# Capital Structure and Market Valuation in Emerging Economy: The Moderating Role of Debt Ratio on the Profitability - Stock Prices Nexus in Syria

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#### **ABSTRACT**

**Purpose**: This study investigates how return on assets (ROA), return on equity (ROE), and earnings per share (EPS) influence stock prices. Additionally, it explores the moderating effect of the debt ratio on the relationship between firm profitability and stock prices

**Design/Methodology/Approach**: Utilizing a quantitative analytical framework with a deductive approach, the research applies a fixed effect model (FEM) to analyze annual data from 17 Syrian firms during the period from 2013 to 2023.

**Findings**: The results indicate that return on assets (ROA) and earnings per share (EPS) significantly and positively influence stock prices, highlighting their critical role as performance indicators for investors. The debt ratio was also found to have a significant negative impact, emphasizing the importance of careful leverage management to maintain investor confidence. Notably, return on equity (ROE) alone did not significantly affect stock prices; however, the interaction between ROE and the debt ratio was statistically significant, suggesting that the influence of ROE on stock prices may be contingent upon the firm's capital structure.

**Recommendation**: Companies should prioritize maintaining an optimal balance in their debt levels to ensure investor confidence remains high. Additionally, management teams should concentrate on enhancing asset utilization and improving cost efficiency, as these factors are vital indicators of a firm's overall value from an investment perspective. Furthermore, it's crucial for policymakers to strengthen financial disclosure standards and promote investor education, which can lead to a more informed investment environment and ultimately benefit market stability.

Index terms: Return on Assets, Return on Equity, Earnings Per Share, Debt Ratio, Fixed Effects Model.

## 1-Introduction:

Stock prices are among the most closely monitored indicators in financial markets because they encapsulate the market's perception of a firm's value and prospects. Investors, financial analysts, and policymakers continuously analyze various factors to better understand the drivers of stock price fluctuations and to make informed decisions. Among these factors, firm-specific financial performance indicators—such as profitability, leverage, and earnings—are particularly crucial, as they directly reflect the internal health and operational efficiency of a company, significantly influencing investor confidence and market valuation.

This research focuses on four key financial metrics—return on equity (ROE), return on assets (ROA), earnings per share (EPS), and debt ratio (DR)—to investigate their impact on stock prices. These variables are widely used in fundamental analysis as indicators of profitability (ROE and EPS), operational efficiency (ROA), and financial risk (DR). The rationale for examining these indicators stems from their central role in investor decision-making, by helping to value stocks, and managerial strategies, by providing insights to enhance firm valuation and financial stability.

These indicators offer valuable insights into a company's profitability and operational efficiency. Strong performance in these areas often leads to higher stock prices, as investors view the firm as well-managed and capable of generating sustained future profits. On the other hand, poor financial performance can cause stock prices to decline, as investors reassess their expectations and potentially perceive increased risks or diminished growth prospects.

Although numerous studies have examined the relationship between financial ratios and stock prices across various markets and sectors, the findings have often been inconsistent and highly context-dependent. Some research suggests that higher profitability ratios (such as ROE, ROA, and EPS) are positively correlated with increased stock prices, while others emphasize the potentially negative or moderating influence of financial leverage (debt ratio). These disparities underscore the importance of continued investigation, particularly within emerging markets or specific industries, where market dynamics and investor behavior may diverge significantly

from those observed in developed economies. This ongoing research is crucial to better understand the nuanced factors driving stock valuation in different contexts.

The main objective of this study is to empirically analyze the influence of return on equity (ROE), return on assets (ROA), earnings per share (EPS), and debt ratio on stock prices, using annual data from 17 firms listed on the Damascus Securities Market between 2013 and 2023.

#### 2 – Literature Review:

Profitability, often measured by indicators like Return on Assets (ROA), Return on Equity (ROE), and Earnings per share (EPS), is a critical determinant of firm value. According to the efficient market hypothesis, stock prices reflect all available information, including profitability metrics. Numerous empirical studies have investigated the relationship between firm-specific financial indicators and stock prices. Among the most widely studied variables are Return on Equity (ROE), Return on Assets (ROA), and earnings per share (EPS). These indicators are considered key drivers of firm performance and are commonly used by investors to evaluate stock value.

# -The effect of return on equity (ROE) on stock prices (SP):

Return on equity is a profitability metric that indicates how effectively a company uses shareholders' capital to generate earnings.

The signaling theory suggests that high ROE indicates efficient use of equity and strong profitability, signaling good management and growth potential, which can attract investors and boost stock prices.

Meanwhile, the efficient market hypothesis states that if ROE reflects publicly available information about profitability, it should already be reflected in stock prices. Only unexpected changes in ROE are likely to affect prices.

Several studies, such as Khan et al. (2012) on the Karachi Stock Exchange and Zahir and Khanna (1982) in India, have found a positive relationship between ROE and stock prices.

# -The effect of return on assets (ROA) on stock prices (SP):

Return on assets measures a company's ability to generate profit from its total assets and is often viewed as a broader indicator of operational efficiency than return on equity.

The accounting-based valuation and Ohlon models utilize ROA as an indicator of firm value creation. A higher ROA signifies efficient resource use, boosting both firm value and stock price. Resource-based theory supports this, linking high ROA with competitive advantage and higher stock valuation.

Malhotra and Tandon (2013) found a positive link between ROA and stock prices among Indian manufacturing firms, while Ali and Chowdhury (2010) confirmed ROA's significant influence on stock prices in the Dhaka Stock Exchange. Conversely, Al-Shubiri (2010) observed sectoral differences in this relationship.

# -The effect of earnings per share (EPS) on stock prices (SP):

Earnings per share is a key indicator of stock price, directly reflecting a company's profitability and commonly used in valuation metrics such as the price-to-earnings ratio. The dividend discount and price-earnings theories suggest that EPS directly influences stock value through expected future earnings, with higher EPS leading to higher valuations if expectations are stable or growing.

Signaling theory also indicates that rising EPS signals financial health and growth potential, positively impacting stock prices.

According to the EMF hypothesis, EPS exceeding expectations causes stock prices to rise, while meeting expectations may have little effect.

Studies by Sharif et al. (2015) in the UAE, as well as Al-Qaisi et al. (2016) and Srinivasan (2012), confirm that EPS has a significant and strong influence on stock prices.

## 3-The Moderation Effect of Debt Ratio:

The debt ratio gauges a company's financial leverage and capital structure. Its impact on stock prices varies by context: according to the trade-off theory, moderate debt can boost firm value through tax advantages, but excessive debt increases financial risk and bankruptcy costs, potentially lowering stock prices.

The pecking order theory suggests firms prefer internal financing; high debt may signal financial distress or a lack of internal funds, eroding investor confidence and stock value.

Signaling theory also indicates that a high debt ratio can imply future insolvency concerns, negatively impacting stock prices.

Abor (2005) found a negative link between debt ratio and stock performance in Ghana, while Eriotis et al. (2007) observed similar results in Greece. Conversely, Modigliani and Miller (1958) posit that capital structure is irrelevant under perfect market conditions.

The debt ratio can positively moderate the link between a firm's profitability and its stock price, as profitable firms with low debt face less financial risk and tend to have higher stock prices. Conversely, high debt levels increase financial risk, potentially lowering stock prices even for profitable firms. Majumdar and Chhibber (1999) found that highly leveraged firms show a weaker profitability-market value relationship, while Niu (2008) concluded that higher debt ratios negatively influence the link between firm performance and market valuation in Canadian companies.

## 4-Research Questions:

The study aims to investigate the relationship between key financial indicators and stock prices, specifically focusing on the moderating role of the debt ratio. The specific research questions guiding this investigation include:

- Do return on assets, return on equity, earnings per share, and debt ratios influence stock prices?
- Does the debt ratio moderate the impact of return on assets on stock prices?
- Does the debt ratio moderate the impact of return on equity on stock prices?
- Does the debt ratio moderate the impact of earnings per share on stock prices?

## 5-Research Objectives:

The primary aim of this study is to explore whether the debt ratio moderates the influence of return on assets, return on equity, and earnings per share on stock prices. To achieve this, the specific sub-objectives are outlined as follows:

- To analyze the impact of return on assets (ROA), return on equity (ROE), earnings per share (EPS), and debt ratio on stock prices.
- To evaluate the moderating role of the debt ratio on the impact of return on assets (ROA) on stock prices.
- To assess the moderating role of the debt ratio on the impact of return on equity (ROE) on stock prices.
- To identify the moderating role of the debt ratio on the impact of earnings per share (EPS) on stock prices.

# **6-Research Significance**:

Understanding the moderating role of the debt ratio in the relationship between profitability indicators is of significant theoretical and practical importance.

**Theoretical Importance**: This investigation enhances the existing financial literature by extending classical capital structure frameworks such as the trade-off theory, pecking order theory, and signaling theory. It delves into not only the direct influence of profitability on firm valuation but also how leverage can modify this effect. This exploration enriches the conceptual understanding of firm performance within market valuation models. Additionally, it contributes to the efficient market hypothesis by assessing whether financial markets accurately incorporate these conditional relationships into stock prices.

**Practical Importance**: From a practical standpoint, this research helps investors interpret financial ratios more critically by considering the levels of leverage within firms. Understanding how leverage impacts the reliability of performance indicators under different financial risk scenarios can enhance decision-making. For corporate managers, the findings offer valuable insights into how to align capital structure choices with investor expectations and shareholder value. Furthermore, the results can provide regulators and policymakers with guidance in developing disclosure standards that reflect the relationship between profitability and financial leverage. This is particularly relevant in the context of Syria, where challenges such as information asymmetries and financial instability prevail.

#### 7-Research Philosophy and Approach and Data:

The study adopts a positivist philosophy, focusing on objectivity and empirical data. It uses a deductive approach based on established theories and prior findings. The research design is explanatory, employing balanced panel data analysis.

The dataset includes annual financial reports from 17 firms listed on the Damascus Securities Market from 2013 to 2024, including Alahliah.Co for Transport, Ahli Trust Bank, Bemo Saudi Fransi, Bank of Syria and Overseas, the International Bank for Trade & Finance, Shahba Bank, Syria International Insurance - Arope, National Insurance Company, United Insurance Company, Qatar National Bank, Bank of Jordan Syria, Al-Aqeelah Takaful Insurance, Bank Alsharq, Cham Bank, Solidarity Alliance Insurance, Syrian Kuwaiti Insurance Company, and Al Baraka Bank – Syria.

Key variables include the logarithm of stock price (LSP) as the dependent variable, with return on assets (ROA), return on equity (ROE), and earnings per share (EPS) as independent variables. The debt ratio (DR) serves as a moderator variable.

# 8-Research Hypotheses:

- H1: Return on equity, return on assets, earnings per share, and debt ratio significantly influence stock prices.
- H2: The debt ratio significantly moderates the effect of return on assets on stock prices.
- H3: The debt ratio significantly moderates the effect of return on equity on stock prices.
- H4: The debt ratio significantly moderates the effect of earnings per share on stock prices.

# 9-Empirical Results:

The study findings are organized into four main parts: first, descriptive statistics provide an overview of the data; second, correlation analysis explores the relationships between variables; third, stationarity tests verify that the data meet the necessary statistical assumptions; fourth, co-integration tests identify potential long-term relationships among the variables. Finally, the formulated hypotheses are tested to conclude.

## 9-1 Descriptive Statistics:

The analysis showed that from 2013 to 2023, the 17 firms listed on the Damascus Securities Market had mean values of 6.62% for return on assets, 19.30% for return on equity, 57.02% for earnings per share, 60.70% for the debt ratio, and 6.07% for the logarithm of stock price. The Jarque-Bera test indicated a p-value below 0.05, suggesting the data do not follow a normal distribution.

Table (1) Descriptive statistics of return on assets and current ratio during the study period

	EPS	ROA	ROE	DR	1SP
Mean	57.02	0.066256	0.193022	0.607029	6.069319
Jarque-Bera	4813.572	83.68397	188.2317	15.84443	8.834140
probability	0.00000	0.00000	0.00000	0.00000	0.012070
Number of observations	187	187	187	187	187

## 9-2 Test of correlation:

Table (2) shows a moderate positive correlation between stock price and return on equity, return on assets, and earnings per share, while the debt ratio exhibits a weak negative correlation with the stock price.

Table (2): Correlation Test Result

	LSP	ROA	ROE	EPS	DR
LSP	1	0.3455255	0.3265515	0.4876459	-0.0694378
ROA	0.3455255	1	0.5319313	0.4914994	-0.33896761
ROE	0.3265515	0.5319313	1	0.4324316	-0.055093878
EPS	0.4876459	0.4914994	0.4324316	1	-0.0808112281
DR	-0.0694378	-0.3389676	-0.0550938	-0.0808112	1

# 8.2 Test of Stationarity:

The stationarity of the variables was assessed using the PP-Fisher chi-square test applied to both levels and first differences of the time series data. This method offers advantages over traditional tests like the Augmented Dickey-Fuller (ADF) test, as it accommodates heterogeneous autoregressive parameters across cross-sections and provides greater robustness against serial correlation (Mandala et al., 1999).

The null hypothesis for the test states that the series contains a unit root (non-stationary), while the alternative indicates stationarity. The tests were conducted with individual intercepts and trends. The results showed that all variables were non-stationary at their levels (P > 0.05) but became stationary after first differencing (P < 0.05).

These findings underscore the importance of differencing the data to achieve stationarity, which is a vital step before conducting further analyses in the study.

Table (3) Panel Unit Root Test result: PP-Fisher chi-square

	Level					
variables	T statistic	prob	result			
Logarithm of stock price (LSP)	29.9757	0.6653	Non Stationary			
Return on assets (ROA)	33.0692	0.5131	Non Stationary			
Return on equity (ROE)	32.9383	0.5195	Non Stationary			
Earnings per share (EPS)	20.0445	0.9725	Non Stationary			
Debt ratio (DR)	30.6163	0.6343	Non Stationary			
	First Differe	nce				
Logarithm of stock price (LSP)	83.2080	0.0000	stationary			
Return on assets (ROA)	115.157	0.0000	stationary			
Return on equity (ROE)	119.321	0.0000	stationary			
Earnings per share (EPS)	63.1626	0.0017	stationary			
Debt ratio (DR)	97.2246	0.0000	stationary			

## 8.3 Test of Co-Integration:

Co-integration refers to a situation where two or more non-stationary variables share a stable, long-term relationship, despite experiencing individual short-term fluctuations or trends.

This indicates that while the variables may diverge temporarily, their trajectories move along a long-run equilibrium path. In economic analysis, co-integration signifies that these variables are linked in a way that their combined behavior remains consistent over time, which is essential for accurate modeling and forecasting.

Pedroni (2000, 2004) proposed several tests to assess the null hypothesis of no co-integration within a panel data framework, which accounts for heterogeneity across different cross-sections. These tests are categorized into two types: one averages the test statistics across the panel's time series, and the other averages within segments, both ensuring that the limiting distributions are based on the asymptotic properties of the test components (Baltagi, 2005).

The null hypothesis in these tests states that there is no co-integration, whereas the alternative suggests a long-term equilibrium relationship among the variables.

As shown in Table (4), the Pedroni co-integration tests with an intercept indicate that the null hypothesis of no co-integration cannot be rejected for any of the eleven test statistics at a 5% significance level. This suggests that, based on these tests, there is no strong evidence of a long-term equilibrium relationship among the variables under consideration in this study.

Table (4) Panel co-integration test: The Pedroni test with no intercept or trend

Alternative hypothesis: common AR coefs. (within-dimension)						
Weighted						
	<u>Statistic</u>	Prob.	<u>Statistic</u>	Prob.		
Panel v-Statistic	-3.557846	0.9998	-3.794238	0.9999		
Panel rho-Statistic	2.666189	0.9962	2.718731	0.9967		
Panel PP-Statistic	-0.534273	0.2966	-1.332116	0.0914		
Panel ADF-Statistic	0.738291	0.7698	0.133293	0.5530		

Alternative hypothesis: individual AR coefs. (between-dimension)

	<u>Statistic</u>	<u>Prob.</u>	
Group rho-Statistic	4.933801	1.0000	
Group PP-Statistic	-0.465681	0.3207	
Group ADF-Statistic	1.693506	0.9548	

## 8-4 Hypothesis test:

To evaluate the hypothesis, both fixed effects and random effects models were estimated, followed by the application of the Hausman test to determine the most appropriate model for the data.

Fixed effects models are employed when the goal is to control for unobserved heterogeneity that is constant over time but may influence the dependent variable. These models assume that such unobserved characteristics are correlated with the explanatory variables (Wooldridge, 2010). Conversely, random effects models assume that unobserved heterogeneity is uncorrelated with the explanatory variables and can be treated as a random component, capturing both within-entity and between-entity variations (Baltagi, 2008).

Random effects are particularly appropriate when the sample is considered randomly drawn from a larger population, enabling generalization of the findings (Greene, 2012).

The Hausman test is a statistical procedure used to compare the fixed and random effects models. If the test indicates significant differences between the estimators, the fixed effects model is preferred, as it provides consistent estimates in the presence of correlated unobserved heterogeneity. Conversely, if the test does not reveal significant differences, the random effects model may be deemed appropriate due to its efficiency (Wooldridge, 2010).

The results in Table 5 indicate that the fixed effects model is preferred over the random effects model, as evidenced by the chi-square p-value being less than 0.05 for all hypothesis tests.

This suggests that the unobserved heterogeneity in the data is correlated with the explanatory variables, making the fixed effects model the more appropriate choice for the analysis.

Table (5) The Result of the Hausman Test.

The Hypothesis	Chi-SQ Statistic	Chi-SQ. d.f	prob	The preferred model
First Hypothesis	18.193667	4	0.0011	Fixed
Second Hypothesis	28.384955	3	0.0000	Fixed

Third Hypothesis	29.257667	3	0.0000	Fixed
Fourth Hypothesis	14.176326	3	0.0027	Fixed

# 8-4-1 The Results of Testing the First Hypothesis:

The results in Table (6) reveal that return on assets and earnings per share have a significant positive effect on stock prices at the 0.05 level, supporting the first hypothesis for these variables.

The debt ratio shows a significant negative effect at the same level, confirming the hypothesis. Conversely, return on equity has no significant impact, with a p-value above 0.05, leading to the rejection of the hypothesis for this variable.

The model's coefficient of determination is 41.77%, indicating that the four variables collectively explain approximately 41.77% of the variation in stock prices.

Table (6): The Result of Fixed Model for the First Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C ROA	7.369551 1.545771	0.504263 0.712567	14.61451 2.169297	0.0000 0.0315
ROE EPS	0.054786 0.000259	0.289880 6.85E-05	0.188996 3.778452	0.8503 0.0002
DR	-2.656883	0.782264	-3.396404	0.0002
Effects Specification				
Cross-section fixed (d	ummy variables	s)		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.411772       Mean dependent var       6.06931         0.340901       S.D. dependent var       1.12622         0.914322       Akaike info criterion       2.76421         138.7735       Schwarz criterion       3.12706         -237.4537       Hannan-Quinn criterion       2.91123         5.810169       Durbin-Watson stat       0.71142         0.000000       0.0000000			

# 8-4-2 The Results of Testing the Second Hypothesis:

The results in Table (7) reveal a significant positive effect of return on assets on stock prices, with a p-value below 0.05. Additionally,

Table (7): The Result of Fixed Model for the Second Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
ROA DR ROA_DEBT C	3.651557 -3.367910 -1.310228 7.764424	1.400813 0.815919 2.572254 0.519252	2.606741 -4.127752 -0.509370 14.95311	0.0100 0.0001 0.6112 0.0000	
	Effects Specification				
Cross-section fixed (dr	ummy variables	s)			
R-squared Adjusted R-squared S.E. of regression	0.359784 0.286945 0.951011	Mean dependent var S.D. dependent var Akaike info criterion		6.069319 1.126222 2.838207	

Sum squared resid	151.0385	Schwarz criterion	3.183780
Log likelihood	-245.3723	Hannan-Quinn criterion	2.978233
F-statistic	4.939435	Durbin-Watson stat	0.679172
Prob(F-statistic)	0.000000		

The debt ratio has a significant negative impact on stock prices at the same significance level.

However, the debt ratio does not significantly moderate the relationship between return on assets and stock prices, as its p-value exceeds 0.05, leading to the rejection of the second hypothesis.

The model's coefficient of determination is 35.97%, indicating that the four variables collectively explain approximately 35.97% of the variation in stock prices.

# 8-4-3 The Results of Testing the Third Hypothesis:

The results in Table (8) reveal a significant positive effect of return on equity on stock prices, with a p-value below 0.05. Additionally, the debt ratio has a significant negative impact on stock prices at the same significance level.

Moreover, the results indicate that the debt ratio has a negative and statistically significant effect on the relationship between return on equity and stock prices, with a significance level of less than 0.05, which indicates the acceptance of the third study hypothesis.

The model's coefficient of determination is 33.48%, indicating that the variables collectively explain approximately 33.48% of the variation in stock prices.

Table (8): The Result of Fixed Model for the Third Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROE DR ROE_DEBT C	3.570625 -2.910017 -4.467496 7.579550	0.908203 0.847009 1.414245 0.545803	3.931526 -3.435638 -3.158927 13.88697	0.0001 0.0007 0.0019 0.0000
	Effects Spec			
Cross-section fixed (du	mmy variables	s)		
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.334865       Mean dependent var       6.06931         0.259191       S.D. dependent var       1.12622         0.969342       Akaike info criterion       2.87639         156.9172       Schwarz criterion       3.22196         -248.9425       Hannan-Quinn criterion       3.01641         4.425096       Durbin-Watson stat       0.63812         0.000000			

## 8-4-4 The Results of Testing the Fourth Hypothesis:

The results in Table (9) reveal a significant positive effect of earnings per share on stock prices, with a p-value below 0.05. Additionally, the debt ratio has a significant negative impact on stock prices at the same significance level.

However, the debt ratio does not significantly moderate the relationship between earnings per share and stock prices, as its p-value exceeds 0.05, leading to the rejection of the fourth hypothesis.

The model's coefficient of determination is 39.14%, indicating that the variables collectively explain approximately 39.14% of the variation in stock prices.

## 9-Discussion:

This study deepens the understanding of how firm profitability and capital structure influence stock valuation in emerging markets, especially in Syria. It finds that return on assets (ROA) and earnings per share (EPS) significantly and positively affect stock prices,

consistent with prior research by Malhotra and Tandon (2013), Sharif et al. (2015), and Al-Qaisi et al. (2016), which identified these variables as key determinants of stock value.

In contrast, return on equity (ROE) was not significantly related to stock prices in this context, differing from studies by Khan et al. (2012) and Zahir and Khanna (1982), which found positive links in Pakistani and Indian markets. This may be due to the high leverage of Syrian firms, which can diminish the impact of equity returns amid increased financial risk. Consequently, ROA and EPS may serve as more reliable indicators of stock value in less developed markets, where capital structures and investor confidence vary widely. The debt ratio, reflecting financial leverage, negatively and significantly impacted stock prices, supporting the pecking order and

The debt ratio, reflecting financial leverage, negatively and significantly impacted stock prices, supporting the pecking order and signaling theories (Abor, 2005; Eriotis et al., 2007). High leverage may indicate financial distress or limited internal funding, reducing

Table (9): The Result of Fixed Model for the Fourth Hypothesis

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
EPS	0.000336	0.000163	2.057111	0.0412	
DR	-2.777735	0.785127	-3.537941	0.0005	
EPS_DEBT	2.46E-05	0.000299	0.082249	0.9345	
C	7.598327	0.491266	15.46684	0.0000	
Effects Specification					
Cross-section fixed (du	ımmy variables	s)			
R-squared	0.391497	Mean deper	ndent var	6.069319	
Adjusted R-squared	0.322266		S.D. dependent var		
S.E. of regression	0.927157	Akaike info	Akaike info criterion		
Sum squared resid	143.5567	Schwarz cr	iterion	3.132975	
Log likelihood	-240.6221	Hannan-Qu	Hannan-Quinn criterion		
F-statistic	5.654946	Durbin-Wa	tson stat	0.615569	
Prob(F-statistic)	0.000000				

Investor confidence. Additionally, the debt ratio's moderating effect was only evident in the ROE-stock price relationship, not with ROA or EPS, aligning with Majumdar and Chhibber (1999), who found leverage weakens the link between profitability and market value when profitability is based on equity returns.

These findings partially support the efficient market hypothesis (EMH), which states that all publicly available information is reflected in stock prices (Fama, as cited in Wooldridge, 2010). In this case, the market seems to incorporate operational and earnings-based profitability metrics (ROA and EPS) but not equity-based performance (ROE), likely due to market inefficiencies or informational asymmetries in Syria. Additionally, the results indirectly support the trade-off theory (Modigliani & Miller, 1958), indicating that excessive debt can diminish firm value beyond the optimal level.

#### 10-Limitations and Future Research:

Despite its contributions, this study has several limitations:

- Geographical and Market Constraints: Since the study samples only firms listed on the Damascus Securities Market, the findings may not be generalizable to other markets with different economic or regulatory environments.
- -Time Frame and Context: Covering 2013–2023, a period marked by significant geopolitical instability in Syria, the results might reflect unique influences on investor behavior and financial reporting specific to this period.
- -Variable Scope: Focusing solely on four financial variables—ROA, ROE, EPS, and debt ratio—excludes other crucial firm-specific and macroeconomic factors such as firm size, market share, inflation, and interest rates that could also impact stock valuation.
- -Data Quality: In emerging markets like Syria, limited disclosure and inconsistent financial reporting can affect data reliability, potentially influencing the accuracy and interpretation of the findings.

Future research could expand the scope to include firms from other MENA or frontier markets to explore cross-country differences in capital structure and valuation dynamics. Moreover, incorporating additional variables such as liquidity ratios, governance quality, or macroeconomic indicators may improve model explanatory power. In addition, using higher-frequency time-series data (e.g., quarterly) and applying non-linear or dynamic models (e.g., GMM or threshold models) could offer deeper insights into causality and short-term

effects. Further studies might also investigate investor sentiment, market efficiency, and the impact of regulatory changes as moderating or mediating factors.

#### 11-Conclusion:

This study investigated how firm profitability indicators—ROA, ROE, and EPS—and the debt ratio influence stock prices, using panel data from 17 firms listed on the Damascus Securities Market between 2013 and 2023. Results show that ROA and EPS significantly and positively affect stock prices, emphasizing their importance as key performance indicators for investors. Moreover, the debt ratio significantly negatively impacts performance, highlighting the importance of careful leverage management to maintain investor confidence.

Notably, the study revealed that ROE on its own did not have a significant effect on stock prices. However, the interaction between ROE and the debt ratio was statistically significant, indicating that capital structure can influence how investors interpret profitability metrics. This is particularly relevant in markets characterized by information asymmetry and financial instability, where leverage may modify the perceived value of equity-based performance indicators.

In conclusion, this research adds valuable, context-specific insights from an understudied emerging market, enriching the existing literature. It provides support for key concepts in the pecking order, signaling, and efficient market hypothesis (EMH) theories, while also highlighting the importance of adapting these theories to local market conditions.

The findings underscore the need for policymakers, investors, and firm managers to carefully evaluate financial structure and profitability signals when assessing firm value, especially in volatile or developing markets where unique economic and informational challenges may influence market dynamics.

#### References

- 1-Abor, J. (2005). The effect of capital structure on profitability: An empirical analysis of listed firms in Ghana. The Journal of Risk Finance, 6(5), 438–445.
- 2-Ali, A., & Chowdhury, T. A. (2010). Effect of financial ratios on stock price in the Dhaka Stock Exchange. Business Research, 3(2), 45-56.
- 3-Al-Qaisi, F., Al-Eitan, G., & Al-Hadrawi, S. (2016). The impact of firm-specific factors on stock price: Evidence from Jordanian industrial companies. International Journal of Economics and Finance, 8(12), 33–45.
- 4-Al-Shubiri, F. (2010). Analysis the relationship between the ROA, ROE, and ROI ratios with Jordanian insurance public companies market share price. International Journal of Humanities and Social Science, 1(1), 115–120.
- 5-Baltagi, B. H. (2005). Econometric analysis of panel data (3rd ed.). John Wiley & Sons.
- 6-Eriotis, N., Vasiliou, D., & Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: An empirical study. Managerial Finance, 33(5), 321–331.
- 7-Greene, W. H. (2012). Econometric Analysis (7th ed.). Pearson.
- 8-Khan, M. Y., Gul, S., Rehman, S. U., Razzaq, N., & Kamal, Y. (2012). Financial ratios and stock return predictability (evidence from Pakistan). Research Journal of Finance and Accounting, 3(10), 1–6.
- 9-Maddala, G. S., & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. Oxford Bulletin of Economics and Statistics, 61, 631–652.
- 10- Majumdar, S. K., & Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance. Public Choice, 98(3–4), 287–305.
- 11-Malhotra, N., & Tandon, K. (2013). Determinants of stock prices: Empirical evidence from NSE 100 companies. IRACST International Journal of Research in Management & Technology, 3(3), 86–95.
- 12-Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. The American Economic Review, 48(3), 261–297.
- 13-Mohammed, A. (2017). Financial performance and stock return of firms listed on the Ghana Stock Exchange. International Journal of Economics and Financial Issues, 7(5), 524–531.
- 14-Niu, X. (2008). Theoretical and practical review of capital structure and its determinants. International Journal of Business and Management, 3(3), 133–139.
- 15-Sharif, T., Purohit, H., & Pillai, R. (2015). Analysis of factors affecting share prices: The case of Bahrain Stock Exchange. International Journal of Economics and Finance, 7(3), 207–216.
- 16-Srinivasan, P. (2012). Determinants of equity share prices in India: A panel data approach. The Romanian Economic Journal, 15(45), 205–228.
- 17-Wooldridge, J. M. (2010). Econometric Analysis of Cross Section and Panel Data (2nd ed.). MIT Press.
- 18-Zahir, M. A., & Khanna, Y. (1982). Determinants of stock prices in the Indian market. The Chartered Accountant, 30(8), 521–523.

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