The Influence of Company Growth, Profitability, Leverage, and Inflation on the Value of Energy Sector Companies

Intan Rizki Arinta Putri¹, I Gusti Ketut Agung Ulupui², Hera Khairunnisa³

¹²³Department of Accounting, Universitas Negeri Jakarta, Indonesia

Abstract
This research aims to determine the effect of company growth (GPG), profitability (NPM), leverage (DER), and inflation (IHK) partially affect company value on the IDX. The period used in this research is three years, starting from 2020-2022. This research uses a quantitative approach with sampling techniques using purposive sampling methods. The population in this research is all energy sector companies that have been and are still registered on the IDX for the 2020-2022 period. A total of 76 companies and 50 companies were obtained as research samples. Data were analyzed using multiple linear regression analysis. The data analysis technique used in analyzing data is Eviews 13. Based on the results of data analysis, partially, there is a significant influence on profitability and leverage on company value, and there is an insignificant influence of company growth and inflation on company value on the Indonesian Stock Exchange.

Keyword: Price to Book Value, Firm Value, Company Growth, Profitability, Leverage, Inflation

Corresponding author:
intanrizkiarintap@gmail.com
1. Introduction

Energy sector companies are one of the industrial sectors that excel in supporting a country's economic development because they are providers of energy resources needed to encourage economic growth (Arianti, 2022). 2020, the Composite Stock Price Index weakened due to increased COVID-19 cases. Markets reacted negatively to COVID-19 after the first case was confirmed in Indonesia. The industrial index continued to reach its lowest point in March 2020, indicating weakening stock prices due to this pandemic. Almost all stock sectors in Indonesia have been affected by the pandemic, including companies in the energy sector. However, the IHSG increased again due to improvements in 2021-2022 (Handayani & Oktavia, 2018).

Towards the end of 2022, the most successful sectoral index on the Indonesia Stock Exchange is the energy sector. However, in the fourth quarter of 2022, energy prices will decline slightly due to an increase in the Fed Funds Rate to overcome inflation, an increase in coal production, and a slowdown in the Chinese economy, the attitude of European Union leaders working together to limit fuel prices while reducing Moscow’s funds for The invasion of Ukraine caused a decrease in energy prices which also had an impact on domestic prices.

![PBV Sektor Energi](image)

Figure 1. PBV Sektor Energi

Seventy-six energy sector companies were listed on the Indonesian Stock Exchange in the last five years, from 2020 to 2022. The graph illustrates that the average PBV of companies in the energy sector was 0.9 times in 2020. Then, the PBV value in 2021 increased to 1.1 times, or an increase of 22.22%. Finally, for 2022, the PBV value will be 1.31 times or an increase from 2021 of 2.73%. On average, there will be an increase in the value of energy sector companies listed on the Indonesian Stock Exchange in 2020-2022.

A company’s advantages are a value that can attract external parties, especially potential investors who want to invest their shares in the company. The higher the return, the more investors' hopes will be fulfilled in achieving the expected prosperity (Ardatiya, Kalsum, & Kosim, 2022). Increasing share prices will also impact increasing company value, which is a positive signal in the view of external parties to the company (Bagaskara, Titisari, & Dewi, 2021).

Furthermore, according to CNBC.com (Aulia & Feri, 2022), PT. Adaro experienced an increase in net profit of 613% from semester I-2021 to semester I-2022. The increase in net profit was due to the rise in operating income in June 2022 by 126%. According to CNBC
PT RMK Energy Tbk (RMKE) from the coal sales segment, it managed to sell 2.5 million tons of coal, an increase of 45.1% (y.o.y).

Apart from that, according to CNBC Indonesia (Tri Putra, 2023), several companies have very high DER levels, including the issuer BOSS or PT Borneo Olah Sarana Sukses Tbk, which has the fourth highest ranking in 2022 with a DER percentage of 4,492.53%.

Then, according to the Indonesia Economic Outlook 2023, core inflation will be 3.31% (y.o.y) in October 2022, an increase from the previous month, which was recorded at 3.21% (y.o.y). The rise in core inflation was mainly caused by an increase in fuel prices, which directly impacted inflation in the transportation sector. Core inflation is expected to continue due to adjustments in fuel prices, which indirectly affect rising commodity or food prices. The inflation rate for the energy component increased to 16.88% (y.o.y), which was also reflected in the transportation sector inflation of 16.03% (y.o.y) as a second-round effect of adjustments to subsidized fuel prices by the Indonesian Government.

Company growth can affect company value because good company growth indicates conditions where a company can increase its value. If the company's growth is positive and rising, it will mean a considerable company value, which is the hope of the company owner (Marthen & Suwarti, 2023). The results of previous research (Maharani & Mawardhi, 2022) show that company growth has a positive and significant influence on company value. However, research (Yusmaniarti & Dkk, 2021) explains that company growth does not affect company value.

Investors can use this profitability to assess the company and determine how much profit is generated from the funds invested (Nagayu & Mujiyati, 2022). Profitability is a positive signal that can attract investors (Jusriani & Rahardjo, 2013). According to research (Suastika, Sunarwijaya, & Santana putra adiyandnya, 2022), profitability positively and significantly influences company value. However, research results (Ali, Faroji, & Ali, 2021) show that profitability does not affect company value.

Leverage explains how much company assets are financed by debt compared to own capital. Leverage becomes essential for investors in making investment decisions because it can affect the company's ability to provide returns to shareholders (Kasmir, 2012). Companies that manage leverage well can increase investor confidence to increase company value (A. S. Putri & Miftah, 2021). Research (Maduma & Naibaho, 2022) shows that leverage negatively and significantly influences company value. However, these results differ from research (Munzir, Andriyan, & Hidayat, 2023), suggesting that leverage does not affect company value.

Inflation is a continuous price increase (Febriana & Sitorus, 2017). Inflation can be caused by various factors, including increased public consumption, excess liquidity in the market, which triggers consumption or speculation, and irregular distribution of goods. In other words, the definition above explains that inflation is also a process of continuously decreasing the currency's value (Lintang, Mangantar, & Baramuli, 2019). Research (Rostanti & Effendi, 2019) shows that inflation negatively and significantly influences company value. However, research (Nursalim, Rate, & Baramuli, 2021) says that inflation does not affect company value.
2. Material and Method

The research uses panel data regression. The tests include panel data model tests using standard, fixed, or random effect models. Next, classical assumption tests included multicollinearity tests and heteroscedasticity tests. A hypothesis test is carried out to assess the previously formulated hypothesis, which provides for a partial significance test (t-test) and a coefficient of determination test (R²).

**a. Design Study**

The population in this research is energy sector companies on the Indonesia Stock Exchange for the 2020-2022 period, totalling 76 companies. Researchers chose energy sector companies because, based on annual stock index charts in various sectors listed on the Indonesia Stock Exchange, energy sector companies are the only companies capable of producing the highest increase in the last three years, especially in 2022, reaching up to 100%. On average, the Price to Book Value of energy sector companies in 2020-2022 has increased yearly. This makes researchers interested in researching energy sector companies in 2020-2020. Based on existing criteria, 50 companies were obtained with three years of observation as samples. The type of data in this research is documentary data such as previous research journals, company financial reports, annual consumer price index data, and literature. Data analysis techniques used in analyzing data using Eviews 13.

**b. Data Analysis**

The form of multiple linear regression used is as follows:

\[ Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it} \]

Keterangan:

- \( Y_{it} \): Firm Value
- \( \beta_0 \): Constant
- \( \beta_1 \): Company growth regression coefficient
- \( \beta_2 \): Profitability regression coefficient
- \( \beta_3 \): Leverage regression coefficient
- \( \beta_4 \): Inflation regression coefficient
- \( X_{1it} \): Company growth
- \( X_{2it} \): Profitability
- \( X_{3it} \): Leverage
- \( X_{4it} \): Inflation
- \( \varepsilon_{it} \): Standard error value (error)

3. Result

The panel data model selection test was carried out as follows:

1. **Chow Test**

This test is processed to see which model is better common effect model and fixed effect model by using hypothesis testing, namely:

- a. \( H_0 \): choose to use estimates common effect model.
- b. \( H_1 \): choose to use estimates fixed effect model.
Based on the chow test shown in the table above, the significance value obtained Cross-section Chi-square and Cross-section F is 0.0000 (less than 5%), so statistically, H0 is rejected and H1 is accepted. So, the appropriate estimation model for panel data regression is Fixed Effect Model.

2. Hausman Test

This test was carried out to determine which model is more suitable to use, namely the Fixed Effect Model (FEM) and the Random Effect Model (REM). With the following conditions:
   a. H0: The REM model is acceptable when Prob > 0.05, so the REM model is the best.
   b. H1: The FEM model is proper Prob < 0.05, so the best model to use is the FEM model, meaning the test stops, and there is no need to carry out the Lagrange Multiplier Test.

The following are the results of the Hausman Test carried out by the author:

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>14.251100</td>
<td>4</td>
<td>0.0065</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the Chi-Square Statistics value is 14.251100 with a resulting probability of 0.0065 or less than 0.05. So based on the Hausman Test, the best model to use is the FEM model.

3. Multicollinearity Test

The multicollinearity test aims to test whether a high or perfect correlation is found between the independent variables in the regression model. In the regression model, if the correlation value between the independent variables is <0.85, it means that there is no multicollinearity between the independent variables.

<table>
<thead>
<tr>
<th></th>
<th>GPG</th>
<th>NPM</th>
<th>DER</th>
<th>IHK</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPG</td>
<td>1.000000</td>
<td>0.006027</td>
<td>-0.224853</td>
<td>0.083725</td>
</tr>
<tr>
<td>NPM</td>
<td>0.006027</td>
<td>1.000000</td>
<td>0.018284</td>
<td>0.055261</td>
</tr>
<tr>
<td>DER</td>
<td>-0.224853</td>
<td>0.018284</td>
<td>1.000000</td>
<td>-0.031265</td>
</tr>
<tr>
<td>IHK</td>
<td>0.083725</td>
<td>0.055261</td>
<td>-0.031265</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: E-views 13 output
Based on the table above, it can be seen that all the independent variables used in this research have a correlation coefficient value of less than 0.85, so it can be concluded that there is no multicollinearity in the variables in this research.

4. Heteroskedasticity Test

The heteroscedasticity test explains that one of the assumptions that must be met so that the parameter measurements in the regression model are BLUE (Best Linear Unbiased Estimator). To detect the presence or absence of heteroscedasticity in the regression model, you can use the Glejser test as follows:

### Table 4. Heteroskedasticity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>14.66502</td>
<td>3.015896</td>
<td>4.862575</td>
<td>0.0000</td>
</tr>
<tr>
<td>GPG</td>
<td>-0.006265</td>
<td>0.138567</td>
<td>-0.045215</td>
<td>0.9640</td>
</tr>
<tr>
<td>NPM</td>
<td>0.021020</td>
<td>0.075089</td>
<td>0.279934</td>
<td>0.7801</td>
</tr>
<tr>
<td>DER</td>
<td>-0.217814</td>
<td>0.511352</td>
<td>-0.425956</td>
<td>0.6711</td>
</tr>
<tr>
<td>IHK</td>
<td>2.657071</td>
<td>10.07302</td>
<td>0.263781</td>
<td>0.7925</td>
</tr>
</tbody>
</table>

Source: E-views 13 output

In the table above, the probability values for the independent variables GPG, NPM, DER and IHK are > 0.05. So, it can be concluded that the regression model does not indicate heteroscedasticity.

5. t-Statistic Test

The t-statistical test aims to partially test the influence of the independent variable on the dependent variable. In this study, the significance level was set at 0.05 ($\alpha = 5\%$). Researchers have carried out the t statistical test in this study using EViews 13 software with the following results:

### Table 5. t-Statistic Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>130.7561</td>
<td>63.07755</td>
<td>2.072941</td>
<td>0.0409</td>
</tr>
<tr>
<td>GPG</td>
<td>-0.784293</td>
<td>2.898130</td>
<td>-0.270621</td>
<td>0.7873</td>
</tr>
<tr>
<td>NPM</td>
<td>4.026388</td>
<td>1.570479</td>
<td>2.563797</td>
<td>0.0119</td>
</tr>
<tr>
<td>DER</td>
<td>69.44174</td>
<td>10.69495</td>
<td>6.492947</td>
<td>0.0000</td>
</tr>
<tr>
<td>IHK</td>
<td>250.4050</td>
<td>210.6776</td>
<td>1.188570</td>
<td>0.2375</td>
</tr>
</tbody>
</table>

Source: E-views 13 output

The statistical test results show that the probability values of NPM and DER are respectively 0.0119 and 0.0000 < 0.05. So, that H0 is rejected, which means that the variable’s profitability and leverage significantly affect the company value variable. Meanwhile, the probability values for GPG and IHK are 0.7873 and 0.2375 > 0.05 so, that H0 is accepted,
which means that the company growth and inflation variables have no significant effect on the company value variable.

6. Coefficient of Determination Test (R^2)

The coefficient of determination measures how far the model's ability to explain variations in the dependent variable. The coefficient of determination value is between zero and one.

**Table 6. Coefficient of Determination Test**

<table>
<thead>
<tr>
<th></th>
<th>Mean dependent</th>
<th>Source: E-view 13 output</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.746910</td>
<td>287.7043</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.607184</td>
<td>581.1550</td>
</tr>
<tr>
<td>S.D. dependent var</td>
<td>287.7043</td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the Adjusted R² value is 0.607184. This means that the ability of the independent variables in this research is, company growth, profitability, leverage, and inflation, can explain the dependent variable, namely company value, by 61%, while other variables outside the model explain the rest.

**4. Discussion**

The statistical regression results of the company growth variable (GPG) show a coefficient of 0.784293 with a negative sign and a probability value of 0.7873 > 0.05, which means it has an insignificant influence on company value (PBV). So, hypothesis one states that growth has a positive and significant effect on company value **rejected**. Increasingly large growth requires high costs to run company operations every year. This makes the profits shareholders obtain lower, decreasing the company's value. These results do not align with the theory used by researchers, namely signal theory, where company growth should be a signal that can influence investors' views of company value. Apart from that, these results are not in accordance with company theory where companies should be able to provide a perception of good company value which is in line with the increase in share prices of energy sector companies during 2020-2022, so that the level of welfare and prosperity of investors is also maximized. The statistical regression results of the profitability variable (NPM) show a coefficient of 4.026388 with a positive sign and a probability value of 0.0119 < 0.05, which means it has a significant influence on company value (PBV). So, hypothesis two states that profitability positively and significantly affects company value **accepted**. The increase in profitability seen through the net profit level from each company's sales activity can show that the company's prospects are good and the company's value will also increase. This aligns with the signal theory that increasing profitability uses the net profit margin ratio. This result also aligns with the company theory that the company's value will increase as profitability increases. So that ultimately, the welfare and prosperity of shareholders will also be maximized because the profits obtained from investing in shares will be greater. Variable statistical regression results leverage (DER) shows a coefficient of 69.44174 which has a positive sign and a probability value of 0.0000 < 0.05 which means it has a significant influence on company value (PBV). So, the third hypothesis states that leverage has a negative and significant effect on company value **rejected**. Companies with levels leverage a
high level means the company can obtain large amounts of debt. The greater the source of
capital obtained, the more capital can be allocated for operational activities so that future
profits increase and the company's value increases. This aligns with the signal theory that
increasing leverage can be a positive signal for potential investors so that more investors are
interested in investing their shares in the company, which can increase company value. In
addition, these results align with the company theory that by increasing leverage, the
company's value will increase so that the welfare and prosperity of investors will also be
maximized because the profits they earn will be higher. The statistical regression results of
the inflation variable (IHK) show a coefficient of 250.4050 which has a positive sign. So the
probability value is 0.2375 > 0.05, which means it has an insignificant influence on company
value (PBV). So the fourth hypothesis states that inflation has a negative and significant
effect on company value rejected. Even though the inflation rate is a category that needs to be
monitored and watched closely, energy sector companies are the only companies that will
experience a significant increase in share prices during 2021-2022. So, inflation cannot affect the
size of the company's value. This is not in line with signal theory, which states that inflation
can be a signal for investors regarding their stock investment decisions. In this case, even though inflation is increasing yearly, many investors are investing their shares in companies so that the company's share price and value are also increasing yearly. Apart from that, this result is also not in line with the company theory that decreasing inflation should increase company value. Conversely, company value decreases when inflation is high because investors tend to save their funds when inflation occurs, and the economy is recovering during COVID-19. However, the inflationary conditions did not impact investors' interest in investing their shares in energy sector companies, so share prices and company value also increased. Even though inflation is increasing in 2020-2022, the welfare and prosperity of shareholders will also be maximized due to higher share prices.

5. Conclusion, Implication, and Recommendation

a. Conclusion
1. Company growth has a negative and insignificant influence on company value. This
   means that the size of the company's growth does not affect the size of the energy sector
   company value in 2020-2022.
2. Profitability has a positive and significant influence on company value. This means that
   the size of the company's profitability also influences the size of the energy sector
   company value in 2020-2022.
3. Leverage has a positive and significant influence on company value. That means, big or
   small leverage the company also influences the size of the energy sector company value
   in 2020-2022.
4. Inflation has a positive and insignificant influence on company value as measured by the
   PBV ratio. This means that the size of the IHK does not affect the size of the energy
   sector company value in 2020-2022.
b. Implication

1. Theoretical Implications

For academics, it is hoped that this research will increase knowledge and provide new views on company value. This research can be a learning material and reference for students to better understand company value and pay attention to the factors that influence it so that it can provide better continuing research. This research also enriches scientific information and helps make a contribution by expanding and perfecting further research regarding the influence of company growth, profitability, leverage and inflation on company value, especially in the energy sector in 2020-2022.

2. Practical Implications

From the results of this research, the implication for investors is that this research can be a consideration for investors to invest shares in companies that have high profits on sales, because it increases investors’ chances of getting high long-term returns. This is because the higher the company's profit on sales, the more the company value will increase. Investors can also consider investing their shares in companies with good leverage. This is because the higher the level of debt over company equity, the more the company value will increase. And this is in line with signal theory and company theory that increasing profitability and leverage can be a positive signal for investors so that they are increasingly interested in investing their shares in the company. So, the company's value will also increase, and the welfare and prosperity of investors will also be maximized. Then, investors can consider other factors besides the company's growth and gross profit when deciding to invest their shares in the company. This is because the high or low level of growth the company is experiencing cannot affect the company's value. Apart from that, investors can also consider other factors besides inflation when deciding to invest their shares in a company. The high or low level of inflation will not affect the high or low value of the company.

Furthermore, from the results of this research, the implication for companies is that companies should increase their profits so that investors will be interested in investing their shares in the company. High investor interest will also influence share prices so that the company value will increase. Companies must also be able to optimize the use of company debt properly to improve company performance in obtaining high profits. High investor interest will also influence share prices. This can attract investors and the company value will increase. Apart from that, companies do not need to worry when they experience high or low company growth or inflation rates. This is because the current high or low level of inflation cannot affect the company's value.

Furthermore, for policymakers and management in companies, it is hoped that management must be able to provide confidence to investors regarding the management of their company, through financial ratios such as the net profit margin ratio and debt to capital ratio in order to maximize their share price in the capital market. The company is also expected to be able to maximize company value even though the company is in a state of growth or is affected by inflation because high or low does not affect company value. Company growth will always be carried out because it must be able to keep up with current developments and improve strategies based on evaluations of company management in
previous periods. The inflation will also not affect the company's efforts to increase its value. An evaluation can be carried out on the policies implemented to maximize the company's value and be more profitable for the company and investors.

5.3 Recommendation
Further research can be carried out using variables influencing company value, such as company size, managerial ownership, investment decisions, dividend policy, and interest rates as independent variables. Researchers interested in the same topic can develop it by increasing the data and observation period so that the results obtained more closely reflect the actual conditions on the Indonesian Stock Exchange. Future researchers can use additional elements of variation from the moderating variable to identify other factors that may influence company value. Future researchers can also use ratio measurements on company growth, profitability, leverage, inflation, and company value other than those used in this research.

7. References

