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How Do Profitability, Risk, and Growth Expectations Affect Market Valuation? An Analysis of P/E and P/B Ratios

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Abstract

The Indonesian capital market has developed rapidly in recent years, yet many retail investors still make investment decisions based on trends or unverified information rather than fundamental analysis. This study analyzes how various financial variables affect stock value using P/E and P/BV ratios as measures. The variables studied include DPR, ROE, growth potential, and market risk (Beta) in a sample of 183 Indonesian companies listed on the stock exchange and distributing dividends for the 2023 fiscal year. Audited financial statements were used as the main data source, and multiple linear regression analysis was used to analyze the data. Statistical analysis shows that DPR has a significant and positive effect on the P/E and P/BV ratios. Meanwhile, ROE has a significant but negative effect on the P/E ratio and a significant and positive effect on the P/BV ratio. Furthermore, Beta has a significant and negative effect on the P/E and P/BV ratios, while growth potential has no effect on either measure. These results provide valuable insights for investors and management regarding how various financial variables affect stock valuations influenced by the Indonesian capital market. These findings provide valuable insights for investors and management regarding how various financial variables affect stock valuations in the Indonesian capital market. For future research, it is suggested to use forward-looking growth measures such as analyst earnings forecasts or the Gordon Growth Model, as well as to explore macroeconomic variables and industry sectors to gain a more comprehensive understanding of the factors influencing stock valuation.

INTRODUCTION

Over the past few years, the Indonesian capital market has developed rapidly, manifested by a drastic increase in retail investors, especially from the millennial generation (Berliana et al., 2022; Darmayanti et al., 2023; Rosdiana et al., 2026; Yahya et al., 2022; Zega & Satato, 2025). This trend has been fuelled by both the accessibility provided by digital trading platforms and the impact of financial influencers across social media (OJK, 2024). There has been an unprecedented rise in investor participation but a limited understanding of the intrinsic value of the underlying stocks. The majority of month-to-month retail investors are still making investment decisions based on trend data or unverified information rather than fundamental analysis (Malkiel, 2019; Wicaksono & Suryani, 2021). This highlights questions of investment behavior sustainability and rationality in Indonesia's post-pandemic market (Hasnawati & Ernie, 2022; Jasiyah, 2025; Sinaga et al., 2025).

Fundamental factors, including Dividend Payout Ratio (DPR), Return on Equity (ROE), Expected Growth, and Beta, play a significant role in influencing stock valuation as part of the overall process of making decision (Atmariani & Agustia, 2024; Hudiwijono et al., 2018; Putri & Putri, 2023; Utami, 2020). For example, prior studies have found that the key elements above

have had a significant effect on numerous different types of Prices to Earnings (P/E) and Price to Book Value (P/BV), these two valuation ratios are generally considered very important by investors when deciding whether to buy or sell stock (Aisyah, 2015; Badruzaman et al., 2022; Sudiyatno et al., 2022).

While there are numerous studies related to this topic, most of them address a portion of or a particular sector or are limited in their use of one particular methodology of valuation, thereby rendering them less generalizable. Only a modest number of studies take into account all four of the elements collectively or the change in investor behaviour and market conditions resulting from the impact of the pandemic since COVID-19 (Utami, 2020; Ayu & Dewi, 2019). This lack of research calls for an in-depth examination of the Indonesian stock markets that reflects the changes in domestic and international market conditions. The novelty of this research lies in its use of post-pandemic data from 2023, simultaneous examination of both P/E and P/BV valuation metrics within a single framework, integration of four key variables (DPR, ROE, Expected Growth, and Beta) into a comprehensive model, cross-sectional analysis of non-financial companies across all sectors, and empirical testing of whether historical growth metrics sufficiently capture investor expectations in an emerging market like Indonesia.

This research aims to increase understanding and fill the gap in these valuation metrics by examining how DPR, ROE, Expected Growth, and Beta affect P/E Ratio and P/BV Ratio using a cross-sectional sample of non-financial companies listed on the Indonesia Stock Exchange during 2023. The uniqueness of the research is due to the use of post-pandemic data for this analysis which has not been studied much before in relation to valuations and their application across two different valuation metrics. The key focus of this research is to examine (1) If any of the variables of DPR, ROE, Expected Growth or Beta influence either the P/E or P/BV ratio, both alone and or together. (2) Which of these variables has had the greatest effect on each of the valuation indicators, P/E or P/BV ratio variables? The results are expected to contribute to financial management literature to help operations/methods to assist when retail and institutional investors make decisions based upon fundamental analysis.

RESEARCH METHODS

The study used secondary quantitative data collected from certified financial statements, official announcements from the IDX website, and other recognized financial platforms to obtain information about dividend-paying Indonesian non-financial corporations that are on the IDX who had an AUDITED annual report for the 2023 Fiscal Year. All the data collected met the strict inclusion criteria for non-financial corporations as outlined by your purposive sampling principles (Sekaran & Bougie, 2016).

To represent how the market reacted to recent financial information, Stock Price Data as of April 30, 2024 was utilized. Thus, creating a consistent cutoff to help eliminate any bias in timing and to provide greater comparability between samples (Ghozali, 2018). The data was collected manually using Microsoft Excel to create an even format and complete each document.

Standard financial formulas were used during data analysis for consistency in how each variable was operationalized for consistency:

$$DPR = \left(\frac{Cash\ Dividend\ per\ Share}{Earnings\ per\ Share}\right) x\ 100\% \qquad (1)$$

$$ROE = \left(\frac{Net\ Income}{Total\ Equity}\right) x\ 100\% \quad (2)$$

$$Expected\ Growth = \left(\frac{EPS2023}{EPS2022}\right)^{\left(\frac{1}{1}\right)} - 1 \quad (3)$$

$$Beta = \frac{Cov(Ri,Rm)}{Var(Rm)} \quad (4)$$

$$Price\ to\ Earnings\ Ratio = \frac{Share\ Price}{EPS} \quad (5)$$

$$Price\ to\ Book\ Value = \frac{Share\ Price}{Book\ Value\ per\ Share} \quad (6)$$

This study's primary analysis employed multiple linear regression to investigate the simultaneous and partial impacts of four independent variables (DPR, ROE and Beta) on two dependent variables (P/E and P/BV) (Hair et al., 2014; Gujarati & Porter, 2009). Two separate regression models were developed to demonstrate how each of the valuation indicators was operationalized in terms of the equations below:

Model 1 (Earnings-based valuation):

$$Price\ to\ Earnings\ Ratio_i = \beta_0 + \beta_1 DPR_i + \beta_2 ROE_i + \beta_3 Growth_i + \beta_4 \beta_i + \varepsilon_i \quad (7)$$

Model 2 (Book value-based valuation):

$$Price\ to\ Book\ Value_i = \beta_0 + \beta_1 DPR_i + \beta_2 ROE_i + \beta_3 Growth_i + \beta_4 \beta_i + \varepsilon_i \quad (8)$$

Where:

β = intercept

ε = error term for firm i

SPSS was chosen as the software to estimate the models of both data sets, as it allows for regression analyses of cross-sectional data and provides full regression diagnostics. Classical assumption tests were performed on the data prior to model estimation. Normality of the samples was checked using the Kolmogorov-Smirnov test, multicollinearity was assessed using variance inflation factor and tolerance, and heteroscedasticity was determined using either the Glejser or White test, for assurance that the regression model is statistically valid (Ghozali, 2018). Data validation is performed by comparing the dividend amounts reported in the shareholder meeting summary with the audited income statement, as well as by checking stock prices from several financial data sources. This process is used to ensure internal consistency and data reliability (Sekaran & Bougie, 2016).

RESULTS AND DISCUSSION

1. Description of Research Data

For this study, the first step is to determine the entire population of public firms distributing dividends during the fiscal year of 2023. The announcement of their dividend declaration was supplied by the official IDX (Indonesian Stock Exchange) in the form of a company summary, listed on the IDX with appropriate dates and amounts for distribution of dividends as well as whether or not they were cumulative or non-cumulative. To increase the validity of the data, the researcher used several sources to establish a cross/reference

verification of the information, the Annual General Meeting (AGM) minutes, the IPOT trading platform, established and credible news organizations accessed using OpenAI ChatGPT to confirm data integrity of the sample population. Using this triangulation, it was determined that a total of 236 companies registered as real dividend-paying entities in 2023 and provided the basis for further data processing and sample screening.

Upon establishing the population of firms in the study, the data was enhanced and standardized to enable an accurate comparison to be made between firms within different industries. Information used to create the sample was retrieved from Audited Financial Statements, IDX Market Data and Official Corporate Websites, after which the sample data was adjusted for industry classification, reporting period, and converting all referenced currencies. Other refinements continued refinement of corporate actions like stock splits or share repurchases use of April 30, 2024 share prices for valuation ratios, collection of daily closing prices from 2023 for Beta calculations. An additional stage of data cleaning removing financial institutions, companies that lost money, and extreme outliers in terms of P/E, P/BV, and ROE, resulting in a final set of 183 companies. The entire filtering process can be seen in Table 1.

Table 1. Sample Screening Process

Screening Stage	Firms Excluded	Issues Removed
Companies paying dividends in FY 2023		236 firms
Financial sector exclusion	36	
Firms with net losses in 2022/2023	6	HOKI, CINT, GJTL, IDPR, JSPT, SCNP
Missing valid stock price data	2	CGAS, MSJA
P/E > 100 (extreme outliers)	5	ALDO, BMHS, BREN, EURO, PANI
P/BV > 10 (extreme outliers)	3	BYAN, MLBI, UNVR
ROE > 2000% (extreme outlier)	1	LPPF

Source: Author's data processing (2025)

A summary of the distribution of key variables using descriptive statistics (i.e., mean, standard deviation, minimum value, and maximum value) has been prepared. It was found that the average dividend payout ratio (DPR) was 48.2%, with some companies paying dividends of more than 100%, indicating their retained earnings distribution. The average return on equity (ROE) is 15.82%, which is a good figure for a business, but ROE shows significant variation among the sample. The average growth rate shows a wide range due to varying revenue dynamics among companies. Beta has an average value of around one, indicating average market volatility. The average price-to-earnings (P/E) ratio of the companies is 14.36 (P/E) and the average price-to-book value (P/BV) ratio is 2.32, which is within the expected range for an emerging market economy. These average ratios and measures are listed in Table 2.

Table 2. Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Dev
DPR	183	0.020	1.250	0.482	0.231
ROE	183	0.300	78.500	15.824	12.653

Variable	N	Min	Max	Mean	Std. Dev
EPS	183	-90.000	150.000	9.742	23.813
Beta	183	-0.450	2.870	0.968	0.535
P/E	183	1.530	97.360	14.362	13.204
P/BV	183	0.360	9.850	2.321	1.973

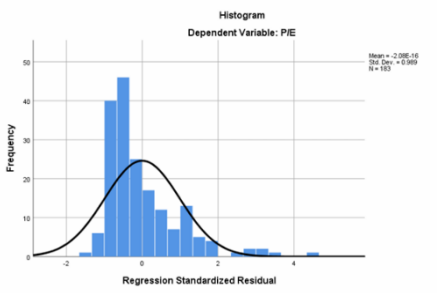
Source: Author's data processing (2025)

2. Assumption Testing

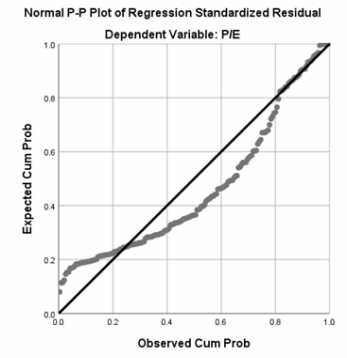
Normality Test

The residuals of a regression line must be normally distributed, otherwise the hypothesis tests conducted upon the regression coefficients will not be valid. Therefore, (Ghozali 2018) recommends a visual assessment of normality, including a histogram of standardized residuals and the Normal P-P Plot of Regression Standardized Residuals, to determine if the residuals are normally distributed.

The regression model used the Price-to-Earnings (P/E) ratio as the dependent variable, and the histogram yielded a bell-shaped distribution with most of the values concentrated near zero and a fairly equal number of values having a positively skewed breadth. The average value of the residuals was -2.08×10^{-16}, and the standard deviation was 0.989, demonstrating minimal variation from the mean. The data still curved upward slightly to the right. Although there was some indication of an upward curve in the distribution of residuals, it did not exceed 0.9999, showing that the distribution was approximately normal based on the number of observations (183 total). The data from the regression analysis of the P/E ratio indicated that all assumptions of normality held true.



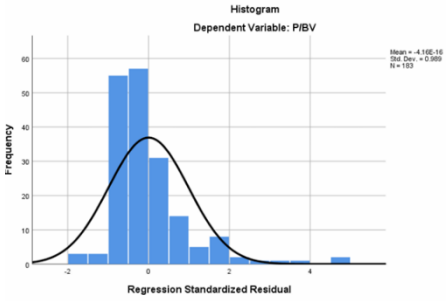
(a)



(b)

Figure 2. (a) Histogram Dependent Variable P/E; (b) P-P Plot from Regression Standardized Residual P/E

The histogram for the regression model using Price to Book Value – P/BV as the dependent variable also has a bell curve shape around zero with a Standard Deviation of 0.989 and a Residual Mean of -4.16×10^{-16}. The Normal P-P plot also supports this finding, with the points closely conforming to the diagonal line indicating that there is a propensity towards a normal distribution for these variables. There were slight discrepancies at the tails of both spectacles, however they were not significant enough to violate the assumption of normal distribution. Overall, these results indicate that residuals from the model using P/BV as the dependent variable may be classified as normally distributed providing an additional basis for satisfying one of the fundamental assumptions related to classical linear regression.



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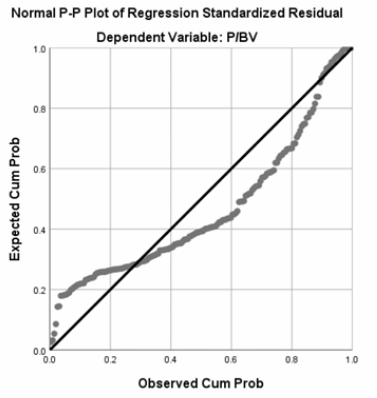

(b)

Figure 3: (a) Histogram Dependent Variable P/BV; (b) P-P Plot from Regression Standardized Residual P/BV

Multicollinearity Analysis

When independent variables in a regression model are closely related to one another (highly correlated), this is referred to as multicollinearity perhaps causing errors in the coefficient estimates (Gujarati & Porter, 2009). Therefore, two indicators are used to analyze multicollinearity, namely tolerance, where there are potential signs of multicollinearity if the value is <0.10, and VIF >10.

In both of the regression models that used P/E and P/BV ratios as dependent variables, all four independent variables of DPR, ROE, Expected Growth as well as Beta's respective tolerance levels (between 0.958 and 0.988) and VIF calculations (between 1.012 to 1.044) fell into a range considered to be an acceptable range as defined by the literature for multicollinearity. Therefore, no evidence suggests significant levels of multicollinearity amongst the independent variables.

Table 4. Multicollinearity in P/E Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Colleniarity Statistic	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	18.568	1.785	-	10.404	.000	-	-
	DPR	9.031	2.449	.250	3.688	.000	.966	1.035
	ROE	-43.886	8.038	-.370	-5.460	.000	.967	1.034
	Expected Growth	.134	.170	.053	.790	.431	.988	1.012
	Beta	-39.011	17.088	-.155	-2.283	.024	.958	1.044

Dependent Variable: P/E

(a) Coefficient Independent Variable toward P/E

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions			Beta
					DPR	ROE	Expected Growth	
1	1	3.120	1.000	.02	.03	.03	.00	.03
	2	1.000	1.767	.00	.00	.00	.96	.01
	3	.431	2.691	.02	.06	.09	.03	.92
	4	.299	3.230	.00	.56	.56	.00	.00
	5	.149	4.577	.96	.36	.33	.01	.04

(b) Collinearity Diagnostic toward /E

Source: Author's data processing using SPSS (2025)

Further validation using Collinearity Diagnostics shows that the highest Condition Index value is 4.577, which is significantly lower than the critical threshold of 30. In both regression models, no independent variable has a variance proportion greater than 0.50 in the two dimensions with high Condition Index, although DPR and ROE have a variance proportion of 0.56 in Dimension 4. The Condition Index is only 3.230, indicating that there is no problem. Therefore, the data proves that both the P/E and P/BV models are free from multicollinearity, and thus all independent variables will provide valid results from multiple regression analysis.

Table 5. Multicollinearity in P/BV Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Colleniarity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.813	.196	-	4.139	.000	-	-
DPR	.569	.270	.143	2.110	.036	.966	1.035
ROE	5.431	.885	.416	6.137	.000	.967	1.034
Expected Growth	-.008	.019	-.028	-.423	.673	.988	1.012
Beta	-3.910	1.881	-.142	-2.078	.039	.958	1.044

a. Dependent Variable: PBV

(a) Coefficient Independent Variable toward P/BV

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions			Beta
					DPR	ROE	Expected Growth	
1	1	3.121	1.000	.02	.03	.03	.00	.03
	2	1.000	1.767	.00	.00	.00	.96	.01

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions			Beta
					DPR	ROE	Expected Growth	
	3	.431	2.691	.02	.06	.09	.03	.92
	4	.299	3.230	.00	.56	.56	.00	.00
	5	.149	4.577	.96	.36	.33	.01	.04

(b) Collinearity Diagnostic toward /E

Source: Author's data processing using SPSS (2025)

Heteroscedasticity Analysis

Heteroskedasticity is defined as a situation in which the residual variance does not remain the same (homoscedastic). A common problem with this occurrence is that it will produce biased standard estimates that can lead to less reliable conclusions about the performance of the statistical tests being performed (Ghozali, 2018). With this regression model, which uses P/E as the dependent variable, a scatterplot of the standardized residuals versus the predicted P/E values was reviewed and resulted in a fan-shaped pattern illustrating the widening of the residuals as the predicted P/E values increased. Therefore, heteroskedasticity exists, meaning that the error variance is not constant, and the coefficient estimates should be interpreted with even further caution than usual for linear regression models.

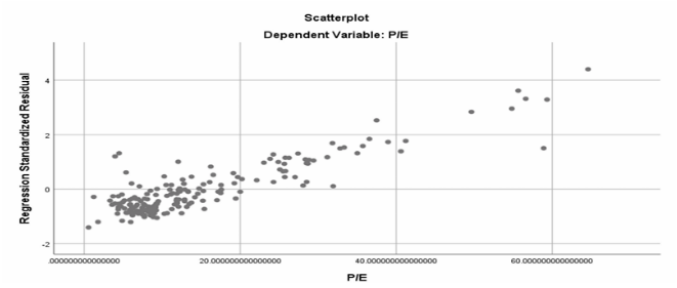

Figure 4: Scatter Plot of Dependent Variable P/E

Source: Author's data processing using SPSS (2025)

The residual scatter plot for the model using P/BV as the dependent variable exhibited a similar fan-like configuration of points. The distribution of the residuals tended to be more clustered about the predicted values that were lower in magnitude and the amount of variability in these residuals increased with the magnitude of the predicted P/BV. Therefore, the existence of heteroskedasticity is confirmed, which suggests that there is an increase in the variance of residuals associated with larger predictions made for P/BV. Based on the conclusions, although the regression model assumptions of normality and no multicollinearity are satisfied, both models show signs of heteroscedasticity. Therefore, consider applying robust standard errors or data transformation techniques to improve the validity and efficiency of regression estimation.

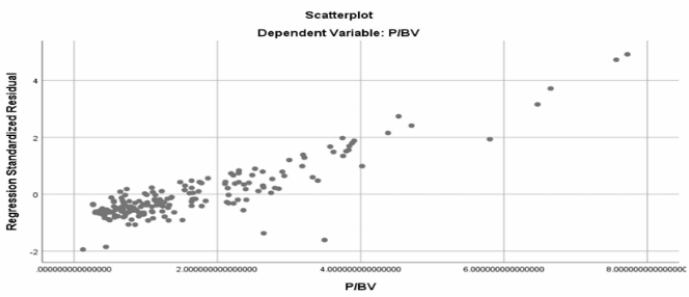

Figure 5: Scatter Plot of Dependent Variable P/BV
Source: Author's data processing using SPSS (2025)

3. Multiple Linear Regression Analysis

Influence on P/E

Multiple linear regression analyses reveal a moderate correlation of independent variables Deep Pool Regressor (DPR), Return on Equity (ROE), Expected Growth and Beta with dependent variable Price per Earnings (P/E) yielding an R correlation coefficient of 0.458, $R^2 = 0.210$ thus approximately 21% of the variation in P/E can be accounted for by DPR ROE Expected Growth and Beta with 79% of the variation in P/E being explained by other factors outside this model including but not limited to macroeconomic factors, investor sentiment or other company-specific fundamentals not included within this study.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458[a]	.210	.192	11.06811108

a. Predictors: (Constant), Beta, Expected Growth, ROE, DPR
b. Dependent Variable: P/E

Figure 6: P/E Model Summary
Source: Author's data processing using SPSS (2025)

The model gives support for its ability to explain changes in the dependent variable by using only a subset of predictors through its adjusted coefficient of determination value of 0.192.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5779.669	4	1444.917	11.795	.000[b]
	Residual	21805.549	178	122.503		
	Total	27585.218	182			

a. Dependent Variable: P/E
b. Predictors: (Constant), Beta, Expected Growth, ROE, DPR

Figure 7: ANOVA of P/E
Source: Author's data processing using SPSS (2025)

The analysis of variance test has an F value of 11.795 with a p-value less than 0.000 which is lower than $\alpha = 0.05$, therefore all variables in the model are statistically significant.

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	18.568	1.785		10.404	.000		
	DPR	9.031	2.449	.250	3.688	.000	.966	1.035
	ROE	-43.886	8.038	-.370	-5.460	.000	.967	1.034
	Expected Growth	.134	.170	.053	.790	.431	.988	1.012
	Beta	-39.011	17.088	-.155	-2.283	.024	.958	1.044

a. Dependent Variable: P/E

Figure 8: Coefficient of P/E

Source: Author's data processing using SPSS (2025)

A regression equation based on unstandardized coefficients has been developed based on the coefficients of three predictors that affect the price-to-earnings (P/E) ratio as predicted by the model used:

P/E = 18.568 + 9.031(DPR) - 43.886(ROE) + 0.314(Expected Growth) (9)

Coefficient values indicate there is a statistically significant relationship between each predictor variable and outcome variable except for one. The results indicate that DPR (dividend policy ratio) has a positive and statistically significant influence on P/E (β = 9.031 Sig. = 0.000), therefore holding all else constant, as dividends Increase Investors attach greater value to companies paying out larger portions of their earnings as dividends.

ROE (return on equity) shows a statistically significant and negative influence on P/E (β = -43.886 Sig. = 0.000), therefore while companies with higher ROE may create higher investor value, P/E will not necessarily be greater.

Similarly, Beta (measure of the firm's systematic risk) shows a statistically significant and negative relationship to P/E (β = -39.011 Sig. = 0.024), therefore as systematic risk increases, P/E will decrease.

The expected growth variable appears to show a positive but statistically non-significant impact on P/E (β = 0.134 Sig. =0.431), therefore growth expectations in the short term do not appear to have a significant effect on the P/E ratio for this sample. There is no multicollinearity among the predictor variables, as indicated by tolerance values ranging from 0.958 to 0.988 and VIF values ranging from 1.012 to 1.044. The results of this regression analysis provide sufficient evidence to support the validity of this model for further interpretation.

Influence on P/BV

The multiple linear regression analyses indicate that the four independent variables (DPR, ROE, Expected Growth, Beta) moderately explain P/BV.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.457[a]	.209	.191	1.218632862

a. Predictors: (Constant), Beta, Expected Growth, ROE, DPR

b. Dependent Variable: P/BV

Figure 9: P/BV Model Summary

Source: Author's data processing using SPSS (2025)

The coefficient of determination (R^2 = 0.209) indicates that 20.9% of the variance in P/BV can be explained by these four independent variables with the remaining 79.1% attributable to other external factors. Therefore, the model will retain explanatory capacity after removing the effect of the independent variables and sample size (Adj R^2 = 0.191).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.917	4	17.479	11.770	.000[b]
	Residual	264.342	178	1.485		
	Total	334.259	182			

a. Dependent Variable: P/BV

b. Predictors: (Constant), Beta, Expected Growth, ROE, DPR

Figure 10: ANOVA of P/BV

Source: Author's data processing using SPSS (2025)

The ANOVA test also confirms this result with a statistically significant F-statistic of 11.770 and a p-value of 0.000 and indicates all independent variables together have a statistically significant impact on P/BV. The model has an acceptable Standard error of 1.219 and therefore has a moderate amount of predictive strength.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.813	.196		4.139	.000		
	DPR	.569	.270	.143	2.110	.036	.966	1.035
	ROE	5.431	.885	.416	6.137	.000	.967	1.034
	Expected Growth	-.008	.019	-.028	-.423	.673	.988	1.012
	Beta	-3.910	1.881	-.142	-2.078	.039	.958	1.044

a. Dependent Variable: P/BV

Figure 11: Coefficient of P/BV

Source: Author's data processing using SPSS (2025)

The regression model created with unstandardized coefficients gives an equation like so:

P/E = 0.813 + 0.569(DPR) – 5.431(ROE) + 0.008(Expected Growth) (10)

The results suggest that three of the four independent variables have a meaningful influential relationship with P/BV. DPR has a positive and significant effect on the dependent variable (β = 0.569, Sig. = 0.036), meaning that an increase in dividend payouts will lead to an increased market value relative to book value.

ROE is the most dominant predictor (β = 5.431, Sig. = 0.000), which indicates that a more efficient use of equity capital will lead to an increased level of P/BV. Conversely, beta has a negative and significant impact on the dependent variable (β = -3.910, Sig. = 0.039) indicating that firms with a higher level of systematic risk have a lower value than those firms with a lower level of systematic risk in the eyes of investors.

The expected growth is not statistically significant (β = -0.008, Sig. = 0.673), suggesting that the past EPS growth data may not be a good indicator for forward-looking investor expectations for firms in emerging markets. With no multicollinearity indicated by tolerance values of greater than 0.10 and VIF values of less than 10, this increases the validity of the model in terms of understanding the independent variables and their effects on P/BV.

4.

5. Hypothesis Analysis

Partial T-Test

The t-tests show that DPR, ROE, Expected Growth, and Beta all have different impacts on assessing the value of a company's stock. The P/E model shows that DPR is positively significantly correlated with higher valuation multiples, which means that larger dividend payments lead to greater valuation multiples. In contrast, ROE is negatively correlated with P/E, thus the market does not necessarily believe that efficient companies will receive higher earnings-based values. Expected Growth is insignificant, suggesting that growth in the past has

not been used to assess P/E value. Beta has a significantly negative relationship to P/E, therefore the deductible amount of higher systematic risk is lower for earnings value.

Of the four variables involved in P/BV modelling (DPR, ROE & Beta), three showed to be significant: the DPR had a positive influence on P/BV, suggesting a positive relation between large dividends and investor confidence in the book value of the firm. ROE had a positive and significant, influence corroborating that ROE is a significant factor in determining the performance & valuation of companies. Beta had a negative effect, indicating that those companies with the greatest risk with respect to their own assets experience lower valuations by the market than companies with lower risk.

Thus, the Results indicate that the DPR consistently acts as a driver of valuation across both models, while ROE reacts in the opposite manner to the metrics being used (the P/BV vs ROE would have been used to determine the company's value), and the Beta consistently reduces the value of the company, while the Expected Grow factor does not affect the outcome of either valuation model being used.

Simulant F-Test

An F-test was performed to determine whether the independent variables have a joint effect on the dependent variables. The first model uses P/E as the dependent variable, and the results showed an F-value of 11.795 with a significance of 0.000. Since this result is less than the 5% cutoff, the use of the variables DPR, ROE, expected growth, and beta together has a statistically significant effect on P/E. Therefore, it can be concluded that the joint impact of these four independent variables has a meaningful impact, providing evidence that the model is statistically correct, supporting the acceptance of hypothesis H9.

In the instance of the model using Price to Book Value (P/BV) as the dependent variable, the rules of the F-test show that the F value is equal to 11.770 with an associated significance level of 0.000 which indicates that collectively the four independent variables explain the variation in P/BV at statistically significant levels. The rejection of hypothesis H10 suggests that the regression model for P/BV is valid. Ghozali (2018) states that if the significance level (value) of the F-test is below 0.05, then the regression model is appropriate to describe the relationship between independent and dependent variables. Therefore, both regression models P/E and P/BV are statistically significant and provide a good basis for conducting and performing further tests on the individual variables using the t-test.

The research indicates that a positive and meaningful effect of the DPR on P/E exists, suggesting that dividends may be used as an indicator of company stability and long-term profitability. There is congruence between this finding and the signaling theory as dividend payments are indicative of management's projection of future growth due to their continued payout for intervals of time. Within the context of the Indonesian stock market, dividend policy has also had a significant impact on how investors evaluate companies to determine their market value; therefore, firms with higher average rates of dividend distribution are likely to be rated by investors on a greater scale.

Examining profitability through ROE indicates the complexity of the relationship between dividend policies and how they affect investors' perceptions of how companies should return money to shareholders. The regression results support a negative relationship between ROE and P/E, which suggests that while ROE is high at times, it does not match future expectations of growth, as exemplified by a company with an extremely high ROE but low

equity base or high levels of debt. However, ROE positively impacts P/BV, which in turn supports ROE as a measure of how well a company generates shareholder value.

This difference emphasizes the way that profitable companies are interpreted differently by investors. An increase in ROE may make investors less confident in the sustainability of the earnings and may lower the price-to-earnings ratio, but at the same time will increase valuations based on book value. In other words, it seems that market participants differentiate between a short-term increase in profits and long-term value creation. Therefore, ROE's effect on the valuation of companies is determined not just by financial results, but also by investors' views regarding the quality of earnings and the structure of capital.

The Expected Growth calculated using the compound annual rate of return for the earnings per share (EPS) from 2022 to 2023 does not have a significant impact on the price-to-earnings (P/E) and price-to-book value (P/BV) ratios. Therefore, the historical growth rate may not be the best indicator of future growth or investor sentiment about future growth. This could be due to the current market being highly volatile, where an investor's confidence in management, macroeconomic factors, and the potential outlook for the sector have a greater influence on their investment decisions than past or “actual” growth rates. Thus, expected growth as it has been defined in this study, has limited impact on valuation.

The findings related to systematic risk indicate that Beta has the statistically significant inverse effect on both price/earnings (P/E) and price/book value (P/BV), as predicted by CAPM. Greater Beta is indicative of increased volatility in returns, which causes an investor to apply a discount to the value of the firm through the use of a higher risk premium required to compensate for the volatility. In the case of emerging market investors such as Indonesia, the evidence supports the conclusion that the preference of investors is for stable stock performance particularly at times of heightened uncertainty surrounding the value of investment alternatives. Therefore, managers should use risk management to establish stable return streams and maintain optimal valuations to increase the likelihood of continued investment.

In terms of the impact of the independent variables on firm value, the aggregate outcome provides both consistent and inconsistent effects and therefore helps to clarify by showing their relative importance. As such, the currently validated relationships are demonstrated in the updated conceptual framework below (Figure 12).

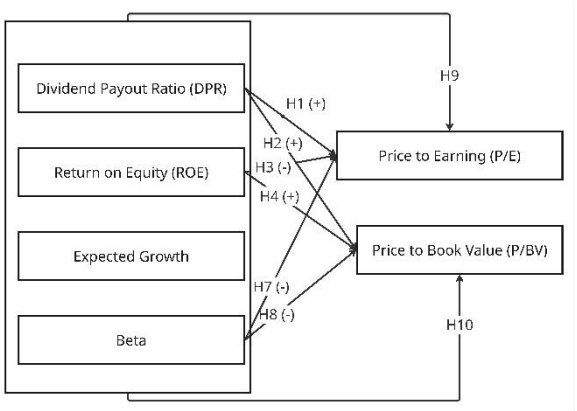

Figure 12: Updated Model
Source: Author's design (2025)

CONCLUSION

The purpose of this research was to analyze how Dividend Payout Ratio (DPR), Return on Equity (ROE), Expected Growth and Beta affect stock valuation (as measured by price/earnings ratio (P/E) and price/book value (P/BV)) of dividend-paying companies listed on the Indonesia Stock Exchange during the fiscal year 2023. The results indicated that DPR has a consistent positive and significant impact on both P/E and P/BV, providing evidence that dividend policy is used as an indication of a company's stability and future performance potential. ROE had mixed results, it had a significant negative impact on P/E, but a significant positive effect on P/BV, indicating that investors interpret profitability differently in the two markets. Beta had a negative and statistically significant effect on both valuation measures, thus confirming its use as a proxy for systematic risk. Expected Growth did not have a statistically significant effect on either P/E or P/BV. It implies that the historical growth metrics for the Indonesian economy (CAGR for EPS) are not enough to accurately project future expectations in the context of the Indonesian economy. Rather, investors seem to put more weight on future-oriented indicators (like earnings projections or management guidance) than on past growth trends. There is substantial evidence which states that the four factors being examined (CAGRs for revenue/debt/assets API) have a similar and significant effect on stock valuation, but the overall explanatory power of the four-factor model is relatively low. The results of this study would indicate that the Indonesian capital market is efficient in using public information, but the efficiency is subject to limitations.

The research results support the semi-strong variant of the Efficient Market Hypothesis (EMH) as theoretical indicators include: dividend policy, profitability, risk and are included in valuation, whereas growth is underweight. The non-significance of Expected Growth indicates that the market has not adequately internalized forward-looking fundamentals, signaling that the transition to a fully efficient market has not yet been completed. For researchers, the remaining future research must require researchers to incorporate forward-looking growth measures (analyst earnings forecasts or the Gordon Growth Model) to capture investor expectations more adequately. Further exploration into how Beta behaves in an Investor-Dominated marketplace can produce further insights. Dividends and profitability remain critical variables for corporate managers, market participants, and individual investors, as indicated by the results of this study. Corporate managers view dividend payments as both distributions of profits and as a signal to investors, while capital efficiency is another critical factor in adding value to the firm. Individual investors can use DPR and ROE to value stocks and Beta as an important indicator of risk when managing their portfolios. Investors must also be careful not to solely rely on past earnings when making investment decisions because a weak influence of Expected Growth suggests more weight should be placed on future information when making investment decisions.

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