

## **BANK FINANCIAL PERFORMANCE USING CAMEL RATIO AND MARKET VALUE TOBIN'S Q OF BANKING SUB-SECTOR LISTED AT INDONESIAN STOCK EXCHANGE**

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### **Abstrak**

Tujuan dari penelitian ini adalah untuk mengevaluasi kinerja keuangan bank, apakah bank mampu untuk menjalankan fungsinya atau tidak dan bagaimana kinerja bank di pasar. Ada bermacam-macam cara bagi bank untuk menganalisa kinerja bank, dan salah satunya melalui Rasio Keuangan Bank. Penelitian ini bersifat deskriptif dan data dikumpul, dianalisis dan disajikan menurut data Sub Sektor Perbankan yang Terdaftar di Bursa Efek Indonesia dari tahun 2011 sampai 2015. Ada empat perusahaan yang diteliti, yaitu: BMRI, BBRI, BBCA dan BBNI yang merupakan bank terbesar di Indonesia. Hasil penelitian menunjukkan CAMEL Rasio CAR, NPL, ROA, ROE, LDR memiliki kinerja dan nilai pasar yang baik Rasio Tobins'Q mengakibatkan pasar melihat saham perusahaan perbankan sebagai *undervalued*.

**Kata kunci :** *camel, tobin's q, financial performance, bank*

### **Abstract**

*The purpose of this study is to evaluate bank financial performance whether they are able to perform their function or not and how they are fare in the market. There are various ways for bank to analyze bank performance, and one of them through Bank Financial Ratios. The study is descriptive and data collected were analyzed and presented according to the data of Banking Companies Sub Sector Listed in Indonesia Stock Exchange from year 2011 to 2015. There are four companies studied, namely: BMRI, BBRI, BBCA and BBNI which is the biggest banks in Indonesia. The results of the study shows CAMEL ratio of CAR, NPL, ROA, ROE, LDR have generally good performance and market value ratio of Tobins'Q resulted in market see the banking companies stock as undervalued.*

**Keywords :** *camel, tobin's q, financial performance, bank*

### **Introduction**

Bank is essentially an entities that raise funds from the public in the form of savings and channel them to the public in the form of credit as per Act No. 7 of 1992 concerning Banking as amended by Act No. 10 of 1998. This is done in order to improve the standard of living of the people. In other words, the bank, in carrying out its activities is a financial institution that acts as an intermediary for the excess funds with the lack of funds (Hasibuan, 2007; Kasmir, 2012). Bank function as an intermediary institution has made a bank has a strategic position in the economy, the article, by activities, such as collecting funds and distributing funds to community will increase

the flow of funds needed for investment, working capital and consumption (Arafat, 2006; Damawi, 2011; Ismail, 2010; Kasmir, 2010). Thus, it will be able to increase national economy. However, the banking system is also influenced by a variety of factors such as economic and monetary conditions. In the Indonesian Economic Report (2009), stated that Indonesia's economic turmoil from 2005 to 2010. Beginning in 2005, the Indonesian economy is characterized by a variety of external shocks, particularly due to rising world oil prices are driving inflation and disrupt macroeconomic stability. This condition implies an increase in domestic interest rates at last pressuring banks to increase performance.

Thus, bank need to be able to evaluate themselves whether they are able to continue performing their function or not and how they are fare in the market. There are various ways for bank to analyze bank performance, and one of them through Bank Financial Ratios(Arafat, 2006; Damawi, 2011; Ismail, 2010; Kasmir, 2012; Kuncoro and Suharjono, 2012). Profitability can be regarded as one of the indicators most appropriate to measure the performance of a company. The company's ability in generating profits can become a benchmark company performance. The higher profitability, better performance corporate finance.

The ratio is used to measure profitability is ROA that shows the ability of bank management in generating income from the management of assets (Kasmir, 2012). Financial performance also reflects the level of a bank's health. In Circular Letter No. 9/24/DPBs mentioned bank rating is influenced by factors CAMELS which comprise of Capital, Asset Quality, Management, Earnings, Liquidity, Sensitivity to Market Risk(Arafat, 2006; Damawi, 2011; Ismail, 2010; Kasmir, 2012; Kuncoro and Suharjono, 2012). The Capital aspects includes the Capital Adequacy Ratio (CAR), the Asset Quality includes Non Performing Loan (NPL), the Earnings include return on Equity, return on assets, and Liquidity aspects includes Loan to Deposit Ratio (LDR). In the article on June 2, 2016 in the site BeritaSatu (2016), there are a total of 15 national commercial banks was elected as the Best Bank 2016 Investor Magazine. Out of the selected banks, the banks received the title as the best after qualifying for the selection and ranking of proven superior in its class. In class assets above Rp. 100 trillion, PT Bank Rakyat Indonesia Tbk (BRI) appeared as the best with PT Bank MandiriTbk (Mandiri) and PT Bank Central Asia Tbk (BCA) as well as PT. Bank Negara Indonesia Tbk (BNI). Twelve criteria staging used include: CAR 2015 (capital adequacy ratio), NPL 2015 (non performing loans), ROA, 2015 (return on assets), ROE, 2015 (return on equity), NIM 2015 (net interest margin), ROA, 2015 (ratio of operating expenses to operating income), 2015 LDR (loan to deposit ratio), growth in net interest income, non-interest operating income growth,

operating profit growth, credit growth, and the ratio of cost to assets.

As the world economic takes its downturn here and there and also the domestic economy has its ups and downs, it is interesting to look and analyze on the banks health condition as they are the one that serve the public financially as seen in previous studies (Abdullah &Surdayanto, 2004; Widati, 2012; Sektiawan, 2015). In addition, it is also interesting to study and look at the market value of the banks through the use of Tobins'Q since it depicts how the market sees and value the company (Sudiyatno and Puspitasari, 2010; Investopedia, 2016). Thus, the study will analyze the banking companies health condition based on financial performance and market value of banks listed at Indonesian Stock Exchange.

### **Method of the Study**

The study used descriptive method where the data used collected, analyzed and presented in a descriptive manner. The data used were secondary data derived from the financial report of Banking Companies from year 2011 to 2015. The sample used in the study was 4 biggest and well known companies in Indonesia that are listed at Indonesia Stock Exchange from Banking Sub Sector. Analysis was done using 5 financial ratios of CAMELS, namely: Capital Adequacy Ratio (CAR), Return on Asset (ROA), Return on Equity, and Non-Performing Loan (NPL) and Loan to Deposit Ratio (LDR) and market value ratio of Tobin's Q. The following are the ratios standard:

1. Capital Adequacy Ratio (CAR).  
In Indonesia the minimum Capital Adequacy Ratio is 8% (Kasmir, 2012), as the bank can use it to protect depositors and promote the stability and efficiency of financial systems (Investopedia, 2016).
2. Return on Asset (ROA)  
In Indonesia a good ROA for Bank is 1.5 %. The assessment of ROA: ROA > 1.5% company has good profitability. ROA < 1.5% company doesn't have good probility.
3. Return on Asset (ROA)  
In Indonesia a good bank ROA is 1.5 %.  
The assessment of ROA:  
ROA > 1.5% company has good profitability.

ROA < 1.5% company doesn't have good profitability.

4. Non-Performing Loan (NPL)

The assessment of NPL:

NPL > 5% bank has overload of non-performing loans.

NPL < 5% bank can minimize its non-performing loans.

5. Loan to Deposit Ratio (LDR)

LDR 78-100% company has good loan to deposit ratio

LDR < 100% company doesn't have good loan to deposit ratio.

6. Tobins Q

Tobin's Q, the ratio introduced by James Tobin, a nobel prize winner (Investopedia, 2016) measured the performance of the company based on the market value and compared it with asset of the company.

The criteria for assessment in Tobins Q (Sudiyatno and Puspitasari, 2010) are as follows:

Q > 1 Stock is in overvalued condition. The management successfully managed the company and thus there is high growth potential

Q = 1 Stock is in average condition. Management is in stagnant condition in operating its assets.

Q < 1 Stock is undervalued condition. Management is failed in operating the asset of the company.

how the market perceive the value of the banks through the use of Tobins' Q based on the framework below. Statistical analysis in this study used descriptive analysis, correlation matrix, and regression model.

**Results of the Study**

In analyzing the bank financial performance, CAMEL ratios is used. Table 1 shows the results for CAR, ROA, NPL and LDR.

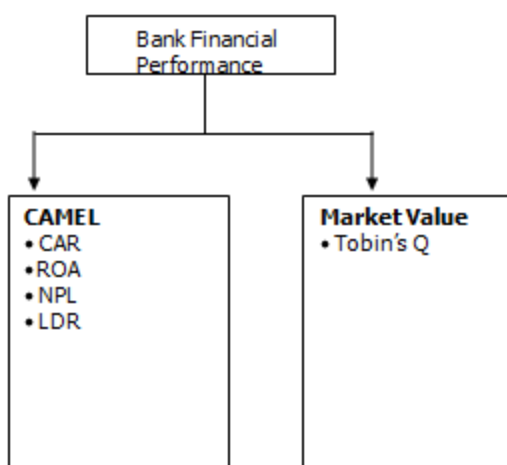
	CAR	ROA	NPL	LDR
BMRI	.1619	.0346	.0189	.8027
BBRI	.1756	.0481	.0187	.8261
BBCA	.1564	.0378	.0052	.7272
BIBI	.1786	.0306	.0270	.8176
Mean	.1681	.0378	.0175	.7934

Table shows that CAR is good since they are all above the standard of 8%. In terms of profitability, they are all shows the ability to gain profit with ratios above the standard 1.5%.

Furthermore, all banks able to manage the credit since the ratios below the standard 5%. In term of doing their function, all banks are shown able to manage their loan and deposit ratio within the range of 78-100% except BBCA. Table 2 depicts the mean, standard deviation, minimum, and maximum of each variable used in the sample data set. There is a significant range of variation amount the considered variables of this study. The results shows that the range of CAR is from 13% to 21% with a mean of 16.81%. The four banks has has an average ROA of 3.78%, 1.75% of NPL and 79.34% of LDR, which is generally good in terms of financial performance.

**Table 2**  
**Descriptive Statistic**

Statistics		CAR	ROA	NPL	LDR	Q
N	Valid	20	20	20	20	20
	Missing	0	0	0	0	0
Mean		.1681	.0378	.0175	.7934	.3270
Std. Deviation		.01999	.00713	.00889	.07298	.12716
Skewness		-.095	.604	.149	-.732	.810
Std. Error of Skewness		.512	.512	.512	.512	.512
Kurtosis		-.478	-.234	.158	.182	-.591
Std. Error of Kurtosis		.992	.992	.992	.992	.992
Minimum		.13	.03	.00	.62	.18
Maximum		.21	.05	.04	.89	.58



**Framework 1 Research Concept**

The statistical analysis is done on four banks in terms of the ratios given to see whether the bank are in a healthy condition and

The table shows that the Skewness value of is -0.095, .604, .149, -.732, .810 for CAR, ROA, NPL, LDR, and Q, respectively. The Skewness is positive; showing the top of the data distribution Skewness overhung the positive values (curve tails right longer). The Skewness is negative shows that the end of data distribution Skewness overhung the negative value (curve tails left longer). Kurtosis is a tool to show the fineness of a distribution of data. In addition, to examine the correlation between independent variables, a Pearson product correlation (r) was computed as shown in.

**Table 3**  
Correlation Analysis

	CAR	ROA	NPL	LDR	Q
CAR	1	-.133	.437	.647**	-.302
ROA	-.133	1	-.330	.070	.235
NPL	.437	-.330	1	.275	-.814**
LDR	.647**	.070	.275	1	-.532*
Q	-.302	.235	-.814**	-.532*	1

*Correlation Matrix was employed Among the Variables. \*Significant at 1% level (2-tailed) and \*\* Significant at 5% level (2-tailed), \*\*\*Significant at 10% level (2-tailed)*

Table 2 illustrates that the existence of ROA of the company is associated positively with market value. Furthermore, the results suggest a negative association of CAR, NPL and LDR with Tobin's Q at 5% and 1% level of significant. It is worth mentioning that the correlation matrix has been considered as a limited analysis because it ignores the interrelationships among the variables. Table 3 provides the results of the hypothesis testing. It shows that the coefficient of determination (R<sup>2</sup>) for Tobin's Q are equal to 87.2 percent. Table 4 also shows that the model are significant with F-test 25.653 with a p-value 0.000 < 0.05.

The largest t-statistics for the Tobin's Q is 3.573 (p-value 0.03) for CAR, -7.664 (p-value 0.000) for NPL, -4.911 (p-value 0.000) for LDR. This indicates that CAR, NPL, LDR is importance for the model in term of explaining the variation in market value Tobin's Q.

**Table 4**  
Regression Model Analysis

Model Summary				
Variables	Expected Sign	Coefficient	t-ratio	p-value
(Constant)	+	.836	5.849	.000
CAR		2.930	3.537	.003
ROA		1.183	.663	.517
NPL		-11.812	-7.664	.000
LDR		-1.059	-4.911	.000
Model F-stat.	25.653		RSquare	.872
p-value	0.000		R	.934
No. of Observaion	20			

## Conclusion

From the results of the study above, it can be concluded that the four banks in Indonesia has a good health condition in terms of financial performance since they have adequate capital, good profitability, and can manage their credit in terms of bad loans and credit to loan ratio. On the other hand, the market still see the stock undervalued. The results also shows that CAMEL ratios of CAR, NPL and LDR can explain the variation in market value Tobin's Q. It is the recommendation of this study, for future researchers to use different method in analyzing these companies and or use the method given to analyze other banks in other instances.

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