Proceedings
The 2nd International Multidisciplinary Conference 2016
November 15th , 2016, Universitas Muhammadiyah Jakarta, Indonesia
Darwin Simanjuntak & Francis M. Hutabarat, Bank Financial Performance Using Camel Ratio and Market Value Tobin's Q
of Banking Sub-Sector Listed at Indonesian Stock Exchange :17-22
ISBN 978-602-17688-9-1

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

Author(s): Darwin Simanjuntak[1] & Francis M. Hutabarat[2]

1Universitas Advent Indonesia
Email: darsiman2112@gmail.com

2Universitas Esa Unggul
Email: fmhutabarat@gmail.com

Abstract

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. Bank function as an intermediary institution has made a bank has a strategic position in the economy. However, 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. 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 that generally good performance and market value ratio of Tobins'Q resulted in market see the banking companies stock as undervalued.

***Keywords**: CAMEL, Bank, Financial Performance, Tobin's Q*

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

ISBN 978-602-17688-9-1

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 Return on Equity (ROE) and Return on Assets (ROA). ROE shows the ability of bank management in managing capital is available for net income, while ROA 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 Berita Satu (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 Mandiri Tbk (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 bank ROA 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 Equity (ROE)
   In Indonesia bank with a good profitability at minimum of 12%.
   The assessment of ROA:

ISBN 978-602-17688-9-1

ROE > 12% company has good profitability.
ROE < 12% company doesn't have good probility.

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)
   The assessment of LDR:
   LDR 78-100% company has good credit to deposit ratio.
   LDR < 100% > company doesn't have good credit 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.

The analysis is done on four banks in terms of the ratios given to see whether the bank are in a healthy condition and how the market perceive the value of the banks through the use of Tobins' Q.

RESULT OF THE STUDY

Capital Adequacy Ratio (CAR)

Capital Adequcy Ratio is one of CAMELS ratio for bank. The ratio provide bank function to protects its depositor with minimum amount of capital available. The study composed of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

Table 1. Capital Adequacy Ratio

Year	BMRI	BBRI	BBCA	BBNI
2011	15.34%	14.96%	12.70%	17.80%
2012	15.48%	16.95%	14.20%	18.70%
2013	14.93%	16.99%	15.70%	15.10%
2014	16.60%	18.31%	16.90%	18.20%
2015	18.60%	20.59%	18.70%	19.50%

Table 1 above indicates that from the 5 year observation period, all banks showed that they have adequate minimum capital above 8% required by Bank Indonesia. Thus, all banks are in 100 point criteria of CAMELS studied.

Return on Asset (ROA)

Return on Asset is one of CAMELS ratio for bank. The ratio shows bank ability to gain profit based on its asset. The study composed of ROA of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

ISBN 978-602-17688-9-1

Table 2. Return on Asset

Year	BMRI	BBRI	BBCA	BBNI
2011	3.37%	4.93%	3.80%	2.94%
2012	3.55%	5.15%	3.60%	2.92%
2013	3.66%	5.03%	3.80%	3.36%
2014	3.57%	4.73%	3.90%	3.49%
2015	3.15%	4.19%	3.80%	2.60%

Table 2 above indicates that from the 5 year observation period, all banks showed that they have return on asset above 1.5% required by Bank Indonesia. Thus, all banks are in 100 point criteria of CAMELS studied as the ROA ranged above 2%.

Return on Equity (ROE)

Return on Equity is one of CAMELS ratio for bank. The ratio shows bank ability to gain profit based on its equity. The study composed of ROE of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

Table 3. Return on Asset

Year	BMRI	BBRI	BBCA	BBNI
2011	3.37%	4.93%	3.80%	2.94%
2012	3.55%	5.15%	3.60%	2.92%
2013	3.66%	5.03%	3.80%	3.36%
2014	3.57%	4.73%	3.90%	3.49%
2015	3.15%	4.19%	3.80%	2.60%

Table 3 above indicates that from the 5 year observation period, all banks showed that they have return on asset above 12% required by Bank Indonesia. Thus, all banks are in 100 point criteria of CAMELS studied as the ROE ranged above 12%.

Non-Performing Loan (NPL)

Non-Performing Loans is one of CAMELS ratio for bank. The ratio shows loan that are not performed as part of credit risk. The study composed of NPL of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

Table 4. Non-Performing Loan

Year	BMRI	BBRI	BBCA	BBNI
2011	2.18%	2.30%	0.50%	3.80%
2012	1.74%	1.78%	0.40%	2.80%
2013	1.60%	1.55%	0.40%	2.20%
2014	1.66%	1.69%	0.60%	2.00%
2015	2.29%	2.02%	0.70%	2.70%

Table 4 above indicates that from the 5 year observation period, all banks showed that they have non-performing loan below 5% required by Bank Indonesia. Thus, all banks are in 100 point criteria of CAMELS studied as the NPL ranged below 3% except for BBNI year 2011 which has 90 points for its NPL range of 3-5%.

Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio is one of CAMELS ratio for bank. The ratio comparing the loan given compared to bank deposit. The study composed of LDR of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

Table 5. Loan to Deposit Ratio

Year	BMRI	BBRI	BBCA	BBNI
2011	71.65%	76.20%	61.70%	70.37%
2012	77.66%	79.85%	68.60%	77.52%
2013	82.97%	88.54%	75.40%	85.30%
2014	82.02%	81.68%	76.80%	87.81%
2015	87.05%	86.80%	81.10%	87.80%

Table 5 above indicates that from the 5 year observation period, banks that showed that they have non-performing loan in range of 85-110% required by Bank Indonesia are as follows: BMRI year 2015 is the only year LDR according to standard, BBRI of year 2013 and 2015 have LDR according to standard given, and BBNI for year 2013 to 2015 is according to standard and given 100 point. The rest are below standard thus the study give 80 points for their LDR performance based on CAMELS for its NPL range below 85%.

CAMELS

CAMELS is a ratio given to measure banking performance and health condition. The study assigned each of the ratio with percentage point composed of CAR (20%), NPL (20%), ROA (15%), ROE (15%), BOPO (15%), LDR (15%) of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

Table 6. Tobin's Q

Year	BMRI	BBRI	BBCA	BBNI
2011	94.00	94.00	94.00	94.00
2012	94.00	94.00	94.00	94.00
2013	94.00	98.00	94.00	98.00
2014	94.00	94.00	94.00	98.00
2015	98.00	100.00	94.00	98.00

Table 6 above indicates that from the 5 year observation period, banks has good performance as their performance are all between 90-100 based on the standard given. BBRI in year 2015 has 100 points based on the standard.

Tobin's Q

Tobin's Q is a ratio given by James Tobin to measure market value of the company and compared it with its assets. The study composed of Q Ratio of four main banks in Indonesia namely Bank Mandiri (BMRI), Bank BRI (BBRI), Bank BCA (BBCA) and Bank BNI (BBNI).

ISBN 978-602-17688-9-1

Table 7. Tobin's Q

Year	BMRI	BBRI	BBCA	BBNI
2011	0.28	0.35	0.51	0.23
2012	0.29	0.31	0.50	0.20
2013	0.25	0.19	0.47	0.19
2014	0.29	0.35	0.58	0.27
2015	0.23	0.32	0.55	0.18

Table 7 above indicates that from the 5 year observation period, banks that showed that they have Q ratio > 1 for stock that overvalued. The results however shows that Q ratio for all banks are below 1, thus, all banks are undervalued according to the market.

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. 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.

REFERENCE

Abdullah, F. and L. Suryanto. (2004). Analisis Pengaruh Rasio-Rasio CAMEL sebagai Penilaian Tingkat Kesehatan Bank Terhadap Harga Ssaham Perusahaan Perbankan yang Terdaftar di Bursa Efek Jakarta. *Jurnal Studi Manajemen & Organisasi*, Vol. 1 No. 2 Mei 2004 Hal. 1-8.

Arafat, W. (2006). *Manajemen Perbankan Indonesia: Teori dan Implementasi*. LP3ES.

Berita Satu. (2016). *Bank Terbaik 2016 Versi Majalah Investor*. Available from http://www.beritasatu.com/ekonomi/368015-bank-terbaik-2016-versi-majalah-investor.html

Darmawi, H. (2011). *Manajemen Perbankan*. Bumi Aksara.

Hasibuan, M. S. P. (2007). *Dasar-Dasar Perbankan*. Bumi Aksara.

Investopedia. (2016). *Q Ratio (Tobin's Q Ratio)*. Available at www.investopedia.com.

Ismail (2010). *Manajemen Perbankan: Dari Teori Menuju Aplikasi*. Prenada Media Group.

Kasmir. (2010). *Pemasaran Bank*. Kencana.

Kasmir. (2012). *Bank dan Lembaga Keuangan Lainnya*. Rajawali Pers.

Kasmir. (2012). *Manajemen Perbankan* (Revised Ed.). Rajawali Pers.

Kuncoro, N. and Suhardjono. (2002). *Manajemen Perbankan*: Teori dan Aplikasi (2nd Ed.). BPFE Yogyakarta.

Sektiawan, L. (2015). Pengaruh Rasio CAMEL Terhadap Kinerja Keuangan Perbankan yang Diukur Dengan Return on Assets. *Jurnal Ilmiah Mahasiswa S1 Akuntansi Universitas Pandanaran*. Vol. 1. No. 1 Februari 2015.

Sudiyatno, B., and E. Puspitasari. (2010). Tobin's Q and Altman Z-Score Sebagai Indikator Pengukuran Kinerja Perusahaan. *Kajian Akuntansi*, February 2010 p. 9-21.

Widati, L. W. (2012). Analisis Pengaruh CAMEL Terhadap Kinerja Perusahaan Perbankan yang Go Publik. Dinamika Akuntansi, Keuangan dan Perbankan, Vol. 1. No. 2 Nopember 2012, Hal. 105-119.