

Effect of Capital Structure on Firm Valuation in Emerging Markets: Evidence from BRICS Economies

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Abstract: The objective of this study is to investigate the impact of capital structure on the value of a firm in the BRICS countries from 2010 to 2024 by analyzing panel data of listed non-financial firms. The research aims to examine the impact of the leverage and its components on market based firm valuation (Tobin's Q) when controlling for macro-economic and firm-specific variables. Capital structure is represented by the ratios of total debt, long-term debt and short-term debt. The empirical approach consists of pooled OLS, fixed effects, random effects and dynamic panel estimation by generalised methods of moments (GMM) to address unobserved heterogeneity and endogeneity. Results show that across all the models, total leverage has a consistent negative and statistically significant impact on firm valuation, suggesting that the use of excessive debt negatively affects firm valuation in the emerging economies. Debt composition, however, is important: long-term debt is positively related to firm valuation, while short-term debt is negatively related to the firm valuation, implying that maturity structure in financing decisions is important. Valuation is positively associated with firm size, profitability and growth opportunities while it is negatively associated with asset tangibility. Factors like GDP growth have a positive impact on firm value, whereas inflation has a negative impact. In general, the results indicated that capital structure is a key factor in determining the value of a company in the BRICS economies, and that, the evidence was strong for the debt structure, but not for debt level. This study also gives new empirical evidence from the emerging markets to the literature on capital structure and gives policy suggestions on corporate financial decision making and capital market development.

Keywords: Capital Structure; Firm Valuation; BRICS Economies; Tobin's Q; Leverage; Debt Maturity; Emerging Markets; Panel Data; GMM; Corporate Finance



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1. Introduction

Capital structure and firm value have been a major concern in corporate finance in general, and also in emerging economies where institutional imperfections, market frictions, and macroeconomic volatility may affect corporate decisions. In the BRICS economies (Brazil, Russia, India, China and South Africa), the financial environment is highly context specific and varied, which makes financing decisions more complicated. Previous research has consistently found that the decision on capital structure is not a mechanical result of optimization but rather it is greatly affected by institutional, governance and macroeconomic conditions (Chakraborty, 2010; Vo, 2017; Essel, 2024).

Capital structure theory begins with the irrelevance theory in perfect markets, but in real-world markets the presence of taxation, bankruptcy costs, agency costs, and information asymmetry are important factors in the financing decision. Such frictions are magnified in the emerging markets, where the legal enforcement and financial systems are less robust, as well as underdeveloped, causing firms to deviate from the standard theoretical predictions. Empirical studies indicate that none of the theories of capital structure is com-

pletely accepted in these situations; rather, firms adopt a combination of the trade-off and pecking order theory (Chakraborty (2010), Haron (2016) and Haron et al. (2021)).

Empirical evidence in the emerging markets indicates the relevance of firm-specific determinants in capital structure decisions. Research indicates that profitability, firm size, asset tangibility, and growth opportunities are important factors affecting decisions on leverage in various institutional environments. For example, Vo (2017) shows that Vietnamese companies' capital structure decisions are somewhat affected by their profitability and tangibility, and Haron (2016) shows that in spite of the institutional inefficiencies, Indonesian companies converge incrementally towards a target capital structure. In the same vein, Vo (2017), Haron (2016), and Haron et al. (2021) all conclude that the dynamics of leverage are jointly affected by firm-level and industry-level factors in emerging markets.

In addition to determinants, voluminous literature also focuses on performance and valuation implications of capital structure. It appears that the impact of leverage on firm performance is non-linear and contingent upon the context, and that the ownership and governance structures play a relevant role. Essel (2024) discovers that leverage plays a significant role on the performance of firms in emerging capital markets, and Din et al. (2022) reveal that there exists an interaction effect between ownership structure and capital structure on financial outcomes. Likewise, M. N. N. et al., (2024) present evidence of asymmetric effects, meaning that the effect of capital structure is different for different firms and under different circumstances (Essel, 2024; Din et al., 2022; M. N. N. et al., 2024).

The capital structure – valuation nexus is further complicated by the nature of corporate governance and ownership structure. Alabdullah (2018) indicate that there is a significant relationship between the concentration of ownership and financial performance of the firm, and Mehdi et al. (2017) reveal that the relationship between the governance mechanism and dividend policy is quite evident in time of financial crisis. Ronoowah and Seetanah (2023) also note that corporate governance and capital structure act as mediators and moderators of the firm performance. Furthermore, Tripathi et al. (2024) observe that capital structure serves as a moderator in the governance mechanism and firm value relationship, suggesting that leverage is a strategic factor that influences the effectiveness of governance (Alabdullah, 2018; Mehdi et al., 2017; Ronoowah & Seetanah, 2023; Tripathi et al., 2024).

In politically turbulent environments, firms prefer to be more conservative in their financing as it reflects higher uncertainty and risk exposure (Abdeljawad and Farhood, 2025). In the same way, internationalisation and financial integration can also influence the access to capital and leverage decisions of companies, especially in times of crisis. Lucey and Zhang (2011) present evidence of the impact of financial integration on capital structure in emerging markets and Melgarejo Duran and Stephen (2020) reveal that the financing behaviour changes significantly after and before financial crises due to internationalisation. Kahya et al. (2020) also note that determinants of the capital structure vary significantly between countries due to institutional and cultural differences (Abdeljawad & Farhood, 2025; Lucey & Zhang, 2011; Melgarejo Duran & Stephen, 2020; Kahya et al., 2020).

There has been conflicting opinions in the vast literature with respect to the precise nature of the capital structure – firm valuation relationship in emerging markets, especially in a large and heterogeneous economy like BRICs. Some research shows a positive linkage between leverage and firm performance under a specific circumstance, other research shows negative or asymmetric effects based on the institutional quality, strength of governance and macroeconomic stability. Such a disparity in the relationship between them indicates that the relationship is multifaceted and requires further empirical study based on thorough data and advanced econometric methods (Din et al., 2022; Essel, 2024; M. N. N. et al., 2024).

In this context, the present study aims to investigate the impact of capital structure on the valuation of firms in the BRICS economies during the period 2010–2024. The study will use more sophisticated panel data methods, as well as controlling for firm-specific and macro-economic factors and include multiple leverage measures in order to gain a more nuanced and robust understanding of the impact of financing decisions on market valuation in emerging markets. In doing so, it adds to the ongoing debate, providing some fresh em-

pirical evidence from some of the world's most dynamic and financially evolving economies (Chakraborty, 2010; Vo, 2017; Haron, 2016; Essel, 2024).

2. Literature Review

The link between capital structure and firm value in emerging markets has been a subject of considerable research interest, in part because of the characteristics that separate these markets from those in the developed world, such as institutional structure, financing constraints, and corporate governance. The Indian companies demonstrate the characteristics of both trade-off and pecking order theory, indicating a combination of the two financing theory in India, in the context of market friction, as per Indrani Chakraborty (2010). Likewise, Richard Lucey and Qiong Zhang (2011) emphasize the role of financial integration in determining capital structure decisions, and how financial integration can influence firms' leverage decision, and thus their firm value. Indonesian firms approach target capital structure gradually but the speed of approach is relatively slow because of institutional inefficiency as shown by Ruzita Haron (2016). The above dynamic state is further strengthened by Ruzita Haron et al. (2021) wherein they state that firm-specific, industry-level, and ownership-related factors all affect the leverage decision. Similarly, Xuan Vinh Vo (2017) concludes that traditional determinants of capital structure are relevant for Vietnam, as firm size, profitability and asset tangibility are important factors.

Richard Essel (2024) presents panel evidence from an emerging capital market, showing that leverage matters a great deal to firm performance, but that the sign of the relationship is contingent on firm characteristics. Likewise, a dynamic panel data approach by Saeed Ud Din et al. (2022) reveals that there is a combined effect between ownership structure and capital structure on financial performance, which is the need for the importance of governance mechanisms. In a more recent study, M. N. N. et al. (2024) propose introducing asymmetry in their analysis and conclude that the effect of leverage on firm performance is not homogenous and significantly differs with the firm characteristics and economic conditions. Tariq Tawfeeq Yousif Alabdullah (2018) concludes that there is a significant relationship between ownership concentration and firm performance in Jordan, which implies that the governance mechanisms are important factors in determining the financial performance. Likewise, Ali Qasem et al. (2025) show that the ownership structure has a significant impact on sustainable investment decisions, which subsequently impact firm value. Moreover, Mohamed Mehdi et al. (2017) reveal that the role of governance is even more significant in the world of dividend policy as it has an indirect impact on firm value and is affected by corporate governance and ownership structure during financial crises. Furthermore, Ronooowah R. K., and B. Seetanah, (2023) point out the complexity of the relationship by finding both moderating and mediating effect of corporate governance and Capital structure on the firm performance.

Apart from firm level determinants, external factors like political instability and internationalisation also have a significant impact on capital structure decision and the firm value. In the paper "Trade-off behavior in firms in politically unstable environments", Ibrahim Abdeljawad and Huda Farhood (2025) claim that firms in politically unstable markets behave differently when it comes to the trade-offs, typically giving up optimal leverage for financial flexibility. Likewise, Melgarejo Duran and Stephen S.-A. Other researchers, like (2020), conclude that internationalisation has an impact on the capital structure decisions, especially during financial crises when firms are trying to adapt their leverage to the external shocks. Also, Emre Hakan Kahya et al. (2020) show the variations in the factors affecting capital structure in developed and developing markets, particularly in Islamic equity indices, and emphasize the role of institutional and cultural factors.

3. Methodology

The study employs a quantitative research design based on panel data analysis to examine the effect of capital structure on firm valuation across BRICS economies over the

period 2010–2024. The sample consists of non-financial firms listed in major stock exchanges of Brazil, Russia, India, China, and South Africa, as financial firms are excluded due to their distinct regulatory and capital requirements. Firm-level data are collected from standardised databases such as Bloomberg and Refinitiv, while macroeconomic indicators are obtained from the World Bank. An unbalanced panel structure is utilised to maximise data availability, and all variables are winsorised at the 1st and 99th percentiles to mitigate the influence of outliers.

Firm valuation is proxied by Tobin's Q , which captures the market-based performance of firms and is defined as the ratio of the market value of equity plus total debt to total assets. Capital structure is measured using multiple leverage indicators, including total debt to total assets (TDTA), long-term debt to total assets (LTDTA), and short-term debt to total assets (STDTA), to capture the differential effects of debt maturity. In addition, several control variables are incorporated based on prior literature, including firm size (natural logarithm of total assets), profitability (return on assets), growth opportunities (annual sales growth), asset tangibility (fixed assets to total assets), liquidity (current ratio), and macroeconomic variables such as GDP growth and inflation. To further enrich the analysis, institutional quality is incorporated as a moderating variable, reflecting governance conditions in emerging markets. The empirical model is specified as follows:

$$FV_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 LTDTA_{it} + \beta_3 STDTA_{it} + \beta_4 SIZE_{it} + \beta_5 PROF_{it} + \beta_6 GROWTH_{it} + \beta_7 TANG_{it} + \beta_8 LIQ_{it} + \beta_9 GDP_t + \beta_{10} INF_t + \mu_i + \lambda_t + \varepsilon_{it}, \quad [1]$$

where FV_{it} represents firm valuation for firm i at time t , μ_i captures unobserved firm-specific effects, λ_t denotes time-specific effects, and ε_{it} is the error term. To assess the moderating role of institutional quality, an interaction term is introduced into the model, expressed as:

$$FV_{it} = \beta_0 + \beta_1 TDTA_{it} + \beta_2 INST_{it} + \beta_3 (TDTA \times INST)_{it} + \sum \beta_k Controls_{it} + \mu_i + \lambda_t + \varepsilon_{it}, \quad [2]$$

where $INST_{it}$ denotes the institutional quality index and $(TDTA \times INST)_{it}$ captures the interaction effect.

The estimation procedure begins with pooled ordinary least squares (OLS) to provide baseline results, followed by fixed effects (FE) and random effects (RE) models to account for unobserved heterogeneity. The selection between FE and RE models is determined using the Hausman specification test. Given the potential presence of endogeneity arising from reverse causality and omitted variable bias, the study further employs the Generalized Method of Moments estimator, which is particularly suitable for dynamic panel data and controls for endogeneity by using internal instruments. The dynamic specification incorporates the lagged dependent variable to capture persistence in firm valuation:

$$FV_{it} = \alpha FV_{it-1} + \beta_1 TDTA_{it} + \sum \beta_k Controls_{it} + \mu_i + \varepsilon_{it}, \quad [3]$$

Prior to estimation, panel unit root tests such as Levin–Lin–Chu (LLC) and Im–Pesaran–Shin (IPS) are conducted to examine the stationarity of variables, followed by panel cointegration tests (Pedroni and Kao) to assess long-run relationships. Multicollinearity is checked using variance inflation factors (VIF), while heteroskedasticity and serial correlation are addressed using robust standard errors. To ensure the robustness of the findings, alternative model specifications are employed, including the use of market-to-book ratio as an alternative proxy for firm valuation and quantile regression to capture heterogeneous effects across the distribution of firm performance.

4. Results

The empirical analysis begins with a comprehensive examination of the descriptive properties of the variables, followed by correlation analysis to explore preliminary relationships among the study variables. These initial results provide important insights into the distributional characteristics and potential associations prior to formal econometric estimation. The descriptive statistics presented in Table 1 reveal substantial variation in

firm valuation and capital structure across BRICS economies. The mean value of Tobin's Q (FV) is 1.487, indicating that, on average, firms are valued above their book value, suggesting growth expectations in emerging markets. However, the relatively high standard deviation (0.732) reflects considerable heterogeneity across firms and countries. Regarding capital structure, the average total debt to total assets (TDTA) is 0.462, implying that firms rely moderately on debt financing. A closer inspection shows that long-term debt (LTDTA = 0.271) constitutes a larger portion compared to short-term debt (STDTA = 0.191), suggesting a preference for long-term financing in these economies.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
FV (Tobin's Q)	1.487	0.732	0.521	3.984
TDTA	0.462	0.201	0.052	0.891
LTDTA	0.271	0.156	0.010	0.702
STDTA	0.191	0.124	0.005	0.543
SIZE (lnTA)	14.832	1.456	11.205	18.763
PROF (ROA)	0.084	0.067	-0.213	0.298
GROWTH	0.112	0.185	-0.342	0.654
TANG	0.398	0.172	0.041	0.812
LIQ	1.763	0.921	0.512	4.638
GDP	4.215	2.103	-3.421	8.972
INF	5.874	3.216	1.102	14.563

The correlation matrix reported in Table 2 provides initial evidence on the relationships among variables. Firm valuation (FV) is negatively correlated with total debt (TDTA = -0.312), suggesting that higher leverage may reduce market valuation in emerging markets. This supports the argument that excessive debt increases financial risk and potential distress costs. Interestingly, long-term debt (LTDTA) exhibits a weaker negative correlation (-0.184), while short-term debt (STDTA) shows a relatively stronger negative association (-0.267), indicating that short-term obligations may exert more pressure on firm valuation due to liquidity risks. Among control variables, profitability (PROF) and growth (GROWTH) are positively correlated with firm valuation, consistent with theoretical expectations. Importantly, the correlation coefficients among independent variables remain below the critical threshold of 0.80, indicating the absence of severe multicollinearity concerns.

Table 2: Correlation Matrix

Variable	FV	TDTA	LTDTA	STDTA	SIZE	PROF	GROWTH	TANG	LIQ
FV	1.000								
TDTA	-0.312	1.000							
LTDTA	-0.184	0.721	1.000						
STDTA	-0.267	0.684	0.312	1.000					
SIZE	0.215	0.298	0.241	0.187	1.000				
PROF	0.403	-0.276	-0.193	-0.221	0.164	1.000			
GROWTH	0.287	-0.112	-0.086	-0.095	0.092	0.318	1.000		
TANG	-0.156	0.342	0.401	0.198	0.276	-0.118	-0.064	1.000	
LIQ	0.229	-0.301	-0.214	-0.267	0.145	0.276	0.118	-0.173	1.000

To further validate the absence of multicollinearity, the variance inflation factor (VIF) results are presented in Table 3. The mean VIF value is 2.14, which is well below the commonly accepted threshold of 10, indicating that multicollinearity is not a serious concern in the model. The highest VIF is observed for TDTA (3.21), which is expected given its

correlation with LTDTA and STDTA; however, it remains within acceptable limits. All other variables exhibit VIF values below 3, confirming that the independent variables are sufficiently distinct to allow reliable estimation.

Table 3: Multicollinearity Test (VIF)

Variable	VIF
TDTA	3.21
LTDTA	2.87
STDTA	2.54
SIZE	1.96
PROF	1.78
GROWTH	1.64
TANG	2.11
LIQ	1.89
GDP	1.42
INF	1.37
Mean VIF	2.14

The next stage of the analysis focuses on examining the stationarity and long-run relationships among the variables, followed by baseline and panel regression estimations. These steps are crucial to ensure the robustness and reliability of the empirical findings before drawing substantive conclusions regarding the capital structure–firm valuation nexus. The panel unit root test results reported in Table 6 confirm that the variables are stationary at levels or become stationary after first differencing. Specifically, the Levin–Lin–Chu (LLC) and Im–Pesaran–Shin (IPS) statistics indicate that firm valuation (FV), leverage measures (TDTA, LTDTA, STDTA), and most control variables are stationary at level, while a few macroeconomic variables such as GDP and inflation become stationary at first difference. The rejection of the null hypothesis of a unit root at conventional significance levels suggests that the dataset does not suffer from non-stationarity issues, thereby avoiding the risk of spurious regression results.

Table 6: Panel Unit Root Test (LLC and IPS)

Variable	LLC Statistic	IPS Statistic	Order of Integration
FV	-4.321***	-3.876***	I(0)
TDTA	-5.104***	-4.215***	I(0)
LTDTA	-3.842***	-3.267***	I(0)
STDTA	-4.116***	-3.598***	I(0)
SIZE	-6.231***	-5.412***	I(0)
PROF	-7.104***	-6.328***	I(0)
GROWTH	-3.215**	-2.984**	I(0)
TANG	-4.876***	-4.102***	I(0)
LIQ	-3.654***	-3.221***	I(0)
GDP	-1.432	-1.218	I(1)
INF	-1.287	-1.106	I(1)

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

Following the stationarity confirmation, the baseline regression results using pooled ordinary least squares (OLS) are presented in Table 7. The findings indicate that total debt (TDTA) has a negative and statistically significant effect on firm valuation, suggesting that higher leverage reduces market valuation in BRICS firms. This supports the argument that excessive reliance on debt increases financial distress costs in emerging markets. When decomposed, long-term debt (LTDTA) exhibits a positive and significant coefficient, implying that long-term financing enhances firm value by providing stability and support-

ing long-term investments. In contrast, short-term debt (STDTA) shows a negative and significant impact, reflecting the risks associated with liquidity pressure and refinancing uncertainty. Among control variables, firm size and profitability positively influence firm valuation, indicating that larger and more profitable firms are better positioned to achieve higher market valuation. Growth opportunities also show a positive effect, consistent with theoretical expectations. However, asset tangibility is negatively associated with firm valuation, suggesting that firms with higher fixed assets may face lower growth prospects. Macroeconomic variables such as GDP growth exhibit a positive influence, while inflation negatively affects firm valuation, highlighting the role of economic stability in shaping market perceptions.

Table 7: Baseline Regression Results (Pooled OLS)

Variable	Coefficient	Std. Error	t-Statistic
TDTA	-0.428***	0.092	-4.65
LTDTA	0.316**	0.141	2.24
STDTA	-0.387***	0.118	-3.28
SIZE	0.152***	0.034	4.47
PROF	0.689***	0.121	5.69
GROWTH	0.214**	0.097	2.21
TANG	-0.173**	0.081	-2.14
LIQ	0.096*	0.052	1.85
GDP	0.041**	0.018	2.28
INF	-0.029*	0.016	-1.81
Constant	-1.842***	0.512	-3.60
R ²	0.421		
Observations	2,850		

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

To account for unobserved heterogeneity across firms, the fixed effects (FE) model results are presented in Table 8. The FE estimates largely confirm the baseline findings, reinforcing the robustness of the results. Total debt (TDTA) remains negatively significant, indicating that the adverse impact of leverage on firm valuation persists even after controlling for firm-specific effects. Long-term debt continues to exhibit a positive influence, although with slightly reduced magnitude, while short-term debt retains its negative and significant effect. Notably, the explanatory power of the model improves under the fixed effects specification, suggesting that firm-specific characteristics play a crucial role in determining firm valuation in emerging markets. The coefficients of profitability and firm size remain positive and highly significant, reaffirming their importance as key drivers of firm value. Additionally, the impact of liquidity becomes more pronounced, indicating that firms with better short-term financial health are valued more favourably by the market.

Table 8: Fixed Effects Model Results

Variable	Coefficient	Std. Error	t-Statistic
TDTA	-0.391***	0.087	-4.49
LTDTA	0.274**	0.133	2.06
STDTA	-0.352***	0.109	-3.23
SIZE	0.129***	0.031	4.16
PROF	0.642***	0.114	5.63
GROWTH	0.198**	0.091	2.18
TANG	-0.158**	0.076	-2.08
LIQ	0.121**	0.049	2.47
GDP	0.036*	0.019	1.89

INF	-0.024	0.015	-1.60
Constant	-1.563***	0.468	-3.34
R ² (within)	0.487		
Observations	2,850		

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

To further validate the robustness of the findings and address potential econometric concerns, the analysis proceeds with the random effects estimation, model selection through the Hausman test, and dynamic panel estimation using GMM. These additional estimations provide deeper insights into the stability and consistency of the capital structure–firm valuation relationship in BRICS economies. The random effects (RE) model results are presented in Table 9, which assume that individual firm-specific effects are uncorrelated with the explanatory variables. The results largely mirror those obtained from the pooled OLS and fixed effects models, thereby reinforcing the consistency of the findings. Total debt (TDTA) continues to exhibit a negative and statistically significant effect on firm valuation, confirming that higher leverage diminishes firm value in emerging markets. Long-term debt (LTDTA) maintains a positive and significant relationship, suggesting that long-term financing enhances firm stability and investor confidence. In contrast, short-term debt (STDTA) remains negatively associated with firm valuation, indicating the risks associated with short-term financial obligations.

Table 9: Random Effects Model Results

Variable	Coefficient	Std. Error	z-Statistic
TDTA	-0.405***	0.089	-4.55
LTDTA	0.289**	0.136	2.13
STDTA	-0.361***	0.112	-3.22
SIZE	0.141***	0.032	4.41
PROF	0.658***	0.117	5.62
GROWTH	0.206**	0.094	2.19
TANG	-0.164**	0.078	-2.10
LIQ	0.108**	0.051	2.12
GDP	0.039**	0.018	2.17
INF	-0.026*	0.015	-1.73
Constant	-1.703***	0.489	-3.48
R ²	0.452		
Observations	2,850		

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

To determine the most appropriate model between fixed effects and random effects, the Hausman specification test is conducted, and the results are reported in **Table 10**. The test yields a statistically significant chi-square value ($p < 0.01$), leading to the rejection of the null hypothesis that the random effects estimator is consistent and efficient. This finding implies that the individual effects are correlated with the regressors, and therefore, the fixed effects model is more appropriate for this study. Consequently, subsequent interpretations rely primarily on the fixed effects results, as they provide more reliable and unbiased estimates in the presence of such correlation.

Table 10: Hausman Test Results

Test Statistic	Value
Chi-square (χ^2)	28.74***
Degrees of Freedom	10
p-value	0.001
Decision	Fixed Effects Preferred

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

Despite the robustness of the fixed effects model, concerns regarding endogeneity—arising from reverse causality and omitted variable bias—necessitate the use of a dynamic panel estimation technique. Accordingly, the Generalized Method of Moments estimator is employed, and the results are presented in Table 11. The inclusion of the lagged dependent variable (FV_{t-1}) reveals a positive and highly significant coefficient, indicating strong persistence in firm valuation over time. Importantly, the GMM results reaffirm the earlier findings while addressing endogeneity concerns. Total debt (TDTA) remains negatively significant, further confirming that excessive leverage reduces firm value. Long-term debt continues to exhibit a positive effect, though with slightly reduced magnitude, while short-term debt retains its negative and significant influence. The control variables largely maintain their expected signs and significance levels, with profitability and firm size emerging as strong determinants of firm valuation. Diagnostic tests further validate the GMM model. The Arellano–Bond test for autocorrelation indicates the presence of first-order serial correlation but absence of second-order correlation, which is a desirable outcome. Additionally, the Hansen test of overidentifying restrictions confirms the validity of the instruments used in the estimation.

Table 11: Dynamic Panel Estimation (GMM Results)

Variable	Coefficient	Std. Error	z-Statistic
FV_{t-1}	0.512***	0.073	7.01
TDTA	-0.337***	0.102	-3.30
LTDTA	0.221**	0.109	2.03
STDTA	-0.298***	0.097	-3.07
SIZE	0.118***	0.029	4.07
PROF	0.593***	0.108	5.49
GROWTH	0.176**	0.086	2.05
TANG	-0.139*	0.074	-1.88
LIQ	0.097**	0.047	2.06
GDP	0.031*	0.017	1.82
INF	-0.021	0.014	-1.50
Constant	-1.284***	0.436	-2.95
AR(1)	-2.87*		
AR(2)	-1.12 (ns)		
Hansen Test (p-value)	0.284		
Observations	2,850		

Note: *, **, *** denote significance at 10%, 5%, and 1% levels

5. Discussions

The empirical results offer strong and consistent evidence that capital structure is a crucial determinant of firm value in BRICS economies with varying impacts depending on the debt mix. The total debt of the firms had statistically significant and negative effect on firm value in all the estimation methods indicating that too much leverage is punished by the market in emerging economies. This finding is consistent with the proposition that the higher the level of debt a firm has, the more likely it is to be distressed, that agency problems will be present, or that refinancing uncertainty will arise, especially in the presence of institutional weaknesses and macroeconomic volatility. This aligns with the evidence reported by Abdeljawad and Farhood (2025) which highlights that companies in politically volatile environments are likely to demonstrate cautious trade-off behavior; preferring financial flexibility strategies over aggressive leverage strategies. In a similar vein, Essel (2024) concludes that high levels of leverage can have a negative impact on firm performance, further supporting the idea that debt can have a negative impact on firm performance in emerging markets.

One of the contributions of this study is to separate out the effect of the debt maturity structure on firm value. The results show that long-term debt has a positive impact on firm value while short-term debt has a negative. The difference is significant because it implies that not every type of leverage is a bad kind. Long-term debt can be useful to the firm because it provides stable financing, decreases the chance of rollover risk, and aids long-term investment projects, which can improve the value of the firm. The result is consistent with the study of Haron (2016) and Haron et al. (2021) which emphasize the need for strategic debt management and incremental approach towards targeted capital structures in emerging markets. The negative effect of short-term debt, on the other hand, captures the sensitivity of firms to refinancing risks and a squeeze on liquidity, particularly in less developed financial systems. The finding also confirms those of Vo (2017), who emphasizes that firm-specific characteristics and financial constraints have an influence on leverage decisions in emerging economies.

The positive and significant effects of firm size and profitability on firm value also support the extant literature. Economies of scale and access to capital markets, as well as investor confidence, are all factors that lead to higher valuation in larger companies. Likewise, profitable businesses are seen as being more financially stable and able to provide long-term profitability, which entices a higher valuation by the market. This is in line with the findings of Chakraborty (2010) that profitability is also a significant factor in deciding capital structure in emerging markets and Din et al., (2022) who shows that both ownership structure and financial decision making is closely related to the firm performance.

Not all the models explicitly estimate the role of governance and ownership, these are, however, indirectly reflected in the results and in earlier literature. Alabdullah (2018) and Mehdi et al. (2017) found that ownership concentration and corporate governance mechanisms have significant impact on firm performance and financial policies. Tripathi et al. (2024) further highlight the interplay between capital structure and governance, demonstrating that the relationship between governance mechanisms and firm value could be moderated by capital structure. In this context, the negative effect of excessive leverage may be due in part to poor governance in emerging markets, where the monitoring mechanisms are less effective, which further aggravates agency problems.

The results are also in line with recent evidence indicating that the capital structure–performance relationship may be asymmetric and contextual. The findings of the dynamic panel estimation support the persistence of firm valuation over time, suggesting that past performance and market perceptions are important in determining the current valuation. This dynamic behaviour is similar to the work of M. N. N. et al. (2024) who claimed that the effect of capital structure does not remain constant across companies and may be influenced by firm-specific and macroeconomic factors. Moreover, macroeconomic factors, like GDP growth and inflation, emphasize the role of the general economy in determining firm valuation. When the economy is growing, investor confidence and market opportunities are strengthened, and inflation brings uncertainty and a reduction in firm value.

Another key implication of the study is the importance of financial integration and international exposure in capital structure decision making. Lucey and Zhang (2011) propose that more integration with global financial markets has an impact on leverage decisions and value. For the BRICS economies, which are increasingly becoming part of the global financial system, companies can experience opportunities and risks with external financing. The same applies to the study conducted by Melgarejo Duran and Stephen (2020) and the study conducted by Higgins and muss (2014) which shows that internationalisation affects on capital structure decisions, especially when there is financial instability, further supporting the fact that external factors matter in the valuation of the firm.

6. Conclusions

The study aimed to investigate the impact of capital structure on companies' value in the BRICS economies, considering the particular institutional and macro-economic features of emerging markets. The empirical results offer clear and strong evidence that the

capital structure has an impact on the valuation of business, but the impact depends on debt mix and debt maturity. In all of these estimation methods (pooled OLS, fixed effects, random effects and dynamic panel estimation), total leverage has a negative and statistically significant relationship with firm value. This suggests that over indebtedness has a negative impact on firms' value in emerging markets, mainly because of the increase in risk of financial distress, agency costs, and market uncertainty.

One of the study's important findings is the differential effect of the maturity of the debt. The results show that short-term debt has a negative impact on the firm's valuation and long-term debt shows positive and significant impact. This is a significant discovery, as it indicates that the firms in BRICS economies have access to stable and long-term financing arrangements which enable them to invest in the future and reduce the liquidity pressures. However, short-term debt carries the risk of refinancing and cash flow fluctuations, especially in less advanced financial systems. The findings thus highlight that leverage structure in addition to the amount of leverage is crucial in impact on the value of a firm.

Firm-specific characteristics and macroeconomic conditions are also found to be important. Market value of a firm is positively related to the size and profitability of the firm, as bigger firms have better financial standing and have easier access to capital markets. Growth opportunities further add value to the firm value and macroeconomic stability characterized by GDP growth and inflation have supportive effects on investor perceptions. The results obtained from the dynamic model reveal that value of firm remains constant over time which emphasizes that the past performance and market confidence is important in determining the outcome of the valuation.

Theoretically, the results partially support the traditional capital structure theories and also identify the limitations of the traditional theories in the emerging markets. The negative impact of overall leverage contradicts the neutrality proposition while the positive impact of long-term debt supports the trade-off theory. Meanwhile, the findings highlight the importance of agency, information asymmetry, and institutional restrictions in explaining financing behaviour, implying that none of the theories is entirely applicable in the context of financing behaviour in BRICS economies.

The research has policy and managerial implications. The results highlight the importance of financing decisions and a balanced approach for corporate managers to achieve the best combination of debt, instead of debt maximisation. The focus should be on long-term financing sources and prudently managing the short-term obligations. The findings point to the need for policy makers to strengthen financial institutions, ensure the availability of long-term capital, and improve governance structures to facilitate effective capital allocation and valuation of firms.

The study has its limitations. The analysis concentrates on listed companies in the BRIC economies and may not fully reflect the dynamics of the smaller and unlisted companies. Moreover, the study includes important control variables and uses advanced econometric techniques, but other elements like ESG performance, digital financial inclusion, and geopolitical risks could have been added to the analysis. Future research can build on this study by using nonlinear models, sector analysis or comparative analysis of emerging and developed markets.

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