



# The Effect of Current Ratio, Debt To Equity Ratio, Net Profit Margin and Total Asset Turn Over on Earning Growth in Manufacturing Companies in the Mining Sector Listed on the Indonesia Stock Exchange in 2017 – 2019

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## ABSTRACT

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### Keywords:

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This study aims to see the effect of CR, DER, NPM and TATO on Earning Growth in mining sector manufacturing companies listed on the IDX by using the T test, F test, and using quantitative descriptive. The total population used for this study was 44 companies in the 2017-2019 period and purposive sampling was carried out on the population in order to obtain a sample. The samples obtained were 38 companies. The data analysis technique used in this research is multiple linear regression analysis technique. The research shows that partially only NPM and TATO have a positive and significant effect on earning growth, while simultaneously the four variables used have a positive and significant effect on stock returns.

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## 1. Introduction

Companies listed on the Indonesia Stock Exchange (IDX) have different goals in improving the corporate governance business, namely capital structure and brand image. Stock products developed by the IDX are presented to investors as an alternative solution (Sadalia, Rahamani, & Muda, 2017). Presentation of information and analytical skills in obtaining stock is very necessary, both technically and fundamentally by using certain variables.

One of the views of investors in making predictions is through financial statement analysis and management. In conducting management analysis, financial statements are an important and very useful instrument for anticipating predictions at the starting point of planning in order to improve company performance.

One of the parameters considered by investors in conducting the analysis is profit growth or earning growth. As the results of research by Romanda, (2014) which states that if the company announces annual profit and the actual profit result is greater than the predicted profit made, this is good news. On the other hand, if the profit prediction does not match, then what happens is bad news. Because of the many variables that can affect the ability of a company's profit prediction, research regarding the company's profit prediction is still needed (Riahi, 2011).

Profit which is used as a measure of the success of the company's management can be used as a form for making investment decisions and predictions to predict future earnings changes. Profit growth is an increase in profit or decrease in annual profit. Profit growth has a close relationship with the company's financial performance. The higher the profit generated by the company indicates that the better the company's performance. Thus, if the financial ratios are good, the company's profit growth is also good.

Here we try to present the data we are interested in examining Current Ratio (Total Current Assets), Debt to equity ratio (Total Equity), Net profit margin (Sales), Total asset turn over (Total Assets), and Earning Growth (Profit for the year). (source: Indonesia Stock Exchange).

At PT. ADRO total current assets increased from 2018-2019 of Rp 509,530 but was not followed by an increase in profit for the year. Profit for the year decreased by Rp 42,539. The greater the total asset value, it can be indicated that the company's current year profit is good.



At PT. ANTM total equity decreased from 2017-2018 of Rp 42,037,226 but was not followed by profit for the year. Profit for the year in 2017-2018 increased by IDR 737,923,324. The decrease in total equity will not adversely affect the current year's profit, because the company must carry out careful debt management in order to achieve good profit growth.

At PT. BIPI total sales increased from 2018-2019 of Rp 43,727,858 but were not followed by the total profit for the year because it decreased by Rp 5,019,347. The increase in total sales will have a good effect on profit growth if profits also increase, but here the current year's profit has decreased.

At PT. BRMS, total assets increased in 2018-2019 of Rp. 22,248,196 but were not followed by current year's profit because it decreased by Rp. 143,608,339. So that there is a problem that occurs between the increase in total assets which is not followed by the current year's profit, so it cannot take advantage of the total assets to increase sales which affect profit income.

## 2. Literature review

### 2.1 Theory of the Effect of Current Ratio on Profit Growth

According to Wibowo (2011) in Ardyasari (2012) Current Ratio is a ratio that measures the company's ability to meet its short-term obligations by using current assets. Current Ratio is the comparison between current assets and current liabilities.

### 2.2 Theory of the Effect of Debt to Equity Ratio on Profit Growth

According to Made Sudana (2011) the debt to equity ratio measures the proportion of funds sourced from debt to finance company assets. Debt to equity ratio is the ratio between total liabilities to equity. The decision to do debt by the company is used as asset financing in the hope of increasing production. Therefore, companies must carry out careful debt management in order to achieve good profit growth.

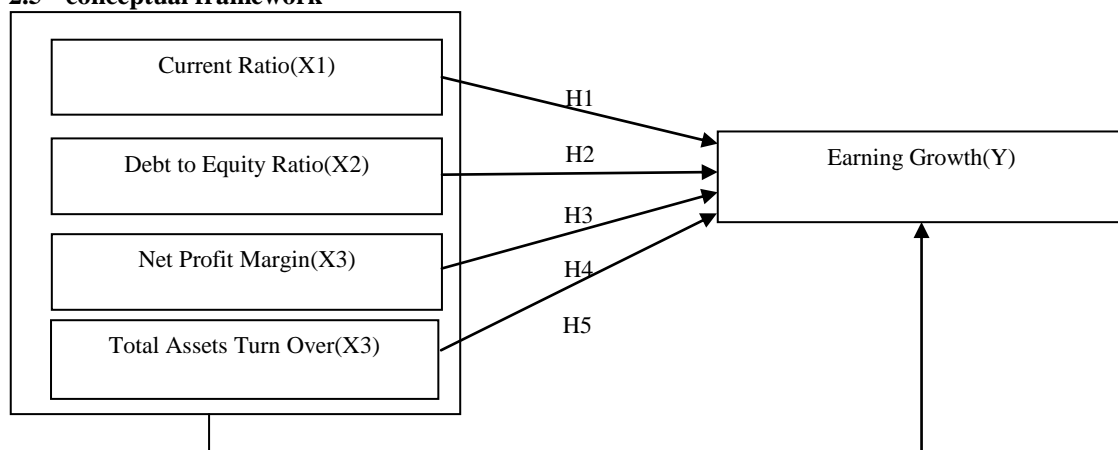
### 2.3 Theory of the Effect of Net Profit Margin on Profit Growth

According to Werner (2013) net profit margin measures the level of the company's ability to generate profits by increasing its sales, this ratio reflects the efficiency of all parts of the company. The higher the profit, it can be ascertained that the company carries out good financial management by minimizing costs, and the sales obtained are not eroded by unnecessary costs. Therefore, if the net profit margin increases, profit growth will also tend to increase.

### 2.4 Theory of the Effect of Total Assets Turn Over on Lab Growth

According to Fahmi (2017:135) total asset turnover is a ratio to see the extent to which the overall assets owned by the company have an effective turnover. All assets owned by the company must be utilized as optimally as possible, because otherwise there will be idle capacity and have an impact on high loading.

### 2.5 conceptual framework



### 2.6 Research Hypothesis

- H1 : Current Ratio has a partial effect on profit growth in mining sector companies listed on the IDX in 2017-2019
- H2 : Debt to Equity Ratio has a partial effect on profit growth in mining sector companies listed on the IDX in 2017-2019

- H3 : Net Profit Margin has a partial effect on profit growth in mining sector companies listed on the IDX in 2017-2019
- H4 : Total Asset Turn Over has a partial effect on profit growth in mining sector companies listed on the IDX in 2017-2019
- H5: Current Ratio, Debt to Equity Ratio, Net Profit Margin, and Total Asset Turn Over have a simultaneous effect on profit growth in mining sector companies listed on the IDX in 2017-2019

### 3. Research methods

#### 3.1 Research Place

Researchers conducted research on mining sector companies for the 2017 – 2019 period listed on the Indonesia Stock Exchange website via the internet with the site www.idx.co.id

#### 3.2 Population And Sample

In this study, the researcher will use the population in the mining company sector listed on the Indonesia Stock Exchange in 2017-2019. In this study, the purposive sampling technique became the researcher's choice. According to Sugiyono, the purposive sampling technique is a technique for determining samples with certain characteristics (2016:85 ). Sample selection criteria are as follows:

**Table 1**  
Sample Selection Table

No	Criteria	Total
1	Mining companies listed on the IDX in 2017-2019	44
2	Mining companies that do not publish financial statements in a row for the period 2017-2019	(2)
3	Mining companies that suffered losses during 2017-2019	(4)
<b>Number of Company Samples</b>		<b>(38)</b>
<b>Total sample (38 x 3 )</b>		<b>114</b>

#### 3.3 Data collection technique

The researcher chose the documentation method as a technique in data collection. According to Sugiyono, getting data is the goal of the data collection technique step (2016:224). This technique collects, studies, and records company data with sources from the 2017 - 2019 financial statements obtained from the Indonesia Stock Exchange website, namely www.idx.co.id

#### 3.4 Identification and Operational Definition of Research Variables

The variables used by the researcher consisted of 4 independent variables (independent) and 1 dependent variable (dependent).

**Table 2**  
Operational Definition and Measurement of Variables

Variable	Definition	Indicator	Scale
<i>Current Ratio</i> (X1)	Ratio to measure the company's ability to pay short-term obligations (Kasmir, 2016:134)	$= \frac{\text{Aktiva Lancar}}{\text{Hutang Lancar}}$	Ratio
<i>Debt to Equity Ratio</i> (X2)	Ratios that use debt and capital to measure the size of the ratio (Irham Fahmi 2014: 95).	$= \frac{\text{Total Hutang}}{\text{Total ekuitas Laba Bersih}}$	Ratio
<i>Net Profit Margin</i> (X3)	Ratio between net profit and sales (Ryan 2016:111)	$= \frac{\text{Penjualan}}{\text{Penjualan}}$	Ratio
<i>Total Asset Turn Over</i> (X4)	The ratio between sales and total assets of JP Sitanggung (2014:27)	$= \frac{\text{Tota Aset}}{\text{Penjualan}}$	Ratio
<i>Earning Growth</i> (Y)	The ratio that measures the increase in company profits compared to the previous period laba(Arthur J, Keown 2011:135)	$= \frac{Y(t) - Y(t - 1)}{Y(t - 1)}$	Ratio

#### 3.5 Classic assumption test

According to Ghozali (2011: 96), the classical assumption is a hypothesis testing used in one study. normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.



### 3.6 Research Data Model and Analysis

#### a. Research Data Model

Panel data regression analysis was used as a data analysis technique with a combination of time series and cross section data. The approach used is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Information:

Y	: Earning Growth
a	: Constant
b <sub>1</sub> , b <sub>2</sub> , b <sub>3</sub> , b <sub>4</sub>	: Regression Coefficient
X <sub>1</sub>	: Current Ratio (CR)
X <sub>2</sub>	: Debt To Equity Ratio (DER)
X <sub>3</sub>	: Net Profit Margin (NPM)
X <sub>4</sub>	: Total Assets Turn Over (TATO)
e	: Standard Error

#### b. Hypothesis Determination Coefficient

This test calculates the ability of a model to explain variations in the dependent variable (Ghozali, 2018)

#### c. Partial Hypothesis Testing (t-test)

The t test has the aim of showing 1 independent variable individually in order to explain the dependent variable (Ghozali, 2016: 97). The t-test was conducted to see the influence of the independent variable individually on the dependent. With the provisions <0.05 has an effect while > 0.05 has no effect.

#### d. Simultaneous Hypothesis Testing (F-Test)

The F test aims to show the effect of the independent variables as a whole on the dependent variable (Ghozali, 2016:171). If the sig value is below 0.05, it means that there is a simultaneous influence, while if it is above 0.05 there is no simultaneous influence.

## 4. Research Results and Discussion

### 4.1 Research result

#### a. Descriptive statistics

**Table 3**  
Descriptive Research Statistics

Descriptive Statistics						
	N	Minimum	Maximum	mean	Std. Deviation	
CR	114	.08	9.22	1.6358	1.35336	
DER	114	-5.91	23.14	1.8008	3.05542	
NPM	114	-5.75	49.51	.6956	4.90817	
TATTOO	114	.00	2.25	.6894	.48992	
Valid N (listwise)	114					

Source: Processed SPSS 21

It can be concluded as follows:

- 1) The variable Current Ratio has a minimum value of 0.08 for PT Ifishdeco Tbk., a maximum value of 9.22 for PT Harum Energy Tbk., a mean value of 1.6358, and a standard deviation of 1.35336.
- 2) The variable Debt to Equity Ratio has a minimum value of -5.91 for PT Mitra Investindo Tbk., a maximum value of 23.14 for PT Borneo Olah Sarana Sukse Tbk., a mean value of 1.8008, and a standard deviation of 3.05542.
- 3) The Net Profit Margin variable has a minimum value of -5.75 for PT Ratu Prabu Energi Tbk., a maximum value of 49.51 for PT Bumi Resources Minerals Tbk., a mean value of 0.6956, and a standard deviation of 4.90817.
- 4) The variable Total Asset Turnover has a minimum value of 0.00 for PT Astrindo Nusantara Infrastruktur Tbk., a maximum value of 2.25 for PT Alfa Energi Investama Tbk., a mean value of 0.6894, and a standard deviation of 0.48992

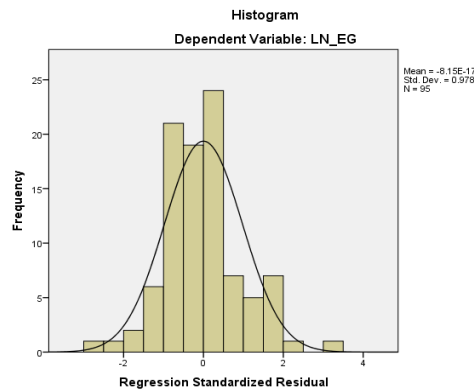
**4.2 Classic Assumption Test Results**

**a. Normality test**

The research data has problems that require this research to use transformations with the LN technique.

1) Graph Analysis

a) Histogram Graph

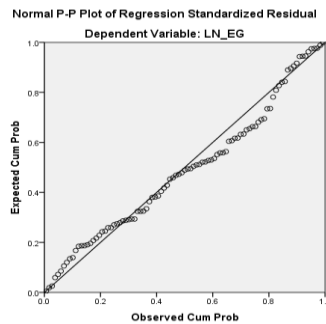


**Fig 1.** Histogram Graph

Source: Processed SPSS 21

The Histogram graph forms a normal curve line so that it can be concluded that the data is normally distributed.

b) NormalProbabilityPlot



**Fig 2.** Normal Probability Plot

The graph above shows that the plot contained in the graph follows the diagonal line & is normal.

c) Statistic test

**Table 4**

One-Sample Kolmogorov-Smirnov Test

		Studentized Deleted Residual
N		95
Normal Parameters, b	mean	-.0020730
	Std. Deviation	1.03152672
	Absolute	.095
Most Extreme Differences	Positive	.095
	negative	-.070
Kolmogorov-Smirnov Z		.925
asyp. Sig. (2-tailed)		.359
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Processed SPSS 21



Table 4 has a significant value of  $0.359 > 0.05$  so it can be concluded that the results of the Kolmogorov-Smirnov test have normal data.

d) Multicollinearity Test

To see if there is multicollinearity, it can be seen from the tolerance and VIF values.

**Table 5**  
Multicollinearity Test

Model	Coefficients <sup>a</sup>	
	Tolerance	VIF
(Constant)		
LN_CR	.580	1,724
LN_DER	.587	1,702
LN_NPM	.616	1,622
LN_TATO	.551	1,814

SOURCE: Processed SPSS 21

From the research analysis, the results of the Multicollinearity Test of the four variables have a tolerance value of  $> 0.10$  and the VIF value of the four variables has a value of  $< 10$ , therefore this study is free from multicollinearity.

e) Autocorrelation Test

**Table 6**  
Durbin-Watson Autocorrelation Test

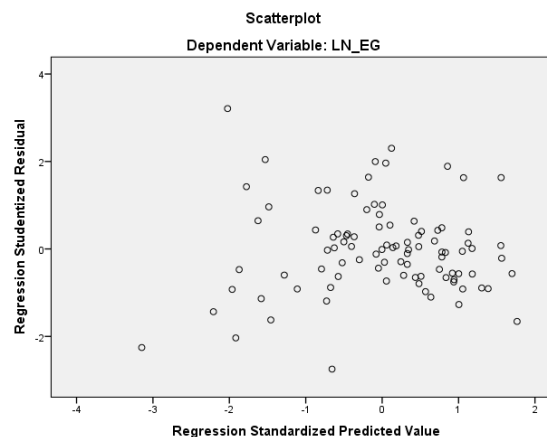
Model	R	R Square	Model Summary <sup>b</sup>			Durbin-Watson
			Adjusted R Square	Std. Error of the Estimate		
1	.443a	.196	.160	1.20169	1.912	

a. Predictors: (Constant), LN\_TATO, LN\_DER, LN\_NPM, LN\_CR  
b. Dependent Variable: LN\_EG

Autocorrelation test results with Durbin-Watson did not occur Autocorrelation because the values met the criteria  $DW > du$  and  $(4 - DW) > du < DW$ , namely  $1.912 > 1.7223$  and  $(4 - 1.912) > 1.7223 < 1.912$ .

f) Heteroscedasticity Test

2) Scatterplot Graph



**Fig 3.** Scatterplot Graph

From the scatterplot graph, it can be seen that the points spread freely (randomly) both above and below the number 0 on the Y axis. With this it can be said that there is no heteroscedasticity

3) Glacier Test

**Table 7**  
Glacier Test

Model	Coefficients <sup>a</sup>			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	1.079	.245		4.395	.000
CR	-.008	.070	-.012	-.120	.904
DER	.081	.045	.196	1,793	.076
NPM	-.026	.018	-.144	-1,458	.148
TATTOO	-.343	.194	-.185	-1,762	.081

a. Dependent Variable: Abs\_Res2

From Table 7 it can be seen that there is no heteroscedasticity because the value of the four independent variables has a significant value > from 0.05.

**4.3 Data Analysis and Research**

**a. Multiple Linear Regression Analysis**

**Table 8**  
Multiple Linear Regression Analysis

Model	Coefficients <sup>a</sup>			T	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	1,470	.340		4.329	.000
LN_CR	.055	.208	.033	.263	.793
LN_DER	.032	.166	.024	.193	.848
LN_NPM	.451	.103	.526	4.372	.000
LN_TATO	.410	.123	.425	3.339	.001

a. Dependent Variable: LN\_EG

From the research analysis of multiple linear regression analysis, the results obtained are:

$$EG = 1,470 + 0,055 (X1) + 0,032(X2) + 0,451(X3) + 0,410(X4)$$

- 1) The constant value is 1.470, meaning that the variables CR, DER, NPM and TATO = 0 therefore the Stock Return value will be worth 1.470.
- 2) The positive CR regression coefficient value is 0.055. This shows that if there is one additional value to the CR, there will be an increase in the value of Stock Return by 0.055 and if other variables are assumed to be zero.
- 3) The positive DER regression coefficient value is 0.032. This shows that if there is one additional value to DER, there will be an increase in the value of Stock Return by 0.032 and if other variables are assumed to be zero.
- 4) The positive NPM regression coefficient value is 0.451. This shows that if there is one additional value to the NPM, there will be an increase in the value of Stock Return by 0.451 and if other variables are assumed to be zero.
- 5) The value of the positive TATO regression coefficient is 0.410. This shows that if there is one additional value to the TATO, there will be an increase in the value of Stock Return by 0.410 and if other variables are assumed to be zero.



**b. Coefficient of Research Determination**

**Table 9**  
Coefficient of Determination

<b>Model Summary<sup>b</sup></b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.443a	.196	.160	1.20169	1,912

a. Predictors: (Constant), LN\_TATO, LN\_DER, LN\_NPM, LN\_CR  
b. Dependent Variable: LN\_EG

After testing the coefficient of determination, the value of adjust r square is 0.160. The impact given by the variables CR, DER, NPM and TATO is 16% while the remaining 84% is influenced by other variables outside this study.

**c. F Uji test**

**Table 10**  
F . Test Results

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31,652	4	7,913	5.480	.001b
	Residual	129,964	90	1.444		
	Total	161,617	94			

a. Dependent Variable: LN\_EG  
b. Predictors: (Constant), LN\_TATO, LN\_DER, LN\_NPM, LN\_CR  
source : spss 21

Based on the research table above, it shows that the value of Fcount is 5.480, with  $df1 = 4 - 1 = 3$  and  $df2 = 114 - 4 = 110$ . Therefore,  $F_{count} 5,480 > F_{table} 2.69$ , hereby  $H_0$  is rejected and  $H_a$  is accepted with a significant value of  $0.001 < 0.05$  so that the Current Ratio, Debt to Equity Ratio, Net Profit Margin and Total Asset Turnove simultaneously have a positive and significant effect on stock returns in mining manufacturing companies listed on the IDX.

**d. T Uji test**

**Table 11**  
T Test Results

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,470	.340		4.329	.000
	LN_CR	.055	.208	.033	.263	.793
	LN_DER	.032	.166	.024	.193	.848
	LN_NPM	.451	.103	.526	4.372	.000
	LN_TATO	.410	.123	.425	3.339	.001

a. Dependent Variable: LN\_EG

The value of t table with a profitability of 0.05 which is located at  $n - k = 114 - 4 = 110$  is 1.98177 and the results of the T test are as follows:

- 1) The significant value of CR on Earning Growth is  $0.793 > 0.050$  and has a tcount of  $0.263 < 1.98698$ . So it can be concluded that CR does not affect Earning Growth and is not significant.
- 2) The significant value of DER in Earning Growth is  $0.848 > 0.050$  and has a tcount of  $0.193 < 1.98698$ . So it can be concluded that DER does not affect Earning Growth and is not significant.
- 3) The significant value of NPM on Earning Growth is  $0.000 < 0.050$  and has a tcount of  $4.372 > 1.98698$ . So it can be concluded that NPM affects Earning Growth significantly
- 4) The significant value of TATO on Earning Growth is  $0.001 < 0.050$  and has a tcount of  $3.339 > 1.98698$ . So that it can be concluded that TATO affects Earning Growth and is significant.

#### 4.4 Discussion of Research Results

##### a. Effect of Current Ratio (CR) on Earning Growth

Research analysis shows that CR does not affect Earning Growth and is not significant in mining companies on the IDX. Therefore, it can be concluded that the high current ratio will reduce the profit value.

This study is the same as that of Mita Febriani Puspasari (2017) which shows that CR has no significant effect on profit growth in manufacturing companies in the pharmaceutical sub-sector on the IDX.

##### b. The Effect of Debt to Equity Ratio (DER) on Earning Growth

Based on the research analysis, DER partially does not affect Earning growth and does not significantly affect mining companies listed in mining companies on the Indonesia Stock Exchange. Can be concluded that the lower the debt to equity ratio, the higher the company's ability to pay its debts, this means that the use of low debt the company can allocate high dividends so that most of the profits are used for the welfare of shareholders. This research is in line with the research of Bati (2019) and Prakarsa (2019).

##### c. Effect of Net Profit Margin (NPM) on Earning Growth

Research analysis shows that NPM affects Earning Growth and is significant in mining companies on the IDX. For this reason, it can be concluded that the higher the NPM, the more efficient the personnel, marketing, production, and company finances (Sudana, 2011). This research is in line with Puspasari et al (2017) and Lestari and Suryono (2016) showing that NPM has a significant positive effect on profit growth.

##### d. The Effect of Total Asset Turnover (TATO) on Earning Growth

Research analysis states that TATO affects Earning Growth and is significant in mining companies on the IDX. For this reason, it can be concluded that Total Asset Turn Over significantly affects the development of profit.

His research is in line with Shinta Estininghadi's research (2017) which reveals the company's ability to maximize the use of assets to become a product is directly proportional to the ability to generate profits.

#### 5. Conclusion

After testing the data, it is known that NPM and TATO have a positive and significant effect on Earning Growth while CR and DER have no and no significant effect on Earning Growth. However, simultaneously CR, DER, NPM and TATO have a positive and significant effect on Earning Growth.

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