

The Effect of Financial Ratios on Bank Capital at PT Bank Danamon, Tbk

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Abstract: This study aims to see the effect of Return on Equity (ROE), Net Interest Margin (NIM), Operating Costs to Operating Income (BOPO), and Loan to Deposit Ratio (LDR) on the Capital Adequacy Ratio (CAR). The unit of analysis used in this study is PT Bank Danamon, Tbk for the period 2009 - 2016. The sample used in this study was taken from the Quarterly Financial Statements of PT Bank Danamon, Tbk for the period of 2009 the first quarter to 2016 the second quarter. The analytical tool used is multiple linear regression method and hypothesis testing. The results showed that the LDR variable had no significant effect on CAR with a significance level of 0.363, while the ROE, NIM, and BOPO variables had a significant effect on CAR with a significance level of 0.007; 0.003; and 0.046. Together the four variables contributed 34.3% to the CAR and the remaining 65.7% with other variables.

Keywords: Return on Equity (ROE), Net Interest Margin (NIM), Operating Costs to Operating Income (BOPO), and Loan to Deposit Ratio (LDR) to Capital Adequacy Ratio (CAR)

1. Introduction

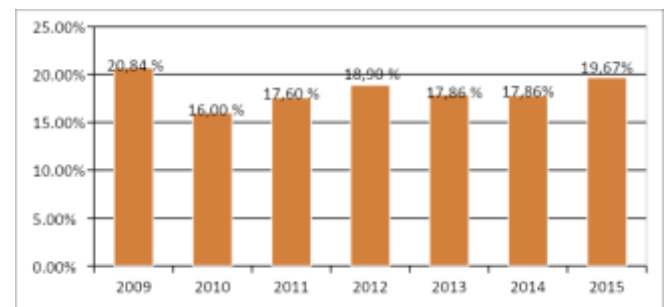
The failure of a company can be seen and measured through financial statements by analyzing financial statements. Financial statement analysis is a very important tool to obtain information related to the company's financial position and the results that have been achieved in connection with the selection of the company's strategy to be implemented. By analyzing the company's financial statements, the company's leadership can find out the company's financial situation and development as well as the results that have been achieved in the past and in the current time.

The monetary crisis that began in mid - 1997, when the exchange rate of the rupiah depreciated against the US dollar, caused most companies to be unable to repay their loans to banks, while banks also faced the risk of not being able to pay their obligations, which were mostly financed by foreign loans and loans. public funds. The amount of credit reserves and losses as a result of the exchange rate difference causes a decrease in banking capital so that most banks are no longer able to fulfill their obligations to capital adequacy, the next result is a decline in banking performance which can be identified in the form of financial statement analysis using financial ratios, such as profitability ratios, liquidity ratios, solvency ratios, profitability ratios, and other financial ratios. Sugiyanto et al (2002) show that six financial ratios, namely Return On Equity (ROE), cost of funds ratio, Net Interest Margin (NIM), Loan to Deposit Ratio (LDR), interest income ratio in settlement to interest yield, and the ratio Operating Cost to Operating Income (BOPO) is able to predict the bankruptcy of a national bank in Indonesia (which is proxied through CAR) one year before it fails.

As of December 2015, the consolidated CAR (Minimum Capital Adequacy Requirement) ratio remained at the level of 19.67%, up from the end of 2014. From the Bank's perspective alone, Danamon's CAR rose to 20.84% from 18.07% in December 2014. During the last 5 years, and for

the financial year ended December 31, 2015, the CAR for banks alone and for consolidation was well above the minimum level required by BI of 9% - 10%.

Posisi CAR PT Bank Danamon, Tbk



Sumber: Laporan Tahunan PT Bank Danamon, Tbk tahun 2015

2. Theoretical Review

Return on Equity (ROE) which is an indicator of the profitability ratio is used as an independent variable that affects CAR because according to Brigham and Gapenski (1997) companies with high investment returns will use small debt so that the level of capital costs that contain relatively small risks and the bank's own capital relatively high so as to increase CAR. Various studies have found that ROE has a significant positive effect on CAR (Shitawati, 2006; Fitrianto and Mawardi, 2006). However, research by Barus (2011) states that ROE has no significant effect on CAR. Meanwhile Andhini (2015) revealed that ROE has a negative and significant effect on CAR.

Net Interest Margin (NIM) is used as an independent variable that affects CAR because according to Muljono (1999) the higher the NIM indicates the more effective the bank is in placing earning assets in the form of credit. According to Arief (2014) that NIM has a significant positive effect on CAR, while according to Shitawati (2006) that NIM has a significant negative effect on CAR. It is also

different from the results of Krisna's (2008) research that NIM has no significant positive effect on CAR.

Operational Cost to Operating Income (BOPO) is used as an independent variable that affects CAR because according to Muljono (1999) the smaller the BOPO indicates the more efficient the bank is in carrying out its business activities, because the operating costs that must be borne are smaller than the operating income so that the bank's operational activities generate profits. This is able to increase bank capital and minimize the level of risk, so that a relatively low BOPO can increase CAR. BOPO researched by Shitawati (2006) shows that there is a negative effect on CAR. In contrast to Krisna's (2008) research that BOPO has a positive and insignificant effect on CAR.

Loan to Deposit Ratio (LDR) is used as an independent variable that affects CAR because according to Muljono (1999) the higher the LDR indicates the riskier the bank's liquidity conditions, conversely the lower LDR indicates the bank's lack of effectiveness in lending, so the higher the LDR, the lower the CAR. liquidity conditions are threatened). LDR has a significant negative effect on CAR

which has been proven to be researched by Krisna (2008), Ftriarto and Mawardi (2006), and Arief (2014).

3. Research Methods

The analytical method used in this study is a quantitative method. Quantitative data analysis is a form of analysis that uses numbers and calculations using statistical methods, so that the data must be classified in certain categories using certain tables. The analytical tool used in this study is multiple regression analysis using the classical assumption test. To determine the accuracy of the model, it is necessary to test the basis of several classical assumptions of ordinary least squares (OLS), namely: normality, autocorrelation, heteroscedasticity, and multicollinearity tests. The regression model used is as follows.

$$\text{CAR} = -2,561 - 0,323\text{ROE} + 0,841\text{NIM} + 0,142\text{BOPO} + 0,06\text{LDR} + e$$

4. Results and Findings

4.1 Analysis of research results

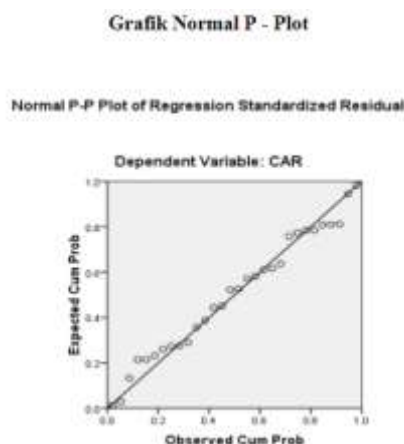
1) Normality Test

Hasil Uji Normalitas

One-Sample Kolmogorov-Smirnov Test

		CAR
N		30
Normal Parameters ^a	Mean	18,0333
	Std. Deviation	1,80962
Most Extreme Differences	Absolute	,174
	Positive	,174
	Negative	-,151
Kolmogorov-Smirnov Z		,953
Asymp. Sig. (2-tailed)		,324

a. Test distribution is Normal.



From the table, the Kolmogorov - Smirnov (K - S) is 0.953 and the significance is 0.324, so it can be concluded that the data in the regression model is normally distributed, where the significance value is greater than 0.05 ($p = 0.324 > 0.05$). In the normal plot graph, it can be seen that the points spread around the diagonal line and approach the diagonal line so that it can be concluded that the data in the regression model is normally distributed.

2) Autocorrelation Test

Hasil Uji Durbin-Watson Statistik

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,659 ^a	,434	,343	1,46632	1,234

a. Predictors: (Constant), LDR, NIM, BOPO, ROE

b. Dependent Variable: CAR

The Durbin - Watson value obtained from data processing is 1.234 and the value lies between - 2 and +2, so the

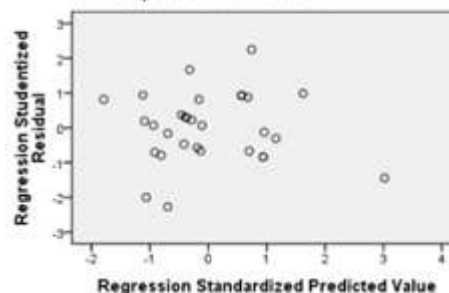
autocorrelation coefficient is equal to zero and it is concluded that there is no autocorrelation, so the regression model is feasible to use.

3) Heteroscedasticity Test

Grafik Scatterplot

Scatterplot

Dependent Variable: CAR



It can be seen that the points spread randomly and are spread both above and below the number 0 on the Y axis and do not spread and then narrow or vice versa above and below the number 0 on the Y axis so that it is stated that the regression

model in this study occurs homoscedasticity or In other words, there is no heteroscedasticity.

4) Multicollinearity Test

Hasil Uji Multikolienaritas

Coefficients ^a		
Model	Collinearity Statistics	
	Tolerance	VIF
ROE	.416	2,401
NIM	.542	1,844
BOPO	.603	1,657
LDR	.527	1,897

a. Dependent Variable: CAR

It can be seen that the value of Variance Inflation Factor (VIF) of each variable is ROE 2.401; NIM 1, 844; BOPO 1, 657; and LDR 1.897, where this value illustrates that the VIF value of all independent variables is below 10 and the tolerance value is above 0.10. This shows that there are no symptoms of multicollinearity.

5) Multiple Linear Regression Test Results

Hasil Uji Analisis Regresi Linear Berganda

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-2,561	10,372		-.247	.807		
ROE	-.323	.111	-.680	-2,917	.007	.416	2,401
NIM	.841	.259	.664	3,251	.003	.542	1,844
BOPO	.142	.067	.408	2,105	.046	.603	1,657
LDR	.060	.064	.192	.927	.363	.527	1,897

a. Dependent Variable: CAR

The constant of - 2.561 indicates that if the independent variable is assumed to have a value of 0, then the capital adequacy ratio (CAR) is negative at - 2.561. It can be said that by assuming the absence of ROE, NIM, BOPO, and LDR variables, the Capital Adequacy Ratio (CAR) tends to decrease. ROE of - 0.323 indicates that every decrease in Return On Equity by 1 percentage, it will increase the Capital Adequacy Ratio (CAR) by 0.323 assuming other variables remain. The NIM of 0.841 indicates that every 1 percentage increase in Net Interest Margin will increase the Capital Adequacy Ratio (CAR) by 0.841 with the assumption that other variables are fixed. It can be said that by assuming the absence of other independent variables, if the NIM increases, the CAR tends to increase. BOPO of 0.142 indicates that each increase in operating income operating costs (BOPO) of 1 percentage, it will reduce the Capital Adequacy Ratio by 0.142 assuming other variables remain. LDR of 0.06 indicates that every increase in Loan To Deposit Ratio by 1 percentage, it will increase the Capital Adequacy Ratio by 0.06 assuming other variables remain. It can be said that by assuming the absence of other independent variables, if the LDR increases, then the Capital Adequacy Ratio (CAR) tends to increase.

5. Conclusion

Based on the research results, Return on Equity (ROE) has a significant negative effect on bank capital adequacy. A good bank, to always keep the ROE low, so that the CAR remains high even though the CAR has met the minimum capital requirement set by Bank Indonesia of 12%. Furthermore, Net Interest Margin (NIM) has a positive effect on bank capital adequacy. Therefore, bank management needs to maintain loan interest rates and customer deposits to obtain optimal Net Interest Margin (NIM). Preferably in using operational costs, banks must reduce BOPO as optimally as possible, because it can have an impact on decreasing income which will lead to high CAR usage. Although LDR does not directly affect the capital adequacy of banks, banks should also pay attention to the level of LDR safe standards that have been set by Bank Indonesia. In allocating credit, banks should be more sensitive in looking at macroeconomic conditions and in allocating funds must take the right policies.

References

- [1] Abdullah, Faisal. (2003). *Manajemen Perbankan Teknik Analisis Kinerja Keuangan Bank*. Malang: Universitas Muhammadiyah Malang Press.
- [2] Algifari. (2000). *Analisis Regresi, Teori, Kasus & Solusi*. BPFE UGM, Yogyakarta.
- [3] Almilia, Luciana Spica dan Winny Herdiningtyas. (2005). *Analisa Rasio Camel terhadap Prediksi Kondisi Bermasalah pada Lembaga Perbankan Periode 2000 - 2002*. *Jurnal Akuntansi dan Keuangan STIE Perbanas*. Volume 7 Nomor 2.
- [4] Altman, Edward I. . (1968). *Financial Ratios: Discriminant Analysis and The Prediction of Corporate Bankruptcy*. *The Journal of Finance*. Vol XXIII, pp.589 - 609. Arthur, A. T., & A. J., S. (2003). *Strategic management: concepts and cases*. Boston: Mass McGraw - Hill/Irvin.
- [5] Anjani, Dewa Ayu dan Purnawati, Ni Ketut. (2013). "Pengaruh Non Performing Loan (NPL), Likuiditas Dan Rentabilitas Terhadap Rasio Kecukupan Modal". Fakultas Ekonomi dan Bisnis Universitas Udayana.
- [6] Arief, Elizar. (2014). *Analisis pengaruh NPL, NIM, BOPO, dan LDR terhadap Capital Adequacy Ratio (Studi Empiris: Bank Umum di Indonesia Periode 2008 - 2012)*. Skripsi. Makasar: Program Studi Manajemen Universitas Hasanuddin.
- [7] Arief, Sritua. (2006). *Metodologi Penelitian Ekonomi*. Jakarta: Penerbit Universitas Indonesia.
- [8] Ariefianto, Moch. Doddy. (2012). *Ekonometrika Esensi dan Aplikasinya dengan Menggunakan Eviews*. Jakarta: Penerbit Erlangga.
- [9] Barus, Andreani Caroline. (2011). *Analisis Profitabilitas dan Likuiditas Terhadap Capital Adequacy Ratio Pada Institusi Perbankan Terbuka di Bursa Efek Indonesia*. *Jurnal Wira Ekonomi Mikroskil*. Volume 1, Nomor 01.

- [10] Beaver, William H. . (1966). Financial Ratio as Predictors of Failure. *Journal of Accounting Research*.
- [11] Brigham, E. F. dan Gapenski, L. C. . (1997). *Intermediate Financial Management, Fifth Edition - International Edition*. The Dryden Press.
- [12] Dambolena, Ismail G., dan Khoury. (1980). Ratio Stability and Corporate Failure. *The Journal of Finance*. Vol XXX, pp.1017 - 1027.
- [13] Dendawijaya, Lukman. (2009). *Manajemen Perbankan*. Edisi Pertama. Jakarta: Ghalia Indonesia.
- [14] Ghozali, Imam. (2005). *Aplikasi Analisis Multivariate dengan program SPSS*. Badan Penerbit Universitas Diponegoro, Semarang.
- [15] Ghozali, Imam. (2006). *Aplikasi Analisis Multivariate Dengan Program (SPSS.16)*. Gramedia
- [16] Ghozali, Imam. (2011). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 19*. Semarang: Badan Penerbit Universitas Diponegoro.
- [17] Harahap, Sofyan Syafri. (2013). *Analisis Kritis Laporan KEUANGAN*. Cetakan ke - 11. Jakarta: PT. Raja Grafindo Persada.
- [18] Hery & Herna Selvia. (2015). *Analisis Kinerja Manajemen*. Jakarta: Grasindo.
- [19] Hutahuruk (Ed.). (1991). *Dasar - dasar Manajemen Keuangan*. Jakarta: Erlangga.
- [20] Indira Januarti. (2002). *Variabel Proksi CAMEL dan Karakteristik Bank Lainnya Untuk Memprediksi Kebangkrutan Bank di Indonesia*. *Jurnal Bisnis Strategi*. Vol.10, Desember, hal.1 - 26.
- [21] Janie, Dyah Nirmala Arum. (2012). *Statistik Deskriptif Dan Regresi Linear Berganda Dengan SPSS*. Semarang: Semarang University Press.
- [22] Kasmir. (1998). *Bank dan Lembaga Keuangan Lainnya*. Jakarta: Raja Grafindo Persada.
- [23] Kasmir. (2007). *Manajemen Perbankan*. Jakarta: Raja Grafindo Persada.
- [24] Kasmir. (2010). *Dasar - Dasar Perbankan*. Edisi Revisi 2010. Jakarta: Rajawali pers
- [25] Kasmir. (2012). *Manajemen Perbankan*. Jakarta: Raja Grafindo Persada.
- [26] Krisna, Yansen. (2008). *Faktor - faktor yang Mempengaruhi Capital Adequacy Ratio (Studi pada Bank - Bank Umum di Indonesia periode 2003 - 2006)*. Tesis. Semarang: Program Studi Magister Manajemen Universitas Diponegoro.
- [27] Leon, Boy & Ericson, Sonny. (2008). *Manajemen Aktiva Pasiva Bank Devisa*. Jakarta: PT. Grasindo.
- [28] Mahardian, Pandu. (2008). *Analisis Pengaruh Rasio CAR, BOPO, NPL, NIM, dan LDR Terhadap Kinerja Keuangan Perbankan*. Tesis. Semarang: Program Studi Magister Manajemen Universitas Diponegoro.
- [29] Muljono, Teguh Pudjo. (1999). *"Analisa Laporan Keuangan Untuk Perbankan"*. Edisi Revisi 1999, Cetakan 6. Jakarta: Djambatan.
- [30] Mulyaningrum, Penny. (2008). *Pengaruh Rasio Keuangan Terhadap Kebangkrutan Bank di Indonesia*. Tesis. Semarang: Program Studi Magister Manajemen Universitas Diponegoro.
- [31] Mulyati, Tatik. (2001). *Peran Financial Leverage Terhadap Profitabilitas dalam Sektor Perbankan di Indonesia*. *Jurnal Ekonomi dan Manajemen*. Vol.2, No.1, Juni, hal.55 - 65.
- [32] Natasia, Rizky. (2015). *Pengaruh Risiko Kredit, Profitabilitas, Likuiditas, dan Efisiensi Usaha Terhadap Kecukupan Modal Pada Bank Yang Terdaftar Di Bursa Efek Indonesia Periode 2010 - 2014*. E - Journal. Surabaya: Universitas Negeri Surabaya.
- [33] Peraturan Bank Indonesia nomor: 15/12/PBI/2013
- [34] Peraturan Bank Indonesia nomor: 17/11/PBI/2015
- [35] Rivai, Veithzal. et al. (2012). *Manajemen Perbankan dari Teori ke Praktik*. Depok: PT Raja Grafindo Persada.
- [36] Riyadi, Selamat. (2006). *Banking Assets and Liability Management*. Jakarta: Fakultas Ekonomi Universitas Indonesia.
- [37] Robert, Ang. (1997). *Buku Pintar: Pasar Modal Indonesia (The Intelligent Guide to Indonesian Capital Market)*. Mediasoft Indonesia
- [38] Samsul H. Pasaribu dan Romi M. Hasiholan. (2001). *Pengaruh Paket Regulasi Perbankan 1998 Terhadap Kehati - hatian Sektor Perbankan di Indonesia: Analisis Terhadap Capital Adequacy Ratio (CAR)*. *Telaah Bisnis*. Vol.2, No.2, hal.83 - 97.
- [39] Santoso, Singgih. (1999). *SPSS (Statistical Product and Service Solutions)*. Jakarta: PT Elex Media komputindo.
- [40] Shingjergji, Ali dan Hyseni, Marsida. (2015). *The Determinants of The Capital Adequacy Ratio In The Albanian Banking System During 2007 - 2014*. *International Journal of Economics, Commerce and Management*. Vol.3, No.1.
- [41] Shitawati, Artin. (2006). *Analisis Faktor - faktor yang berpengaruh terhadap Capital Adequacy Ratio (Studi Empiris: Bank Umum di Indonesia Periode 2001 - 2004)*. Tesis. Semarang: Program Studi Magister Manajemen Universitas Diponegoro.
- [42] Soegoto, Eddy Soeryanto. (2008). *Marketing Research*. Jakarta: PT. Elex Media Komputindo.
- [43] Sugiyanto, dkk. (2002). *Manfaat Indikator - Indikator Keuangan Dalam Pembentukan Model Prediksi Kondisi Kesehatan Perbankan*. *Jurnal Bisnis Strategi*. Vol.10, hal.11 - 23.
- [44] Sulaiman, Wahid. 2004. *Analisis Regresi Menggunakan SPSS, Contoh Kasus dan Pemecahannya*. Yogyakarta: Andi
- [45] Taswan. (2008). *Manajemen Perbankan*. Yogyakarta: UPP STIM YKPN.
- [46] Umar, Husein. (2010). *Metodologi Penelitian*. Bandung: Alfabeta Bandung.
- [47] Wahyono, Teguh. (2006). *Analisis Data Statistik Dengan SPSS 14*. Jakarta: PT. Elex Media Komputindo.
- [48] Weston, J. Fred; Thomas E. Copeland. (1999). *Manajemen Keuangan, Edisi Kesembilan, Jilid 2*. Jakarta: Binarupa Aksara.
- [49] Yuliani, Desak Nyoman Sri Werasturi, Edy Sujana. (2015). *Pengaruh Loan To Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA), Dan Biaya Operasional Pendapatan Operasional*. E - Journal Akuntansi. Volume 3 No 1.