

Testing Company Size as a Moderation Variable on the Influence of Asset Structure and Growth on Capital Structure

Sri Ayem¹, Cindy Alfira Agustina²

¹ accounting, Economics, Sarjanawiyata Tamansiswa University,
sri.ayem@ustjogja.ac.id

² Accounting, Economics, Sarjanawiyata Tamansiswa University,
cindyalfiraagustina@gmail.com

Article Info

Received October 18, 2024

Revised October 19, 2024

Published October 21, 2024

Keywords:

Asset Structure, Asset Growth, Company Size, Capital Structure

Abstract

This study aims to examine the role of company size in moderating the influence of asset structure and asset growth on capital structure. The research was conducted on financial companies listed on the IDX for the 2018-2023 period, using quantitative methods and purposive sampling techniques, with a total sample of 26 companies. Data analysis uses Moderated Regression Analysis (MRA). The results show that asset structure and asset growth have a significant effect on capital structure. In addition, the size of the company is able to moderate the influence of asset structure and asset growth on capital structure. The implications of this study show that companies need to consider asset structure, asset growth, and company size to optimize capital structure decisions and minimize financial risks.

INTRODUCTION

In the era of dynamic economic growth, companies in the financial sector have experienced significant developments, marked by an increase in the scale of assets and the size of companies. This phenomenon shows that large companies, such as PT Bank Central Asia Tbk. (BCA), managed to record credit growth of 12.3% on an annual basis until September 2023. This success is the result of an effective strategy in strengthening funding and credit distribution in various sectors, as well as efforts to improve the security of digital transactions. However, although many previous studies have shown a link between asset structure, asset growth, and capital structure, the varied results in the studies suggest that this influence is not always consistent.

According to Fajrida & Purba (2020), the size of the company serves as an indicator of the company's ability to make sales and obtain financing. Companies with larger sizes tend to have better access to external sources of financing, as they are considered better able to repay debt. In contrast, small companies often

face challenges in obtaining loans, which impacts their capital structure. Qosidah et al. (2020) emphasized that high asset growth can encourage companies to utilize debt as a source of funds, in the hope of improving performance and competitiveness.

However, the results of the study by Setijaningsih (2020) show that there is no significant influence between asset growth and company size on capital structure. This suggests that although there are theories linking these factors, the reality on the ground may be different. Therefore, this study is needed to explore more deeply the role of firm size as a moderating variable in the relationship between asset structure and asset growth to capital structure.

By examining more deeply the role of company size, this study aims to provide a more comprehensive understanding of the factors that affect funding decisions in financial sector companies, especially in the banking sub-sector listed on the Indonesia Stock Exchange during the period 2018-2023. The implications of this study are expected to provide insights for managers in formulating more effective funding strategies, as well as for investors in understanding how capital structure is affected by different company factors. Thus, this study is expected to answer the uncertainty that exists in the literature regarding the influence of company size on capital structure, as well as provide recommendations for decision-making in the corporate world.

LITERATURE REVIEW

Pecking Order Theory

The Pecking Order Theory is so called because it explains why companies determine the hierarchy of preferences in the use of funding sources. According to Yudhatama and Wibowo (2014), this theory states that companies prefer internal funding, which comes from cash flow, retained earnings, and depreciation. The order of use of funding sources based on the Pecking Order Theory is: internal funds, then debt, and finally equity (own capital) (Fitria et al., 2021). Riyanto (2017) argues that companies in the financial sector where most of their capital is embedded in fixed assets prioritize meeting capital needs through the use of their own capital. External funding, such as debt, is considered as an alternative after internal funding has been met.

Capital Structure

Capital structure is the composition of a company's funding sources between debt and equity (Wardani et al., 2021). This ratio is useful for finding out the amount of funds provided by creditors compared to the owner of the company (Kahfi et al., 2018). If the capital structure increases, the value of the company will also increase (Permatasari, 2019). An increase in capital structure indicates that the company carries out operational activities by utilizing funds sourced from debt greater than equity. Companies will be more flexible in carrying out their operational activities when they are able to take advantage of debt while saving more taxes and other costs when compared to interest costs (Mudjijah et al., 2019). A high capital structure provides an indication of a good company's prospects, so that it can trigger investors to participate in increasing the demand for shares that can increase the company's

value, because large capital can protect the company from losses in its operational activities (Ayem & Tamu Ina, 2023)

Company Size

One of the important variables in company management is called company size. With the size of the company, it will be able to reflect how large the total assets are owned by the company. The total assets already owned by a company can describe the capital, as well as the rights and obligations it has. The larger the size of the company, it is certain that the larger the funds managed and the more complex the management will be. Large companies tend to get more attention from the wider public. Thus, usually a large company has a tendency to always maintain the stability and condition of a company. Thus, the way to maintain stability and conditions the company will certainly try to maintain and continue to improve its performance. (Astuti, et al., 2021) different from the research conducted by Ayem & Tamu Ina, (2023) which mentions the size of the company indicates the size of a company). The size of a company can be seen from its total assets that it owns. The larger the size of the company, the larger the assets it has.

Asset Structure

Assets are a company's economic resource that is expected to provide benefits in the future, and are divided into two categories: current assets and fixed assets. Asset structure describes the proportion of each type of asset owned by a company. According to Murah (2017), the condition of assets affects funding decisions. Companies with a larger proportion of current assets tend to use short-term funding through debt, because current assets are easier to cash out and can be used as collateral. In contrast, companies with a larger proportion of fixed assets usually use long-term funding with their own capital, because fixed assets have a longer economic life (Putri & Asyik, 2019)

Asset Growth

Asset growth has a positive influence on the capital structure. As the company's assets increase, the need for funds to support operations also increases, which often forces companies to seek external funding if internal funds are insufficient (Setijaningsih, 2020). Asset growth reflects an increase in the number of assets owned by the company from year to year, which is expected to boost operating results. This increase in assets also increases the confidence of external parties, such as creditors and investors, as asset growth is considered a positive indicator of corporate productivity and investment security (Putri & Asyik, 2019).

Hypothesis Development

Asset Structure Has a Positive Effect on Capital Structure

The company's asset structure, which consists of current assets and fixed assets, influences funding decisions. Companies with large fixed assets tend to use long-term funding, while companies with larger current assets usually opt for short-term funding. According to the Pecking Order Theory, companies prefer internal funds before turning to debt and equity. Research shows that asset structure has a significant effect on capital structure, where capital structure can mediate the influence of asset structure on the company. Previous research concluded that asset structure has a significant positive influence on capital structure according to (Fajrida & Purba, 2020) different from research Setijaningsih (2020) showing that partially asset structure has a significant

influence on capital structure, research conducted by Putri & Asyik (2019) states that capital structure can mediate the positive influence of asset structure. Based on the theory tested in previous research, the author formulates that

H1: Asset Structure has a positive effect on capital structure

Asset Growth Affects Capital Structure

The growth of a company's assets, which increases its operational capacity and revenue potential, often requires additional funding. When internal funds are insufficient, companies seek external funding through debt or equity, which changes the capital structure by increasing the proportion of external funding. In line with the Pecking Order Theory which explains that companies prefer internal funds first before debt and equity. Research shows that asset growth has a significant influence on capital structure. Previous researchers have said that asset growth has a significant effect on capital structure according to (Suryo & Fitriati, 2022) in contrast to the research conducted by Sari & Oetomo (2016) showing that asset growth has a positive effect on the capital structure, and the research conducted by Fajrida & Purba (2020) indicates that the growth of the asset or *Asset Growth* have a positive effect on the capital structure. The hypothesis can be formulated as follows:

H2: Asset growth has a positive effect on capital structure

Company Size reinforces the relationship of Asset Structure to Capital Structure

The size of a company, which is often measured by total assets, sales, or market capitalization, affects access to external funding sources. Large companies tend to have easier access to debt or equity because they are considered more stable and have lower risk. They also often have more complex asset structures with a higher proportion of fixed assets, requiring long-term funding. The size of a company can strengthen the relationship between asset structure and capital structure, as large companies have more flexibility in adjusting the capital structure according to the needs of their assets. This is in line with the Pecking Order Theory, which shows that large companies have better access to external funding sources and a lower risk of bankruptcy. The size of the company can influence funding decisions, where large companies often get debt at lower interest rates or attract more equity capital than smaller companies. Research conducted by Suherman et al., (2019) stated that *Size significantly* moderated the influence of asset structure and liquidity on capital structure, in contrast to what was done by Rahmiati et al., (2015) stated that company size had a positive and significant effect on the capital structure of property and real estate companies listed on the Indonesia Stock Exchange in 2010-2013. Based on the theory of previous research, the author concludes that

H3: The size of the company is able to moderate the relationship between Asset Structure and Capital Structure

Company Size reinforces the relationship between Asset Growth and Capital Structure

Rapid asset growth typically requires additional funding to support expansion, and large companies have easier access to external funding sources than smaller companies. The size of the company affects this relationship because large companies have better access to capital markets and creditors, as well as

obtain loans or equity at lower costs. In line with the Pecking Order Theory which explains that large companies have easier access to external funds, both debt and equity. Research shows that company size can strengthen the influence of asset growth on capital structure. The interaction model in regression analysis can test whether the size of the firm strengthens the influence of asset growth on the capital structure. Research conducted by Suherman et al., (2019) says that *Significant size* moderating the influence of asset growth and liquidity on capital structure is different from research conducted by, Mukaromah & Suwarti, (2022) states that the size of the company moderates the positive influence and states that the structure of assets affects the capital structure. Based on the theory of previous research, the author formulates that H4 is able to moderate asset growth.

H4: The size of the company is able to moderate the relationship between asset growth and capital structure

Thinking Framework

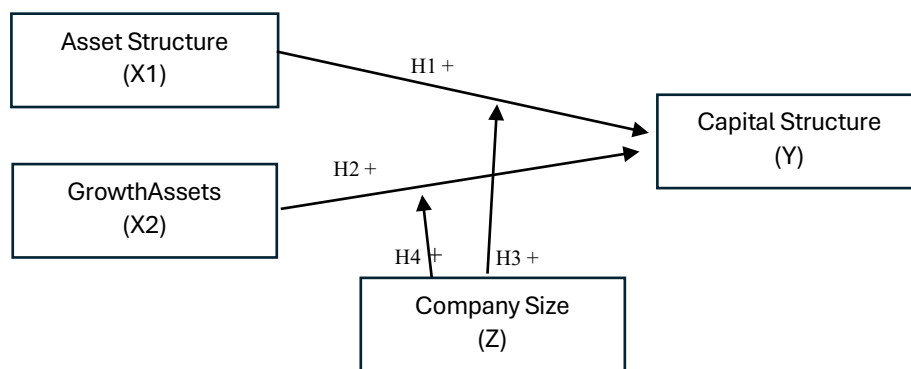


Figure 1. Thinking Framework

RESEARCH METHODS

This study uses a quantitative approach with a type of causal relationship (causality), because it aims to determine the influence of independent variables with moderation variables on dependent variables. The dependent variable in this study is capital structure, while the independent variable consists of asset structure and asset growth. The moderation variable used is the size of the company. This research was conducted on companies in the financial sector that have been and are still listed on the Indonesia Stock Exchange (IDX). The data used is the annual financial statements of financial companies in that period. The research population is financial companies, especially the banking sector, that are listed on the IDX. The sampling technique uses the purposive sampling method, with the conditions set to meet the research criteria.

The data collection technique is carried out through documents in the form of financial statements published by banking sector financial companies listed on the IDX, which are accessed through the www.idx.co.id website (Sundari et al., 2020). The data was then processed by researchers using IBM *Statistical Package for Social Science* (SPSS) version 25 software. Hypothesis testing is carried out by applying two types of regression analysis, namely multiple linear regression analysis and *Moderated Regression Analysis* (MRA).

Definitions and Indicators

Table 1. Operational Definition of Variables

Operational definition	Measuring Instruments
<p>Capital Structure is an equality or comparison of long-term finance in a company which is shown from the consideration of its own capital to long-term debt in the capital structure showing how adequate a company is in an operational activity or how to finance the company's assets, the capital structure can be optimal it is necessary to optimize the balance between the rate of return and risk in (Fajrida & Purba, 2020)</p>	<p><i>Capital Structure</i> = $\frac{\text{Total Liabilitas}}{\text{Total Ekuitas}}$</p>
<p>Company Size is the average total net sales for the year in question until a few years later. Sales are greater than variable costs and fixed costs, so the amount of pre-tax income will be obtained. Conversely, if the sale is smaller than the variable and fixed cost then the company will suffer a loss in (Qosidah et al., 2020).</p>	<p>Company Size = Ln Total Assets (Logarithm Total Assets)</p>
<p>Asset Structure is an economic resource owned by the company and has economic benefits in the future or is the result of past transactions. Asset structure is the asset elements in the company that can describe the proportion of the Company's assets, Fixed assets have a longer life than current assets, so the use of funds focuses more on long-term funds in (Princess & Fun, 2019)</p>	<p>Asset Structure: $\frac{\text{jumlah aktiva tetap}}{\text{total aktiva}}$</p>
<p>Asset growth has a positive effect on the capital structure. As asset growth increases, capital structure also increases. The asset structure increases the need for increased assets for operations and requires large funds so that the company must use external funds if the internal funds are insufficient in (Setijaningsih, 2020)</p>	<p>Asset Growth: $\frac{\text{Total aktiva t1} - \text{total aktiva p}}{\text{Total aktiva tahun l}}$</p>

Source: Setijaningsih (2020)

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 2. Results of Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Asset Structure	156	.0011	1.0000	.032589	.0840668
Asset Growth	156	-1.00	.86	-.0777	.43598
Company Size	156	28.25	35.32	32.1758	1.79377
Capital Structure	156	.33	24.90	5.6790	3.35929
Valid N (listwise)	156				

Managed using spss 25 (2024)

This study is known to have a sample of 26 financial institution companies listed on the IDX. Based on the results of the descriptive statistical test in table 4.3, it shows that during the observation period (2018-2023) the independent variable, namely asset structure (X1), has a minimum value of .0011 and a maximum value of 1,000 with an average value of .032 and a standard deviation value of .084 The independent variable, namely asset growth (X2), has a minimum value of -1.00 and a maximum value of .86 with an average value of -, 077 and a standard deviation value of .435The dependent variable, namely the capital structure (Y), has a minimum value of .33 and a maximum value of 24.90 with an average value of 5.679 and a standard deviation value of 3.359.

Classical Assumption Test

Table 3. Results of the Classic Assumption Test

Test	Result	information
Normality	The results of the normality test with the Kolmogorov-Smirnov test obtained the equation value of the asymmpg.sig 1 model is 0.05 (0.079 > 0.05),	Data is normally distributed.
Multicollinearity	The results of the multicollinearity test of the independent variables above show that the value of the variance inflation factor (VIF) in the independent variables, namely capital structure and company size as moderation variables, is between the tolerance value of >0.10 and VIF <10.	no Multicollinearity
Autocorrelation	Based on the table above, it is known that the value of Asymp.Sig. (2-tailed) of 0.909 > 0.05, then it is concluded that	This study did not have any symptoms or autocorrelation

Test	Result	information
	the data regression model in	problems.
Heteroscedasticity	Based on the decision making of the statistical test, the independent variables, namely the Asset Structure Variable (SA) and Asset Growth (PA), and the Company Size (UP) as the moderation variable have a significance value greater than 0.05 as seen in the table above. Here are the results of decision-making: If the significant value > 0.05	There is no heterosexuality.

HYPOTHESIS TEST

Table 4. Hypothesis Test Results

Test	Result	information
Multiple Regression Analysis	The results of the multiple linear regression test with a constant value of -1.905 mean the variable asset structure, and asset growth, if the value is 0, then the level of capital structure is -1.905. The asset structure value of 0.099 is positive, meaning that if the Asset Structure variable increases by one unit, the Capital Structure will decrease by 0.099 assuming that other independent variables remain 0.099. The asset growth value is 0.341.	Asset Growth increases by one unit, then Capital Structure will increase by 0.341
Determination Cofesienity	The <i>adjusted R square value</i> is 0.189. These results indicate that 18.9% of the variation in capital structure can be explained by the variables of asset structure, asset growth and the size of the Company	There are still 81.1 % influenced by other factors that are not included in this study.
Simultaneous Significant (Test F)	The F grade has a significant $0.000 < 0.05$.	Simultaneously company size, asset structure, and asset growth are able to affect the capital structure.
Partially significant (T-Test)	The results of the partial test show that Asset Structure (t-count 2.186, $p = 0.030$), Asset Growth (t-count 2.795, $p = 0.006$), and Company Size (t-count 5.014, $p = 0.000$).	All of them have a positive and significant effect on the Capital Structure
Moderation Analysis Regression (MRA)	The interaction variable between the Asset Structure (SA) and the Company Size (UP) was $0.014 \leq 0.05$, so that the Company Size moderated the influence of Asset Structure on Capital Structure	Company Size moderates the influence of Asset Growth on Capital Structure (SM).

Test	Result	information
	(SM). Likewise, the interaction between Asset Growth (PA) and Company Size (UP) was $0.018 \leq 0.05$	
Test T after Moderation	Based on the partial regression test, Company Size moderated the relationship between Asset Structure and Capital Structure with a t-count of 2.481, a regression coefficient of 0.016, and $p = 0.014$, which means significant. Company Size also strengthens the relationship between Asset Growth and Capital Structure, with a t-count of 2.386, a regression coefficient of 0.042, and $p = 0.018$.	Company Size is able to moderate the relationship between Asset Structure and Asset Growth to Capital Structure, indicating that large companies have better capacity to manage assets and financing.

Discussion

The Influence of Asset Structure on Capital Structure

Variable asset structure value t-calculated is 2,186 regression coefficient (beta) 0.099 with Probability (p)=0.030. Based on the results of data processing where the significant value is $0.030 < 0.05$, it can be concluded that Asset Structure has a positive and significant effect on Capital Structure. Showing a positive relationship between asset structure variables and capital structure, indicates that an increase in the proportion of assets tends to lead to a decrease in the proportion of capital, and vice versa. So the author's first hypothesis that states that asset structure has a positive and significant effect on the capital structure is supported. The company's asset structure consists of current assets and fixed assets, where fixed assets are more in need of long-term funding, while current assets are more likely to be funded with short-term funding. *The Pecking Order theory* supports that companies prefer internal funding first, then debt, and equity as the last option. However, the composition of assets affects the company's preferences in choosing funding sources. Previous research by Fajrida & Purba (2020) and Setijaningsih (2020) showed that asset structure has a significant influence on capital structure, while Putri & Asyik (2019) stated that capital structure can mediate the positive influence of asset structure.

The Effect of Asset Growth on Capital Structure

The results of the hypothesis test show that asset growth has a significant influence on the variables considered, obtaining a t-calculated value of 2,795 regression coefficient (beta) 0.341 with Probability (p)=0.006. Based on the results of data processing where the significant value (p) < 0.05 . It can be concluded that Asset Growth has a positive and significant effect on the Capital Structure. Capital structure, asset growth can affect a company's funding decisions. As assets increase, companies need additional funds to support operational improvements and investments. *Pecking Order Theory* explains that companies prefer to use internal funds such as retained earnings. However, if internal funds are insufficient, the company turns to external funding such as debt or equity. Rapid asset growth often increases a company's need for debt or equity in its capital structure. Suryo & Fitriati (2022) show that asset growth has a significant effect on capital structure. Sari & Oetomo (2016) and Fajrida & Purba

(2020) also found that asset growth has a positive influence on capital structure.

Company Size as a Moderator of the Influence of Asset Structure on Capital Structure

The results of the moderated *regression analysis* of the size of the company as a moderator of the asset structure show a value significance of 2.481, the regression coefficient (beta) is 0.016 with a significant (p) = 0.014. Based on the results of data processing where the significant value is $0.014 < 0.05$. These findings support the third hypothesis, which states that firm size can moderate the relationship between asset structure and capital structure. The size of the company strengthens the relationship between the asset structure and the capital structure, as large companies have more stable assets and can be used as collateral, making it easier to access debt at low costs. *The Pecking Order theory* states that large companies prefer internal funding first, then debt because strong assets increase credibility in the eyes of lenders. Research by Suherman et al. (2019) showed that company size significantly moderated the influence of asset structure and liquidity on capital structure, while Rahmiati et al. (2015) found that company size had a positive effect on the capital structure of property companies on the IDX.

Company Size as a Moderator of the Influence of Asset Growth on Capital Structure

The results of the moderated regression analysis of the size of the company as a moderator of the asset structure show the significance of the interaction value between asset growth and company size, showing the significance of the t-count value of 2.386, the regression coefficient (beta) is 0.042 with significance (p) = 0.018. Based on the results of data processing where the significance value is $0.042 \leq 0.05$. These findings state that the fourth hypothesis of firm size is able to moderate the relationship between asset growth and capital structure, which states that firm size can moderate the relationship between asset structure and supported capital structure. The results of the hypothesis show that the moderation of the company size variable weakens the relationship between the asset growth variable and the capital structure. The size of a company strengthens the relationship between asset growth and capital structure. Large companies, with better access to financial resources, can more easily fund asset growth through low-cost debt because their reputation increases lender confidence. This allows them to balance internal and external funding more effectively. *The Pecking Order theory* explains that companies prefer to use internal funding before debt, and debt before equity. Large companies follow this order better, especially when experiencing significant asset growth. Research by Suherman et al. (2019) showed that company size significantly moderated the influence of asset growth and liquidity on capital structure, while Mukaromah & Suwarti (2022) found that company size moderated the positive influence of asset structure on capital structure.

The size of the company affects the capital structure, where large companies have easier access to financing and manage debt and equity effectively. In contrast, small companies have limited access and flexibility. In addition, firm size strengthens the relationship between asset structure and growth against capital structure, with large firms being better able to optimize it than smaller firms.

CONCLUSION

1. The Influence of Asset Structure Has a Positive Effect on Capital Structure
2. The Effect of Asset Growth on Capital Structure
3. The size of the company is able to moderate the influence of asset structure on capital structure
4. The size of the company is able to moderate the influence of asset growth on the capital structure

Research Limitations

1. The R2 test revealed that there were still 81.1% variables that were able to affect the capital structure that were not studied by the authors.
2. The research is only limited to financial sector companies sub-sector financial institutions listed on the IDX, so the results cannot be used as a reference for all types of companies.

Suggestion

1. Further research is suggested to add other variables for example, independent variables, moderation variables or intervening variables.
2. Further research is suggested to expand the research population, including other companies outside the financial sector, especially the sub-sector of financial institutions, as well as future generations can expand this research further.

REFERENCE

- Astuti, Y., Erawati, T., & Ayem, S. (2021). The influence of liquidity, solvency, asset management, company size, and capital structure on financial performance. *Journal of Accounting Science*, 3(2), 355–381.
- Ayem, S., & Guest Ina, CR (2023). Capital Structure and Liquidity to Company Value: Company Size as a Moderation Variable. *Journal of Accounting Literacy*, 3(1), 47–57. <https://doi.org/10.55587/jla.v3i1.48>
- Fajrida, S., & Purba, NMB (2020). The effect of profitability, company size and asset growth on the capital structure of companies on the Indonesia Stock Exchange. *EMBA Journal: Journal of Economics, Management, Business and Accounting Research*, 8(1), 627–636. <https://ejournal.unsrat.ac.id/index.php/emba/article/view/28019/27481>
- Herlin Tundjung Setijaningsih, LA (2020). Analysis of the influence of asset structure, asset growth, and company size on capital structure. *Journal of Accounting Paradigm*, 2(2), 801. <https://doi.org/10.24912/jpa.v2i2.7662>
- Mukaromah, D.U., & Suwanti, T. (2022). The effect of profitability, liquidity and asset structure on capital structure with company size as a moderating variable. *Scientific Journal of Accounting Students) Ganesha University of Education*, 13, 2614–1930.
- Putri, A., & Asyik, N. F. (2019). The influence of asset structure, asset growth, and business risk on the value of the company with capital structure as an intervening variable. *Journal of Accounting Science and Research*, 8(3), 1–21.
- Qosidah, N., Hendra Titisari, K., & Wijaya, A. (2020). The influence of asset structure, liquidity, company size and profitability on the capital structure of basic and chemical industry companies in the IDX. *Journal of Accounting Economics Research (JENSI)*, 4(1), 93–100.

- Suherman, Purnamasari, R., & Mardiyati, U. (2019). MIX: Scientific Journal of Management, Volume 9, No. 2, June 2019. *Scientific Management*, 9(2), 327–340.
- Suryo, R. S. U., & Ika Rosyada Fitriati. (2022). C The Influence of Company Size, Asset Structure, and Profitability on Capital Structure. *Compact: Scientific Journal of Computerized Accounting*, 15(2), 415–427. <https://doi.org/10.51903/kompak.v15i2.814>