

## Can Earnings Performance Weaken the Negative Impact of Effective Tax Rate on Company's Growth Prospects? An Empirical Study Based on Listed Firms of Financial Industry in Indonesia

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### Abstract:

Effective tax rate in Indonesia is relatively high when compared to some other ASEAN countries. High effective tax rate can affect company's future growth prospects. This study aims to examine the impact of effective tax rate on the growth prospects of companies with earnings performance as moderating variable. The sample used was financial services companies listed on the Indonesia Stock Exchange in the period 2009-2018, with a total of 301 firm-year observations. This study used multiple regression analysis for panel data with the fixed effect method. The results revealed that effective tax rate had a significant negative impact on company's growth prospects. Meanwhile, earnings performance, as a moderating variable, did not have a significant impact on the weakening of the negative effect of effective tax rate on company's future growth opportunities. The results of this study are expected to be a reference for the government in setting tax rates in the future by considering that tax rates can have an impact on company's growth potential.

**Keywords:** earnings performance; price to book value; growth prospects; effective tax rates.

**JEL classification:** G30; G38.

### Introduction

This study aims to examine the impact of effective tax rate on the growth prospects of companies with earnings performance as moderating variable. The sample was financial services companies listed on the Indonesia Stock Exchange in the period 2009-2018. As is known, Indonesia's government revenue from taxes is still the largest revenue to date. One source of tax revenue is corporate income tax with a statutory tax rate (STR) of 25%. When

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compared to other ASEAN countries, Indonesia ranks second in terms of the highest corporate tax rate after the Philippines (30%), as shown in Table 1.

Table 1. Corporate tax rates in ASEAN as of 31<sup>st</sup> of December, 2018

Country	Tax Rate	Country	Tax Rate
Singapore	17%	Laos	24%
Brunei Darussalam	18.5%	Malaysia	24%
Cambodia	20%	Myanmar	25%
Thailand	20%	Indonesia	25%
Vietnam	20%	Philippines	30%

Source: Author's own data processing (2019)

The competition of corporate tax rates between ASEAN countries can trigger investment flows to countries that offer more competitive corporate tax rates. Tax barriers are one of important determinants of foreign direct investment (FDI) (Prepremmote, Phukseng and Sangwan 2020). Even though the applicable STR in Indonesia is 25%, the effective tax rate can be of less or more than 25% or equal to 25%. Effective tax rate (ETR) in Indonesia, which is 32.5%, is relatively high when compared to some other ASEAN countries, such as Thailand (27%), Malaysia (24%), and Singapore (17%) (DDTC 2017). High ETR can affect growth potential or growth prospect of companies as corporate taxpayers. This is caused by the high tax burden that is paid to the government that reduces company's net profit. On the other hand, capital structure (measured by debt-to-equity ratio) does not have significant impact on effective taxrate (Saragih, Purnasari, and Setyowati 2019). Therefore, it is not uncommon for companies to avoid tax in order to reduce the ETR that they pay to the government. ETR is also a variable that is often used by researchers to proxy tax avoidance by companies (Chen et al. 2014, Kiesewetter and Manthey 2017, Saragih 2017, Zeng 2019).

A low corporate effective tax rate (which indicates large-scale tax avoidance) represents a transfer of wealth from the government to corporation and it can increase firm value (Chen et al. 2014). However, based on the results of other studies, it was found that low ETR did not have an impact on the creation of corporate value in European companies (Kiesewetter and Manthey, 2017). This might be caused by high costs and risks from tax avoidance, such as implementation costs, the risk of losing reputation, and the possibility of punishment (Chen et al, 2014).

To assess a company's growth potential or prospect, several types of market ratios can be used. Nel (2009) concluded that there were five of the most popular ratios that are commonly used to assess a company's equity, namely: PER, MVIC/EBITDA (Market Value of Invested Capital/Earnings Before Interest, Taxes, Depreciation and Amortization), MVIC/EBIT (Market Value of Invested Capital/Earnings Before Interest and Tax), P/BVE (Price to Book Value of Equity), and P/PBT (Price to Profit before Tax). A high PER represents a high return (Leong, Pagani, and Zaima 2009). Higher future growth corresponds to a higher PBV ratio because future growth opportunities are reflected in company's stock price (Nezlobin, Rajan, and Reichelstein 2016). PBV is also closely related to the persistence of company profitability (Farma and French 1992 in Nezlobin, Rajann and Reichelstein 2016).

As mentioned before, this study aims to examine the impact of effective tax rates on the growth prospects of companies by sampling financial services companies listed on the Indonesia Stock Exchange for the period 2009-2018 with earnings performance as a moderating variable. Companies in the financial sector were sampled because these companies have high growth potential and prospects and a strategic role in financing various other types of companies. Moreover, financial sector is the sector that is regulated the most by the regulator. Additionally, based on the results of previous studies, banking companies, non-bank financial companies, securities companies, insurance companies, and real estate companies were business groups whose effective tax rates were far below 25%, which was around 19.09%, in the period 2000-2016 (Mustika, Ananto and Handayani 2018).

The difference between this study and other studies is that the focus of this study is to test the impact of effective tax rates on future growth opportunities of financial sector, which is still rarely studied. The financial sector is the most regulated sector, but at the same time, the sector has an average ETR that is far below STR during the 2009-2018 research period. This may indicate several possibilities: large tax incentives provided by the government, weak enforcement of tax-related regulations, or effective tax management by companies to avoid large tax burdens.

This study has two contributions. First, this study adds a reference to the review of a growing literature on the impact of effective tax rates on future growth prospect of companies in a fairly long period of time, which is ten years of observation. Second, the results of this study can be taken into consideration for regulators to set tax rates in the future because based on the results of the analysis, it has been proven that effective tax rate negatively affected company's growth prospects, while profitability, as company's earnings performance, was also unable to

weaken the negative impact of effective tax rate towards company's future growth. In addition, the low average of ETR of financial services companies can be an evaluation material for regulators on various possible causes, including the possibility of quite aggressive tax avoidance by the sampled companies or other causes. This article is written in the following order: section one explains the introduction and background of the study; section two presents theoretical framework, literature review, and hypothesis development; section three describes research method; section four presents results and discussion; and the last section contains conclusions, implications/recommendations, and suggestions for further research.

## 1. Theory, Literature Review, and Hypotheses Development

### 1.1. Theory and Literature Review

*Agency Theory.* The theory adopted in this study is the agency theory proposed by Jensen and Meckling (1976) and Watts and Zimmerman (1978). In agency theory, there are several parties who agree in contracting, namely the principal and the agent. The principal is the party that gives authority, while the agent is the party that is trusted to be authorized by the principal. Jensen and Meckling (1976) defined agency relation as contract between one or more parties, namely, the principal (who hires another person/party-agent), to perform certain tasks in the interests of the principal, which includes the authority of decision making by agents. The problem that often arises in relation to this relation is agency conflict, which is differences in interests between company management as decision makers and shareholders as company owners. This difference in interests will affect company's performance and quality of financial statements. Further, there are still other types of agency conflict. Conflict of interest that is included in the focus of this study is conflict between corporate taxpayers and tax authorities as representatives of the government. This conflict occurs because corporate taxpayers often try to avoid taxes (by manipulating ETR), while the government wants to maximize tax revenue from taxpayers in order to support tax reform and to ensure fiscal sustainability.

*Signaling Theory.* The theory that is also used in this study is signaling theory. This theory is useful in explaining the behavior of two parties in terms of different access to information. Companies, which are also corporate taxpayers, are required to report financial statements and other relevant information objectively in accordance with the standards and applicable regulations to the owners, investors, government, and other stakeholders. A company also has the most complete access to financial information about itself, while other parties do not so. A company has certain motives for sending company performance information to external parties, both for the purpose of attracting investors and for taxation purposes. The release of accounting information gives a signal that a company has good performance and growth prospects in the future.

*Positive Accounting Theory.* Watts and Zimmerman (1990) in their article on Positive Accounting Theory (PAT) proposed three hypotheses: debt covenant, bonus plan, and political costs. In the context of effective tax rate, the most possible hypothesis is political costs. Large companies are likely to incur higher political costs than smaller companies. In addition, large companies are also overseen by the government, regulators, and other stakeholders. If in the long run a company has an ETR that is less than STR (where the tax payment is less than the legally applicable tax provisions), there is a possibility the company will be audited by the tax authority and it will cause significant political costs.

*Effective Tax Rate.* Effective tax rate (ETR) is the actual tax rate that is paid to the government. This ETR can be less or more than STR of 25%. ETR can also be equal to STR of 25%. ETR of a company, in general, is the average tax paid by a company on pre-tax profit (Hanlon and Heitzman 2010). ETR is generated from each interacting taxation rule, for example, tax rates that apply in a jurisdiction, facilities provided by the state, tax deductions, international taxation, etc. (Giannini and Maggiulli 2002). Low ETR of a company may indicate large-scale tax avoidance, represent wealth transfers from the government to the company, and be able to increase firm value (Chen *et al.* 2014). However, in other studies, tax avoidance is proven to have no significant impact on the value of a company as measured by the company's market value relative to its total assets (Akbari, Salehi and Vlashani 2019). Increased company value can be achieved if a company consistently has positive performance, both in terms of earnings performance and market performance.

*Company's Growth Prospects.* Company's growth prospects indicate future growth opportunities with the support of adequate profits and consistent equity (net assets). Market ratios can be used to assess future growth opportunities. Higher future growth corresponds to a higher PBV ratio because future growth opportunities are reflected in company's stock price (Nezlobin, Rajan and Reichelstein 2016). PBV is related to the discount rate and the consequences will also be related to risk and growth (Bernard 1994 in Cheng and McNamara 2000). Jiang and Anandarajan (2009) also used market to book ratio to measure future profitability growth in one of their research. Recent academic studies, as well as practical investment analysis, also report the importance of book value and

the need for deeper investigation to assess the accuracy of price to book value as a benchmark in valuation methods (Cheng and McNamara 2000).

*Earnings Performance.* Company's earnings performance reflects the effectiveness and efficiency of a company in generating profits in a certain period. One ratio that can be used to assess earnings performance (profitability) is Return on assets (ROA). Return on assets (ROA) measures company's ability to generate profits by using total assets owned by the company. There are many determinant factors of profitability, although in some cases corporate social responsibility disclosure does not have significant impact on profitability (Saragih *et al.* 2019). Good company performance will support company's growth, both in the form of profits and company's net assets. PBV is also closely related to the persistence of company profitability (Farma and French 1992 in Nezlobin, Rajan and Reichelstein 2016).

## 1.2. Hypotheses Development

In Indonesia, the applicable STR is 25%. The STR is the second highest corporate tax rate among ASEAN countries. Although the STR is 25%, the ETR paid by companies to the government can be less or more than 25%. Sometimes, the ETR paid is exactly 25%. A high ETR reduces the portion of company's net profit (which in turn can result in slower retained earnings accumulation). Meanwhile, retained earnings can be divided into two categories: restricted retained earnings and unrestricted retained earnings. Restricted retained earnings can be used for company's business expansion and other purposes. A company's effective tax rate represents a transfer of wealth from the government to a lower company and it can reduce firm value (Chen *et al.* 2014). Thus, the first hypothesis is:

H1: Effective tax rate negatively affects company's growth prospects as measured by price to book value.

The negative impact of effective tax rate on company's growth prospects can be minimized if a company has high profitability. Ahmadi and Bouri (2018) found that profit measured by EPS significantly affected company's stock price. Akbari, Salehi, and Vlashani (2019) also found that income smoothing and earnings quality had a significant impact on the relationship between tax avoidance and firm value (as measured by company's market value relative to total assets). With high profitability, a company continues to pay taxes according to applicable regulations while still earns a significant net profit so that opportunities to grow in the future open wider. Higher future growth corresponds to a higher PBV ratio because future growth opportunities are reflected in company's stock price (Nezlobin, Rajan, and Reichelstein 2016). PBV is also closely related to the persistence of company profitability (Farma and French 1992 in Nezlobin, Rajan and Reichelstein 2016). Thus, the second hypothesis is:

H2: Earnings performance weakens the negative impact of effective tax rates on company's growth prospects as measured by price to book value.

## 2. Methodology

### 2.1. Population, Sample, and Research Data

The population in this study were all companies listed on the Indonesia Stock Exchange during the period 2009-2018. The sample used was companies in the financial sector according to the Thomson Reuters Database. The business economic sector classification based upon TRBC System (Thomson Reuters Business Classification) consists of 10 economic sectors, namely: basic materials, consumer cyclical, consumer defensive, energy, financials, healthcare, industrials, technology, telecommunication, utilities. Companies in the financial sector were sampled because these companies have high growth potential and prospects and have a strategic role in financing other types of companies.

Moreover, financial services sector is the sector that is regulated the most by regulators. In addition, based on the results of previous studies, these business groups from the period 2000-2016 were included in the business groups whose effective tax rates were well below 25%, which was around 19.09% (Mustika, Ananto and Handayani 2018). This study used secondary data obtained from the Thomson Reuters Database for the observational period from 2009-2018. Total observations in this study were 301 firm-years as shown in Table 2.

Table 2. Sampling process

Sample Criteria	Number of Firm-years
Initial samples of 166 companies, 10 years (2009-2018)	1,660
Incomplete financial data	(1,338)
Negative and zero ETR data	(21)
Final number of samples	301

Source: Author's own data processing (2019)

The sampling process was carried out using a purposive sampling method with company criteria: companies with a fiscal year ending on December 31, which do not have negative equity value, but have ETR in the range of 0-1 and have the necessary data.

## 2.2. Research Model and Variable Operationalization

This study aims to examine the impact of effective tax rate on the growth prospects of companies with earnings performance as moderating variable. The sample was financial services companies listed on the Indonesia Stock Exchange in the period 2009-2018. To answer the research questions in this study, the research model developed to test H1 and H2 is as follows:

$$PBV_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 ROA_{it} + \beta_3 ETRROA_{it} + \beta_4 DER_{it} + \beta_5 SIZE_{it} + \epsilon_{it} \quad (1)$$

Table 3 summarizes the operationalization of the research variables and includes the types of variables that were used and their definitions and measurements.

Table 3. Research Variable Operationalization

Variable	Type of Variable	Definition	Measurements
PBV	Dependent variable	Price to Book Value (ratio of stock price to the book value of a company) is one of the market ratios that can be considered in assessing the prospect or performance of a company in the future.	PBV = Market Price per Share of Stock/ Book Value per Share of Stock
ETR	Independent variable	Effective Tax Rate is actual rate applicable to taxpayer income.	ETR = Tax Expense/ Profit before Tax
ROA	Independent variable	Return on assets is one of the profitability ratios that measures a company's ability to generate profits with total assets they own.	ROA = Profit after Tax/Total Assets
ETRROA	Moderating variable	Interaction between effective tax rate and return on assets is a moderating variable that can strengthen or weaken the impact of effective tax rate on company's growth prospects as measured by PBV.	ETRROA = ETR*ROA
DER	Control variable	Debt to Equity Ratio is a ratio that shows how much a company is financed with debt or equity.	DER = Total Debt/Total Equity
SIZE	Control variable	Company size is a scale to assess the size of a company, one of which can be seen from the total assets owned by a company.	SIZE = Total Asset Logarithm

Source: Author's own data processing (2019)

## 2.3. Data Processing Techniques

The data in this study were processed using multiple regression of panel data (or fixed effect method) with the help of Stata, a data analysis and statistical software. Descriptive statistics is useful in detecting the presence of outliers in research data. If there are abnormalities in the data, some procedures that can be carried out to overcome them, among others, are to do certain treatments on the data or to eliminate data that are considered as outliers. In this study, outliers were detected from the values for skewness that were outside the range of -2 to 2. Outlier treatment was done on variables that had values for skewness that were outside the range of -2 to 2 or abnormal variables (Wijanto 2009). To overcome this problem, winsorizing was done by replacing the outlier numbers with 3 standard deviations that were added to the average value (as upper control limit) and 3 standard deviations that were subtracted from the average value (as lower control limit) so that the data can be declared normal. Descriptive statistics of research variables, including skewness, before and after outlier treatment is attached at the end of this article.

The next testing phases carried out were:

- Statistical methods selection between pooled least square method, fixed effect method, or random effect method using the Chow test, Lagrange Multiplier test, and Hausman test;
- classic assumption test which includes multicollinearity, heteroscedasticity, and autocorrelation tests;
- F- test, adjusted R-squared test, and t-test.

Based on the results of statistical method selection, the method used for this research model was the fixed effect method. The classical assumption test results showed that there was no multicollinearity, but there were heteroscedasticity and autocorrelation. However, heteroscedasticity and autocorrelation had been overcome using

the robustness feature of the Stata software. F-test also showed significant results. Thus, it can be concluded that the research model used was valid and can be used for further analysis. All the results of statistical method selection, classic assumption test, F- test, adjusted R-squared test, and t-test are attached at the end of this article.

### 3. Results and Discussion

Table 4 shows the descriptive statistics of research variables in the sampled financial services companies as many as 301 firm-years.

Table 4. Descriptive statistics of research variables

Variables	Obs	Mean	Std. Dev	Minimum	Maximum	Skewness
PBV	301	1.7745	1.2446	0.1361	5.9965	1.2368
ETR	301	0.1854	0.1078	0.0001	0.6649	0.3778
ROA	301	0.0424	0.0436	-0.2579	0.2394	-0.1619
ETRROA	301	0.0066	0.0070	-0.0190	0.0327	0.7728
DER	301	0.5683	0.5161	0.0000	2.7741	1.7296
SIZE	301	13.4867	0.7635	11.6474	15.1129	0.1354

Source: Author's own data processing (2019)

The average of PBV (1.7745) that exceeded 1 indicated that on average, the sampled companies in this study had prospects for future growth, which was caused by the large price given by investors to the book values of the companies. However, effective tax rates in the financial sector tended to be low. The average effective tax rate of 18.54% was far below the statutory tax rate of 25%. The low tax rates that were paid indicated the growing amount of net profit earned so that it allowed companies to have better growth prospects in the future. However, the large difference between STR and the average of ETR in the financial sector (-6.46%) indicated three possibilities: large tax incentives provided by the government, weak enforcement of regulations related to taxation, or effective tax management done by the company.

The average profitability value of the company (4.24%) also showed a positive, but small performance, with a capital structure that was still dominated by equity rather than debt (DER 56.83%). Broadly speaking, based on descriptive statistics, the general insight gained was that the sampled companies in the financial sector averagely performed fairly well, with the use of equity higher than debt. The companies had market price above the book value and can book positive profitability. However, the ETR of these companies was still below STR.

Table 5 summarizes the results of regression model, where the F-test probability value is 0.0000, so it can be concluded that the research model can be used for further analysis. Adjusted R-squared in this study was quite large, which was 23.28%. This showed that 23.28% of PBV value variation could be explained by changes in ETR, ROA, ETRROA, DER, and SIZE values, while the remaining 76.72% was explained by other factors outside the model.

Table 5. Results of Regression Model

Model: $PBV_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 ROA_{it} + \beta_3 ETRROA_{it} + \beta_4 DER_{it} + \beta_5 SIZE_{it} + \epsilon_{it}$		
Variable	Coef.	Prob.
C	28.0870	0.0000*
ETR	-1.9816	0.0060*
ROA	1.7185	0.5160
ETRROA	16.2007	0.2980
DER	0.0213	0.9460
SIZE	-1.9380	0.0000*

Note: N = 301; Adj R<sup>2</sup> = 23.28%; F (5, 56) = 8.23; Prob. = 0.0000\* (\*significant at 5% level)

Source: Author's own data processing by using STATA (2019)

The control variable of DER had no significant effect on PBV and it implied that the composition of the capital structure being implemented by companies was not optimal because it did not yet have a significant impact on company's future growth opportunities.

Meanwhile, the control variable of firm size had a significant negative effect on PBV. It indicates that the larger the size of the company is, the slower the prospects for growth in the future become. This may be related to the life cycle of companies that have entered the mature stage so that the stock price of the book value is relatively stable.

Further, based on Table 5, it can be seen that the ETR probability value was 0.0060 with a coefficient value of -1.9816. This showed that ETR had a significant negative impact on PBV. Thus, H1 (effective tax rate negatively

affects company's growth prospects as measured by price to book value) is confirmed. Higher (or lower) ETR will result in company's lower (higher) future growth opportunities. This result is consistent with the findings of Chen et al (2014) where high ETR of company represented the transfer of wealth from the government to a lower company and it could reduce the value of the company. However, this finding does not support Kiesewetter and Manthey (2017) who found that low ETR did not have an impact on the creation of corporate value. Meanwhile, the ROA variable, with a probability value of 0.5160, did not have significant impact on company's growth prospects in the sample of this study. It indicated that the profitability of companies tended to be low (with an average ROA value of only around 4.24%) so that it had not been able to encourage company's growth prospects (PBV).

Moderation variable of ETRROA had a probability value of 0.2980 with a coefficient value of 16.2007. Thus, it can be concluded that ETRROA had no significant effect and H2 (earnings performance weakens the negative impact of effective tax rates on company's growth prospects as measured by price to book value) is not confirmed. This result indicated that the profitability obtained by companies had not been able to minimize the large negative impact of effective tax rates on company's future growth opportunities. Indirectly, this finding is not consistent with the findings of Farma and French (1992) in Nezlobin, Rajan and Reichelstein (2016) where PBV was closely related to the persistence of company profitability.

According to agency theory, if company's ETR is equal to or more than STR 25%, it can be said that agency conflict is quite low because corporate taxpayers fulfill tax obligations well. The low level of agency conflict will have a positive impact on government tax revenue. However, from company's point of view, the tax burden becomes greater, the net profit obtained becomes lower, and it can affect the retained earnings that can be used for company growth. This problem will be more severe if a company has a relatively small profitability so it is increasingly difficult to reduce the impact of effective tax rate on the company's growth potential. Conversely, if company's ETR is less than or far below STR of 25%, then there is likely to be a considerable agency conflict between the corporate taxpayer and the government. In this study, it can be seen that the average of ETR of the sampled companies was quite far below the STR of 25%.

Furthermore, when viewed from signaling theory, this condition also signals tax authorities about the possibility of aggressive tax avoidance. Companies should anticipate the possibility of tax audit by the authority that might incur political costs, which according to the hypothesis in positive accounting theory, might not be a little. When associated with positive accounting theory (political costs), large companies that are more closely monitored by the government, regulators, and other stakeholders are likely to face higher political costs than small companies. This can be caused by high costs and risks they incur when they avoid taxes, such as implementation costs, the risk of losing reputation, and possible penalties (Chen *et al.* 2014). On the other hand, the government, as the regulator that sets the amount of STR, can also consider reducing STR so that the tax burden paid by companies to the government does not reduce profitability and hinder the growth prospects of companies in Indonesia. Lower tax rates are also expected to reduce corporate tax avoidance in Indonesia.

## Conclusion

The findings of this study were that effective tax rate had a significant negative impact on company's growth prospects while profitability (earnings performance), as moderating variable, did not have significant impact in weakening the negative effect of effective tax rate on company's future growth opportunity. The findings are expected to be a reference material for the Directorate General of Taxes (DGT) to consider reducing statutory tax rates for corporate taxpayers because the reduction may stimulate higher growth prospects in the future. A lower statutory tax rate can trigger a lower effective tax rate as well, so that company's net profit can be greater and can encourage company's growth prospects to become better in the future. A lower and competitive statutory tax rate can also attract more investors to invest in companies in Indonesia.

This study has several limitations, which can be considered as suggestions for further research. Future studies can use additional variables of MVIC/EBITDA, MVIC/EBIT, and P/PBT for valuation of company equity as proposed by Nel (2009). In addition, the effective tax rate variable can also be expanded with cash ETR or measured in more detail by replacing STR with ETR. To obtain more significant conclusion regarding whether high (or low) ETR will have a negative (or positive) impact on company's growth prospects with company size as control variable, further research can separate the sample of companies with ETR above 25% and companies with ETR below 25%. Different business sectors can also be sampled because in the end, the STR set by the government will apply to all corporate taxpayers. This will affect the implications and recommendations that will be submitted to the government or the Directorate General of Taxes (DGT).

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