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Effect of Profitability, Leverage and Capital Intensity on Effective Tax Rate LQ45 Companies Indonesia 2016-2019

Siti Alya Nabilla[1*], Jone Panatap Soehaditama[2]

[1, 2]*Accounting, Institute of Banking Finance and Informatics Asia Perbanas*

***Corresponding author:** alyanabilla128@gmail.com |

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Abstract

Purpose: This study was conducted to determine the impact of profitability, leverage, and capital intensity on the effective tax rate in LQ45 companies on the Indonesia Stock Exchange (IDX).
Research Methodology: This study uses data derived from the economic report of the LQ45 companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2019 period. This study uses quantitative methods, and the data obtained will be in the form of numbers.
Results: The results of this study are the discovery of negative and substantial profitability impacts on the effective tax rate, found negative and substantial impacts of leverage on the effective tax rate and no impact of capital intensity on the effective tax rate on LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 - 2019.
Conclusions: This study examines the impact of profitability, leverage, and capital intensity on the effective tax rate (ETR) in LQ45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019. The findings show that profitability and leverage have a significant negative effect on the ETR, while capital intensity does not influence the ETR. These results provide valuable insights for corporate tax management and strategic decision-making.
Limitations: This study is limited to LQ45 companies on the Indonesia Stock Exchange, which may not fully represent companies from other sectors or countries. Additionally, the study uses secondary data from financial reports, which may limit the scope of analysis. The cross-sectional design also restricts the ability to examine long-term trends or causal relationships.
Contributions:This study contributes to the understanding of how financial variables such as profitability, leverage, and capital intensity affect the effective tax rate in publicly traded companies. The findings offer valuable insights for tax planning and corporate financial strategy, especially for companies in emerging markets like Indonesia.

Keywords: *Capital Intensity, Effective Tax Rate, Leverage, Profitability*

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1. Introduction

The level of economic development is basically capable of being called a growth mechanism, which is closely related to life and its purpose, to obtain better conditions than before. Development occurs through a series of investments that can only be pursued with large incentives. Funding sources can be domestic or international. Taxes are one of the most important sources of income for countries such as Indonesia (Huda et al., 2018). For the country, income tax can be interpreted as an important source

of revenue(Siregar & Patunru, 2021). Taxes are enforced by law to ensure that businesses pay taxes. Companies that do not pay taxes can be subject to sanctions that harm them.

For corporations, taxes are costs that reduce the total net profit obtained by the company; therefore, they try to pay off the tax burden as small as possible (Kurniawan & Hariadi, 2022; Utami & Tahar, 2018). The difference in profits between the collector, namely the government, and the taxable side, namely the community, is where the government seeks to collect a number of taxes from each company, and the company strives to pay as little tax as possible to get the maximum profit (Anaperta et al., 2021).

Profitability can be interpreted as a comparison of a company's potential to make a profit. This comparison also confirms the scale of the effectiveness of managing a business (Fahmi, 2015; Wijayanti & Santoso, 2022). This is represented by the profits obtained from sales and income from investors. The use of this comparison shows the efficiency of the company. The higher the break-even amount, the better the business performance. Regarding taxes, this is the basis for applying taxes to companies (Hudaya, 2022b). The higher the profit, the higher the Taxable Income (PKP) and tax rate that applies to the company. Managers are able to use leverage to ease the company's tax burden by using interest expense on debt (Fadlianto & Sulistyowati, 2022; Michalkova et al., 2021). Interest expense is used to reduce tax costs,and the opportunity for debtise the manager's choice to finance to obtain a profit in the form of interest on the debt. Leverage describes the potential for a company to choose fixed assets or costs to streamline the business owner's earnings. In addition, leverage is used to test a company's skills in paying off all its obligations, both in the short and long term, if the company is dissolved (Kasmir, 2014; Ricardianto et al., 2022).

Capital intensity refers to a company's investment activity in the form of fixed assets (Harywibowo & Hariadi, 2022; Riyanto, 2015). Fixed assets belonging to a company are depreciated for a special period in line with the useful life of that fixed asset. Depreciation and amortization can be interpreted as expenses that interfere with business results (Mulyadi et al., 2022; Setyawati, 2022). As profits decline, the tax burden on the company also decreases, lowering the effective tax rate. Capital is considered the cost used to fund company assets (Hudaya, 2022a). Capital intensity refers to the large amount of money that a company spends on investing in fixed assets. Fixed assets used by the company are depreciated during the useful life of that asset, depreciation of it can be interpreted as depreciation (Dang et al., 2019; Kling et al., 2021; Sari & Sedana, 2020).

This research uses the LQ 45 company because it can be interpreted as an interesting company to study. LQ 45 can be interpreted as a company that holds highly liquid shares selected based on several selection conditions. The LQ 45 parameter can be interpreted as one of the many stock parameters on the IDX that can be standardized into a document to evaluate the performance of stock transactions. The company's shares are attractive to investors. In the research, leverage influences the effective tax rate with different results, therefore it

This is inconsistent with this study, especially based on Rahmi et al. (2019) and Tobing (2018), who confirmed that leverage has a positive influence on the effective tax rate. In contrast to the research of Gloria and Apriwenni (2020) who confirmed the results of their research that leverage does not have an influence on the effective tax rate s, the research of Sjahril et al. (2020) which confirmed the results of their research that leverage has a negative influence on the effective tax rate.

In this study, capital intensity influenced the effective tax rate with different results; therefore, it became an inconsistency in this study, especially on the basis of Kumalasari and Wahyudin (2020) and Kurniawan (2019), who confirmed the results of their research that capital intensity had a positive and substantial influence on the effective tax rate. In contrast to the research of Syamsuddin and Suryarini (2019) who emphasized the results of their research that capital intensity does not have an influence on the effective

tax rate.

In that study, there was an inconsistency in the results of research from previous research, therefore researchers were interested in carrying out re-research on the Effect of Profitability, Leverage and Capital Intensity on Effective Tax Rates.

2. Literature Review & Hypothesis Development

2.1 Effective Tax Rate (ETR)

The effective tax rate (ETR) is an important indicator of a company's tax efficiency and its ability to minimize tax liabilities. The relationship between various financial variables and ETR has been widely studied, with key factors such as profitability, leverage, and capital intensity often highlighted for their impact on a company's tax obligations (Barbera et al., 2020; Nurkholisoh & Hidayah, 2019; Panda & Nanda, 2021). The Effective Tax Rate (ETR) is an important measure that reflects the actual tax burden a firm bears relative to its pre-tax accounting profit, and it is widely used in empirical tax research to evaluate corporate tax management and tax planning behavior. Previous studies have identified several firm-specific determinants of the ETR, among which profitability, leverage, and capital intensity play prominent roles (Fernández-Rodríguez et al., 2021; Gita et al., 2021; Vintilă et al., 2018).

Profitability directly influences the ETR, as more profitable companies tend to have higher taxable income, resulting in a higher tax rate. Companies with higher profits are often able to take advantage of tax incentives, leading to a lower ETR. On the other hand, companies with low profits or losses typically pay minimal taxes, resulting in a lower ETR. Profitability represents a company's ability to generate earnings relative to its revenue, assets, or equity. A fundamental argument in the tax literature suggests that higher profitability leads to a higher ETR because more profitable firms pay more taxes in absolute terms, and they may have fewer incentives to engage in aggressive tax planning (Abdiansyah, 2018; Delgado et al., 2018).

2.2 Leverage

Leverage, represented by the Debt to Equity Ratio (DER), also plays a significant role in tax strategies. By utilizing debt financing, companies can deduct interest expenses from their taxable income, reducing their overall tax burden. As a result, companies with higher leverage generally experience lower ETRs. However, the relationship between leverage and ETR can vary depending on other factors, such as the company's capital structure and financial management strategies (Afifah & Hasymi, 2020).

2.3 Capital Intensity

Capital intensity refers to the amount of investment a company makes in fixed assets relative to its total assets (Maula et al., 2019). Depreciation of these assets can reduce taxable income, thereby lowering the ETR. The higher the capital intensity, the greater the potential for tax deductions through asset depreciation. However, the effect of capital intensity on ETR can vary, with some companies experiencing a more substantial reduction in taxes than others, depending on their asset management practices (Darsani & Sukartha, 2021; Pattiasina, 2019).

Empirical studies on capital intensity and ETR have been inconsistent. Some research finds a positive influence where capital intensity increases ETR due to structural investment patterns, while other studies find no significant effect (Ahdiyah & Triyanto, 2021; Suciarti et al., 2020). In the context of LQ45 Indonesian firms, evidence indicates that capital intensity does not significantly affect ETR, suggesting that, within the study period, investment in fixed assets did not materially change firms' effective tax burdens. This neutrality may reflect uniform depreciation policies or industry homogeneity where capital intensity does not provide a distinct tax advantage (Aryatama & Raharja, 2021).

2.4 Hipotesis Penelitian

Based on the objectives and findings of this study, the following hypotheses are:

H_1: Profitability has a significant negative impact on the effective tax rate (ETR) in LQ45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019.

H_2: Leverage has a significant negative impact on the effective tax rate (ETR) in LQ45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019.

H_3: Capital intensity has no significant impact on the effective tax rate (ETR) in LQ45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019.

3. Methodology

3.1 Research Design

This study used a quantitative approach with an associative type. The quantitative study method can be considered as a study method based on the philosophy of positivism, used to research on special populations or samples, data collection using study instruments, data analysis with satistic characteristics, with the aim of testing hypotheses that have been decided (Sugiyono, 2014). The opeperbandingannal definition of variable study includes three free variables (independent) and one bound variable (dependent), which are explained below:

Table 1. Definition of Operational Variables

Variables	Variable Definition	Testing		Scale
Profitability (X1)	Profitability is the potential of the company by benefiting from its relationship with sales, total assets, and own capital	ROA	$\frac{\text{Laba Setelah Pajak}}{\text{Total Aktiva}} \times 100\%$	Comparison
Leverage (X2)	Leverage can be interpreted as a comparison used to test the extent to which a company's activities are financed with debt	DER	$\frac{\text{Total Hutang}}{\text{Total Modal Sendiri}} \times 100\%$	
Capital Intensity (X3)	Capital intensity is the company's investment activities related to investment in property, factories, equipment, and supplies	Capital Intensity	$\frac{\text{Total Aset Tetap Bersih}}{\text{Total Aset}}$	
Effective Tax Rate (Y)	Effective Tax Rate is the amount of the real tax rate paid by the company	ETR	$\frac{\text{Beban Pajak Kini}}{\text{Laba Sebelum Pajak}}$	

3.2 Data Collection

The population in this study is all LQ45 companies on the Indonesia Stock Exchange (IDX) amounting to 45 companies (company data attached) The sample used from the total population of 45 companies so that the sample specified in this study was 28 companies in LQ 45 companies for the 2016-2019 period which reported on the economy listing on the IDX.

3.3 Data Analysis

The data will be analyzed using descriptive statistics to summarize the key variables, such as mean, median, and standard deviation. Multiple regression analysis will then be employed to assess the impact of profitability, leverage, and capital intensity on the effective tax rate (ETR). T-tests will be conducted to test the significance of the relationships between the independent variables and the ETR. The analysis will be performed using SPSS to evaluate the hypotheses and determine the strength and direction of the effects (Ghozali, 2013).

4. Results and Discussion

4.1 Results

4.1.1 Descriptive Study Data

Descriptive Effective Tax Rates

Based on Table 2, the effective tax rate for LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019 has fluctuated. The highest effective tax rate was obtained by 0.73 (73%) at PT Aneka Tambang Tbk in 2016, while the lowest effective tax rate was obtained at 0.04 (4%) at PT Waskita Karya (Persero) Tbk in 2019.

A company is called effective in paying taxes if the company's tax rate is 20% smaller and if it is greater than 20% it means that the company is less effective in carrying out tax repayment. Rahmi et al. (2019) revealed that the effective tax rate above 20% is usually caused by companies not optimizing facilities, regulations and expenses that can save income tax.

The results of calculating descriptive statistics of bag variable effective tax rates are displayed in the table to be:

Table 3. Descriptive Statistics Variable Effective Tax Rate (Y)

Statistics		
Y		
N	**Valid**	**112**
	Missing	0
Mean		0,2664
Median		0,2500
Mode		0,25
Std. Deviation		0,09445
Variance		0,22
Range		0,69
Minimum		0,04
Maximum		0,73

Source : SPSS 21 Data Processing, (2022)

Based on Table 3 empirically, variable data on effective tax rates were found to obtain an average (mean) of 0.2664, a median amounting to 0.2500, modes (modes) amounting to 0.25, standard deviations amounting to 0.09445, variance amounting to 0.009, a minimum magnitude of 0.04, and a maximum of 0.73 with a range of 0.73.

Descriptive Profitability

The following is profitability data on LQ 45 companies on the Indonesia Stock Exchange (IDX) for the

2016 – 2019 period, namely:

Table 4. Profitability Data Recapitulation In LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019

Company Name	**Year**			
	2016	**2017**	**2018**	**2019**
PT Adaro Energy Tbk	5,22	7,87	6,76	4,49
PT Aneka Tambang Tbk	0,22	0,45	2,63	0,51
PT Astra International Tbk	6,99	7,84	7,94	3,51
PT Bank Central Asia Tbk	3,05	3,11	3,13	1,48
PT Bank Negara Indonesia (Persero) Tbk	1,89	2,75	2,78	2,42
PT Bank Rakyat Indonesia (Persero) Tbk	2,61	2,58	2,50	1,25
PT Bank Tabungan Negara (Persero) Tbk	1,22	1,16	0,92	0,42
PT Bank Mandiri (Persero) Tbk	1,41	1,91	2,15	1,13
PT Barito Pacific Tbk.	10,88	7,68	3,44	0,53
PT Charoen Pokphand Indonesia Tbk	9,19	10,18	16,46	6,04
PT Erajaya Swasembada Tbk.	3,53	3,91	7,01	1,12
PT Gudang Garam Tbk.	10,60	11,62	11,28	6,42
PT H.M. Sampoerna Tbk.	30,02	29,37	29,05	15,70
PT Indofood CBP Sukses Makmur Tbk	12,56	11,21	13,56	7,30
PT Indofood Sukses Makmur Tbk	6,41	5,85	5,14	3,02
PT Indocement Tunggal Prakarsa Tbk.	12,84	6,44	4,12	2,48
PT Indo Tambangraya Megah Tbk	10,80	18,60	17,94	5,21
PT Japfa Comfeed Indonesia Tbk.	11,28	5,25	9,78	3,69
PT Kalbe Farma Tbk.	15,44	14,76	13,76	6,80
PT Matahari Department Store Tbk	41,57	35,14	21,79	22,26
PT Media Nusantara Citra Tbk	10,41	10,41	9,83	7,11
PT Perusahaan Gas Negara Tbk	4,52	2,35	4,59	1,14
PT Bukit Asam Tbk	10,90	20,68	21,19	8,65
PT Surya Citra Media Tbk	31,35	24,47	24,03	11,00
PT Telekomunikasi Indonesia (Persero) Tbk.	16,24	16,48	13,08	7,19
PT Aspeked Tractors Tbk	7,98	9,33	9,89	4,75
PT Unilever Indonesia Tbk	38,16	37,05	46,66	16,94
PT Waskita Krya (Persero) Tbk	2,95	4,29	3,71	0,76

Source : Economic Report processed, (2021)

On the basis of Table 4, profitability of LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 - 2019 has fluctuated. The largest profit (profitability) was obtained by 46.66% at UNVR in 2016, the smallest profit (profitability) was obtained by 0.22% at PT Aneka Tambang Tbk in 2016.

Return On Assets (ROA) is one of the many profitability comparisons that are able to test the company's potential in realizing profits from assets used, Return On Assets (ROA) increases every year showing that the total assets used by the company are able to provide profits for the company continuously, on the other hand if the Return On Assets (ROA) that decreases or reaches negatively shows that from the total assets used by the company, it is a loss, which means that the company does not make a profit. So a company with a high Return On Assets (ROA) then the company is likely to streamline growth. An increase in the amount of Return On Assets (ROA) in a company indicates that the company has worked

effectively, namely by optimizing the assets or assets owned to get greater profits. Vice versa, a company is called ineffective performance when the Return On Assets (ROA) decreases, due to the company being considered unable to optimize assets to get greater profits (Choiriyah et al., 2020; Salim & Winanto, 2020; Supriyadi, 2021).

Descriptive statistical calculation results for variable profitability:

Table 5. Descriptive Statistics Variable Profitability (X1)

Statistics		
X1		
N	**Valid**	**112**
	Missing	0
Mean		9,8341
Median		7,0000
Mode		10.41a
Std. Deviation		9,64693
Variance		93,063
Range		46,44
Minimum		,22
Maximum		46,66
a. Multiple modes exist. The smallest value is shown		

Source : SPSS 21 Data Processing, (2022)

On the basis of Table 5, empirically, variable profitability data were found to obtain an average (mean) of 9.8341 median amounting to 7.0000 modes (modes) amounting to 10.41 standard deviations amounting to 9.64693 variances amounting to 93.063 minimum magnitude 0.22 and a maximum of 46.66, with a range of 46.44.

1). Descriptive Leverage

The following is leverage data with a comparison of Debt Equity Ratio (DER) in Automotive Sub-Sector Manufacturing companies and aspects for the 2016-2019 period, namely:

Table 6. Leverage Data Recapitulation In LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019

Company Name	**Year**			
	2016	**2017**	**2018**	**2019**
PT Adaro Energy Tbk	0,72	0,67	0,64	0,61
PT Aneka Tambang Tbk	0,63	0,62	0,69	0,69
PT Astra International Tbk	0,87	0,89	0,98	0,98
PT Bank Central Asia Tbk	4,97	4,68	4,40	4,42
PT Bank Negara Indonesia (Persero) Tbk	5,52	5,79	6,08	6,00
PT Bank Rakyat Indonesia (Persero) Tbk	5,84	5,73	5,92	5,75
PT Bank Tabungan Negara (Persero) Tbk	110,20	10,34	11,06	10,87
PT Bank Mandiri (Persero) Tbk	5,38	5,22	5,09	5,13
PT Barito Pacific Tbk.	0,77	0,81	1,61	1,51
PT Charoen Pokphand Indonesia Tbk	0,71	0,56	0,43	0,49
PT Erajaya Swasembada Tbk.	1,18	1,39	1,63	1,32
PT Gudang Garam Tbk.	0,59	0,58	0,53	0,50
PT H.M. Sampoerna Tbk.	0,24	0,26	0,32	0,51
PT Indofood CBP Sukses Makmur Tbk	0,56	0,56	0,51	0,56
PT Indofood Sukses Makmur Tbk	0,87	0,88	0,93	0,90
PT Indocement Tunggal Prakarsa Tbk.	0,15	0,18	0,16	0,18
PT Indo Tambangraya Megah Tbk	0,33	0,42	0,49	0,50
PT Japfa Comfeed Indonesia Tbk.	1,05	1,15	1,26	1,42
PT Kalbe Farma Tbk.	0,22	0,20	0,19	0,23
PT Matahari Department Store Tbk	2,52	1,62	1,33	1,77
PT Media Nusantara Citra Tbk	0,50	0,54	0,54	0,50
PT Perusahaan Gas Negara Tbk	1,16	0,97	1,48	1,28
PT Bukit Asam Tbk	0,76	0,59	0,49	0,445
PT Surya Citra Media Tbk	0,30	0,22	0,20	0,23
PT Telekomunikasi Indonesia (Persero) Tbk.	0,70	0,77	0,76	0,99
PT Aspeked Tractors Tbk	0,50	0,73	1,04	1,04
PT Unilever Indonesia Tbk	2,56	2,65	1,58	3,30
PT Waskita Krya (Persero) Tbk	2,66	3,30	3,31	3,59

Source : Economic Report processed, (2021)

Leverage on LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019 fluctuated. The highest leverage was obtained by 11.06% at PT Bank Tabungan Negara (Persero) Tbk in 2016, while the lowest leverage was obtained at 0.15% at PT Indocement Tunggal Prakarsa Tbk.

A company's economic funding decisions greatly impact its potential to carry out production activities, but it can also impact the company itself. Debt can be interpreted as a crucial alternative for economic actors because companies with a lot of debt streamline their part of the economy; therefore, they can cover all their debts and obligations. The purpose of the funding decision is to choose the optimal amount structure to minimize the amount of debt that can empower the company's potential to empower its own amount. The configuration of funding options is known as the capital structure. The capital structure is influenced by several factors. Capital structure decisions directly impact the level of risk that shareholders must carry and the coveted returns they receive.

The higher the Debt to Equity Ratio (DER), the greater the percentage of foreign capital used in the

company's external affairs, or the greater the Debt to Equity Ratio (DER) is a sign that the business capital structure optimizes more debt tends to be on equity. A higher Debt to Equity Ratio (DER) shows that some of the amount of debt owed to equity; therefore, it illustrates that the company's risks tend to be high, and the risks that investors must carry will also be higher. In the end, investors will stay away from the shares of companies that have a high debt-to-equity ratio (DER).

The results of descriptive statistical calculations for variable leverage are shown in the table to be:

Table 7. Variable Leverage Descriptive Statistics (X2)

Statistics		
X2		
N	**Valid**	**112**
	Missing	0
Mean		1,9120
Median		,8700
Mode		,50
Std. Deviation		2,40158
Variance		5,768
Range		10,91
Minimum		,15
Maximum		11,06

Source : SPSS 21 Data Processing, (2022)

From the Table 7 empirically, variable leverage data were found to obtain an average magnitude (mean) of 1.9120 median amounting to 0.8700 modes (modes) amounting to 0.50 standard deviations amounting to 2.40158 variances amounting to 5.768 minimum magnitude 0.15, and a maximum of 11.06, with a range of 10.91.

2. Descriptive Capital Intensity The following is data on capital intensity in Automotive Sub-Sector Manufacturing companies and aspects for the 2016-2019 period, namely:

Table 8. Leverage Data Recapitulation In LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019

Company Name	Year			
	2016	2017	2018	2019
PT Adaro Energy Tbk	0.24	0.22	0.23	0.24
PT Aneka Tambang Tbk	0.43	0.47	0.60	0.60
PT Astra International Tbk	0.17	0.16	0.17	0.04
PT Bank Central Asia Tbk	0.03	0.02	0.02	0.02
PT Bank Negara Indonesia (Persero) Tbk	0.04	0.03	0.03	0.03
PT Bank Rakyat Indonesia (Persero) Tbk	0.02	0.02	0.02	0.02
PT Bank Tabungan Negara (Persero) Tbk	0.02	0.02	0.02	0.02
PT Bank Mandiri (Persero) Tbk	0.03	0.03	0.03	1.00
PT Barito Pacific Tbk	0.28	0.47	0.33	0.34
PT Charoen Pokphand Indonesia Tbk	0.46	0.45	0.42	0.44
PT Erajaya Swasembada Tbk	0.06	0.05	0.04	0.05
PT Gudang Garam Tbk	0.33	0.32	0.33	0.34
PT H.M. Sampoerna Tbk	0.16	0.16	0.16	0.17
PT Indofood CBP Sukses Makmur Tbk	0.25	0.26	0.31	0.30
PT Indofood Sukses Makmur Tbk	0.31	0.34	0.44	0.44
PT Indocement Tunggal Prakarsa Tbk	0.49	0.52	0.53	0.55
PT Indo Tambangraya Megah Tbk	0.18	0.16	0.16	0.17
PT Japfa Comfeed Indonesia Tbk	0.39	0.40	0.34	0.36
PT Kalbe Farma Tbk	0.30	0.32	0.34	0.37
PT Matahari Department Store Tbk	0.20	0.18	0.25	0.26
PT Media Nusantara Citra Tbk	0.34	0.35	0.34	0.33
PT Perusahaan Gas Negara Tbk	0.27	0.27	0.36	0.39
PT Bukit Asam Tbk	0.33	0.29	0.27	0.29
PT Surya Citra Media Tbk	0.20	0.19	0.17	0.15
PT Telekomunikasi Indonesia (Persero) Tbk	0,64	0,66	0,69	0,68
PT Unilever Indonesia Tbk	0.57	0.55	0.54	0.49
PT Waskita Karya (Persero) Tbk	0.05	0.05	0.06	0.06

Source : Economic Report processed, (2021)

Based on Table 8 the capital intensity of LQ 45 companies on the Indonesia Stock Exchange (IDX) for the 2016-2019 period fluctuated. The highest capital intensity was 1.00 at PT Bank Mandiri (Persero) Tbk in 2019, while the lowest capital intensity was 0.02. Because more assets are needed to realize every aspect of sales, the comparison of high capital intensities becomes unattractive for newcomers who will try on the industry.

New companies that will enter the oligopoly market must be of high efficiency, otherwise they will not be able to enter the new market. Companies with a high level of efficiency will find it easier to make a profit. This comparison illustrates the potential for companies to use their assets to increase sales. The higher this comparison, the more efficient the use of the asset. However, companies should also consider the comparison of industry capital intensity. If the intensity comparison is too high, it does not mean that this comparison is not good, but the asset size is too low; therefore, replacement must be carried out. The maximum use of assets will streamline the company's profits.

The results of descriptive statistical calculations for capital intensity variables are shown in the table to

be:

Table 9. Descriptive Statistics Variable Capital Intensity (X3)

Statistics		
X3		
N	**Valid**	**112**
	Missing	0
Mean		,2672
Median		,2600
Mode		,02
Std. Deviation		,19272
Variance		,037
Range		,98
Minimum		,02
Maximum		1,00

Source : SPSS 21 Data Processing, (2022)

Based on Table 9, empirically, variable capital intensity data were found to obtain an average magnitude (mean) of 0.2672, median of 0.2600, mode (mode) of 0.02, standard deviation of 0.19272, variance of 0.037, minimum magnitude of 0.02, and a maximum of 1.00 with a range of 0.98.

4.2 Discussion

4.2.1 Impact of Profitabilias on Effective Tax Rates

The assessment of Hypothesis 1 obtained test results that found a negative and substantial profitability impact on the effective tax rate on LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019.

Subiyanto (2021) found that the profitability of a company can reduce the burden of a company's paijak. The problem is that companies with high efficiency and high income tend to face a low tax burden. A low corporate tax burden is caused by companies with high incomes that have succeeded in optimizing profits from tax incentives and other tax reductions that can cause the company's effective tax rate to be lower than it should be.

Leverage is a factor that can affect a company's Effective Tax Rate (ETR). Leverage is a ratio that tests the extent to which companies use borrowed debt (Noviatna et al., 2021). Leverage is a ratio that shows the magnitude of the debt composition of a company that can function in managing its operating activities. Companies can use leverage levels to minimize profits so that the tax burden will be small (Brigham & Houston, 2015). A company that has a high leverage value illustrates that the company uses debt in its financing. According to Law Number 36 of 2008 Article 6 Paragraph 1, interest costs that are part of the cost of business activities can be deducted (tax deductible) on company taxable income (Hasanah & Pahala, 2015)

Profit becomes a parameter of management performance in managing the company's wealth. This is shown by the net profit realized. Profit shows the potential of the capital invested in all assets to realize profits. Profit can be interpreted as a factor that needs to be considered when choosing a company's capital structure because a company with a high profit will pay off a high tax burden and vice versa. Therefore, a company's potential to make a profit can affect the level of Effective Tax.

On the basis of Dang et al. (2019) profitability can have an impact on the tax burden due to low-scale companies that even lose will pay less tax or even not pay taxes at all, on the contrary, if a high-profit

company will pay large taxes. This study is consistent with the studies of Afifah and Hasymi (2020)and Barbera et al. (2020) which confirm the results of their studies that profitability has a negative impact on the effective tax rate.

4.2.2 Impact of Leverage on Effective Tax rates

Testing on hypothesis 2 obtained test results found a negative impact and substantial leverage on the effective tax rate on LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016–2019. The lower the amount of DER, the smaller the proportion of debt to the company's equity. The smaller the amount of company debt, the smaller the interest expense for the company. A small interest expense will affect commercial profits before the income tax burden becomes large.

If the company chooses a loan, it will encourage management to work more actively and creatively due to being burdened to pay off its obligations, namely, the repayment of installments (principal + interest costs) as well as other costs such as administrative costs, provision fees, and commissions (Kasmir, 2016). The costs incurred if the company chooses a loan will be a deduction from income, which will further reduce the company's profits; therefore, the income tax burden paid by the company becomes smaller, and the Effective Tax Rate becomes smaller.

The company's management is able to streamline the tax burden by implementing tax planning strategies with alternative asset financing by leasing debt with option rights (Hery, 2017; Wati, 2019). Accounting for leasing debt transactions with option rights that can be reduced, namely, interest expenses, while the amount of principal installments will reduce the amount of leasing debt. Meanwhile, in terms of taxes, leasing debt transactions with option rights can reduce interest expenses and principal installments. It showed that the burden on the basis of taxes is greater than that on expenses on the basis of accounting; therefore, the company must carry out a negative fiscal correction. Through negative fiscal correction, fiscal profit before the income tax burden decreases. Therefore, the tax burden has decreased. When the income tax burden is small compared to commercial profits before the large income tax burden, the effective tax rate decreases. Therefore, it can be stated that the lower the amount of DER, the lower the amount of ETR is. The results of the in.ii study are in line with the study of Sjahril et al. (2020) which confirms the negative impact of leveraga on the effective tax rate.

4.2.3 Impact of Capital Intensity on Effective Tax Rates

The results of hypothesis test 3 did not find the impact of capital intensity on the effective tax rate in LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019. Haisil pienelitian, as explained by Syamsuddin and Suryarini (2019), who realized that their study did not find the impact of capital intensity on the effective tax rate.

5. Conclusions

Based on the results of the study carried out by the author, the author concludes, namely:

1) Found a negative and substantial impact of profitability on the effective tax rate in LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019.
2) It found a negative and substantial impact of leverage on the effective tax rate in LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019.
3) No impact of capital intensity on the effective tax rate in LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019.

5.1 Research Limitations

This study is limited to LQ45 companies on the Indonesia Stock Exchange, which may not fully represent companies from other sectors or countries. Additionally, the study uses secondary data from financial reports, which may limit the scope of analysis. The cross-sectional design also restricts the ability to examine long-term trends or causal relationships.

5.2 Suggestions and Directions for Future Research

Future research could expand the sample to include companies from different sectors and countries to improve generalizability. Longitudinal studies are recommended to assess the long-term effects of profitability, leverage, and capital intensity on ETR. Additionally, future studies could explore other factors, such as corporate governance and regulatory changes, that influence tax management.

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Author Contributions

SAN contributed to conceptualization, data collection, data analysis, writing of the original draft, and validation. JPS contributed to methodology, data analysis, writing—review and editing, and supervision.

Conflicts of Interest

The authors declare no conflict of interest in the publication of this research. This study was conducted independently, and there are no financial or personal influences on the results.

Table 2. Recapitulation of Effective Tax Rate Data In LQ 45 companies on the Indonesia Stock Exchange (IDX) for the period 2016 – 2019

Company Name	**Year**			
	2016	**2017**	**2018**	**2019**
PT Adaro Energy Tbk	0,38	0,42	0,42	0,34
PT Aneka Tambang Tbk	0,73	0,70	0,31	0,36
PT Astra International Tbk	0,18	0,21	, 0,22	, 0,22
PT Bank Central Asia Tbk	0,20	0,20	0,21	0,20
PT Bank Negara Indonesia (Persero) Tbk	0,20	0,20	0,24	0,20
PT Bank Rakyat Indonesia (Persero) Tbk	0,23	0,22	0,22	0,19
PT Bank Tabungan Negara (Persero) Tbk	0,21	0,22	0,22	0,23
PT Bank Mandiri (Persero) Tbk	0,21	0,21	0,24	0,21
PT Barito Pacific Tbk.	0,26	0,27	0,47	0,51
PT Charoen Pokphand Indonesia Tbk	0,44	0,23	0,23	0,20
PT Erajaya Swasembada Tbk.	0,32	0,28	0,26	0,32
PT Gudang Garam Tbk.	0,25	0,26	0,26	0,25
PT H.M. Sampoerna Tbk.	0,25	0,25	0,25	0,24
PT Indofood CBP Sukses Makmur Tbk	0,27	0,32	0,28	0,29
PT Indofood Sukses Makmur Tbk	0,29	0,33	0,33	0,31
PT Indocement Tunggal Prakarsa Tbk.	0,07	0,19	0,18	0,20
PT Indo Tambangraya Megah Tbk	0,32	0,30	0,30	0,32
PT Japfa Comfeed Indonesia Tbk.	0,22	0,36	0,27	0,25
PT Kalbe Farma Tbk.	0,24	0,24	0,24	0,24
PT Matahari Department Store Tbk	0,20	0,20	0,30	0,21
PT Media Nusantara Citra Tbk	0,31	0,35	0,24	0,21
PT Perusahaan Gas Negara Tbk	0,20	0,46	0,38	0,35
PT Bukit Asam Tbk	0,25	0,25	0,25	0,27
PT Surya Citra Media Tbk	0,25	0,26	0,25	0,24
PT Telekomunikasi Indonesia (Persero) Tbk.	0,24	0,23	0,26	0,26
PT Aspeked Tractors Tbk	0,24	0,27	0,27	0,27
PT Unilever Indonesia Tbk	0,25	0,25	0,25	0,25
PT Wskita Krya (Persero) Tbk	0,16	0,09	0,17	0,04

Source : Economic Report processed, (2021)

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