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Article

Shaping Market Perceptions: An Investigation into Macedonian Bank Stock Prices and their Drivers

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SHAPING MARKET PERCEPTIONS: AN INVESTIGATION INTO MACEDONIAN BANK STOCK PRICES AND THEIR DRIVERS

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Abstract

This research paper examines the effects of return on assets (ROA), earnings per share (EPS), and audit opinion as a control variable, on the stock prices of banks in North Macedonia. The primary aim of this research endeavor is to scrutinize the influence exerted by these financial metrics on the stock prices pertaining to banking institutions within the region of North Macedonia, while also endeavoring to ascertain the extent of said influence. To analyze this relationship, a linear multiple regression model is employed. Data were collected from the audited financial statements and annual reports of all 12 banks in North Macedonia over a ten-year period from 2012 to 2021. The research findings illustrate a notable statistical influence of audit opinions and earnings per share (EPS) on the stock valuations of banks within the North Macedonian context. To elucidate, the positive coefficient associated with the audit opinion variable signifies its discernible sway on stock prices. Likewise, the positive coefficient linked with the EPS variable highlights that augmented earnings per share correlate with an upswing in stock prices. However, it is important to note that when audit opinion is excluded from the model, the results change, and ROA shows a statistically significant impact on stock prices. This suggests that the inclusion of audit opinion as a control variable affects the relationship between ROA and stock prices. These findings imply that investors in the banking sector in North Macedonia consider audit opinion and EPS as crucial indicators of a bank's financial health, influencing their investment decisions. Maintaining a positive audit opinion and increasing EPS are important factors for boosting stock prices, which is valuable information for bank managers and investors. The recent changes in the audit report format, including the reporting of Key Audit Matters (KAM), have not yet been implemented in the domestic audit practice. As a result, auditors do not report on KAM, which may have influenced the research results differently. Also, the small sample size can be perceived as a limitation

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of the research. With only 12 banks in the Macedonian banking sector, the generalizability of the findings may be restricted. Future research could consider expanding the sample to enhance the representativeness of the study.

Keywords: Banks, Stock price, Audit opinion, ROA, EPS.

JEL Classification: G1, M42.

Introduction

The advancement of financial infrastructure significantly contributes to the economic expansion of numerous nations (Cheng and Degryse, 2009). The banking sector is a vital component of any economy. It serves as the foundation of the financial system by providing a secure location for individuals and businesses to store their funds and acquire credit. Banks play a significant role in promoting economic growth by lending money to businesses and individuals for investment and purchases. They also offer a variety of financial services, such as savings and checking accounts, as well as loans that help consumers manage their finances more effectively. Banks function as intermediaries between savers and borrowers, which encourages investment, job creation, and economic stability. These institutions significantly affect society by providing this purpose (Beck et al., 2010). Governments closely monitor and regulate banks to ensure their safe and sound operation, which is essential for maintaining public trust and confidence in the financial system.

In North Macedonia, the banking sector has experienced significant growth, and fluctuations in stock prices have become a concern for investors and policymakers. Several domestic and international banks compete for market share, making it a highly competitive industry. The ownership landscape has changed recently, favoring foreign stockholders on an increasing basis (Curak et al., 2012). The stock market and banking sector development are used to gauge financial progress (Zafar et al., 2019). The valuation of banking institutions through their stock prices serves as a pivotal metric for assessing their operational efficacy. It is imperative for both investors and policy-makers to possess a comprehensive grasp of the determinants influencing the fluctuations in stock prices within this sector.

Audits independently evaluate a bank's financial statements, internal controls, and compliance with legal and regulatory requirements. This information is crucial for investors, regulators, and other stakeholders to evaluate a bank's financial health and performance, make wise investment decisions, and prevent fraudulent activities. As a result, it's essential to understand the impact of the audit opinion, as well as other financial indicators such as earnings per share (EPS) and return on assets (ROA), on banks' stock prices. Testing the effect of earnings per share (EPS) and return on assets (ROA) on stock price is important because both EPS and ROA are commonly used as measures of a company's financial performance, and stock price is a crucial indicator of the market's perception of the company's prospects. By examining the relationship between these variables, researchers can gain valuable insights into the factors that drive stock prices and how investors respond to changes in a company's financial performance. This research can provide insight into the banking industry's dynamics and inform policy decisions aimed at promoting financial stability and growth. According to the Macedonian legislation, the audit of banks is mandatory, because they represent entities of public interest, crucial for financial stability in the national economy.

The primary objective of this investigation is to furnish empirical substantiation regarding the interplay among audit evaluation (as a controlled factor), earnings per share (EPS), return on assets (ROA), and the valuation of bank stocks within the context of North Macedonia. Audit opinion is a critical factor in determining the reliability of financial statements and is highly relevant to stock price movements. EPS measures the profitability of a bank, while ROA indicates how efficiently a bank utilizes its assets to generate profit. Both EPS and ROA are key drivers of stock price movements and are closely monitored by investors and analysts. EPS is a metric for measuring a company's profitability that determines how much profit it makes for each share of outstanding stock it has on the market. A company's capacity to expand its EPS over time is frequently viewed as a sign of both its sound financial condition and prospects for expansion. The capacity of a corporation to make a profit in relation to its assets is gauged by its ROA. A corporation may be utilizing its resources more effectively and making more profit per unit of investment if its ROA values are higher. When deciding whether to invest in a company's shares, investors are likely to pay close attention to both EPS and ROA, and changes in both factors can significantly affect a company's stock price. As a result, knowing how EPS, ROA, and stock price are related may help investors make better choices and offer insightful information to businesses wanting to boost their financial performance and draw in investors. The study uses a multiple linear regression model to examine the relationship between audit opinion, EPS, ROA, and stock prices of banks in North Macedonia. Data from the financial statements of all 12 banks listed on the Macedonian Stock Exchange for the period from 2012 to 2021 will be analyzed. The results of the study will provide valuable insights into the factors that influence the stock price of banks in North Macedonia, which can inform investment decisions and policy formulation in the banking sector.

This study addresses a critical gap in the literature by exploring the impact of audit opinion, EPS, and ROA on the stock price of banks in North Macedonia, a context that remains underexplored in existing financial literature. Its findings will contribute to the existing knowledge of stock price movements in the banking sector and provide useful insights for investors, policymakers, and other stakeholders. The exploration of the subject matter is methodically delineated through an initial expository introduction, an extensive review of relevant literature, and a meticulously detailed methodology, followed by the presentation of results and an analytical discussion, culminating in a well-reasoned and articulate conclusion.

Literature Review

The banking industry, a critical component of any economy, is influenced by a variety of factors including the integrity of financial reporting, the effectiveness of internal controls, and the soundness of risk management techniques. These elements play a pivotal role in ensuring the stability and efficiency of the banking sector (Ariss, 2010; Farooq, 2020). Among the various aspects that researchers, policymakers, and practitioners' debate are the role of audit and audit opinion in promoting transparency, accountability, and confidence in the banking industry. External audits and auditors are often viewed as watchdogs that foster trust and have the power to advance a specific social order (Otusanya & Lauwo, 2010). This comprehensive review seeks to provide an overview of the existing empirical evidence on the impact of audit opinion, earnings per share (EPS), and return on assets (ROA) on banks' stock prices, drawing on a range of theoretical perspectives and empirical studies.

Audit opinion, which offers an unbiased evaluation of a company's financial statements and the effectiveness of its internal controls, is a crucial component of the external audit process. The most favorable audit opinion that a company can receive is an unqualified one, indicating no significant inaccuracies in the financial statements and providing an accurate and fair picture of the company's financial situation and performance. In contrast, a qualified, adverse, or disclaimer of opinion may indicate financial distress, poor company governance, or fraudulent actions, potentially causing stock values to fall (Krishnan & Krishnan, 2016; Habib, 2013).

The relationship between audit opinion and stock valuations is elucidated through various theoretical constructs, including the Efficient Market Hypothesis (EMH), agency theory, and signaling theory. The EMH suggests that stock prices represent all information currently available, including financial statements, market patterns, and current events. In this context, the accuracy and completeness of the information available to investors can be determined by the quality of financial reporting, including the audit opinion (Sewell, 2011). Agency theory posits that the audit opinion may act as a monitoring device to reduce conflicts of interest between management and shareholders. Signaling theory, on the other hand, suggests that the audit opinion can indicate the level of financial reporting and corporate governance, affecting how investors perceive a company's prospects and impacting stock prices (Abrahamson & Park, 2017; Musleh & Reyad, 2018).

Empirical studies have shown mixed results regarding the impact of audit opinions on stock prices. Dodd et al. (1984) found little evidence that publicly disclosing qualifications impacts stock prices. Contrasting findings were reported by Ianniello and Galloppo (2015), who found that notations in the audit report can adversely affect company valuations in the Italian stock market. Furthermore, they demonstrated that an unqualified opinion, especially one emphasizing uncertainties about the company's ability to continue operations or financial strain, exerts a positive influence on stock valuations. Tanui (2010) observed a modest yet favorable association between audit opinion and the prices of corporate stocks, suggesting the presence of multiple variables beyond audit assessments influencing stock prices. Similar findings were reported by Hoti et al. (2012), who found that stock price movements are influenced by independent auditors' opinions. However, Anvarkhatibi et al. (2012), Moradi et al. (2011), and Muslih and Amin (2018) found no evidence of a relationship between audit opinions and stock prices. Tahinakis et al. (2010) argued that audit reports have little informational value for investors and little bearing on their investment decisions. Al-Thuneibat et al. (2008) found no discernible or noteworthy impact of a qualified audit opinion on stock prices and returns in the Jordanian context, a finding echoed by Anvarkhatibi et al. (2012) in their investigation within the Tehran Stock Exchange. Moradi et al. (2011) reached a similar conclusion in their exploration of the impact of qualified audit reports on stock prices and returns in the Iranian market, emphasizing that a qualified audit opinion does not yield a substantial influence on stock prices and returns. In line with these findings, Dionisijev and Bozhinovska Lazarevska (2021) reported that the audit opinion's influence on stock prices is inconsequential within the Macedonian economic landscape, signifying that investors tend not to factor the audit opinion into their decision-making process.

Turning to financial indicators like EPS and ROA, which are frequently employed to determine a company's profitability and efficiency, higher EPS and ROA can indicate better financial performance, profitability, and growth prospects, potentially raising investor demand for a company's stock and driving up stock prices. The relationship between these financial indicators and stock prices is explained by several theoretical frameworks, including the EMH and signaling theory. According to the EMH, stock prices represent all information currently available, including financial indicators like EPS and ROA (Borges, 2010). The signaling hypothesis suggests that financial indicators can indicate a company's financial stability and prospects, affecting investors' assessments of a company's worth and causing fluctuation in stock prices (Hayes, 2022).

Several empirical studies have evaluated the correlation between company performance indicators and stock prices. Avdalović and Milenković (2017) conducted a study on the Belgrade Stock Exchange and confirmed a statistically significant correlation between company performance and stock price. Parlakkaya and Kahraman (2017) used EPS and book value per share as independent variables and stock price as the dependent variable to analyze the extent to which stock prices may be explained by the firm's accounting information. Their regression study indicated that stock price fluctuations are directly related to

profitability ratios such as EPS and book value, implying that information from a company's balance sheet and income statements plays a role in influencing stock prices. Tsipouridou and Spathis (2014) conducted a study with evidence from Greece, indicating that audit opinions are not related to earnings management. Choiriyah et al. (2020) concluded that ROA and EPS together have a significant effect on the stock prices of banking companies on the Indonesia Stock Exchange (IDX). Claudia and Indrati (2021) found that Return on Assets (ROA) has no effect on stock prices, and earnings per share (EPS) has a positive influence on stock prices.

Finally, the review addresses the relevance of accounting data in transitional economies, particularly in the context of European transitional economies like North Macedonia. These markets are likely less efficient due to several factors (Jindrichovska, 2001). Despite the development of financial markets, the financial systems in Eastern and Central European nations continue to be bank-oriented, with a few banks accounting for the majority of company financing (Ali & Hwang, 2000). These nations typically exist under a code-law system of law, which, according to Ball et al. (2000), reduces the need for fast and conservative accounting income due to the political nature of the standard-setting process. The impact of tax regulations also contributes to the decreased value relevance of accounting data in these economies. Accounting earnings and taxable income are closely related, as in other nations that use the Continental model of accounting. However, there are other justifications for the greater value relevance of accounting data in these nations (Filip & Raffournier, 2010). Financial statements are often the primary, and sometimes the only, source of information for investors in these developing markets. Companies rarely release profit predictions, the financial press is less established than in Western nations, and the financial analysis sector is still in its infancy. Therefore, most transactions are carried out by investors who have limited access to information beyond publicly available accounting data. Consequently, market prices primarily reflect accounting figures, which appear to be particularly value-relevant. Additionally, governments in Eastern and Central Europe have implemented changes to strengthen procedures for financial reporting and accounting. These initiatives, culminating in the requirement that all listed businesses use International Financial Reporting Standards (IFRS), undoubtedly have a favorable effect on investors' trust in accounting statistics and, as a result, on the usefulness of accounting information.

In summary, previous accounting and finance research demonstrates the importance of examining how EPS and ROA affect stock prices. The EPS, reflecting the amount of profit allotted to each existing share of common stock, is a crucial indicator of a company's success. Previous research has demonstrated a strong positive association between EPS and stock price (Dang et al., 2020; Agrawal & Bansal, 2021; Gharaibeh et al., 2022). Similarly, ROA, measuring the profit produced by each unit of assets, is an important indicator of a company's profitability and efficiency. Numerous studies have shown that ROA has a large beneficial effect on stock price (Baker & Powell, 2000; Alaagam, 2019; Ligocká & Stavárek, 2019). This extensive review of the literature highlights the multifaceted nature of the factors influencing stock prices in the banking industry, integrating both theoretical frameworks and a range of empirical findings to provide a comprehensive understanding of the subject.

Methodology

The study encompasses an analysis of the banking sector within the Republic of North Macedonia, comprising a total of twelve financial institutions. The investigation spans a decade, encompassing the years 2012 through 2021. Data procurement was undertaken from diverse sources, including the official Macedonian Stock Exchange website (www.mse.mk), the electronic information system for listed joint-stock companies (www.seinet.com.mk), and the respective websites of the individual banks. Table 1 offers a comprehensive summary of the employed variables. Given the twelve banks under scrutiny over ten years, the dataset encompasses a total of 120 observations.

The study employs one dependent and two independent factors. The dependent factor pertains to the stock price, determined by the average annual market value of the bank's shares. The initial independent variable comprises Earnings per Share (EPS), which is sourced directly from the financial reports of the banks. The second independent factor, indicative of profitability, is represented by Return on Assets (ROA). ROA is computed as the ratio of net profit after tax to the total assets of the bank. As a control measure, the audit opinion regarding the financial statements of the banks for the preceding fiscal year is integrated. The assessment of the audit opinion was conducted using a scale ranging from 1 to 5 within the SPSS software: '5' designates an Unqualified opinion, '4' signifies an Unqualified opinion with emphasis on question, '3' denotes a Qualified opinion, '2' represents an Adverse opinion, and '1' corresponds to a Disclaimer of opinion. Table 1 furnishes a concise overview of the employed variables.

Table 1: Description of the Variables

| Variables | Abbreviation | Measurement |
|---------------------|---------------|--|
| Average Stock price | STOCK_PRICE | The annual average market stock price. |
| Audit opinion | AUDIT_OPINION | The evaluation rating ranging from 1 to 5 is assigned to the audit viewpoint concerning the preceding fiscal period. |
| Earnings per Share | EPS | The ratio between net earnings available to common shareholders and average outstanding common shares. |
| Return on Assets | ROA | The Ratio between net profit after tax and total assets. |

Source: Authors' elaboration

The study adopts a quantitative approach with the objective of ascertaining the influence of independent variables (specifically, Audit Opinion, EPS, and ROA) on the dependent variable, Stock Price. To achieve this aim, a multiple linear regression analysis was conducted utilizing the SPSS software suite. Unlike a simple linear regression, which examines the relationship between a response variable y and a single explanatory variable x , given a dataset encompassing observations for both variables within a particular sample, multiple linear regression expands this paradigm to incorporate more than one explanatory variable (Tranmer, et al., 2020). Notably, the audit opinion variable was incorporated as a control parameter in the regression analysis to gauge its impact on the association between stock price and the independent variables, EPS and ROA. The model is articulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y = Stock Price; X_1 = Audit Opinion; X_2 = EPS; X_3 = ROA and ε = random error.

The value relevance approach was used in this study in addition to the multiple linear regression analysis to assess the degree to which the independent variables (Audit Opinion, EPS, and ROA) had an impact on the stock price. Value relevance, which is determined by the strength of the correlation between financial information and the stock price (Barth et al., 2001), refers to the degree to which financial information influences stock prices. A high correlation with market data is typically seen to be an indication of value relevance; the more accounting data correspond to market prices or returns, the more "value relevant" they are perceived as being (Filip & Raffournier, 2010). Calculating the coefficient of determination (R^2) for each independent variable in a regression model is a key step in the value relevance technique because it indicates how much of the variance in the dependent variable (Stock Price) is explained by the independent variable. According to Barth et al. (2001), a high R^2 value denotes that the independent variable strongly influences the dependent variable and is hence value meaningful. Multiple linear regression was conducted between the independent variables (Audit Opinion, EPS, and ROA) and the dependent variable (Stock Price) in order to apply the value relevance approach in this research. The importance of each independent variable was then determined by calculating the R^2 . The more relevant the independent variable is to explaining variations in stock price, the higher the R^2 score. By utilizing the value relevance methodology,

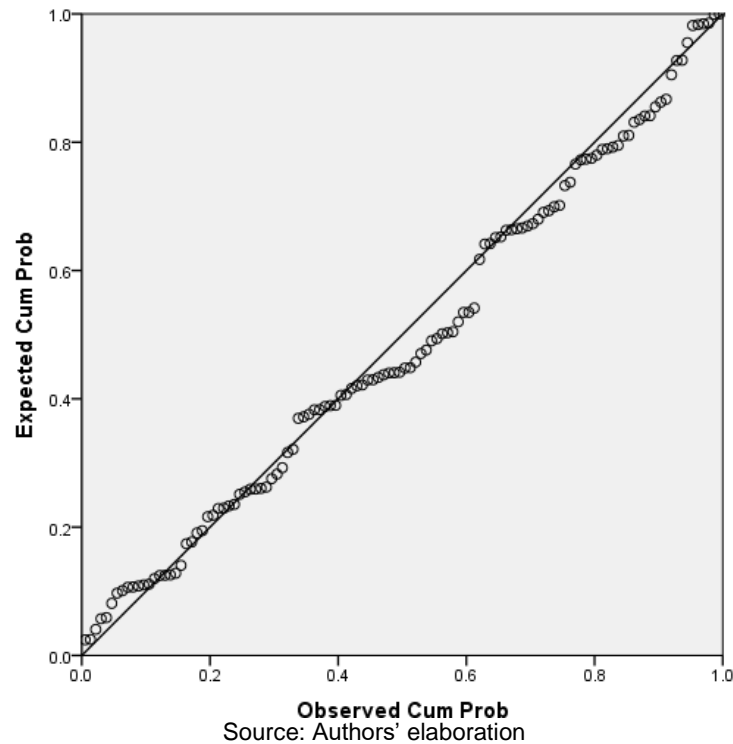
this study aims to provide a thorough understanding of the factors that influence stock prices in Macedonian banks. To do this, it uses multiple linear regression analysis to look at how the independent variables affect the dependent variable, as well as value relevance analysis to determine how each independent variable affects the stock price of the dependent variable.

To establish a robust and dependable multiple linear regression model, it is imperative to adhere to a set of underlying assumptions. Firstly, there should exist a linear association between the independent and dependent variables. When this linear relationship is absent, the outcomes of the regression analysis may lead to an underestimation of the actual association. Consequently, the standard multiple regression approach may fail to accurately gauge the connection between the dependent variable and independent variables (Osborne & Waters, 2002). The second assumption pertains to the normal distribution of variables. Variables exhibiting non-normal distributions, characterized by severe skewness, kurtosis, or the presence of significant outliers, can potentially distort correlations and significance tests (Osborne & Waters, 2002). Homoscedasticity constitutes the subsequent assumption, denoting that the variance of errors remains consistent across all levels of the independent variables. Conversely, the presence of heteroscedasticity signifies that the variance of errors fluctuates at different values of the independent variables (Osborne & Waters, 2002). While Berry and Feldman (1985) along with Tabachnick and Fidell (2001) suggest that minor instances of heteroscedasticity exert negligible influence on significance tests, pronounced heteroscedasticity can profoundly compromise the analysis and distort outcomes, heightening the risk of a Type I error. Multicollinearity emerges when two or more independent variables in the regression model are correlated, presenting an additional consideration in model assessment (Berry & Feldman, 1985; Tabachnick & Fidell, 2001). A small amount of multicollinearity can occasionally result in serious issues, but when it is moderate to high, it becomes a problem that has to be addressed (Daoud I., 2017). Another tenet of a successful model is the absence of autocorrelation. In stock prices, where the price is not independent of the preceding price, autocorrelation usually develops when the residuals are not independent of one another (Getis, 2007).

Results and Discussion

Before the results of the regression model are presented, in order to see if the stock price of Macedonian banks depends on the audit opinion, earnings per share, and return on assets, the tested assumptions for multiple linear regression will be presented and analyzed.

Chart 1: Linearity



First, the assumption of linearity between the dependent variable (Stock price) and the independent variables (Audit opinion, EPS, and ROA) was tested. The results show that there is linearity between the variables, which can be seen in Chart 1. Specifically, almost all points in Chart 1 lie approximately on the straight line, indicating a linear relationship.

To ascertain the robustness and effectiveness of a multiple linear regression model, it is imperative that a set of underlying assumptions are satisfied. Additionally, normality was assessed, specifically scrutinizing the distributional characteristics of the residuals pertaining to the dependent variable, which in this context corresponds to the stock price. This evaluation was conducted utilizing Kolmogorov-Smirnov and Shapiro-Wilk tests within the SPSS environment, and the outcomes have been presented in Table 2 for reference.

Table 2: Tests of Normality

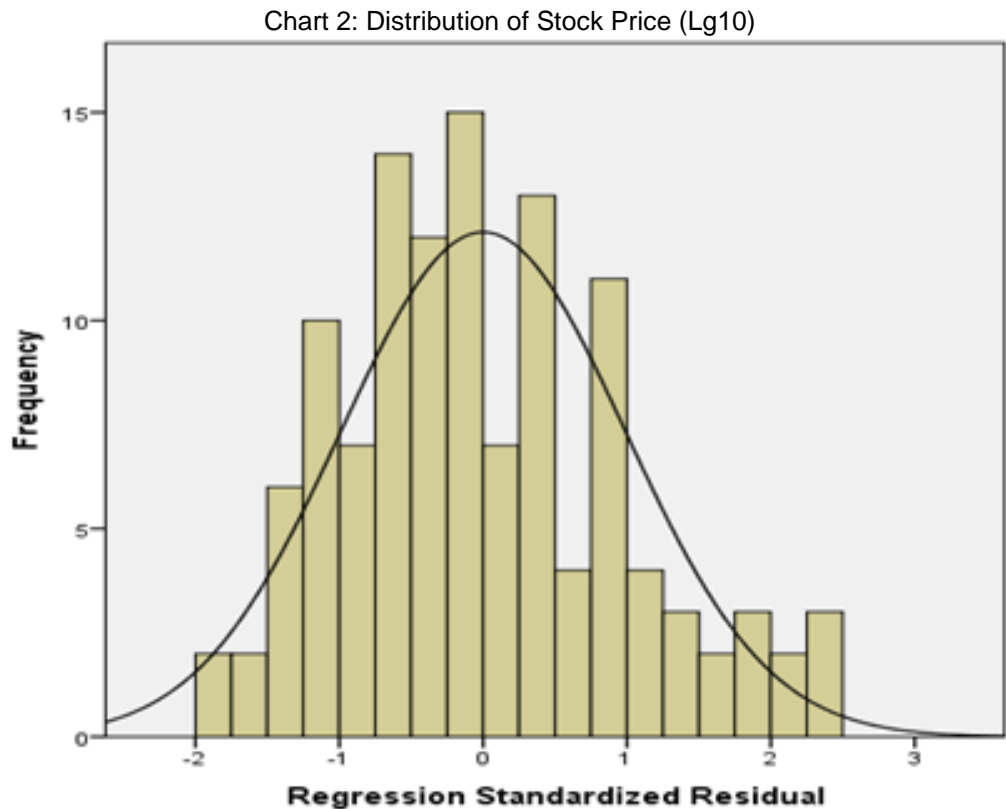
| | Kolmogorov-Smirnov | | | Shapiro-Wilk | | |
|--------------------|--------------------|-----|-------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Stock_Price | .379 | 120 | .000 | .392 | 120 | .000 |
| Stock_Price (Lg10) | .069 | 120 | .200* | .966 | 120 | .040 |

Source: Authors' elaboration

In Table 2, it is evident that in the preliminary evaluation of the normality assumption pertaining to the dependent variable (Stock price), the examination revealed a non-normal distribution of the residuals. This is substantiated by observing that the p-values for both tests fall below the 0.05 threshold, signifying a statistically significant departure from normality in the data distribution. In order to satisfy this assumption, the dependent variable was transformed using Lg10 in SPSS, after which we can observe that it now satisfies the condition of normal distribution of the residuals and is relevant in further testing of the regression model. In other words, the Kolmogorov-Smirnov test shows a value greater than 0.05, while the Shapiro-Wilk test has a value close to the cut-off value (Table 2). These results show that the transformed dependent variable (Stock price (Lg10)) satisfies the assumption of normality, that is, the deviation of its distribution from the normal distribution is not statistically significant. The satisfaction of the assumption of

normality can also be observed in the graphical display. Chart 2 graphically shows the distribution of the dependent variable, where its residuals have a normal distribution.

Table 3 showcases the interrelationships among the observed variables, aiding in the assessment of potential multicollinearity amidst the independent variables. Ensuring the absence of multicollinearity necessitates that the correlation coefficient between independent variables remains below the threshold of 0.7. The outcomes of the correlation analysis, detailed in Table 3 under the Pearson correlation segment, substantiate that the inter-variable correlations fall below the critical 0.7 mark. This substantiates the absence of multicollinearity, affirming the fulfillment of this underlying assumption.



Source: Authors' elaboration

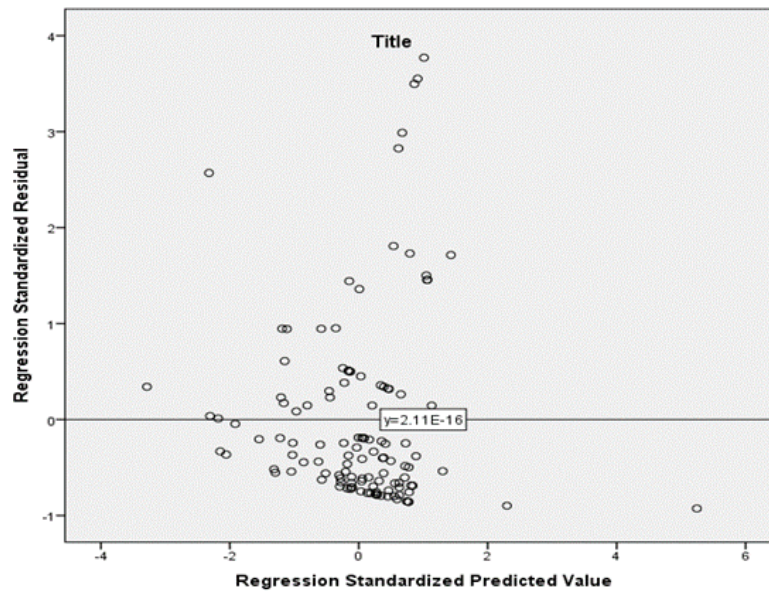
Table 3: Correlations

| | | Lg1 | Audit_Opinion | EPS | ROA |
|---------------------|---------------|-------|---------------|-------|-------|
| Pearson Correlation | Lg1 | 1.000 | .334 | -.113 | .100 |
| | Audit_Opinion | .334 | 1.000 | .027 | .374 |
| | EPS | -.113 | .027 | 1.000 | .624 |
| | ROA | .100 | .374 | .624 | 1.000 |
| Sig. (1-tailed) | Lg1 | . | .000 | .110 | .139 |
| | Audit_Opinion | .000 | . | .384 | .000 |
| | EPS | .110 | .384 | . | .000 |
| | ROA | .139 | .000 | .000 | . |
| N | Lg1 | 120 | 120 | 120 | 120 |
| | Audit_Opinion | 120 | 120 | 120 | 120 |
| | EPS | 120 | 120 | 120 | 120 |
| | ROA | 120 | 120 | 120 | 120 |

Source: Authors' elaboration

The assumption of heteroskedasticity is visually represented in Chart 3, as observed by the clustering of data points around the zero mark. This observation signifies that the variability in errors remains relatively consistent across various levels of the independent variables. Consequently, we can infer the absence of heteroscedasticity in this context.

Chart 3: Scatter Plot



Source: Authors' elaboration

In order to confirm this conclusion, additional testing was done through analysis of variance (ANOVA) of the residuals. The results of this test are shown in Table 4, where we can notice that the p-value (Sig.) is 0.465, i.e., is greater than 0.05, so we conclude that there is no heteroskedasticity.

Table 4: ANOVA of the residuals

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|------|-------------|
| 1 | Regression | 1.256 | 3 | .419 | .858 | .465 |
| | Residual | 56.615 | 116 | .488 | | |
| | Total | 57.871 | 119 | | | |

Source: Authors' elaboration

The last assumption that was tested was autocorrelation, using the Durbin-Watson test. Considering that the value of the test is 2.017 (Table 5), which is very close to 2, suggesting that there is little or no evidence of autocorrelation in the residuals of the regression model, we can conclude that there is no presence of autocorrelation.

Table 5: Model Summary (Including the control variable)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
|-------|------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .366 | .134 | .112 | .73412 | .134 | 5.989 | 3 | 116 | .001 | 2.017 |

Source: Authors' elaboration

After confirming the fulfillment of prerequisites for a pertinent and dependable regression model through preceding assessments, the subsequent step entails executing the model to ascertain the impact of independent variables on the dependent variable. Initially, the Simultaneous F test was employed to scrutinize whether the independent variables collectively exert a discernible influence on the dependent variable. The findings, delineated in Table 6, reveal a statistically significant test statistic, with a value below the threshold of 0.05 ($0.001 < 0.05$). This substantiates that the independent variables (Audit Opinion, EPS, and ROA) collectively exert a concurrent impact on the dependent variable (Stock Price (Lg10)).

Table 6: Simultaneous F Test

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|-------|-------------|
| 1 | Regression | 9.463 | 3 | 3.154 | 5.853 | .001 |
| | Residual | 62.516 | 116 | .539 | | |
| | Total | 71.978 | 119 | | | |

Source: Authors' elaboration

Having confirmed the concurrent influence of the independent variables on the dependent factor, we proceed to assess the multiple linear regression model. The resultant coefficients derived from the model evaluation are displayed in Table 7.

Table 7a. Multiple Linear Regression Model – Coefficients (Including the control variable)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Correlations | | |
|-------|---------------|-----------------------------|------------|---------------------------|--------|-------|--------------|---------|--------|
| | | B | Std. Error | Beta | | | Zero-order | Partial | Part |
| 1 | (Constant) | 1.042 | 0.576 | | 1.809 | 0.073 | | | |
| | Audit_Opinion | 0.475 | 0.122 | 0.356 | 3.880 | 0.000 | 0.334 | 0.339 | 0.330 |
| | EPS | 0.000 | 0.000 | 0.276 | 0.012 | 0.012 | 0.220 | 0.231 | 0.218 |
| | ROA | -9.679 | 5.452 | -0.203 | -1.775 | 0.078 | 0.100 | -0.163 | -0.151 |

Source: Authors' elaboration

Upon scrutinizing the outcomes derived from Table 7a, the ensuing deductions can be drawn Audit Opinion and EPS exhibit a statistically notable influence on the Stock Price (0.000 and $0.12 < 0.05$, respectively), whereas ROA demonstrates no statistically substantial effect on the Stock Price ($0.078 > 0.05$). Additionally, Table 7a's Part-Correlation segment elucidates the discrete contributions of each independent variable to the variations in the dependent variable.

Accordingly, on a scale extending from -1 to 1 , Audit Opinion and EPS contribute 0.330 and 0.218 , respectively, to alterations in the Stock Price. It is pertinent to note that ROA lacks interpretive relevance as prior determination revealed its insignificance in relation to the dependent variable, Stock Price. If we omit Audit Opinion, serving as a control variable, from the model, the outcomes exhibit a slight deviation. Specifically, in this scenario, alongside EPS, ROA also manifests a statistically substantial positive impact on the stock price, as explicated in Table 7b.

Table 7b: Multiple Linear Regression Model – Coefficients (Excluding the control variable)

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | Correlations | | |
|-------|-----------------------------|------------|---------------------------|-------|--------|--------------|---------|-------|
| | B | Std. Error | Beta | | | Zero-order | Partial | Part |
| 1 | (Constant) | 3.193 | 0.077 | | 41.442 | 0.000 | | |
| | EPS | 3.700 | 0.000 | 0.286 | 2.496 | 0.014 | 0.113 | 0.225 |
| | ROA | 13.307 | 5.483 | 0.278 | 2.427 | 0.017 | .0100 | 0.219 |

Source: Authors' elaboration

The extent to which the independent variables exert their influence on the dependent variable is assessed through the coefficient of determination, specifically the Adjusted R Square, which spans from 0 to 1 . A value approaching 1 indicates a more robust relationship. In our specific context, this coefficient registers at 0.112 (refer to Table 5 above), signifying a relatively weak regression association. Put differently, merely 11.2% of the variations in the dependent variable can be elucidated by the independent variables, leaving the remaining 88.8% of fluctuations in Stock Price subject to the influence of other determinants.

Table 8 presents the model's results with the excluded control variable, where we notice that the Adjusted R Square coefficient is significantly lower (0.044) compared to the model's results, which includes the audit opinion, as a control variable. The results of Table 8 show that, when audit opinion is excluded from the model, only 4.4% of the variability in stock prices is explained by changes in EPS and ROA, while 95.6% of the variability is explained by other factors. In any case, although the coefficient of determination is not very high, it was statistically supported that two out of three dependent variables influence changes in the dependent variable.

Additionally, as posited by Achmad and Witiastuti (2018), a diminished R square value implies that the capacity of the independent variables to elucidate variations in the dependent variable is rather restricted. Conversely, an R square approximating unity intimates that the independent variables are nearly exhaustive in their predictive capacity for alterations in the dependent variable, an occurrence of exceptional rarity.

Table 8: Model Summary (Excluding the control variable)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|------|----------|-------------------|----------------------------|---------------|
| 1 | .245 | .060 | .044 | .76045 | 1.929 |

Source: Authors' elaboration

These contrasting findings demonstrate the importance of including the audit opinion as a control variable in the analysis. By doing so, the study captures the unique contribution of both the audit opinion and financial performance indicators (EPS and ROA) in explaining the variation in stock prices. The inclusion of the audit opinion allows for a comprehensive understanding of the factors influencing stock prices,

considering both external perceptions (reflected in the audit opinion) and internal financial performance (reflected in EPS and ROA).

Conclusion

In this research study, we examined the influence of audit opinion, return on assets (ROA), and earnings per share (EPS) on the stock prices of banks in North Macedonia. Our analysis involved the use of a linear multiple regression model to scrutinize financial statements and annual reports of all 12 banks in North Macedonia over a period of ten years, from 2012 to 2021. The results of our analysis reveal that audit opinion and EPS have a statistically significant impact on the stock prices of banks in North Macedonia, while ROA does not have a statistically significant impact, which is opposite to the findings of Avdalović and Milenković (2017), and Parlakkaya and Kahraman (2017). This finding holds important implications for bank managers and investors in the country, highlighting the significance of maintaining a positive audit opinion and improving EPS to raise stock prices. Our discovery that audit opinion has a positive effect on stock prices corresponds with earlier research in this area (Tanui (2010); Hoti et al. (2012)). A positive audit opinion signifies to investors that the bank's financial statements are reliable and accurate, which heightens their trust in the bank's financial soundness. Similarly, our finding that EPS has a positive impact on stock prices is also consistent with previous studies ((Borges, 2010; Hayes, 2022)). EPS is a key indicator of a bank's profitability and thus reflects its capacity to generate earnings and create value for its shareholders. On the other hand, the results show that when the audit opinion as a control variable is excluded from the model, then ROA, in addition to EPS, also has a positive statistically significant impact on the stock price. Additionally, in this case, the variability in stock prices is in a much smaller percentage explained by the variability in EPS and ROA, as opposed to the case when the audit opinion is included in the model (EPS and ROA explain the variability in the stock price in a higher percentage). These findings emphasize the significance of including the audit opinion as a control variable in the analysis. This allows the study to capture the distinct contribution of both the audit opinion and financial performance indicators (EPS and ROA) in explaining stock price fluctuations. By incorporating the audit opinion, a comprehensive understanding of the factors influencing stock prices is achieved, encompassing external perceptions (reflected in the audit opinion) and internal financial performance (reflected in EPS and ROA). Our findings hold important implications for bank managers and investors in North Macedonia. Bank managers should aim to maintain a positive audit opinion by ensuring that their financial statements are precise, dependable, and adhere to relevant accounting standards. Additionally, they should prioritize improving EPS by enhancing profitability through strategies such as cost control, revenue growth, and risk management. On the other hand, investors should consider both audit opinion and EPS when making investment decisions in the banking sector. A positive audit opinion can offer them greater confidence in the credibility of a bank's financial statements, while a high EPS can indicate a bank's ability to generate earnings and create value for its shareholders. Our research has several strengths worth noting. First, we analyzed data from all 12 banks in North Macedonia over a period of ten years, offering a comprehensive view of the influence of financial indicators on stock prices in the country. Second, we employed a linear multiple regression model to scrutinize the data, which is a widely recognized statistical technique in finance research. Third, our findings align with prior research in this area, adding to the validity and generalizability of our results. Nevertheless, our study also has limitations that should be considered. First, our analysis only considered three financial indicators and did not incorporate other factors that may influence investor decisions, such as macroeconomic factors, market sentiment, or regulatory changes. Second, our study only covers a ten-year period, which may not be sufficient to capture the long-term impact of financial indicators on stock prices. Third, our analysis is limited to the banking sector in North Macedonia, and our findings may not be generalizable to other countries or industries. Another limitation of the paper is the fact that the sample included in the research is relatively small. Although all banks are included in the research, the overall

Macedonian banking sector is quite small, consisting of only 12 banks. The last limitation of the paper is that it doesn't account for the latest version of the audit report because it is not yet implemented in the Macedonian regulation. This new version has significantly changed the report's format, including adding a section about Key Audit Matters (KAM). In general, our study offers valuable insights into the influence of audit opinion, ROA, and EPS on the stock prices of banks in North Macedonia. Our findings underscore the significance of maintaining a positive audit opinion and improving EPS to raise stock prices while suggesting that ROA may be a less important factor in investors' decision-making. These results hold important implications for bank managers and investors in North Macedonia, providing guidance on how to enhance the financial health of banks and make informed investment decisions. Further research is necessary to explore the influence of other factors on stock prices.

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