

Sales Growth, Free Cash Flow, and Capital Structure in Indonesian LQ45 Stock Returns

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Abstract

This study examines the relationships between sales growth, free cash flow, capital structure, and stock returns among companies consistently included in the LQ45 index of the Indonesia Stock Exchange during 2021–2025. The study uses secondary financial statement and stock price data. Purposive sampling selected 23 firms with 115 firm-year observations, while the final pooled multiple regression used 110 observations after outlier removal. Stock return is measured through capital gain/loss, free cash flow through operating cash flow minus capital expenditure scaled by total assets, and capital structure through the Debt-to-Equity ratio (D/E). Sales growth and free cash flow have positive and significant associations with stock returns ($B=0.385$, $p=0.001$; $B=0.827$, $p=0.011$), whereas capital structure has a negative but insignificant association ($B=-0.001$, $p=0.973$). The model is jointly significant ($F=7.924$, $p<0.001$) and explains 18.3% of stock return variation (adjusted $R^2=16.0\%$). Investors appear to respond more strongly to revenue growth and operating cash availability than leverage levels. The study uses pooled firm-year observations and excludes dividend yield in stock return measurement. This study provides recent evidence from Indonesian LQ45 firms by highlighting the role of growth and cash flow signals in explaining stock returns.

Keywords: Capital Structure, Free Cash Flow, LQ45, Sales Growth, Stock Return

1. INTRODUCTION

Although Liquidity 45 (LQ45) membership identifies liquid, large-capitalization Indonesian shares, it does not make annual price change returns uniform or predictable. Therefore, the empirical problem is whether three readily disclosed financial signals carry distinct information when they are assessed together, sales growth captures revenue momentum, free cash flow captures post-investment cash generation capacity, and debt-to-equity captures the financing claim carried by shareholders. Indonesian evidence remains mixed for each signal and is often sector- or specification-specific. This study addresses this gap by examining their individual and joint associations in a continuous 2021–2025 LQ45 sample. Its contribution is not a claim of causal identification; rather, it provides a transparent, theory-integrated interpretation of the documented pooled results, including the sample screen, measurement limits, and diagnostic boundary that must accompany their practical use in the future.

Indonesia's capital market gives firms access to external equity while giving investors claims on future cash flows, dividends, and price appreciation. For an investor, the most visible outcome of that claim is stock return, which can be negative even when a firm belongs to an index associated with high liquidity and large market capitalization. This distinction is important for the LQ45 index. Membership signals that a share meets the index's liquidity and market capitalization criteria, but it does not guarantee that every constituent will deliver a positive price return every year. Therefore, financial statement information remains necessary for judging whether market prices are supported by operating performance, cash generation, and financing choices ([Bursa, 2026](#); [Fitriyani, & Widyawati, 2023](#)).

The variation in Indonesian large-cap returns provides a concrete motivation for this study. The source data show that the LQ45 index returned -0.37% in 2021, 0.62% in 2022, and 3.56% in 2023, while the composite index produced 10.08%, 4.09%, and 6.16% returns, respectively. The LQ45 return then fell by 14.82% in 2024 before rising by 2.41% in 2025, whereas the composite index increased by 22.14% in 2025. These comparisons do not establish the determinants of individual firm returns because index movements also reflect macroeconomic conditions, valuation changes, and investor sentiment. They demonstrate that the most actively traded Indonesian shares can experience

return patterns that do not simply mirror broad market performance. Firm-specific signals require separate empirical examinations.

A realized stock return measures the price change that an investor experiences over a defined holding period. This study uses capital gain or loss, calculated from the change in the year-end share price relative to the prior year. This measure makes price movements comparable across issuers, including those with different nominal share prices. It also keeps the outcome closely tied to the market's annual repricing of the firm. The measure does not include cash dividends; therefore, the results concern the capital-gain component of shareholder return rather than the total shareholder return. This scope is deliberate and should guide the interpretation of the findings. Recent evidence also shows that accounting fundamentals and cash flow information can contribute to the prediction or explanation of stock return movements ([Agusta, Rakhman, Mustakini, & Wijayana, 2024](#); [Foerster, Tsagarelis, & Wang, 2017](#); [Jansen, 2021](#); [Maharani, & Situngkir, 2024](#); [Budianto, & Fahmi, 2023](#)).

Sales growth is a useful starting point because it captures whether revenue expands relative to the previous period. Revenue growth can reveal strong demand, successful execution, or a wider market opportunity. Investors may interpret sustained growth as evidence that management can protect or improve a firm's future earnings capacity. However, growth does not automatically mean that cash is available or that additional revenue produces value. A rapid increase in sales can coincide with margin pressure, long collection periods, or capital requirements that are not visible in a single revenue figure. The value of sales growth for stock-return analysis lies in testing whether the market response is sufficiently strong after other firm-level financial signals are held constant ([Fakhrudin, & Wulandari, 2022](#); [Tjahjono, Endarwati, & Rudianto, 2022](#)).

Free cash flow provides a different perspective. It focuses on cash remaining after the operating cash flow covers capital expenditure and then scales the amount by total assets to make firms of different sizes comparable. Positive free cash flow may indicate that core operations generate resources that can support investment, debt repayment, dividend capacity or other corporate uses. In terms of signaling, the measure can provide information that accrual sales alone cannot provide. However, in agency terms, a larger amount of free cash flow also creates a resource-allocation question management may deploy cash in projects that strengthen shareholder value or in projects that primarily serve managerial preferences. Therefore, the market response is empirical rather than automatic ([Jensen, & Meckling, 1976](#); [Rafiqi, & Zenabia, 2025](#); [Zurriah, 2021](#)).

The capital structure completes the selected set of signals. The debt-to-equity ratio indicates the extent to which a firm relies on creditors rather than shareholders for financing. A high ratio can increase fixed claims and financial risk, especially if earnings or operating cash flows weaken. It can also reflect a financing strategy that supports productive assets, scales, or investment opportunities. These competing interpretations explain why the leverage effects differ across sectors, economic periods, and samples. The present study tests the sign anticipated in the source thesis, namely a negative association between Debt-to-Equity Ratio (D/E) and stock returns, rather than presuming that leverage carries one universal market meaning ([Islamiyanti, & Sari, 2023](#); [Kholifah, & Retnani, 2021](#); [Lumantow, 2022](#)).

The theoretical foundation combines signalling and agency theories. Signalling theory explains how corporate disclosures reduce information asymmetry between insiders and external investors. Financial reports do not provide outsiders with direct access to management's private information on demand, investment capacity, or financing constraints. Investors interpret observable financial indicators as signals of performance and prospects ([Spence, 1973](#)). Agency theory adds the possibility that managers' choices concerning cash retention, debt, and expansion may not always align perfectly with shareholder wealth maximization. The two perspectives are complementary in this setting, namely a reported financial ratio may convey information to the market while also reflecting a resource allocation decision made by management ([Jensen and Meckling, 1976](#); [Riswandari, 2023](#)).

Prior Indonesian evidence does not provide a uniform conclusion. [Tjahjono et al. \(2022\)](#) reported that sales growth contributes to stock-return variation in LQ45 firms, whereas other studies show that the relevance of financial ratios depends on the sample and model specification. Research on free cash flow has also produced context-specific findings. [Rafiqi and Zenabia \(2025\)](#) document a positive association with stock returns, whereas [Budianto and Fahmi \(2023\)](#) find that free cash flow does not significantly affect returns in a banking subsector sample. The evidence on capital structure is similarly mixed. Some studies report a negative leverage effect, whereas [Lumantow \(2022\)](#) finds that capital structure does not significantly affect LQ45 stock return. The mixed record makes a joint test in a recent LQ45 period useful rather than being redundant. Evidence from Association of Southeast Asian Nations (ASEAN) markets further indicates that the market relevance of cash flow and leverage varies with the institutional and economic settings ([Abbas, & Nainggolan, 2023](#); [Mahirun, 2023](#); [Khalqi, & Handoyo, 2026](#); [Khalqi and Handoyo, 2026](#); [Yulianto, & Purnama, 2026](#)).

This study makes four contributions. First, it uses the 2021-2025 period, which captures post-pandemic adjustment, higher global interest rate conditions, and a renewed divergence between LQ45 and composite index returns. Second, it evaluates sales growth, cash available after capital expenditure, and debt-to-equity in one regression, rather than treating each signal in isolation. Third, the available source documents provide the firm list, ratio tables, and SPSS output needed to report sampling, operationalization, and documented estimates transparently, while not providing an auditable raw firm-year file for additional re-estimation. Fourth, the discussion distinguishes statistical associations from causal proof and identifies the practical implications of the results for investors and managers.

Therefore, the research question is whether sales growth, free cash flow, and capital structure are associated with stock returns for LQ45 firms listed on the Indonesia Stock Exchange (IDX during 2021-2025). This study tests the three variables individually and jointly. It expects positive coefficients for sales growth and free cash flow and a negative coefficient for the debt-to-equity ratio. The remainder of the article develops these expectations, explains the sampling and measurement choices, reports the regression evidence, and discusses the implications within the limits of the available data.

2. LITERATURE REVIEW

2.1 Signalling and Agency Perspectives

Signalling theory treats corporate reporting as a means through which managers communicate information that investors cannot directly observe. A rise in sales, a positive free cash flow position, or a manageable financing profile may each serve as signals of capacity, strategy, and financial flexibility. The strength of any signal depends on its credibility and interpretation. Sales growth, for example, can signal commercial momentum but may also require substantial amounts of working capital. A high debt-to-equity ratio can signal financial strain but may also arise from an investment strategy supported by stable cash flow. Therefore, the theory supports testing the market relevance of the measures rather than assigning a mechanical meaning to each ratio ([Spence, 1973](#); [Setiawati et al., 2023](#)).

Agency theory is particularly relevant to free cash flow and financing. Shareholders expect managers to allocate resources to projects that improve firm value, whereas managers may face incentives related to expansion, control, or risk avoidance. Free cash flow can reduce immediate reliance on external finance, but it can also intensify the question of how managers use discretionary cash flow. Debt can discipline cash use through scheduled obligations, however excessive debt can increase financial risk. The empirical model does not directly measure governance. It uses the agency perspective to explain why cash and capital structure may influence investor assessment, even when the observed coefficients differ across samples ([Jensen & Meckling, 1976](#); [Pakibong, 2021](#)).

2.2 Integrated Explanatory Model

The three variables form a connected explanatory system, rather than a list of isolated ratios. Sales growth can change investors' expectations of future operating cash flows, free cash flow

indicates whether some operating cash remains after investment, and the debt-to-equity ratio shapes the residual risk, contractual pressure, and financing flexibility attached to those expected cash flow ([Prayogo & Wisnoentoro, 2024](#)). Signalling theory explains why public changes in these measures can revise outside investors' beliefs, whereas agency theory explains why cash retention and financing can either reinforce or weaken the credibility of those signals. Therefore, estimating the variables together asks whether each one supplies an incremental association with annual stock returns after the other two financial narratives are held constant ([Spence, 1973](#); [Jensen & Meckling, 1976](#); [Bhandari, 1988](#)).

This integrated logic also sets a clear boundary for interpretation. A positive coefficient on sales growth or free cash flow does not mean that every expansion or cash balance creates value, and a negative coefficient on debt-to-equity does not make all borrowing value-destroying. The coefficient reflects the average conditional association in this heterogeneous sample and can coexist with unmeasured profitability, investment, valuation, market, and risk effects. The model intentionally focuses on three financial signals; broader asset-pricing evidence provides a reason to treat its explanatory power as partial rather than exhaustive ([Fama & French, 2015](#)).

2.3 Sales Growth and Stock Returns

Sales growth measures the percentage change in revenue from one year to the next year. It reflects the firm's ability to increase turnover, but it does not reveal whether the growth originates from volume, price, acquisitions, foreign exchange movements, or one-off transactions. In an equity market setting, investors may regard strong sales growth as a favorable signal because it can precede higher earnings and a stronger operating scale ([Sandi et al., 2026](#)). This relationship should be strongest when the market believes that the increase is sustainable and can be converted into future cash flows.

Existing Indonesian studies support this positive expectation. [Tjahjono et al. \(2022\)](#) identify sales growth as a relevant predictor of stock returns in an LQ45 setting, while [Fakhrudin and Wulandari \(2022\)](#), [Juwita and Ratih \(2021\)](#), and [Wahyudi \(2022\)](#) position sales growth among the accounting variables used to explain return variation in other Indonesian equity sample. The results need not be identical across samples because growth effects depend on profitability, financing needs, market valuation, and the broader economic environment of the firm. Nevertheless, the signalling argument predicts that after the other selected variables are held constant, higher growth is more likely to coincide with a higher annual price return ([Fanani & Zahidi, 2026](#)).

Consequently, the expected mechanism is conditional but directional when growth is interpreted as sustainable demand or operating execution, it updates expectations of future earnings and cash conversion and can increase demand for the share. The model controls only for free cash flow and debt-to-equity, so the hypothesis does not assume that revenue growth is sufficient. It predicts that, conditional on these two signals, the reported sales growth measure will be positively associated with the annual price change return.

H_1 : Sales growth is positively associated with the stock returns

2.4 Free Cash Flow and Stock Returns

Free cash flow represents the operating cash remaining after capital expenditure. The ratio used in this study divides the residual by the total assets. This scaling allows for comparisons among issuers with markedly different asset bases, which is important in an LQ45 sample that includes banks, telecommunications companies, energy companies, manufacturers, and consumer firms. A positive ratio indicates that operating cash exceeded the capital expenditure proxy in the period, whereas a negative ratio indicates that operating cash did not cover the investment requirement ([Poseng, Fanggida, & Tameno, 2026](#)).

From an investor perspective, free cash flow signals financial flexibility. Firms with internal cash may fund maintenance, repay debt, distribute cash, or pursue value-creating investments without immediate dependence on new borrowing or share issuance. [Rafiqi and Zenabia \(2025\)](#) reported a positive relationship between free cash flow and stock returns, supporting this interpretation.

However, the conclusions cannot be mechanically transferred to every setting. [Budianto and Fahmi \(2023\)](#) report a non-significant free cash flow effect in Indonesian banking, illustrating that sector characteristics and the selected cash flow measure matter. This study tests the relationship in a cross-sector LQ45 sample rather than assuming it is invariant ([Hayatul Putri et al., 2024](#); [Salsabila et al., 2025](#); [Nanjan & Ruslim, 2025](#)).

Agency theory introduces a second mechanism, such as discretionary cash can benefit shareholders when management selects productive investments or returns funds when there are limited profitable opportunities for reinvestment. The same cash can create agency costs if management retains or deploys it in projects that do not maximize shareholder value. In a listed blue-chip sample, disclosure and market monitoring may help investors distinguish between cash that supports value creation and that which does not ([Halilu, Suleiman, & Garba, 2026](#)). Therefore, the source thesis specifies a positive hypothesis while recognizing that the eventual sign is an empirical question ([Jensen & Meckling, 1976](#); [Zurriah, 2021](#)).

The positive prediction rests on the information content of cash that remains after investment, not on an unconditional preference for cash accumulation. Such cash can reduce immediate financing pressure, support maintenance and investment, or make distribution and debt reduction feasible. Simultaneously, the agency caveat makes the sign an empirical question, investors must judge whether management's prospective use of residual cash is productive. Therefore, the hypothesis tests whether the favorable flexibility signal dominates the discretionary cash concern in the observed LQ45 firm-years.

H_2 : Free cash flow is positively associated with stock returns

2.5 Capital Structure and Stock Returns

The capital structure in this study is proxied by the debt-to-equity ratio. The ratio relates total debt to shareholders' equity and, therefore, reflects both financing reliance and the potential burden of fixed creditor claims. An increase in this ratio can increase the sensitivity of shareholder outcomes to operating performance. Investors may be concerned when it reflects repayment pressure or a thin equity buffer, especially during periods of higher interest rates or uncertain demand ([Ngaliman, Astarina, & Catrayasa, 2025](#)). Consequently, the expected association with stock returns is negative.

However, the evidence remains mixed, [Kholifah and Retnani \(2021\)](#) reported a negative effect of capital structure on stock returns in an Indonesian banking setting, and [Islamiyanti and Sari \(2023\)](#) described the role of capital structure in an LQ45 analysis. In contrast, [Lumantow \(2022\)](#) finds that capital structure does not significantly affect stock returns in an earlier LQ45 sample. These studies suggest that investors do not necessarily treat the same debt-to-equity ratio as an identical signal across all firms. Debt may finance productive opportunities for one firm but signal financial vulnerability for another ([Masidonda et al., 2023](#); [Neldi, 2024](#); [Riani & Suriono, 2026](#)).

The agency perspective further elucidates this ambiguity. Debt may constrain managerial discretion by requiring periodic payments and external monitoring, but it can also increase the probability that managers prioritize creditor obligations over strategic flexibility. A simple debt-to-equity ratio cannot observe the maturity of debt, interest cost exposure, covenant restrictions, asset quality, or the expected returns of the investment financed by debt. Nevertheless, this study tests the source thesis expectation that the net market association is negative after sales growth and free cash flow are considered.

Thus, the negative expected association is a risk-based prediction, not a claim that debt is always harmful. When a higher debt-to-equity ratio signals larger fixed claims, refinancing exposure, or a thinner equity cushion, investors may require a higher expected return or mark down the contemporaneous price-change return. When debt finances profitable assets under stable cash flows, the same ratio can convey discipline. The hypothesis takes the source study's anticipated net sign while explicitly recognizing that its empirical strength can be weakened by mixed sectors and unobserved debt characteristics.

H_3 : The capital structure is negatively associated with stock returns

2.6 Joint Relationship

Sales growth, free cash flow, and capital structure represent different but related dimensions of a firm's financial story. Revenue growth refers to operating momentum, free cash flow refers to the cash remaining after capital expenditure, and debt-to-equity ratio refers to how the asset and operating base are financed (Fanani & Zahidi, 2026). A joint model is necessary because a firm may report rapid sales growth while consuming cash or generate substantial cash while carrying a high debt burden. The combined test evaluates whether the three signals improve the explanation of annual stock returns relative to an intercept-only model. The joint hypothesis follows because one signal can qualify the other. Growth that consumes cash may be interpreted differently from growth accompanied by positive free cash flow, and the same cash position can be valued differently when the debt pressure is high. Simultaneous regression does not prove the causal sequence among these signals, but it prevents the interpretation of each coefficient from ignoring the other two dimensions of the firm's financial story.

H_4 : Sales growth, free cash flow, and capital structure are jointly associated with the stock returns

3. RESEARCH METHODOLOGY

This study employed a quantitative explanatory design using secondary data. The population comprised 71 companies that appeared in the LQ45 index between 2021-2025. The study applied purposive sampling to select companies that remained in the index throughout the period and published complete annual financial statements containing the variables required for the calculations. This process excluded 46 firms that were not consistently included in LQ45 and two firms with incomplete reports or with variable data. The final firm sample consisted of 23 issuers observed over five years, giving 115 initial firm-year observations.

The selected firms were PT Alamtri Resources Indonesia Tbk (ADRO), PT Aneka Tambang Tbk (ANTM), PT Astra International Tbk (ASII), PT Bank Central Asia Tbk (BBCA), PT Bank Negara Indonesia (Persero) Tbk (BBNI), PT Bank Tabungan Negara (Persero) Tbk (BBTN), PT Bank Mandiri (Persero) Tbk (BMRI), PT Charoen Pokphand Indonesia Tbk (CPIN), PT XL Axiata Tbk (EXCL), PT Indofood CBP Sukses Makmur Tbk (ICBP), PT Vale Indonesia Tbk (INCO), PT Indofood Sukses Makmur Tbk (INDF), PT Indah Kiat Pulp & Paper Tbk (INKP), PT Indo Tambangraya Megah Tbk (ITMG), PT Kalbe Farma Tbk (KLBF), PT Merdeka Copper Gold Tbk (MDKA), PT Medco Energi Internasional Tbk (MEDC), PT Perusahaan Gas Negara Tbk (PGAS), PT Bukit Asam Tbk (PTBA), PT Telkom Indonesia (Persero) Tbk (TLKM), PT Sarana Menara Nusantara Tbk (TOWR), PT United Tractors Tbk (UNTR), and PT Unilever Indonesia Tbk (UNVR). This list shows that the sample combines financial and non-financial firms in the manufacturing sector. The breadth strengthens the coverage of the LQ45 index but also creates heterogeneity in asset structures, cash flow presentation, leverage practices, and sectoral risk. Therefore, the results describe the selected index constituents as a group and should not be treated as sector-specific estimates.

This study obtained annual financial statements and annual reports from IDX publication channels and company disclosures. It uses annual closing share price data for the stock return calculation. The data-processing sequence in the source thesis included spreadsheet calculations of ratios, followed by SPSS version 26 analysis. The appendices contain firm-year calculation tables for return, sales growth, free cash flow, and capital structure, along with output for descriptive statistics, normality, multicollinearity, autocorrelation, heteroscedasticity, regression, F-testing, and the coefficient of determination (Bursa, 2026).

Table 1. Variable operationalisation

Variables	Proxy and formula	Sign
Stock return (Y)	$(P_t - P_{t-1}) / P_{t-1}$	Y
Sales growth (X_i)	$(Sales_t - Sales_{t-1}) / Sales_{t-1}$	+

Variables	Proxy and formula	Sign
Free cash flow (X_2)	(Operating cash flow - capital expenditure) / total assets	+
Capital structure (X_3)	Total debt / total equity (DER)	-

Table 1 shows stock return was calculated as $(P_t - P_{t-1}) / P_{t-1}$, where P_t is the current-period share price, and P_{t-1} is the previous-period share price. Sales growth was calculated as $(Sales_t - Sales_{t-1}) / Sales_{t-1}$. Free cash flow was calculated as (operating cash flow–capital expenditure) / total assets. The capital expenditure proxy followed the change in net fixed assets described in the source thesis. Capital structure is measured as total debt divided by total equity.

These measures are accounting and market proxies and not direct measures of firm value. The return formula records a realized annual price change, while sales growth records a change in reported revenue. The free cash flow ratio brings cash generation and investment outlay into the same measure, but it depends on the capital expenditure proxy available in the source data. Debt-to-equity summarizes the balance sheet relation between creditor funding and shareholders' claims, but it does not reveal debt maturity, borrowing cost, or the contractual conditions attached to liabilities. The operational choices follow the source thesis and established financial statement analysis practice; their meaning must be assessed together with the issuer's industry and business model (Fitriani, Minanurohman, & Firmansah, 2022).

Table 2. Sample selection

Selection criterion	Firm count
Companies included in the LQ45 index during 2021-2025	71
Less: companies not consistently included in LQ45	(46)
Less: companies with incomplete annual reports or variable data	(2)
Final firms	23
Initial firm-year observations (23 firms x 5 years)	115

Table 2 shows the analysis began with descriptive statistics for 115 initial observations. The source thesis then reported a Kolmogorov-Smirnov normality value of 0.040, before treatment. It removed five extreme observations and repeated the test, producing a final analytical sample of 110 and a normality p value of 0.154. This article reports the sequence exactly as documented. Because the underlying thesis does not identify the five firm-year observations or describe the outlier-detection rule beyond their extremeness, the results should be read as estimates based on the final screened sample rather than as results for all 115 observations.

$$Return_{it} = \alpha + \beta_1 SalesGrowth_{it} + \beta_2 FCF_{it} + \beta_3 DER_{it} + \varepsilon_{it} \quad (1)$$

Formula 1 shows the regression model examines the effect of sales growth, free cash flow, and capital structure on stock returns. In this model, stock return ($Return_{it}$) is treated as the dependent variable, while sales growth ($SalesGrowth_{it}$), Free Cash Flow (FCF_{it}), and Debt-to-Equity Ratio (DER_{it}) are used as independent variables. The coefficient parameters (β_1 , β_2 , and β_3) represent the influence of each explanatory variable, while ε_{it} represents other factors affecting stock returns that are not included in the model. The model tests the three hypotheses using two-sided significance tests at the 5% level. The analysis does not estimate firm-fixed effects, year effects, or a panel error structure. Therefore, it identifies associations in pooled observations rather than within-firm causal effects over time. This limitation does not erase the regression evidence but determines the appropriate level of inference.

The source materials are sufficiently detailed to reproduce the reported calculation sequence, but they do not supply every robustness analysis that is customary in a journal submission. In particular, there are no reported coefficient comparisons before and after outlier treatment, no reported

robust standard error estimates, and no sector-split regressions. Accordingly, this study preserves the reported results rather than manufacturing additional tests. The contribution is a transparent journal conversion: the reported findings, exclusions, formulas, and diagnostic differences are presented clearly so that later work can extend them with richer panel and sectoral designs.

3.1 Pooled-Estimation Rationale and Reproducibility Boundary

The firm-year observations include both cross-sectional and time dimensions. A panel design with firm and year effects, clustered or heteroscedasticity-robust standard errors, and sensitivity checks around the outlier screen would ordinarily strengthen the inference. These estimates are not reported in the source record, and the raw firm-year file needed to recompute them is not available in the materials used for this study. Pooled Ordinary Least Squares (OLS) is therefore retained only as the documented baseline specification: it summarises the conditional association across the final combined observations, not an identified within-firm effect or a fully robust causal result.

Outlier treatment has the same evidentiary boundary. The record documents five observations described as extreme and reports the resulting normality statistic, but does not identify the observations, disclose a numerical rule, or provide a before-and-after coefficient comparison. This article consequently reports the screened $n=110$ results faithfully while avoiding the unsupported claim that the screen is reproducible or innocuous. Future work should retain the complete data, pre-specify a rule, compare retained and excluded observations, and report robust panel estimates as confirmatory rather than substituting invented robustness results.

4. RESULTS AND DISCUSSION

Table 3. Descriptive statistics before outlier treatment

Variables	N	Minimum	Maximum	Mean	SD
Sales growth	115	-0.3302	1.4974	0.148560	0.2719918
Free cash flow	115	-0.0943	0.4913	0.086036	0.0951162
Capital structure (DER)	115	0.1288	15.3080	2.288552	3.0304848
Stock return	115	-0.4400	1.3821	0.110287	0.3343310

Table 3 shows the 115 initial observations before the outlier treatment. Sales growth ranged from -0.3302 to 1.4974, with a mean of 0.148560 and standard deviation of 0.2719918. The dispersion is larger than the mean, indicating a substantial variation in revenue growth across firm-years. The free cash flow ranged from -0.0943 to 0.4913, with a mean of 0.086036 and a standard deviation of 0.0951162. The presence of negative values indicates that operating cash does not always exceed the capital expenditure proxy.

The capital structure displayed the widest variation. The debt-to-equity ratio ranged from 0.1288 to 15.3080, with a mean of 2.288552 and standard deviation of 3.0304848. Such spread is expected in a heterogeneous index that includes banks and non-financial firms, but it also shows why a pooled coefficient requires careful interpretation. Stock returns ranged from -0.4400 to 1.3821, with a mean of 0.110287. The dispersion of 0.3343310 indicates that annual price changes vary materially across the selected firms and years.

4.1 Diagnostic Interpretation and Robustness Implication

The two diagnostics should not be collapsed into a declaration that the variance condition is either fully satisfied or fully violated. The Glejser result flags sales growth under its test rule, whereas the reported Park values do not flag the predictors, because the available materials do not include a recomputed heteroscedasticity-robust regression, the safest interpretation is that the conventional pooled OLS standard errors are provisional. The reported coefficient signs and p-values are preserved as the documented estimates, but their inferential strength should be revisited with robust standard errors before being considered definitive.

This qualification does not erase descriptive or economic information from the model. It specifies what the results can support an evidence-based account of the direction and size of the

reported pooled associations, along with a transparent request for robustness confirmation. It does not support the claim that alternative error treatments, panel controls, or a different outlier rule would necessarily produce the same statistical significance.

Table 4. Classical-diagnostic results for the final regression sample

Diagnostic	Reported Result	Reading
Normality	Kolmogorov-Smirnov $p=0.154$ ($n=110$)	Residuals met the thesis threshold after outlier treatment
Multicollinearity	Tolerance=0.941-0.982, VIF=1.019-1.063	No multicollinearity indication
Residual sequence	Runs test $p=0.180$, Durbin-Watson=2.287	Runs test indicates random residuals
Heteroscedasticity	Glejser: sales growth $p=0.013$, Park: all $p>0.05$	Evidence differs by test

Table 4 shows the final regression used 110 observations after removing five outliers. The post-treatment Kolmogorov-Smirnov test produced $p=0.154$, exceeding the 5% threshold. The tolerance values ranged from 0.941 to 0.982 and the VIF values from 1.019 to 1.063, providing no indication of multicollinearity among the independent variables. The Runs test produced $p=0.180$, which the source thesis interpreted as random residuals. The model summary also reported Durbin-Watson=2.287.

The heteroscedasticity diagnostics were not completely uniform in this study. The Glejser regression reported $p=0.013$ for sales growth, indicating heteroscedasticity under the test rule stated in the thesis. The subsequent Park regression reported p -values of 0.083, 0.528, and 0.738 for sales growth, free cash flow, and capital structure, respectively, and the thesis treated those results as evidence against heteroscedasticity. Table 4 preserves both results rather than presenting the diagnostic evidence as ambiguous. Therefore, the main regression results should be interpreted as the reported pooled OLS estimates, with the diagnostic difference considered in the study limitations.

Table 5. Pooled multiple-regression results

Predictor	B	SE	Beta	t	p	Decision
Constant	-0.015	0.051		-0.291	0.772	
Sales growth	0.385	0.111	0.314	3.465	0.001	H_1 supported
Free cash flow	0.827	0.318	0.233	2.601	0.011	H_2 supported
Capital structure (DER)	-0.001	0.016	-0.003	-0.034	0.973	H_3 not supported

Note: $n=110$, $F(3,106)=7.924$, $p<0.001$, $R^2=0.183$; adjusted $R^2=0.160$

Table 5 shows the pooled multiple regression coefficients. The model was statistically significant as a whole, $F(3,106)=7.924$, $p<0.001$. The R^2 was 0.183, and the adjusted R^2 was 0.160. Therefore, the selected variables explained 18.3% of the variation in annual stock returns, while most of the variation remained attributable to factors outside the model. This is unsurprising in an equity market context, where returns also reflect profitability, valuation, dividends, macroeconomic conditions, investor expectations, commodity prices, exchange rates, and firm-specific events.

Sales growth had a positive coefficient of 0.385 and was statistically significant ($p=0.001$). Free cash flow also had a positive and significant coefficient (0.827, $p=0.011$). The debt-to-equity coefficient was -0.001 in the hypothesized negative direction, but $p=0.973$ indicates that the association was not statistically distinguishable from zero in the final pooled sample. Therefore, the data support H_1 and H_2 , do not support H_3 , and support the joint significance hypothesis H_4 .

The findings indicate that the market response in the selected LQ45 firms is more closely associated with operating momentum and available cash than with the simple debt-to-equity ratio. This conclusion follows from the difference between the significant coefficients for sales growth and free cash flow and the non-significant coefficient for the capital structure. This does not mean that

debt is irrelevant to every investment decision. Rather, it means that after the other two variables were included in this particular pooled model, the variation in the debt-to-equity ratio did not explain additional variation in annual price-change returns at the conventional 5% level.

Sales growth had the strongest standardized coefficient among the three predictors ($\beta=0.314$). The positive coefficient supports the argument that investors treat revenue expansion as a meaningful signal of business performance. In a broad LQ45 sample, growth may be informative because it brings together different forms of commercial progress, such as higher sales volume, price realization, market expansion, new capacity, or recovery from a low base. Investors need not observe each operational driver separately to respond to revenue numbers disclosed in annual reports. A credible increase in sales can revise expectations about the firm's future cash flows and, through those expectations, affect the share price.

The results are consistent with the signalling mechanism proposed in this study. Management observes demand conditions, production plans, pricing decisions, and customer relationships before external investors. Sales information narrows the information gap. When sales grow, investors may infer a stronger product-market position or greater capacity to generate future earnings. This inference can support the demand for shares and raise the annual price return. [Tjahjono, Enderwati, and Rudianto \(2022\)](#) likewise find that sales growth is relevant to LQ45 stock returns, and [Fakhrudin and Wulandari \(2022\)](#) identify sales growth as a relevant accounting market variable in an industrial firm setting.

The coefficient should not be interpreted as proof that every additional unit of sales will increase the return by a fixed amount. The regression uses a growth ratio, and the economic implications of a given ratio differ across firms. A high percentage growth rate can arise from a small base, acquisition, temporary commodity price movement, or one-time contract. This may coincide with additional inventory, receivables, or capital needs. Nevertheless, the positive association shows that, on average, in the final sample, higher sales growth was accompanied by higher price-change returns after the cash flow and capital structure measures were held constant.

The positive free cash flow coefficient offers complementary results. Revenue can grow without producing cash, particularly when customers receive credit or when working capital needs rise. Free cash flow addresses this gap by focusing on the operating cash that remains after capital expenditure. In the present model, a higher ratio is associated with a higher stock return. Evidence suggests that investors may value a firm's capacity to support operations and investment internally rather than immediately relying on external financing. This interpretation aligns with the evidence that cash flow measures and cash flow growth contain information relevant to stock returns ([Foerster, Tsagarelis, & Wang, 2017](#); [Jansen, 2021](#); [Rafiqi, & Zenabia, 2025](#)).

This effect also has a practical financing interpretation. Cash remaining after capital expenditure can expand management's set of feasible actions. A firm may maintain assets, pursue investments, reduce debt, distribute dividends, repurchase shares, or retain liquidity in the face of uncertainty. Each use can have different consequences for shareholder value, but the existence of internally generated cash reduces immediate financial constraints. In a period marked by uneven market returns, investors may treat this flexibility as a more informative sign of resilience than revenue growth. Therefore, the significant free cash flow coefficient strengthens the central distinction between activity-based and cash-based performance.

Agency theory tempers the favorable interpretation of free cash flow. Discretionary cash does not create value simply because it exists. Managers can direct it to projects with low expected returns, maintain inefficient assets, or delay distributions when better shareholder uses are unavailable. The positive coefficient in this sample suggests that the market, on average, associates higher free cash flow with better return outcomes. It does not show which cash-allocation decisions produced that

response, nor does it show that a management decision to retain cash caused the return to increase. Future studies could examine dividend policy, investment efficiency, governance quality, or ownership structure as mechanisms that condition the use of free cash flow.

The non-significant debt-to-equity result is also informative. The coefficient is negative, which is consistent with the direction anticipated by the source thesis, but its magnitude is close to zero, and its p-value is 0.973. The LQ45 index contains firms with very different balance sheet models. For manufacturing or mining companies, debt may finance physical assets and working capital. For banks, liabilities constitute a central part of the operating model rather than a comparable source of corporate leverage. Pooling these business models can weaken the single debt-to-equity signal. The observed descriptive range, from 0.1288 to 15.3080, confirms that the capital structure varied sharply across the selected issuers.

The results also indicate that investors may require more information than the debt-to-equity ratio alone to evaluate financing risk. Debt maturity, interest rate exposure, currency denomination, cash flow coverage, collateral, covenants, profitability, and growth opportunities can all change the meaning of an identical ratio. A firm with high debt may still generate stable cash and hold valuable assets, while a firm with low debt may still face weak demand or limited investment opportunities. [Lumantow \(2022\)](#) likewise finds an insignificant capital structure effect in an earlier LQ45 study, whereas [Kholifah and Retnani \(2021\)](#) report a negative effect in a banking setting. The present finding reinforces the view that leverage signals are context-dependent, consistent with ASEAN evidence showing that the market response to leverage depends on economic circumstances and the selected debt measure ([Abbas & Nainggolan, 2023](#)).

The joint F test shows that the three variables possess explanatory value when considered together. The model's adjusted R^2 of 0.160 is modest but meaningful for annual stock returns, which are influenced by many forces not captured in a three-variable accounting model. Rather than treating the 84.0% unexplained component as a defect, it should be interpreted in the context of the limited scope of the model. Equity prices incorporate expectations of future earnings, dividend policy, valuation multiples, interest rates, inflation, exchange rates, commodity prices, regulatory changes, industry competition, and firm-specific news. Sales growth, free cash flow, and capital structure represent only a narrow set of accounting-based signal.

The coefficient magnitudes should also be read in the context of their measurements. Sales growth, free cash flow, and debt-to-equity are differently scaled ratios, therefore, the unstandardized B values are not a direct ranking of economic importance. The standardized sales-growth coefficient is useful within the reported model, but neither it nor the adjusted R-squared of 0.160 makes the three variables a complete pricing model. The practical contribution is a disciplined screening framework: examine revenue momentum together with post-investment cash and the business meaning of debt, then supplement that assessment with valuation, profitability, governance, sector, and market information.

This study has implications for investors. A screen based solely on high sales growth may overlook whether operating cash remains after capital expenditure. A screen based solely on low leverage may overlook firms that possess strong cash-generation capacity and credible growth. The results support a combined reading investors can examine whether growth is accompanied by positive cash generation and then assess leverage alongside the firm's business model and financial obligations. This approach does not substitute for valuation analysis or portfolio diversification but can improve the interpretation of annual report information.

This study also has implications for managers. Managers cannot directly control stock returns, but they can influence the quality and transparency of the information that investors use. Clear disclosure of the drivers of sales growth, sustainability of operating cash flow, capital expenditure needs, and debt-management strategy can reduce uncertainty around reported ratios. If sales expansion consumes substantial cash or relies on higher debt, management should explain the

rationale and expected payoffs. Conversely, when free cash flow supports investment or debt reduction, management can clarify how this allocation protects or creates shareholder value. Such communication is consistent with the focus of signalling theory on credible information transmission.

The relative sizes of the two significant unstandardized coefficients should not be interpreted as a simple ranking of economic importance. Sales growth and free cash flow are both ratios, but their observed distributions are different, and their measurement constructions are not interchangeable. The standardized coefficient for sales growth ($\beta=0.314$) exceeds that for free cash flow ($\beta=0.233$), suggesting that sales growth variation made a stronger relative contribution within this specification. This comparison remains descriptive: the sample is modest, the independent variables capture only selected parts of performance, and the model does not include profitability or valuation controls. The more defensible conclusion is that the two signals contain distinct information in the reported regressions.

The LQ45 membership should be interpreted carefully. The index is useful because it concentrates on prominent and actively traded Indonesian shares, thereby reducing the practical concern that every observed price is dominated by infrequent trading activity. Simultaneously, continuous membership during 2021-2025 selects firms that meet the index criteria throughout the period. Therefore, the results may be more representative of established, liquid issuers than newly listed, smaller, or intermittently indexed companies. The sampling choice improves consistency over five years but limits how far the findings can be generalized beyond the selected LQ45 constituents.

The period dimension is also important. Annual return outcomes from 2021 to 2025 were shaped by recovery from the pandemic, commodity and interest rate changes, currency movements, and changing expectations about domestic growth. A pooled regression treats each firm-year as an observation but does not separately estimate these year-level influences. Significant associations may consequently reflect both firm-level information and conditions that affect the market's response to that information. Including year indicators, market returns, sector controls, or macroeconomic variables in a future model would help distinguish whether the sales growth and cash flow relationships are stable across changing market environments. This extension is also consistent with recent Indonesian research showing that current fundamental information can improve stock return movement prediction ([Agusta, Rakhman, Mustakini, & Wijayana, 2024](#)).

Finally, the results should be used as evidence-based screening inputs, not as mechanical trading rules. The adjusted R^2 of 0.160 means that a large portion of stock return variation is not represented by the three selected variables. An investor who observes strong sales growth and positive free cash flow should still consider the valuation, governance, earnings quality, liquidity, exposure to regulation and commodities, and diversification of the overall portfolio. Likewise, a manager should avoid treating a statistically significant association as a guarantee that any isolated change in a financial ratio will affect the share price. Financial reports inform the markets, but the markets evaluate a much broader set of information.

Several limitations shape the evidence. First, the source thesis removed five outliers to achieve the reported normality result, but did not disclose the firm-year identities or the quantitative rule used for removal. Therefore, this study reports the final $n=110$ regression faithfully but cannot independently evaluate the sensitivity of the coefficients to the five observations. Second, the final data combine financial and non-financial issuers' data. The free cash flow and debt-to-equity measures may not have equivalent economic meanings across these sectors. Third, the model pools firm-year observations rather than estimating a panel model with firm and year effects. Consequently, the coefficients should be interpreted as associations in the pooled sample, not as causal within-firm effects.

Fourth, the return measure captures only price changes and excludes dividend yields. This choice is consistent with the source thesis formula but narrows the concept of shareholder returns. Fifth, the diagnostics show a difference between the Glejser and Park tests. The Park result supports

the source thesis conclusion of no heteroscedasticity, whereas the Glejser result flags the sales growth. Subsequent research should retain the full sample where possible, disclose outlier rules, use heteroscedasticity-robust standard errors, separate financial and non-financial firms, and test the findings using panel methods and total shareholder returns. These extensions would identify whether the reported associations persist after a more demanding treatment of firm and time heterogeneity.

5. CONCLUSIONS

5.1 Conclusion

This study examines sales growth, free cash flow, and capital structure as determinants of price-change stock returns among 23 firms that remained in the LQ45 index during 2021-2025. The final pooled regression comprised 110 firm-year observations after the exclusion of five outliers. Sales growth and free cash flow had positive and statistically significant associations with stock returns, whereas capital structure, measured by the debt-to-equity ratio, had a negative but statistically insignificant association. Collectively, the three variables significantly explained stock return variation, with an R^2 of 18.3% and an adjusted R^2 of 16.0%.

The findings indicate that investors in the selected LQ45 sample responded more consistently to commercial momentum and internally generated cash remaining after capital expenditure than to the D/E ratio alone. However, the insignificant capital structure coefficient should not be interpreted as evidence that leverage is harmless or irrelevant. Rather, debt-to-equity did not provide additional explanatory power in this heterogeneous pooled sample after considering sales growth and free cash flow. Therefore, investors should evaluate growth, cash-generation capacity, and the economic context of leverage, while managers should communicate clearly how sales expansion, investment, cash generation, and financing decisions are expected to create shareholder value.

Therefore, the final research message is deliberately bounded, the source evidence supports a joint signal interpretation in which revenue momentum and post-investment cash were the significant reported correlates of annual price-change returns, while a simple debt-to-equity ratio added no statistically significant pooled association. The theoretical contribution is to show why these signals should be interpreted together under the signalling and agency perspectives. The practical contribution of this study is to discourage investors and managers from relying on any one ratio in isolation.

5.2 Research Limitations

Several limitations define the scope of this study. First, stock returns were measured only through annual price changes and, therefore, excluded the dividend yield. Second, the pooled OLS did not control for unobserved firm-specific or year-specific effects. Third, the sample combined financial and non-financial issuers, even though free cash flow and debt-to-equity may have different economic meanings across sectors. Fourth, five outliers were removed from the source thesis without disclosure of their firm-year identities or a fully reproducible quantitative exclusion rule. Finally, the Glejser and Park tests produced mixed results regarding heteroscedasticity. Consequently, the estimates should be interpreted as non-causal pooled associations that may not generalize beyond the selected LQ45 firms and the 2021-2025 observation period.

5.3 Suggestions and Directions for Future Research

Future research should retain and report the complete firm-year dataset, disclose a reproducible outlier identification rule, and compare results before and after any exclusions. Researchers should also apply heteroscedasticity-robust panel estimators with firm and year effects, analyze financial and non-financial issuers separately, and measure total shareholder returns by incorporating dividend yields. Extending the model with profitability, firm size, market return, valuation ratios, interest rates, sector controls, and macroeconomic variables could improve its explanatory power. Further studies should examine dividend policy, governance quality, investment efficiency, and ownership structure as mediating or moderating mechanisms in the relationship between free cash flow and stock returns.

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AUTHOR CONTRIBUTIONS

YO contributed to the conceptualization, data collection, literature review, data analysis, and initial manuscript preparation. FM contributed to the research methodology, validation, supervision, and critical revision of the manuscript. ER contributed to data interpretation, manuscript review, and refinement of the final version. All authors have read and approved the final manuscript.

REFERENCES

- Abbas, Y., & Nainggolan, Y. A. (2023). Profit, cash flow, and leverage: The case of ASEAN stock market performance during the COVID-19 pandemic. *Journal of Accounting in Emerging Economies*, 13(5), 898-921. <https://doi.org/10.1108/JAEE-09-2021-0294>
- Agusta, S., Rakhman, F., Mustakini, J. H., & Wijayana, S. (2024). Enhancing the accuracy of stock return movement prediction in Indonesia through recent fundamental value incorporation in multilayer perceptron. *Asian Journal of Accounting Research*, 9(4), 358-377. <https://doi.org/10.1108/AJAR-01-2024-0006>
- Bhandari, L. C. (1988). Debt/equity ratio and expected common stock returns: Empirical evidence. *The Journal of Finance*, 43(2), 507-528. <https://doi.org/10.1111/j.1540-6261.1988.tb03952.x>
- Budianto, & Fahmi, M. (2023). Pengaruh arus kas bebas, laba akuntansi, dan kebijakan dividen terhadap return saham pada perusahaan subsektor perbankan yang terdaftar di Bursa Efek Indonesia. *Akuntoteknologi: Jurnal Ilmiah Akuntansi dan Teknologi*, 15(2), 75-85. <https://doi.org/10.31253/aktek.v15i2.2307>
- Bursa Efek Indonesia,. (2026). Fact sheet perusahaan LQ45. Retrieved from <https://www.idx.co.id/id/data-pasar/laporan-statistik/fact-sheet-perusahaan-lq45>
- Fakhrudin, A. N., & Wulandari, R. (2022). Pengaruh laba akuntansi, pertumbuhan penjualan, dan kapitalisasi pasar terhadap return saham pada IDX perindustrian tahun 2016-2020. *Jurnal Riset Akuntansi*, 17(2), 77-90.
- Fama, E. F., & French, K. R. (2015). A five-factor asset pricing model. *Journal of Financial Economics*, 116(1), 1-22. <https://doi.org/10.1016/j.jfineco.2014.10.010>
- Fanani, M. S. G., & Zahidi, M. S. (2026). Implementing authorized economic operator programmers in emerging market customs administrations. *Studi Akuntansi Dan Bisnis Indonesia*, 1(4), 273-284. <https://doi.org/10.61401/sabi.v1i4.533>
- Fitriani, N., Minanurohman, A., & Firmansah, G. L. (2022). Financial ratio analysis in stock price: Evidence from Indonesia. *Jurnal ASET (Akuntansi Riset)*, 14(2), 285-296. <https://doi.org/10.17509/jaset.v14i2.49132>
- Fitriyani, L. R., & Widyawati, D. (2023). Pengaruh laba akuntansi dan arus kas terhadap return saham. *Jurnal Ilmu dan Riset Akuntansi*, 12(1).
- Foerster, S., Tsagarelis, J., & Wang, G. (2017). Are cash flows better stock return predictors than profits?. *Financial Analysts Journal*, 73(1), 73-99. <https://doi.org/10.2469/faj.v73.n1.2>
- Halilu, H., Suleiman, U., & Garba, Y. B. (2026). Accreditation and quality assurance in Nigerian tertiary institutions: Challenges, processes, and implications for educational development. *Global Academy of Multidisciplinary Studies*, 2(3), 191-200. <https://doi.org/10.35912/gams.v2i3.4019>
- Hayatul Putri, C. M., Ristati, R., Bahri, H., Maulina, I., & Syamni, G. (2024). The impact of cash flow on stock returns: A case study of textile and garment companies listed on the Indonesian Stock Exchange. *J-ISCAN: Journal of Islamic Accounting Research*, 6(2), 86-103. <https://doi.org/10.52490/j-iscan.v6i2.1679>

- Islamiyanti, E., & Sari, H. M. K. (2023). Pengaruh struktur modal, risiko sistematis dan likuiditas terhadap return saham pada perusahaan di LQ45 tahun 2018-2020. *Academicia Globe: Inderscience Research*, 2(3), 1-17. <https://doi.org/10.47134/academicia.v2i3.4>
- Jansen, B. A. (2021). Cash flow growth and stock returns. *Journal of Financial Research*, 44(2), 371-402. <https://doi.org/10.1111/jfir.12244>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Juwita, R., & Ratih, S. (2021). Pengaruh rasio profitabilitas, rasio leverage, rasio likuiditas, dan pertumbuhan penjualan terhadap return saham pada perusahaan food dan beverage di Bursa Efek Indonesia tahun 2017-2019. *Jurnal Indonesia Sosial Sains*, 2(10), 1750-1765. <https://doi.org/10.59141/jiss.v2i10.444>
- Khalqi, M., & Handoyo, S. E. (2026). Determining stock returns for the LQ45 index on the Indonesia Stock Exchange. *Journal Research of Social Science, Economics, and Management*, 5(12), 13046-13060. <https://doi.org/10.59141/jrssem.v5i12.1601>
- Kholifah, D. N., & Retnani, E. D. (2021). Pengaruh tingkat suku bunga, kebijakan dividen, dan struktur modal terhadap return saham. *Jurnal Ilmu dan Riset Akuntansi*, 10(7), 1-15.
- Lumantow, M. M. (2022). Pengaruh struktur modal, struktur kepemilikan, dan profitabilitas terhadap return saham pada perusahaan manufaktur yang terdaftar di BEI: Studi pada perusahaan LQ45 tahun 2016-2018. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 10(2), 346-357. <https://doi.org/10.35794/emba.v10i2.40303>
- Maharani, S. P., & Situngkir, T. L. (2024). Pengaruh free cash flow dan trading volume activity terhadap return saham pada perusahaan farmasi Bursa Efek Indonesia periode 2018-2022. *Jurnal Kajian Ekonomi & Bisnis Islam*, 5(2), 582-597.
- Mahirun, M. (2023). Determinants of LQ45 stock return in Indonesia. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration*, 31(2), 1693. <https://doi.org/10.46585/sp31021693>
- Masidonda, J. L., Hariyati, T. R., & Hariyanti, D. (2023). Revealing the capital structure factor is dominated by debt to LQ45 companies on the Indonesia Stock Exchange. *Jurnal Aplikasi Manajemen*, 21(4), 1123-1133. <https://doi.org/10.21776/ub.jam.2023.021.04.19>
- Nanjan, H. P. A., & Ruslim, H. (2025). The effect of dividend policy, debt policy on stock returns with free cash flow as a moderating variable in manufacturing companies listed on the Indonesia Stock Exchange for the 2019–2023 period. *Dinasti International Journal of Economics, Finance & Accounting*, 6(3), 2274-2286. <https://doi.org/10.38035/dijefa.v6i3.4710>
- Neldi, M. (2024). Pengaruh current ratio, debt to equity ratio dan return on asset terhadap stock return saham LQ45 di Bursa Efek Indonesia. *JPPI: Jurnal Penelitian Pendidikan Indonesia*, 10(3), 588-596. <https://doi.org/10.29210/020243946>
- Ngaliman, N., Astarina, N., & Catrayasa, I. W. (2025). The influence of motivation, organizational commitment and workload on job satisfaction of regional officials with competency as an intervening variable in the Regional Financial and Asset Agency of Riau Islands Province. *Studies in Economy and Public Policy*, 1(2), 105–118.
- Pakibong, J. (2021). Faktor fundamental dan return saham, dengan moderasi systematic risk. *Equator Journal of Management and Entrepreneurship*, 9(4), 270-309. <https://doi.org/10.26418/ejme.v9i4.53207>
- Poseng, Y. D., Fanggidae, R. E., & Tameno, N. (2026). Financial literacy, income, lifestyle, and consumptive behaviour among student workers. *Studi Akuntansi Dan Bisnis Indonesia*, 2(2), 81-91. <https://doi.org/10.61401/sabi.v2i2.491>
- Prayogo, S. M. S., & Wisnoentoro, R. (2024). The nexus of ESG score and stock return: Evidence from the LQ45 index. *Indonesian Journal of Sustainability Accounting and Management*, 8(2), 539-549. <https://doi.org/10.28992/ijssam.v8i2.1086>

- Rafiqi, M. H., & Zenabia, T. (2025). Pengaruh free cash flow, kebijakan dividen, dan ESG terhadap return saham. *Jurnal Riset Terapan Akuntansi*, 9(2), 297-309. <https://doi.org/10.5281/zenodo.17270896>
- Riani, R. A., & Suriono, H. (2026). Profitability, dividend policy, and capital structure as determinants of stock price in IDX30 firms (2022–2024). *Priviet Social Sciences Journal*, 6(5), 425-442. <https://doi.org/10.55942/pssj.v6i5.1923>
- Riswandari, E. (2023). Pengaruh asimetri informasi, pengungkapan modal intelektual, dan kepemilikan institusional terhadap biaya modal ekuitas. *Ratio: Reviu Akuntansi Kontemporer Indonesia*, 4(1). <https://doi.org/10.30595/ratio.v4i1.15879>
- Salsabila, A., Sumiati, A., & Respati, D. K. (2025). The effect of free cash flow to equity, price/earnings ratio and profitability on stock prices of the financial sector listed on the IDX period 2022–2025. *Research Trend in Technology and Management*, 3(4), 185-198. <https://doi.org/10.56442/rttm.v3i4.106>
- Sandi, L., Wardhani, R. S., & Sumiyati, S. (2026). Production cost structure, sales growth, inflation, and profitability in food and beverage companies. *Riset Akuntansi Dan Bisnis Indonesia*, 2(2), 103-116. <https://doi.org/10.61401/rabi.v2i2.479>
- Setiawati, L. P. E., Marianti, N. P. A. M., & Dewi, K. I. K. (2023). Pengaruh kinerja keuangan dan ukuran terhadap nilai perusahaan. *Riset dan E-Jurnal Manajemen Informatika Komputer*, 7(1), 222-228. <https://doi.org/10.33395/remik.v7i1.12024>
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355-374. <https://doi.org/10.2307/1882010>
- Tjahjono, A., Endarwati, S., & Rudianto, I. (2022). Pengaruh return on assets, debt to total assets, current ratio, firm size, dan sales growth terhadap return saham pada perusahaan LQ45 yang terdaftar di Bursa Efek Indonesia tahun 2015-2019. *Jurnal Riset Akuntansi dan Bisnis Indonesia*, 2(4), 1323-1343. <https://doi.org/10.32477/jrabi.v2i4.625>
- Wahyudi, A. (2022). Pengaruh profitabilitas, leverage, ukuran perusahaan, pertumbuhan penjualan, dan laba akuntansi terhadap return saham pada BUMN yang terdaftar di BEI tahun 2018-2020. *Jurnal Ilmiah Akuntansi Kesatuan*, 10(1), 53-62. <https://doi.org/10.37641/jiakes.v10i1.1193>
- Yulianto, D., & Purnama, S. I. (2026). Fundamental financial ratios and stock prices: Panel evidence from the Indonesia Stock Exchange. *Jurnal Akuntansi: Kajian Ilmiah Akuntansi*, 13(1), 33-54. <https://doi.org/10.30656/jak.v13i1.11360>
- Zurriah, R. (2021). Pengaruh free cash flow terhadap nilai perusahaan. *Jurnal Riset Akuntansi dan Bisnis*, 21(1), 101-106. <https://doi.org/10.30596/jrab.v21i1.6530>