

## **The Effect of Current Ratio (CR) and Debt to Equity Ratio (DER) on Return on Equity (RoE) at PT Aneka Tambang, Tbk, Years 2010 - 2017**

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### **ABSTRACT**

The company wants an optimal profit for the business being run. This study aims to determine the effect of the current ratio (CR) on return on equity (ROE), the effect of debt to equity ratio (DER) on return on equity (ROE), and to determine the effect of current ratio (CR) and debt to equity ratio (DER) simultaneously on return on equity (ROE) at PT Aneka Tambang, Tbk in the period 2010 - 2017. The research method used is descriptive quantitative. The data used are secondary data in the form of PT Aneka Tambang, Tbk's financial statements for the period 2010-2017. The analytical method used is the classic assumption test, multiple linear regression analysis, correlation coefficient, coefficient of determination, and hypothesis testing with t-test and F test using SPSS version 20.0. The results showed no significant effect of the current ratio (CR) on return on equity (ROE), there was no significant effect of debt to equity ratio (DER) on return on equity (ROE), and there was no significant effect between the current ratio (CR) and debt to equity ratio (DER) together against return on equity (ROE). Current ratio (CR) and debt to equity ratio (DER) have a very strong relationship to return on equity (ROE). The contribution rate of the variable current ratio (CR) and the debt to equity ratio (DER) to return on equity (ROE) is 61.9%.

**Keywords:** Current Ratio (CR); Debt to Equity Ratio (DER); Return On Equity (ROE)

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### **INTRODUCTION**

In a business activity carried out by a company, has several objectives to be achieved by the company. The company wants an optimal profit for the business being run (Brigham & Houston, 2013; Ekawati, 2014; Horne, J.C. dan Wachowicz, 2007; Sudana, 2011). The company wants the business carried out in the future is not only for one period of activity but wants more than one period of the activity. The company is still able to provide or produce various types of goods and services needed by the general public. The business that has been run will be able to open up employment opportunities for the community, both those within the

company environment and those outside the company environment. For a goal to be achieved, the company must be able to make an accurate and appropriate plan, the company must also be able to supervise and control a business that is being carried out in the event of an unwanted deviation (Assauri, 2008; Farid Addy Sumantri et al., 2015; Kotler & Keller, 2009; Mangkunegara, 2003).

With the global economic turnaround time that has experienced development and lead to a free market economy, various companies are increasingly encouraged to increase competitiveness (Nuraini, Fitri. Maharani, 2016; Suci, 2017; Tambunan, 2012). A company can be said to achieve success and win the competition if it can produce the maximum profit or profit desired by the company. Profit reflects the financial performance of a company (Fachrudin, 2011; Rudianto, 2012; Sawir, 2001). If where a company sets a large asset, it is likely that what will happen at the level of liquidity will be in a safe position, but the expectation to get a large profit will go down which will then have an impact on the company's profitability or vice versa. The higher the liquidity, the better the company's position in the eyes of creditors, therefore, there is a greater likelihood that the company will pay obligations on time as determined by the creditor (Ariani, Cipta, & Yudiaatmaja, 2016; Drehmann & Nikolaou, 2013; Primantara & Dewi, 2016; Susianti, 2018)

In addition to the problem of asset management, companies must also face the problem of funding sources (Wairooy, 2017)(Irmal, Gustiarani, & Sunarsi, 2020; Sunarsi, 2018). The fulfillment of the source of funds is also usually obtained from an internal company by withdrawing capital through the sale of shares or from retained earnings by companies that are not shared and can be reused as capital, or the company can issue bonds to the public. Meanwhile, from the external side of the company that can be through loans from creditors, such as banks or non-bank institutions. The greater the proportion of debt in the capital structure of a company, the higher the fixed burden and repayment commitments that can be incurred. If a company uses more debt than its own capital, then solvency will be even greater because the interest expense that must be borne by the company will increase and will result in a company's profitability decreasing (Anita, 20219; Sari, 2013; Timbul, 2013).

This study tries to look at several factors that can affect a company's financial performance viewed through profitability by using the Return On Equity (ROE) calculation. Then it can be seen from several aspects using liquidity ratios using the calculation of Current Ratio (CR) and solvency ratios by using the calculation of Debt to Equity Ratio (DER), whether it can affect the company's financial performance in obtaining the company's profitability. The company that can be chosen is PT Aneka Tambang Tbk which is engaged in gold mining. Several companies were chosen because they have several factors that are really needed, namely the company has a complete financial report and published starting from 2010 to 2017.

## **METHOD**

This research is quantitative research. The population used in this study is the entire financial report of PT Aneka Tambang, Tbk. The sample used in this study is the company's financial statements in the form of a balance sheet and income statement of PT Aneka Tambang, Tbk in the period 2010 to 2017. The test used is the classic assumption test consisting of a normality test, multicollinearity test, autocorrelation test, test heteroscedasticity. Inferential statistical analysis used consists of product-moment correlation tests, simple linear regression, coefficient of determination, and t-test (partial test)

## RESULT AND DISCUSSION

This research was conducted at PT Aneka Tambang, Tbk having its address at Aneka Tambang Building, Jl. Lt. Gen. TB Simatupang No. 1 Lingkar Selatan, Tanjung Barat, South Jakarta 12530. This research was conducted by observing and recording financial statements for the period 2010 to 2017. Research and analysis of financial statements were conducted by the author for 6 (six) months starting from February - July 2019 to obtain information on the financial statements of PT Aneka Tambang, Tbk. Data taken from 2010 - 2017.

### Descriptif Statistic

Table 1.

Current Ratio (CR) PT. Aneka Tambang, Tbk in 2010 – 2017

Year	Current asset	Current liabilities	CR %
2010	7.593.630.426	1.989.071.312	381,77%
2011	9.108.019.774	855.829.583	1.064,23%
2012	7.646.851.196	3.041.406.158	251,42%
2013	7.080.437.173	3.855.511.633	183,64%
2014	6.343.109.936	3.862.917.319	164,20%
2015	11.252.826.560	4.339.330.380	259,32%
2016	10.630.221.568	4.352.313.598	244,24%
2017	9.001.938.755	5.552.461.635	162,12%
Amount	68.657.035.388	27.848.841.618	2.710,94%
Mean	8.582.129.424	3.481.105.202	246,53%
Maximum	9.108.019.774	855.829.583	1.064,23%
Minimal	9.001.938.755	5.552.461.635	162,12%

Table 2.

Debt to Equity Ratio (DER) PT. Aneka Tambang, Tbk in 2010 – 2017

Year	Total Amoun of debt	Total Capital	DER %
2010	2.709.896.801	9.580.098.225	28,28%
2011	4.429.191.527	10.772.043.550	41,11%
2012	6.876.224.890	12.832.316.056	53,58%
2013	9.071.629.859	12.793.487.532	70,90%
2014	10.114.640.953	11.929.561.267	84,78%
2015	12.040.131.928	18.316.718.962	65,73%
2016	11.572.740.239	18.408.795.573	62,86%
2017	11.523.869.935	18.490.403.517	62,32%
Amount	68.338.326.132	113.123.424.682	469,56%
Mean	8.542.290.767	14.140.428.085	60,41%
Maximun	10.114.640.953	11.929.561.267	84,78%
Minimal	2.709.896.801	9.580.098.225	28,28%

Table 3.  
Return On Equity (ROE) PT. Aneka Tambang, Tbk in 2010 – 2017

Year	Net Profit After Tax	Total Capital	ROE %
2010	1.683.399.992	9.580.098.225	17,57%
2011	1.927.891.998	10.772.043.550	17,89%
2012	2.993.115.731	12.832.316.056	23,32%
2013	409.947.369	12.793.487.532	3,20%
2014	(775.286.289)	11.929.561.267	(6,49)%
2015	(1.440.852.896)	18.316.718.962	(7,86)%
2016	64.806.188	18.408.795.573	0,35%
2017	136.503.269	18.490.403.517	0,73%
Amount	4.999.525.362	113.123.424.682	48,71%
Mean	624.940.670	14.140.428.085	4,41%
Maximun	2.993.115.731	12.832.316.056	23,32%
Minimal	(775.286.289)	11.929.561.267	(6,49)%

Table 4.  
Descriptif Statistic

Descriptive Statistics			
	Mean	Std. Deviation	N
ROE	.060888	.1189713	8
CR	3.388675	3.0160632	8
DER	.586950	.1760615	8

### Classic Assumption Test

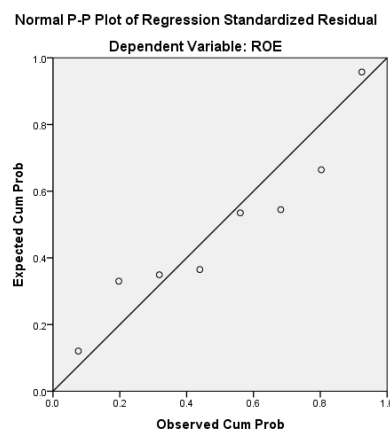


Figure 1.  
Normality Test

Table 5.  
P-Plot Normality Result

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		8
Normal Parameters <sup>a,b</sup>	Mean	.0E-7
	Std. Deviation	.07343669
	Absolute	.197
Most Extreme Differences	Positive	.197
	Negative	-.177
Kolmogorov-Smirnov Z		.558
Asymp. Sig. (2-tailed)		.915

Table 6.  
Multicollinearity Test

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	.343	.168		2.039	.097		
1 CR	.003	.013	.079	.233	.825	.660	1.514
DER	-.499	.230	-.738	-2.172	.082	.660	1.514

a. Dependent Variable: ROE

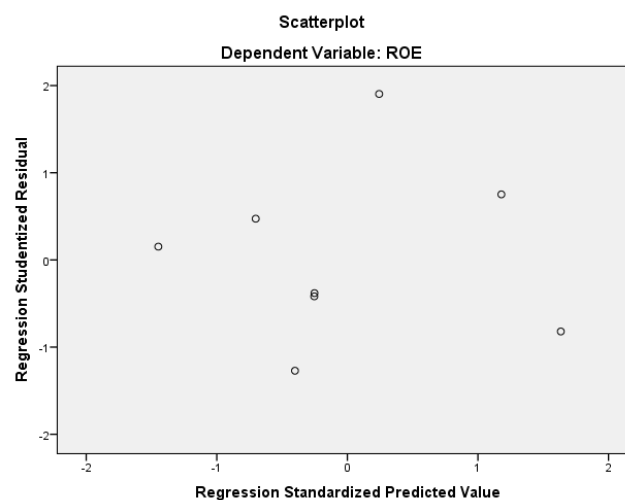


Figure 2.  
Heteroscedasticity Test

### Inferential Statistical Analysis

Table 7.  
Multiple Linear Analysis

		Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.343	.168		2.039	.097	
	CR	.003	.013	.079	.233	.825	.660 1.514
	DER	-.499	.230	-.738	-2.172	.082	.660 1.514

a. Dependent Variable: ROE

The regression equation is as follows:

$$\text{ROE} = 0.343 + 0.168 \text{ CR} - 0.499 \text{ DER}$$

Can be interpreted Current Ratio has a positive relationship direction and Debt to Equity Ratio has a negative relationship direction to Return On Equity.

Based on table 7 above it can be explained that a constant of 0.343 can be interpreted: if CR (X1) and DER (X2) the value is 0, then the ROE (Y) value is 0.343. the regression coefficient of the variable CR (X1) of 0.168 can be interpreted: if other independent variables are of a fixed value and CR has increased 1%, then ROE (Y) will increase by 0.168. The coefficient is positive, which means there is a positive relationship between CR and ROE, the more CR increases, the more ROE increases. The regression coefficient of the DER variable (X2) of (0.499) can be interpreted: if the other independent variables have a fixed value and the DER has increased by 1%, then ROE (Y) will decrease by 0.499. The coefficient is negative, which means there is a negative relationship between DER and ROE, the higher the DER, the lower the ROE.

Table 8.  
Coefficient Analysis

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787 <sup>a</sup>	.619	.467	.0868915	1.399

a. Predictors: (Constant), DER, CR

Based on table 8 above we can get an R figure of 0.787. This shows that there is a very strong relationship between the current ratio with the debt to equity ratio to return on equity.

Table 9.  
Determination Coefficient

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787 <sup>a</sup>	.619	.467	.0868915	1.399

a. Predictors: (Constant), DER, CR

Based on table 9 above can be obtained the number  $r^2$  (R Square) of 0.619 or (61.9%). This can indicate that contributing current ratio and debt to equity ratio to return on equity of 61.9%

Table 10.  
T-Test CR Variable

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
	B	Std. Error	Beta			Tolerance VIF
1 (Constant)	.343	.168		2.039	.097	
CR	.003	.013	.079	.233	.825	.660 1.514
DER	-.499	.230	-.738	-2.172	.082	.660 1.514

Based on table 10 above, it can be obtained that t count is 0.233 while t table 2.570 so  $t_{\text{count}} < t_{\text{table}}$ , with a significant level of Current Ratio variable of 0.825 greater than the significant level of 0.05. So it can be concluded that HO1 is accepted and Ha1 is rejected, meaning that there is no significant effect between Current Ratio to Return On Equity at PT Aneka Tambang, Tbk in 2010 - 2017.

Table 11.  
T-test DER Variable

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
	B	Std. Error	Beta			Tolerance VIF
1 (Constant)	.343	.168		2.039	.097	
CR	.003	.013	.079	.233	.825	.660 1.514
DER	-.499	.230	-.738	-2.172	.082	.660 1.514

Based on the table above, it can be obtained that the  $t_{\text{count}}$  is 2,172 while the  $t_{\text{table}}$  is 2.570 so the  $t_{\text{table}} < t_{\text{count}}$ , with a significant level of Debt to Equity Ratio variable of 0.082, greater than the significant level of 0.05. Then it can be concluded that HO2 is accepted and Ha2 is rejected, meaning that there is no significant effect between Debt to Equity Ratio on Return On Equity at PT Aneka Tambang, Tbk in 2010 - 2017.

Table 12.  
F-Test

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.061	2	.031	4.061	.090 <sup>b</sup>
	Residual	.038	5	.008		
	Total	.099	7			

a. Dependent Variable: ROE

Based on the simultaneous test table obtained  $F_{\text{count}}$  of 4.061 while  $F_{\text{tabel}}$  of 5.79 so that  $F_{\text{count}} < F_{\text{tabel}}$ , with a significant level of 0.090 is greater than the significant level of 0.05. Then it can be concluded that  $H_03$  is accepted and  $H_{a3}$  is rejected, meaning that there is no significant effect jointly between Current Ratio and Debt to Equity Ratio on Return On Equity at PT Aneka Tambang, Tbk in 2010 - 2017.

## CONCLUSION

Based on the research results of Current Ratio (CR) partially there is no significant effect on Return On Equity (ROE) at PT Aneka Tambang, Tbk Period 2010-2017. Debt to Equity Ratio (DER) partially there is no significant effect on Return On Equity (ROE) at PT Aneka Tambang, Tbk Period 2010 - 2017. There is no significant effect jointly between Current Ratio (CR) and Debt to Equity Ratio (DER) to Return On Equity (ROE) at PT Aneka Tambang, Tbk years 2010 - 2017. Current Ratio (CR) and Debt to Equity Ratio (DER) to Return On Equity (ROE) contributed 61.9%. Current Ratio and Debt to Equity Ratio to Return On Equity (ROE) have a very strong relationship, where  $ROE = 0.343 + 0.168 \text{ CR} - 0.499 \text{ DER}$  which means Current Ratio has a positive relationship direction and Debt to Equity Ratio has a negative relationship towards Return On Equity

## REFERENCES

- Anita, A. D. C. (20219). Pengaruh Profitabilitas, Solvabilitas, dan Opini Auditor terhadap Audit Delay dengan Ukuran Perusahaan sebagai Variabel Pemoderasi. *Jurnal PETA*.
- Ariani, N. K., Cipta, W., & Yudiaatmaja, F. (2016). Pengaruh Modal Kerja Dan Likuiditas Terhadap Profitabilitas Yang Terdaftar Di Bursa Efek Indonesia Tahun 2014. *e-Journal Bisma Universitas Pendidikan Ganesha Jurusan Manajemen*.
- Assauri, S. (2008). Manajemen Produksi dan Operasi. *Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia*.
- Brigham, E. F., & Houston, J. F. (2013). Dasar-Dasar Manajemen Keuangan. *Salemba Empat*. <https://doi.org/10.1145/2505515.2507827>
- Drehmann, M., & Nikolaou, K. (2013). Funding liquidity risk: Definition and measurement. *Journal of Banking and Finance*. <https://doi.org/10.1016/j.jbankfin.2012.01.002>
- Ekawati, E. (2014). Manajemen Keuangan. *Modul Kuliah*. <https://doi.org/10.1016/S0044->



8486(98)00413-X

- Fachrudin, K. A. (2011). Analisis Pengaruh Struktur Modal, Ukuran Perusahaan, dan Agency Cost Terhadap Kinerja Perusahaan. *Jurnal Akuntansi dan Keuangan*. <https://doi.org/10.9744/jak.13.1.37-46>
- Farid Addy Sumantri, Nila, K., Fenti, H., Hery, Sugiyono, Aditya Setiawan, I. P. D., ... Pudjiastuti, S. H. dan E. (2015). Manajemen Keuangan Perusahaan. In *Jurnal Ekonomi dan Bisnis*. <https://doi.org/10.24843/ejmunud.2018.v07.i05.p01>
- Horne, J.C. dan Wachowicz, J. M. (2007). Prinsip-Prinsip Manajemen Keuangan. In *Prinsip-Prinsip Manajemen Keuangan*. <https://doi.org/10.4324/9781315641348>
- Irmal, I., Gustiarani, E., & Sunarsi, D. (2020). Pengaruh E-Marketing dan E-Loyalty Pengunjung Situs Website [www.cankirbogor.com](http://www.cankirbogor.com). *Jurnal Ekonomi Efektif*, 2(2).
- Kotler, P., & Keller, K. L. (2009). Manajemen pemasaran Jilid 1. In *Jakarta*.
- Mangkunegara, A. A. A. P. (2003). Manajemen Sumber Daya Manusia Perusahaan. In *Remaja Rosdakarya*. <https://doi.org/10.1038/cddis.2011.1>
- Nuraini, Fitri. Maharani, R. A. (2016). Strategi Peningkatan Daya Saing UMKM DAN KOPERASI Dalam Menghadapi AEC ( ASEAN ECONOMIC COMMUNITY ) : Suatu Telaah Kepustakaan. *Umsida*.
- Primantara, A. . N. A. D. Y., & Dewi, M. R. (2016). Pengaruh Likuiditas , Profitabilitas , Pajak Terhadap Struktur Modal. *E-Jurnal Manajemen Unud*.
- Rudianto. (2012). Pengantar Akuntansi Konsep & Teknik Penyusunan Laporan Keuangan. In *laporan arus kas adalah alat pembayaran yang dimiliki perusahaan dan siap digunakan untuk investasi maupun menjalankan operasi perusahaan setiap saat dibutuhkan*.
- Sari, R. K. (2013). Analisis Laporan Keuangan Dalam Mengukur Kinerja Keuangan. *Konferensi Nasional Ilmu Sosial & Teknologi*.
- Sawir, A. (2001). Analisis Kinerja Keuangan dan Perencanaan Keuangan Perusahaan. *PT Gramedia Pustaka Utama*. <https://doi.org/10.1021/j100193a062>
- Suci, Y. R. (2017). Development of MSME (Micro, Small and Medium Enterprises) in Indonesia. *Jurnal Ilmiah Cano Ekonomos*.
- Sudana, I. M. (2011). Manajemen Keuangan Perusahaan Teori & Praktik. In *Erlangga*. <https://doi.org/10.1145/2505515.2507827>
- Sunarsi, D. (2018). Pengaruh Kompensasi, Komunikasi Dan Stress Kerja Terhadap Prestasi Kerja Karyawan Pada PT Catur Putra Jaya Kota Depok-Jawa Barat. *JIMF (Jurnal Ilmiah Manajemen Forkamma)*, 1(2).
- Susianti, I. (2018). Analisis Laporan Keuangan Untuk Menilai Kinerja Keuangan Pada PT . Gudang Garam Tbk . Pada Periode 2013 - 2015. *Simki-Economic*.
- Tambunan, T. T. H. (2012). Peluang, Tantangan dan Ancaman bagi UMKM Indonesia dalam Era CAFTA dan ME-ASEAN 015. *Prosiding Seminar & Konferensi Nasional Manajemen Bisnis: memberdayakan UMKM dalam meningkatkan kesejahteraan masyarakat menghadapi persaingan global*.
- Timbul, Y. K. (2013). Perputaran Modal Kerja Dalam Mengukur Tingkat Profitabilitas Pada Pt. Jasa Angkasa Semesta, Tbk. Jakarta. *Jurnal Riset Ekonomi, Manajemen, Bisnis Dan*

*Akuntansi.*

Wairooy, A. (2017). Pengaruh Biaya Penyusutan Aset Tetap terhadap Laba pada PT. Bank Sulselbar. *Jurnal Office*, 3(1), 1–6.