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# Analysis Of Determining The Optimal Capital Structure At PT. Kimia Farma (Persero) Tbk

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## Abstract

This research aims to find out whether the capital structure at PT. KIMIA FARMA (Persero) Tbk from the 2019-2022 time period is optimal or not, and predicts in 2023 how much percentage of own capital profitability must be achieved and the comparison between loan capital and own capital so that the capital structure at PT. KIMIA FARMA (Persero) Tbk can be optimal. The method used in this research is descriptive analysis using ratios. The type and source of data that will be used in this research is quantitative data. The data source used is in the form of secondary data where the data used by researchers from related companies regarding financial sources and reports. If according to the trend of total capital, then total capital in 2023 will be IDR 13,414,638,284,128, so in order for the profitability of own capital to increase, the company must use 29% of borrowed capital and 71% of its own capital at EBIT of IDR 1,015,887,717,583. In order for this company to be more flexible in changing its capital structure, both of them will achieve Economic Profitability that is greater than the interest on loan capital, or must be more than 15.11%. In conditions where company achieve Economic Profitability is still smaller than capital interest, the loan capital structure should be lowered, or smaller than the own capital structure.

**Keywords:** *capital structure, economic profitability, profitability of own capital*



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## INTRODUCTION

Local and international companies are increasingly competing and are required to survive in the competitive market in the current era of globalization. In competition between companies, these companies will be able to develop and become large companies. Companies must be able to increase the amount of capital in order to survive in increasingly fierce competition to improve company performance. Capital structure is important for companies because a good and weak capital structure will have a direct impact on the company's financial position, which will certainly affect the value of the company.

Companies must be able to identify sources of capital with low costs when using capital sources (Riyanto, 2010). The capital structure is a fixed expenditure which reflects the consideration of debt and own capital. (Rustam, 2015) in his research results revealed that the optimal capital structure occurs when the balance between the amount of use of long-term debt and equity and the portion of long-term debt is almost the same as the amount of equity. Meanwhile, according to research results (Sulistio & Saifi, 2017) revealed that the optimal capital structure occurs when long-term debt is smaller than own capital. The Indonesia Stock Exchange noted that one of the consumer goods industry sectors was the cigarette industry. The pharmaceutical industry is a type of business that is experiencing rapid progress and is a fairly large contributor to state income in Indonesia. In order to remain superior and able to face growth and increasingly fierce competition, companies must be able to improve their performance. By knowing the optimal capital structure, pharmaceutical companies can manage funding sources with minimal costs and of course also benefit the company.

Kimia Farma was the first industrial company in Indonesia which was founded by the Dutch East Indies Government in 1817 under the name NV Chemicalien Handel Rathkamp & Co. However, after independence, a nationalization policy emerged for the former Dutch company in 1958, under the name PNF (State Pharmaceutical Company) Bhinneka Kimia Farma. Then on August 16 1971, the legal entity form of PNF was changed to a limited liability company, so the company name changed to PT Kimia Farma (Persero). And then on July 4 2001, PT Kimia Farma (Persero) changed its status to become a public company under the name PT Kimia Farma (Persero) Tbk. PT. Kimia Farma Tbk is an integrated healthcare company. This company is engaged in the production, processing, marketing and distribution of chemicals, pharmaceuticals, biologics and other materials in Indonesia.

| Description | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| **Total assets** | Rp6.095.148.972.533 | Rp9.460.427.317.681 | Rp18.352.877.132.000 | Rp17.562.816.674.000 | Rp17.760.195.040.000 |
| **Capital from loans** | Rp885.520.310.557 | Rp1.842.264.060.616 | Rp2.502.372.815.000 | Rp2.563.153.399.000 | RP3.209.731.474.000 |
| **Company's own capital** | Rp2.510.272.909.690 | Rp3.201.994.342.783 | Rp7.241.893.930.000 | Rp6.993.396.838.000 | Rp7.139.643.388.000 |
| **Earning after tax** | Rp326.786.249.090 | Rp491.565.937.000 | Rp-12.724.002.000 | Rp17.638.825.000 | Rp302.273.634.000 |
| **Company's own capital** | 73,92% | 63,48% | 74,32% | 73,18% | 68,99% |
| **Capital from loans** | 26,08% | 36,52% | 25,68% | 26,82% | 31,01% |

**Table 1: Capital and Net Profit 2018-2022 PT. KIMIA FARMA (PERSERO) Tbk**
*Source: PT. Kimia Farma (Persero) Tbk, 2023*

From table 1 it can be seen that the total assets of PT. KIMIA FARMA (Persero) Tbk in the last five years has experienced very rapid growth reaching 102%, namely IDR 6,095,148,972,533 in 2018 to IDR 17,760,195,040,000 in 2022. Apart from that, in the last five years the company has always increased its loan capital. by increasing sales of bonds. Own capital also experienced an increase through the sale of shares to the public. However, the company still sells more bonds.

## FORMULATION OF THE PROBLEM

Based on the background above, the main problem that the author formulates is as follows:
Is the use of capital structure at PT. KIMIA FARMA (Persero) Tbk during the time period from 2018 - 2022 is optimal?

The aim of this research is to find out whether the use of capital structure at PT. KIMIA FARMA (Persero) Tbk from the time period 2018 - 2022 is optimal or not, and predicts in 2023 what percentage of own capital profitability must be achieved and what is the comparison between loan capital and own capital so that the capital structure at PT. KIMIA FARMA (Persero) Tbk can be optimal.

The benefit of this research is to provide strategic long-term debt capital planning for companies. Thus it can help companies in minimizing capital costs.

## LITERATURE REVIEW

### Capital

Capital is an important factor for companies to carry out business activities, business development and investment. (Riyanto, 2010) defines capital as the "collectivity" of capital goods contained in the balance sheet on the debit side, while what is meant by capital goods are all goods that exist in the household company and

its productive function to form income. Furthermore (Riyanto, 2010) defines capital as all good objects in the form of concrete goods that are still in the household of the company contained in the debit section of the balance sheet. Or in the form of purchasing power or exchange value of the goods which are recorded in the credit section.

**Types of Capital**

**Self-Funded Capital**

According to Widyanto (2011) traditionally, capital is defined as something that represents the interests of the owner in a company. Based on book value, capital is defined as net worth, namely the difference between book value and assets minus the book value of liabilities.

According to Riyanto (2010), self-funded is basically capital that comes from the company owner and is embedded in the company for an indefinite period of time. Therefore, from a liquidity point of view, self-funded is a long-term fund with an indefinite period of time. Own capital aside from coming from outside the company can also come from within the company itself, namely in the form of capital generated or formed by itself within the company. Self-funded comes from internal capital in the form of profits generated by the company. Meanwhile, self-funded comes from external sources, namely capital from the company owner. There are various forms of capital originating from company owners, according to the legal form of each company concerned.

In a Limited Liability Company, the capital that comes from the owner is share capital; from a limited liability company, for example, capital that comes from the owner. Own capital has a positive and significant effect on economic profitability. It can be explained that own capital comes from principal savings, mandatory savings, reserve funds and grants used in running its business. If a cooperative uses its own capital, the profits tend to be higher than cooperatives that use borrowed capital. This is because there is no interest expense that must be borne as in the use of loan capital, the profitability value obtained is also expected to be higher.

**Capital from Loans**

A loan is money provided based on loan terms between the borrower and the lender which requires the borrower to pay the debt after a specified time limit with the amount of interest/rewards/income from profits. According to Riyanto (2010), loan capital is money received from outside that is temporary in nature, and for cooperatives that money is funds that can come from: members, banks or non-banks, other cooperatives and or their members, debt securities, and other sources. other lawful and in the form of a debt that must be returned.

**Capital Structure**

Capital structure (capital structure) is a long-term comparison or balance shown by a comparison of long-term debt to own capital (Martono, 2008:240). Capital structure is related to determining the company's long-term spending mix. The capital structure is part of the financial structure. The financial structure is a combination or mix of all items included in the right side of the company's balance sheet (liabilities

side), while the capital structure is a mix of all long-term financing sources used by the company. (Warsono, 2003: 235)

Based on this opinion, basically the capital structure is a permanent expenditure which reflects the balance between long-term debt and own capital.

**Optimal Capital Structure**

Effective funding will occur if the company has an optimal capital structure. Optimal capital structure can be interpreted as a capital structure that can reduce costs associated with the use of overall capital or the average cost of capital so that it will maximize business value. (Martono, 2008:240). Optimal capital structure can be defined as a capital structure that maximizes the company's share price and reduces its cost of capital. Companies must prioritize internal company resources when their needs are met to reduce dependence on external parties. However, if demand for funds increases and cannot be met from internal capital, then there is no choice but to use external funds either from debt (debt financing) or by issuing new shares (external equity financing). In any case, the amount of the company's debt cannot be greater than the amount of its own capital, in other words, no more than 50%, so that the guaranteed capital (debt) is not greater than the guaranteed capital (private capital). The optimal capital structure occurs when the company value is maximum or the capital structure causes the weighted average cost to decrease.

**Profitability**

Profitability is the comparison between profit and the capital used to generate that profit. In other words, profitability is the ability to generate profits over a certain period of time. Whether a new company is efficient or not can be determined by comparing the profits obtained with the wealth or capital that produces these profits or in other words, calculating its profitability (Riyanto, 2010:37).

**Own Capital Earnings (RMS) or Return On Equity (ROE)**

Riyanto (2010:44) defines return on equity or return on net worth as a comparison between the amount of profit available to owners of their own capital on the one hand and the amount of their own capital that generates that profit on the other hand.

Munawir (2010: 33) states that "the profitability of own capital is the comparison between the profit available to the owner of the company with the amount of own capital put in by the owner of the company". In calculating own capital profitability, the thing to look for is the amount of net profit and the amount of own capital multiplied by a hundred percent.

**Economic Profitability (ROA)**

Riyanto (2010), Economic profitability is a comparison between operating profits with own capital and foreign capital used to generate profits for the business and is expressed as a percentage. Economic profitability in the Anglo-Saxon literature generally uses the term Earning Power. Earning Power or economic profitability can be increased by increasing the factors that influence the size of the profitability itself. The factors that affect the size of the profitability are profit margins and operating asset turnover or asset turnover.

## RESEARCH CONCEPTUAL FRAMEWORK

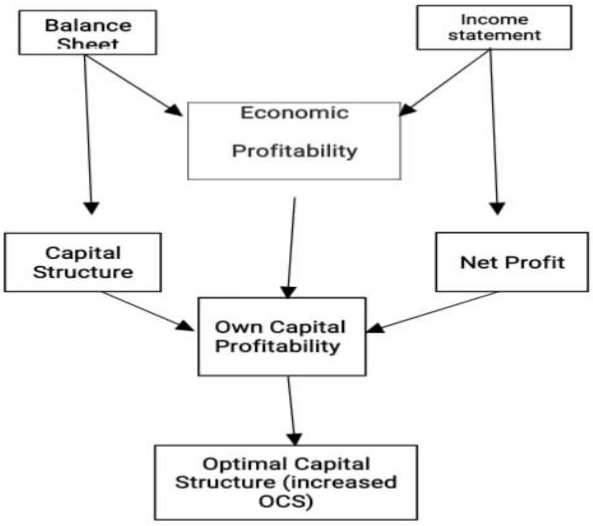


**Figure 1: Research Concept Framework**

### Hypothesis

Looking at the data from table 1, it is suspected that the capital structure at PT. KIMIA FARMA (Persero) Tbk is already optimal.

## METHODOLOGY

This research was conducted at PT. Kimia Farma (Persero) Tbk which is located on Jl. Veteran No.9, Jakarta. 10110. The method used in this research is descriptive analysis, where the author will provide and describe whether PT. Kimia Farma (Persero) Tbk has achieved an optimal capital structure based on the calculation of the ratios that the author uses.The type and source of data that will be used in this research is quantitative data where the type of data in this research is in the form of numbers related to the profit and loss report and balance sheet that the author analyzed.

Meanwhile, the data source used is secondary data, where the data used by the author comes from related companies regarding financial sources and reports.

## RESULTS AND DISCUSSION

**Table 2.** Profit and Loss Report PT. KIMIA FARMA (Persero) Tbk Year 2018-2022

| Desc | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Operating Profit (EBIT) | 500.086.442.643 | 868.308.622.000 | 410.180.607.000 | 663.996.693.000 | 969.247.100.000 |
| Interest | 29.410.954.240 | 187.291.030.608 | 497.969.909.000 | 596.377.203.000 | 606.813.011.000 |
| Earning Before Tax (EBT) | 449.709.762.420 | 755.296.047.000 | 38.315.488.000 | 73.359.098.000 | 392.883.409.000 |
| Corporate tax | 122.923.513.330 | 263.730.110.000 | 51.039.490.000 | 55.720.264.000 | 90.609.775.000 |
| Earning after Tax (EAT) | 326.786.249.090 | 491.565.937.000 | -12.724.002.000 | 17.638.834.000 | 302.273.634.000 |

*Source: PT KIMIA FARMA (Persero) Tbk, 2023*

From table 2, it can be seen that operating profit from 2018 to 2019 experienced quite rapid growth and decreased in 2020, then increased again in 2021 to 2022. The interest percentage which continued to increase during the 2018-2022 period was caused by an increase in nominal value. loan interest during the period. In the period from 2018 to 2022, corporate interest and taxes have an average of 15.11% and 59%. For more details, see table 3 below:

**Table 3:** Excerpt from the Balance Sheet of PT KIMIA FARMA Persero Tbk 2018-2022

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Loan Capital | 885.520.310.577 | 1.842.264.060.616 | 2.502.372.815.000 | 2.563.153.399.000 | 3.209.731.474.000 |
| Equity | 2.510.272.909.690 | 3.201.994.342.783 | 7.241.893.930.000 | 6.993.396.838.000 | 7.139.641.388.000 |
| Total Capital | 3.395.793.220.267 | 5.044.258.403.399 | 9.744.266.745.000 | 9.556.550.237.000 | 10.349.372.862.000 |

*Source: PT KIMIA FARMA (Persero) Tbk, 2023*

From table 3 you can see the comparison between loan capital and equity at PT KIMIA FARMA (Persero) Tbk in 2018-2022. Loan capital has always increased from 2018 - 2022. The highest increase in loan capital in 2018 to 2019 increased by >125%. Meanwhile, equity has increased from 2018-2020 and decreased in 2021 and then increased again in 2022. The highest increase in equity occurred in 2019 to 2020, which was > 130%.

## Interest percentage calculation

- **2018**

  **Interest**

  Interest percentage = $\frac{nominal\ interest}{loan\ capital} \times 100\%$

  $= \frac{29.410.954.240\ .}{885.520.310.557} \times 100\%$

  $= 3{,}32\%$

  So the interest percentage for 2018 is 3.32%.

- **2019**

  **Interest**

  Interest percentage = $\frac{nominal\ interest}{loan\ capital} \times 100\%$

$$= \frac{187.291.030.608}{1.842.264.060.616}$$
$$= 10,17\%$$

So the interest percentage in 2019 is 10.17%

The percentage of interest in 2019 has increased, which was caused by the nominal interest which increased to IDR 187,291,030,608 and was followed by an increase in loan capital to IDR 1,842,264,060,616.

- **2020**

**Interest**

$$\text{Interest percentage} = \frac{nominal\ interest}{loan\ capital} \times 100\%$$
$$= \frac{497.969.909.000}{2.502.372.815.000}$$
$$= 19,90\%$$

So the interest percentage in 2020 is 19.90%

The percentage of interest in 2020 has increased due to an increase in nominal interest, amounting to IDR 497,969,909,000, and nominal loan capital has also increased to IDR 2,502,372,815.

- **2021**

$$\text{Interest percentage} = \frac{nominal\ interest}{loan\ capital} \times 100\%$$
$$= \frac{596.377.203.000}{2.563.153.399.000}$$
$$= 23,27\%$$

The interest percentage in 2021 increased due to the increase in nominal interest, amounting to IDR 497,969,909,000, and the nominal loan capital also increased by IDR 2,502,372,815.

- **2022**

$$\text{Interest percentage} = \frac{nominal\ interest}{loan\ capital} \times 100\%$$
$$= \frac{606.813.011.000}{3.209.731.474.000}$$
$$= 18,91\%$$

The percentage of interest in 2021 has decreased, even though the nominal interest has increased to IDR 606,813,011,000. However, the nominal loan capital also experienced a high increase, reaching IDR 3,209,731,474,000, then this caused a decrease in the 2022 loan percentage.

After we know the interest percentage of PT KIMIA FARMA Persero tbk from 2018-2022, now we can calculate the average interest percentage for 5 years.
So, the average interest per year

$$\frac{3,23 + 10,17 + 19,90 + 23,27 + 18,91}{5} = 15,11\%$$

**Tax Percentage Calculation**

**Tax**

- **2018**

$$\text{Tax percentage} = \frac{\boldsymbol{Tax}}{\boldsymbol{EBT}} \times \mathbf{100}\%$$
$$= \frac{122.923.513.330}{449.709.762.420}$$
$$= 27\%$$

So the 2018 tax percentage is 27%.

- **2019**

$$\text{Tax percentage} = \frac{\boldsymbol{Tax}}{\boldsymbol{EBT}} \times \mathbf{100}\% = \frac{\mathbf{263.730.110.000}}{\mathbf{755.296.047.000}} = 34{,}92\%$$

So the tax percentage for 2019 is 34.92%. The tax percentage in 2019 has increased, due to an increase in the nominal tax of IDR 263,730,110,000, and the nominal profit before tax (EBT) has also increased to IDR 755,296,047,000.

- **2020**

$$\text{Tax percentage} = \frac{\boldsymbol{Tax}}{\boldsymbol{EBT}} \times \mathbf{100}\% = \frac{51.039.490.000}{38.315.488.000} = 133{,}21\%$$

So the 2020 tax percentage is 133.21%. The tax percentage in 2020 experienced a very high increase, namely IDR 51,039,490,000 with nominal profit before tax (EBT), amounting to 38,315,488,000. In other words, the nominal tax is higher than the nominal EBT. This is why the company suffered a loss of IDR 12,724,002,000 in 2020 due to excessively high taxes.

- **2021**

$$\text{Tax percentage} = \frac{\boldsymbol{Tax}}{\boldsymbol{EBT}} \times \mathbf{100}\% = \frac{55.720.264.000}{73.359.089.000} = 75{,}96\%$$

So the tax percentage in 2021 is 75.96%. We can see that the tax percentage in 2021 has decreased. Even though the nominal tax is still increasing, namely IDR 55,720,264,000, the nominal profit before tax (EBT) is far above the tax, reaching IDR 73,359,089,000 then, this is the cause of the decline in the 2021 tax percentage.

- **2022**

$$\text{Tax percentage} = \frac{\boldsymbol{Tax}}{\boldsymbol{EBT}} \times \mathbf{100}\% = \frac{90.609.775.000}{392.883.409.000} = 23{,}06\%$$

So the tax percentage in 2022 is 23.06%. We can see the tax percentage in 2022 decreasing. Even though the nominal tax increased to IDR 90,609,775,000, comparatively the nominal profit before tax (EBT) experienced a much greater increase, namely IDR 392,883,409.

After we know PT KIMIA FARMA (Persero) tbk's tax percentage from 2018-2022, we can now calculate the average tax percentage for 5 years.

$$\text{So, the average tax per year} = \frac{27{,}33+34{,}92+133{,}21+75{,}96+23{,}06}{5} = 59\%$$

**Capital and Capital Structure**

The loan capital (long-term debt) and own capital (equity), as well as the capital structure, can be seen in table 4 below:

**Table 4: Capital and Capital Structure of PT.Kimia Farma (Persero) Tbk 2018 - 2022**

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Loan Capital | 885.520.310.577 | 1.842.264.060.616 | 2.502.372.815.000 | 2.563.153.399.000 | 3.209.731.474.000 |
| Equity | 2.510.272.909.690 | 3.201.994.342.783 | 7.241.893.930.000 | 6.993.396.838.000 | 7.139.641.388.000 |
| Total Capital | 3.395.793.220.267 | 5.044.258.403.399 | 9.744.266.745.000 | 9.556.550.237.000 | 10.349.372.862.000 |
| Loan Capital | 26,08% | 36,52% | 25,68% | 26,82% | 31,01% |
| Equity | 73,92% | 63,48% | 74,32% | 73,18% | 68,99% |
| Total Capital | 100,00% | 100,00% | 100,00% | 100,00% | 100,00% |

*Source: PT KIMIA FARMA (Persero) Tbk, 2023*

Table 4 provides information about the development of the capital structure at PT KIMIA FARMA (Persero) Tbk. Loan capital in five years shows an increase in the amount of loan capital from 2018 to 2019, which has experienced a relative increase of 100%. This identifies that the number of needs is relatively large, from 2020 to 2021 there will be no significant increase.

The amount of loan capital is directly proportional to the amount of equity, or in other words, companies during the period 2018 to 2022 always increase the number of bonds and shares they print and sell to increase company capital and support funds for company needs.

For more clarity in calculating the capital structure, it can be seen in the calculation below:

1. **Loan capital**

   $$\text{Loan Capital} = \frac{Long-term\ debt}{Long-term\ debt+Equity} \times 100\%$$ (Riyanto, 1995)

2. **Self-Funded Capital**

   $$\text{Self-Funded Capital} = \frac{Total\ Equity}{Long-term\ debt\ +Equity} \times 100\%$$ (Riyanto 1995)

- **2018**

$$\text{Loan Capital} = \frac{885.520.310.557}{3.395.793.220.247} \times 100\% = 26,08\%$$

$$\text{Self-Funded Capital} = \frac{2.510.272.909.690}{3.395.793.220.247} \times 100\% = 73,92\%$$

- **2019**

$$\text{Loan Capital} = \frac{1.842.264.060.616}{5.044.258.403.399} \times 100\% = 36,52\%$$

So, the loan capital structure in 2019 increased to 36.52%.

$$\text{Self-Funded Capital} = \frac{3.201.994.342.783}{5.044.258.403.399} \times 100\% = 63,48\%$$

So, the self-funded capital structure in 2019 decreased to 63.48%. This means that the capital structure in 2019 does not maximize company value.

- **2020**

$$\text{Loan Capital} = \frac{2.502.372.815.000}{9.744.266.745.000} \times 100\%$$
$$= 25{,}68\%$$

So, the loan capital structure in 2020 decreased to 25.68%.

$$\text{Self-funded Capital} = \frac{7.241.893.930.000}{9.744.266.745.000} \times 100\%$$
$$= 74{,}32\%$$

So, the self-funded capital structure in 2020 has increased, to 74.32%. This means that PT KIMIA FARMA (Persero) Tbk is maximizing company value in 2020.

- **2021**

$$\text{Loan Capital} = \frac{2.563.153.399.000}{9.556.550.237.000} \times 100\%$$
$$= 26{,}82\%$$

So, the loan capital structure in 2021 has increased to 26.82%.

$$\text{Self-funded capital} = \frac{6.993.396.838.000}{9.556.550.237.000} \times 100\%$$
$$= 73{,}18\%$$

So, the self-funded capital structure in 2021 decreased to 73,18%. This means that the capital structure in 202 does not maximize company value.

- **2022**

$$\text{Loan Capital} = \frac{3.209.731.474.000}{10.349.372.862.000} \times 100\%$$
$$= 31{,}01\%$$

So, the loan capital structure in 2022 has increased to 31.01%

$$\text{Self-Funded Capital} = \frac{7.139.641.388.000}{10.349.372.862.000} \times 100\%$$
$$= 68{,}99\%$$

So, the capital structure itself will decrease in 2022, to 68.99%. This means that in 2022 the company has not maximized the value of its company.

From the analysis above we can conclude that the capital structure of PT KIMIA FARMA (Persero) Tbk in the 2018-2022 period is not optimal because it has not maximized the value of the company. The value of loan capital and own capital always changes every year. This is caused by market demand, trading volume, investor sentiment, company performance, interest rates set by banks, the regulatory environment, and the company's economic conditions.

For more details, regarding Economic Profitability, Own Capital Rentability, and the comparison with loan capital can be seen in table 5 below:

**Table 5:** Comparison Of Capital Structure And Profitability Of Own Capital Pt Kimia Farma Persero Tbk 2018-2022

*Source: Data processed by myself, 2023*

From table 5 it can be seen that economic profitability increased in 2018 to 2019 then decreased in 2020 and increased again in 2021 and 2022. This is in accordance with the theory, in 2018 and 2021 Economic Profitability. If Economic Profitability is greater than bond or credit interest, then in 2019 and 2022 the company will increase loan capital, to increase Own Capital Rentability. During the period 2018 to 2022, the highest economic profitability achieved occurred in 2018 with a value of 14.73%, while interest on loan capital in 2020, 2021 and 2022 reached 19.90%, 23.27% and 18.91% .

From the results of the analysis above, PT KIMIA FARMA (persero) Tbk during the period 2018 to 2022 has not yet achieved an optimal capital structure because the profitability of its own capital is lower than the interest on loan capital. Which means that companies in meeting their needs use more external sources or outside financing.

**Optimal Capital and Profit Structure Determination**

Optimal capital and profit structure can be calculated by the formula:

Own Capital vs Loan Capital = $\frac{X(1-t)}{S1} = \frac{(X-C)(1-T)}{S2}$

Where:

X = EBIT at the indifference point

C = the amount of bond interest expressed in rupiah

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Economic Profitability | 14,73% | 17,21% | 4,21% | 6,95% | 9,37% |
| Own Capital Profitability | 13,02% | 15,35% | -0,18% | 0,25% | 4,23% |
| Loan Capital | 26,08% | 36,52% | 25,68% | 26,82% | 31,01% |

t = corporate tax rate

S1 = number of outstanding shares if you only sell ordinary shares

S2 = number of ordinary shares outstanding if ordinary shares and bonds are sold simultaneously

For this reason, a simulation of total capital projections for the following year, namely 2023, is carried out:

The projections are as follows, which can be seen in table 6.

**Table 6: Projection of Total Capital of PT KIMIA FARMA (Persero) Tbk in 2023**

| **Description** | **(RP)** | **%** |
|---|---|---|
| Loan Capital | 3.920.025.599.388 | 29% |
| Self-Funded Capital | 9.494.612.684.740 | 71% |
| **TOTAL** | **13.414.638.284.128** | **100%** |

| YEARS | TOTAL CAPITAL (RP) | ASCENSION (%) | |
|---|---|---|---|
| 2018 | 4.549.913.988.905 | 0,00% | |
| 2019 | 5.044.258.403.399 | 48,54% | |
| 2020 | 9.744.266.745.000 | 93,18% | |
| 2021 | 9.556.550.237.000 | -1,93% | |
| 2022 | 10.349.372.862.000 | 8,30% | (+) |
| **TOTAL YEARS TOTAL** | | **148,09% 5** | |
| **AVERAGE INDEX** | | **29,62%** | |
| **2023** | **13.414.638.284.128** | | |

**** Tahun 2023 = 2022 + 2022 x 29,62%***

Based on table 6, we can find the capital structure based on the average capital structure for 5 years which we can see in table 7.

**Table 7: Average Capital Structure of PT KIMIA FARMA (Persero) Tbk 2018-2022**

What we can know from table 7 is the capital structure in 2023 as follows:

$$\text{Loan Capital} = 29\% \times 13.414.638.284.128$$

$$= 3.920.025.599.388$$

$$\text{Own Capital} = 71\% \times 13.414.638.284.128$$

$$= 9.494.612.684.7$$

The author describes it more clearly in table 8 below:

**Table 8:** Capital Structure of PT KIMIA FARMA (Persero) Tbk in 2023

| YEARS | LOAN CAPITAL | SELF-FUNDED CAPITAL |
|---|---|---|
| 2018 | 26,08% | 73,92% |
| 2019 | 36,52% | 63,48% |

| | | |
|---|---|---|
| 2020 | 25,68% | 74,32% |
| 2021 | 26,82% | 73,18% |
| 2022 | 31,01% | 68,99% |
| TOTAL | 146,11% | 353,89% |
| N | 5 | 5 |
| **AVERAGE** | **29%** | **71%** |

*Source: Self-processed data, 2023*

From table 8 we can calculate the optimal EBIT with the formula:

Self-funded Capital vs Loan Capital= $\frac{X(1-t)}{S1} = \frac{(X-C)(1-T)}{S2}$

Dimana:

C = Interest on loan capital
= 3.920.025.599.388× 15%
= 592.315.868.067

T (Company Tax) = 58,90%

S1 (Loan Capital) = 3.920.025.599.388

S2 ( Self-funded Capital) = 9.494.612.684.740

So we can calculate:

$$\text{MS vs MP} = \frac{X(1-0,59)}{3.920.025.599.388} \times \frac{(X-592.315.868.067)(1-0,59)}{9.494.612.684.740}$$

$$= \frac{0,41X}{3.920.025.599.388} \times \frac{(X-592.315.868.067)(0,41)}{9.494.612.684.740}$$

$0,41X\ (9.494.612.684.740) = 3.920.025.599.388\ (0,41X - 592.315.868.067)$

$3.892.791.200.743\ X = 1.607.210.495.749X - 2.321.893.365.748.190.000.000.000$

$3.892.791.200.743X - 1.607.210.495.749X = -2.321.893.365.748.190.000.000.000$

$2.285.580.704.994X = -2.321.893.365.748.190.000.000.000$

$$X = \frac{-2.321.893.365.748.190.000.000.000}{2.285.580.704.994}$$

X =Rp1.015.887.717.583

So the EBIT that must be achieved to produce the same profitability of own capital is IDR 1,015,887,717,583

With this EBIT, it will provide a Net Profit After Tax (EAT) of 837,900,073,168. For more details can be seen in table 9.

**Table 9:** PT KIMIA FARMA (Persero) Tbk Projected Profit and Loss Report in 2023

| | |
|---|---|
| EBIT | Rp1.015.887.717.583 |
| Interest | Rp592.315.868.067 |
| EBT | Rp423.571.849.515 |
| Tax (59%) | Rp249.907.391.214 |
| EAT | Rp173.664.458.301 |

*Source: Self-processed data, 2023*

Thus, the projection:

Economic Profitability = $= \frac{EBIT}{Total\ Capital}$

$= \frac{1.015.887.717.583}{13.414.638.284.128}$

= 7,6%

Own Capital Profitability $= \frac{EAT}{Self-funded\ Capital}$

$= \frac{173.664.458.301}{9.494.612.684.740}$

= 1,83%

From the results above, the Profitability of Own Capital will increase to 1.83%, if the capital structure used is

Loan Capital = 29%

Own Capital = 71%

With an EBIT rate = IDR 1,015,887,717,583

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

Interest on loan capital valid for the last 5 years is an average of 15.11% and tax is 59%.. Economic profitability tends to increase in 5 years but is still smaller than interest on loan capital, making it difficult for companies to increase loan capital. The profitability of own capital in 2019 and 2022 has decreased because the loan capital structure is always increasing, which means that own capital has decreased, so it can be said that the capital structure at PT KIMIA FARMA (Persero) Tbk is not optimal. If it is in accordance with the trend of total capital, then the total capital in 2023 is projected to be Rp. 13,414,638,284,128, so that the profitability of own capital increases, the

company must use 29% loan capital and 71% own capital at an EBIT of IDR 1,015,887,717,583.

**Recommendations**

1. In order for this company to be more flexible in changing its capital structure (increasing loan capital), it is better if the Economic Profitability achieved is greater than the interest on loan capital, or it must be more than 15.11%.

2. In conditions where Economic Profitability is still less than the interest on loan capital, it is better if the loan capital structure is reduced, not increased as has been done so far.

3. To avoid a decrease in the profitability of its own capital, the company must maximize the value of the company.

4. In order for the profitability of its own capital to increase in 2023, the company must use 29% of its borrowed capital and 71% of its own capital at an EBIT of IDR 1,015,887,717,583.

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