Efficiency of Islamic bank and Conventional bank

Panel data analysis is conducted to measure the scale efficiency from 11 Conventional Banks and 15 Islamic Banks. After obtaining the regression estimation, the result can be seen in Table 2. Table 2 shows fluctuation of efficiency level of Islamic banking and Conventional banking from 2007 to 2016.

In 2007 (see attachment 1), there are only three official Islamic Banks registered by Central Bank of Indonesia. Those three banks include Bank Muammalat, Bank Mega Syariah and Bank Syariah Mandiri with efficiency level about 68.63 percent, 39.11 percent, and 100 percent respectively, while the total efficiency was 69.25 percent.

Inefficiency of Bank Mega Syariah tends to reduce the efficiency of all Islamic banks in 2007. Bank Mega Syariah begun to run the business on 27 July 2004 so that they cannot reach optimal efficiency due to limited capital and lack of management skills.

Table 2. *Scale Efficiency Islamic bank and Conventional Bank in 2007 -2016*

Year	Islamic Bank	Conventional Bank
2007	69.25	85.01
2008	71.60	82.73
2009	82.91	96.48
2010	62.94	88.43
2011	60.70	86.34
2012	43.68	74.10
2013	76.54	85.26
2014	86.67	91.51
2015	98.35	77.62
2016	92.73	90.31

Source: Proceed by researcher

On the other hand, Conventional bank has better efficiency than that of Islamic

Bank in 2007. They achieve 85.01 percent of efficiency as they already existed before the Islamic bank establishment in 2001.

When subprime mortgage crisis hit the world, Islamic and Conventional bank experience sharp decline in efficiency. By accumulation, the declining number of Conventional banking's efficiency reached 2.28 percent lower than that in the previous year. The capital of the bank has declining number on efficiency by 56.95 percent, contrasted to their perfect efficiency one year ago. Moreover, Bank Arta also experiences a decrease in efficiency by 39.22 percent compared to its high efficiency last year, which was 89.45 percent. While the efficiency in other Conventional banks, such as Bank BNP, Bank Mayapada, Bank Saudara, and Bank Sinarmas, also decreases by 1 percent to 15 percent. What makes our result interesting is that the decline of efficiency in conventional banks during the crisis is not followed by Islamic banks. By contrast, the efficiency of Islamic banking increases compared to previous years.

In 2008, the efficiency of Islamic banks attains 71.60 percent or equivalent to 2.35 percent. This increase comes from higher efficiency in Bank Muammalat and Bank Mega Syariah with their respective efficiency by 71.6 percent and 84.12 percent. Apparently, higher efficiency of both Islamic banks is not followed by Bank Syariah Mandiri with its decline in efficiency which only attains 50.85 percent. At the same year, there are two more Islamic banks added into the list including Bank Bukopin Syariah and Bank BRI Syariah with their respective role in higher efficiency of Islamic banking during that year (see Appendix 1.a).

Based on Table 2, the efficient level of Islamic and conventional banking takes place

in 2009. At that time, conventional banking has a nearly perfect efficiency level, achieving 96.48 percent. At the same year, Bank India Indonesia (previously Bank Swadesi) also joined in conventional banking group after obtaining fresh money from the investors in 2007. As a consequence, the financial performance of Bank India Indonesia gets better as shown by its efficiency level which attains 95.93 percent. High efficiency level of conventional banking is caused by six conventional banks with perfect efficiency which attains 100 percent, including Bank BNP, Bank Artha Graha, Bank Pundi, Bank Saudara, Bank Ekonomi dan Bank Windu.

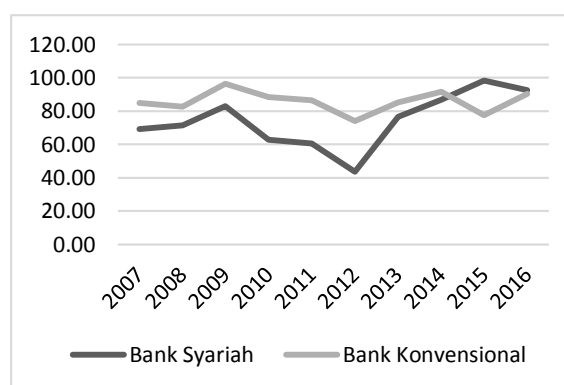


Figure 2. The Development of Islamic and Conventional Banking Efficiency in Indonesia From 2007 to 2016

Source: Data processed by the researchers

In the context of Islamic banking (Figure 2), the highest point of efficiency attained so far is 82.2 percent. Even though the increase in efficiency level of Islamic banking is not as high as conventional banking, it is noted that Islamic banking has upward trend of increase in efficiency level prior to year 2009. In the same year, the number of Islamic banks also increases by one which comes from Bank Panin Syariah, resulting in six banks on total. So far, the highest level of efficiency is caused by good performance of three Islamic banks as shown by financial performance of Bank Muammalat with its highest level of

efficiency by 100 percent. Meanwhile Bank BRI Syariah and Bank Mega Syariah have an efficiency level more than 99 percent and Bank Mega Syariah with efficiency level by 94.387 percent.

After 2009, Islamic and conventional banking has a declining level of efficiency compared to previous years. The lowest point of efficiency level in Islamic and conventional banking occurs at year 2012. The efficiency of Islamic banking drops into its lowest point at 43.68 percent. The larger number of Islamic banks into eleven Islamic banks has undeniable impact on average efficiency level of Islamic banking. This phenomenon is also related to the performance of each Islamic bank. In Appendix 1, it can be seen that there is a significant drop in efficiency level of Bank Muammalat and Bank Syariah Mandiri as well as unstable financial performances of new Islamic banks which push efficiency level of Islamic banking into its lowest point at that time.

On the other hand, even though conventional banking has its lowest efficiency level at year 2012, it is still far better than Islamic banking which only attains 74.10 percent. This figure is 12.24 percent lower than it is in the previous year. This drop in efficiency level is caused by bad performance of four conventional banks with efficiency level below 60 percent, such as Bank Bumi Arta with efficiency level of 55.2 percent, Bank Indonesia India by 49.07 percent, Bank Mayapada by 59.76 percent, Bank Ekonomi by 55.79 percent and Bank BRI Argo by 58.38 percent.

At the end of research period, the efficiency level of Islamic and conventional banking has been increasing during 2007-2016 after at its lowest point several years ago. In Islamic banks, the efficiency level

reached 92.73 percent in 2016. This increment can be said sharp enough as it reaches 49.05 percent within last five years. This upsurge is caused by better financial performance of Islamic banking as it can be seen it Bank Victoria Syariah with perfect efficiency in 2013, 2015 and 2016. Besides, the performance of Bank Muammalat is far better within the last three years, reaching into 100 percent. This situation leads into nomination of Bank Muammalat as the best Islamic bank in Indonesia based on efficiency level. There also other Islamic banks with 100 percent efficiency in 2016, such as Bank BCA Syariah, Bank Mega Syariah, Maybank Syariah, Bank Victoria Syariah and Bank BJB Syariah.

For conventional banking, the efficiency level is still lower than that of Islamic banks in 2016, which only reaches 90.31 percent. Despite its lower efficiency level, there is an increment of performance as the conventional bank attains 77.62 percent only in the previous year. This increment comes from maximum efficiency level of six conventional banks, which are Bank Ekonomi, Bank Capital, Bank MNC, Bank Arta Graha, Bank Indonesia India and Bank BNP.

The Impact of Macroeconomic Factors on Efficiency

In the previous studies, Drake, Hall and Simper (2005) asserted that macroeconomic factors are the most influential one toward banking efficiency in Hongkong. In line with their findings, Masood, Ashraf (2012), Karim, Al-Habshi, Abduh, (2016), Sanwari and Zakaria (2013) also revealed that macroeconomic factors, such as GDP growth, had significant impact on banking profitability. In order to see how far the impact of macroeconomic factors, this research uses

multiple regression test with estimation methods as follow:

$$Efisiensi_t = \beta_0 + \beta_1 Inf_t + \beta_2 BI_Rate_t + \beta_3 GDPGR_t + e_t$$

Where,

Efficiency_t : The efficiency level of Islamic or conventional banking at time t

Inf_t : Inflation rate of Indonesia per year at time t

BI_Ratet : Interest rate of Bank Indonesia per year at time t

GDPGR_t : Economic growth of Indonesia per year at time t

e_t : Error term

Through our estimation model, we can do multiple regression analysis by placing efficiency level of Islamic and conventional banking as separated endogenous variable. Meanwhile, *Inf*, *BI_Rate* and *GDPGR* is used as exogenous variables.

Based on our multiple regression analysis, Table 3 presents that efficiency level of Islamic and conventional banking is affected by macroeconomic variables. For Islamic banking, economic growth has positive and significant impact on efficiency level of Islamic banking at 10 percent level of significance. This result implies that the

efficiency level of Islamic banking decreases as the economic growth is higher.

The declining level of efficiency in Islamic banks might be as a result from two factors. *First*, input perspective which refers to inefficiency due to mismanagement of funding from third parties and operational cost. This inefficiency occurs as the Islamic banks must spend higher costs in order to compete in the midst of banking industry in Indonesia. *Second*, output perspective which is in the context of suboptimal funding by Islamic banks in providing the funds for the customers as the economy grows.

Those two factors come from the condition of Islamic banking which is not leading in the context of economic of scale compared to conventional banking. This condition occurs due to smaller size of Islamic banks which requires them to spend more expenses to compete in banking industry and sometimes they cannot attain the targeted financing with smaller asset size. This situation can be seen from the fact that the higher the size of Islamic banking the higher the level of efficiency (Fakhrunnas, 2017).

Table 3. Multiple Regression Analysis for Islamic and Conventional Banking

Variable	Islamic Banking		Conventional Banking	
	Coefficient	t-statistic	t-statistic	Probability
C	63,82	1.40	87.2	5.60***
Inf	-2.69	-1.52	0.12	0.95
BI_Rate	4.45	0.49	-0.42	0.89
GDPGR	-0.49	-2.09*	0.08	0.71
R-Square	0.27		0.033	
Number of Observation	10		10	

Significance level at 1%, 5% and 10% is respectively shown by symbol *, ** and ***

Source: Data processed by the researchers

Based on multiple regression result, the efficiency level of conventional banking suggests that there is no significant relationship between macroeconomic variables and the efficiency level of conventional banking. This result implies that conventional bank is better in mitigating external risk which may come from turbulence of macroeconomic condition. This condition is possible since the conventional banks have better concept in risk management as it can be seen from steady governance and more sophisticated technology (Ahmad & Rahim Abdul Rahman, 2012).

CONCLUSION

This research suggests that there is a difference in efficiency of Islamic and conventional banking as it can be seen from the efficiency level of respective bank. The average level of efficiency in Islamic banking within 2007-2016 shows the efficiency level by 74.54 percent. This suboptimal level of efficiency can be interpreted that the Islamic banks incur loss of potential earnings by 25.44 percent. This loss comes from inefficiency in the Islamic banking itself which in turn curtails the growth of Islamic banking. In order to grow and becomes more competitive, Islamic banking needs to enhance work professionalism, particularly in managing financial performance to be steadier. One way to do is by conducting rigorous monitoring in dominant factors which influence efficiency level of banking both positively and adversely (Bank Indonesia, 2014).

Meanwhile, Islamic banking is still vulnerable in dealing with macroeconomic factors, such as economic growth shown by the multiple regression analysis. This situation should call the attention of

stakeholders to design the system of risk mitigation for Islamic banking which is strong enough to tackle with global economy shocks under high uncertainty. Even though there is macroeconomic factor which influences the performance of Islamic banking, the 2008 crisis does not have negative impact on the efficiency level of Islamic banking as shown by the increment of efficiency level within the crisis period. This situation is probably due to smaller asset size of Islamic banking in 2008 as there are only five Islamic banks (Bank Muamalat, Bank Bukopin Syariah, Bank Mega Syariah, Bank Syariah Mandiri and Bank BRI Syariah) within that year. This condition is contrast compared to the situation of Islamic banking in 2016 as there are more Islamic banks operating in Indonesia. Not only in terms of number, but also their level of financial performance is different.

After comparing the financial performance of Islamic and conventional banking, it can be shown that conventional banking is better than Islamic banking in terms of its efficiency level which attains 85.78 percent on average in 2007-2016. This level of efficiency can be said well enough although there are still more works to do as there is a potential loss of income by 14.22 percent. This efficiency level of conventional banking is also still better than Islamic banking as the size of the bank is larger.

The finding from multiple regression analysis also shows that external factors such as inflation rate, GDP growth, and Bank Indonesia' interest rate (SBI) do not have significant impact on the efficiency level of conventional banking in Indonesia. This result is supported by the data from DEA analysis that conventional banks have declining level of efficiency as shown by

lower level of efficiency in 2008. This finding implies that conventional banking is more sensitive toward systemic crisis.

Drake, Hall and Simper (2005) reveal that external factors are more significant in explaining banking efficiency. In relation to this, larger banks will be affected by macroeconomic factors more easily and they will be more vulnerable toward crisis. Based on the size of assets of Islamic and conventional banking in this study, the asset value of conventional banking is larger than Islamic banking. Thus, both Islamic and conventional banking is advised to conduct rigorous monitoring in order to increase the efficiency level of the banks.

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Attachment 1

Table Scale Efficiency

No	DMUs	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	Bank Muamalat	68,63	71,6	100,01749	32,894195	65,54	10,86	87,93	100	100	100
2	Bank Bukopin Syariah		91,23	94,384731	75,755585	76,66	63,171555	77,877825	82,8	98,8	84,2
3	Bank Panin Syariah			45,97	28,510939	43,402888	35,14	94,92238	100	100	66,6
4	Bank BCA Syariah				47,652132	38,963	20,058079	83,57438	100	100	100
5	Bank BNI Syariah				94,736842	97,604423	96,251172	52,3	100	100	95,7
6	Bank Mega Syariah	39,11	84,121667	99,063232	97,662771	93,646139	92,671395	52,134541	94,5	96,6	100
7	Bank Syariah Mandiri	100	50,85	57,57	31,86	24,8	15,37	56,79	74,7	100	98,3
8	Bank BRI Syariah		60,205696	99,932535	76,296848	56,596661	40,38783	64,524269	81,7	86,4	75,2
9	Maybank Syariah				94,645441	54,649748	33,624031	61,76	100	100	100
10	Bank Victoria Syariah				36,4	38,56	11,202216	100	58,4	100	100
11	Bank BJB Syariah				76,296848	77,440959	61,755319	98,2	61,6	100	100
12	Bank QNB	98,386648	100	99,598269	81,736268	81,438547	68,195371	88,201801	100	100	91,9
13	Bank Windu	89,541363	87,7	100	98,30094	96,895522	81,636397	88,481405	100	100	92,8
14	Bank Ekonomi	26,23	67,87	100	57,55	61,42	55,79	85,328615	96	100	100
15	Bank BRI Argo				93,386094	82,995872	58,376349	87,430032	92,6	93,4	99,8
16	Bank Sinarmas	83,75134	82,919419	99,14655	87,475698	100	88,187511	81,589695	57,4	63,2	56,1
17	Bank Capital	100	43,05	92,346557	99,636776	90,238048	63,522013	96,888944	100	93,5	100
18	Bank Saudara	93,963783	86,677838	100	100	87,698504	86,541971	81,694531	100	95,6	92,3
19	Bank Victoria	100	100	93,875471	91,224148	76,5	100	100	40,7	43,9	52,4
20	Bank MNC	62,47	100	99,951854	100	100	86,579276	88,224688	100	100	100
21	Bank Pundi	100	100	100	77,672559	89,581179	87,385677	54,88138	100	100	97,4
22	Bank Artha Graha	63,115307	82,46	100	85,17	85,14	80,06	87,354635	86	18,6	100
23	Bank Mayapada	99,03	85,141712	80,75	89,016018	98,3041	59,766867	82,4	100	20,7	98,3
24	Bank Indonesia India			95,929658	74,53	71,67	49,07	100	100	100	100
25	Bank BNP	99,191286	89,383716	100	99,436403	97,020924	91,24915	86,458333	100	100	100
26	Bank Bumi Arta	89,45	50,233129	89,187764	91,281182	76,230614	55,209867	85,207363	100	36	73,6