JBEO (2024), 7(4), 23-32.

Journal of Business and Economic Options

Trade-Off and Pecking Order Theories in Corporate Financing: Insights from Argentina

Maria Rodriguez[a]

Abstract

The purpose of this paper is to explore the relationship between leverage and its key determinants within the context of Argentina, drawing on two prominent theories of capital structure: the trade-off theory and the pecking order theory. While there is an extensive body of literature on this topic, the number of studies that specifically address this issue in emerging economies like Argentina remains relatively scarce, and the existing results are often incomplete or contradictory. This paper aims to fill this gap by providing further empirical evidence on how firms in an emerging market navigate their financing decisions. To identify the companies included in the study, a stratified sampling methodology was employed, based on an economic criterion that helps ensure the sample accurately represents different sectors and company sizes. The data used in the analysis were derived from balance sheet information collected through a questionnaire distributed to the selected firms. Given the high inflationary environment in Argentina, the data were normalized to neutralize the effects of inflation, ensuring that the financial variables reflect the true economic conditions of the companies. The study covers a period of three years and includes a sample of 181 firms. To analyze the data, the research applies a static fixed effects (FE) model, which is commonly used in panel data analysis to control for unobserved heterogeneity across firms and to isolate the effects of the key determinants on leverage. The fixed effects model is particularly suitable for this context, as it allows for a detailed examination of how individual firm characteristics influence financial decisions over time, while controlling for time-invariant factors. The results of this paper contribute to the existing literature by providing new insights into the financial behavior of firms in an economic context that has not been extensively studied. The empirical findings shed light on the determinants of leverage in Argentina, offering a clearer understanding of the factors that drive corporate financing decisions in an emerging economy. By analyzing the relative importance of these factors, the paper offers valuable implications for Argentine entrepreneurs and business managers seeking to optimize their financial structures. Furthermore, the findings can guide future research in this area and provide practical recommendations for corporate decision-making. For example, understanding the relative importance of trade-off versus pecking order considerations in a high-inflation environment like Argentina can help firms make more informed choices about their capital structure. Managers can use these insights to navigate the complexities of financing decisions, balancing the benefits of debt with the costs associated with financial distress or loss of control. This paper contributes to the broader understanding of corporate financial behavior in emerging markets, particularly in the Argentine context. By applying established capital structure theories to a new setting, the study enhances the understanding of how firms in such economies make financial decisions and the key factors that influence their leverage.

Keywords: Leverage, Capital Structure, Emerging Economies

JEL Codes: G32, F65, O54

Received: 12-10-2024 **Revised: 09-12-2024** **Online Published: 25-12-2024**

1. INTRODUCTION

The capital structure of a firm, which refers to the mix of debt and equity used to finance its investments, is a fundamental topic in corporate finance. Over the years, this subject has attracted substantial attention from researchers due to its critical importance for firm performance, risk management, and financial decision-making. The capital structure decision involves assessing the trade-offs between the advantages of debt and the costs associated with debt (Wali, 2018; Omri, 2022; van Zanden, 2023). Consequently, the topic has been widely debated in both theoretical and empirical research, with scholars proposing several models and theories to explain how firms make their financing decisions. The theoretical underpinnings of capital structure theory date back to the seminal work of Modigliani and Miller (1958), who established the foundational idea that in a perfect market, the capital structure of a firm does not affect its value. Their proposition, known as the Modigliani-Miller theorem, argued that under conditions of no taxes, bankruptcy costs, or asymmetric information, firms could finance their operations through either debt or equity without affecting their overall market value. However, when real-world factors such as taxes, transaction costs, and asymmetric information are considered, the Modigliani-Miller framework was expanded and modified. This led to a variety of other theories that attempted to capture the complexities of

[a] Departamento de Economía, Facultad de Ciencias Económicas, Universidad Nacional de La Plata, La Plata, Argentina

real-world capital structure decisions.

Among these theories, the trade-off theory and the pecking order theory have been two of the most widely studied. The trade-off theory, which was further developed by scholars like Myers (1984) and Harris and Raviv (1991), suggests that firms balance the tax advantages of debt with the costs of financial distress, aiming to find an optimal debt-equity ratio. According to this theory, firms that are more profitable and less risky are more likely to use debt, as they can enjoy the benefits of leverage without facing significant risks of bankruptcy. On the other hand, firms with higher business risk or lower profitability tend to rely more on equity to avoid the costs of debt. In contrast, the pecking order theory, proposed by Myers and Majluf (1984), posits that firms follow a hierarchy when making financing decisions. According to this theory, companies prefer internal financing (retained earnings) first, then debt, and only issue equity as a last resort. This preference arises due to asymmetric information, where managers have more information about the firm's value than outside investors, leading them to avoid issuing equity if they believe the firm's stock is undervalued. Thus, the pecking order theory suggests that firms with greater access to internal financing or lower information asymmetry may rely less on external debt or equity.

Despite the wealth of theoretical work, empirical evidence on the capital structure remains inconclusive, particularly when applied to different economic contexts. Studies such as those by Rajan and Zingales (1995), Fama and French (2002), and Frank and Goyal (2009) have provided valuable insights, but they have also shown that the factors influencing capital structure vary considerably across different industries, countries, and firm-specific characteristics. For instance, factors such as firm size, profitability, tangibility of assets, growth opportunities, and market conditions may all influence the choice between debt and equity. However, the relative importance of each factor is often context-dependent, making it difficult to generalize findings across different settings.

One reason for this lack of consensus is the complexity and variety of external and internal factors that influence financing decisions (Wali, 2018; Audi & Al Masri, 2024). For example, in emerging economies like Argentina, firms face unique challenges such as high inflation, currency volatility, and limited access to capital markets. These factors can significantly affect the availability and cost of debt and equity, which in turn influences the capital structure decisions of firms in these markets (Banyen, 2022; Adjasi & Yu, 2021; Khan, 2022; Ali & Mohsin, 2023). Additionally, institutional factors, such as financial regulations, the development of the banking sector, and the availability of external financing options, play a crucial role in shaping the financial behavior of firms. Moreover, the evolving global financial landscape, including the increasing importance of international capital flows, trade openness, and regulatory changes, adds further complexity to the capital structure decision-making process. For instance, the introduction of Basel III regulations, which aim to strengthen the resilience of financial institutions, may alter the dynamics of how firms in different economies manage their leverage and capital.

Given these challenges, it is not surprising that there is still no clear consensus on the determinants of capital structure. As the literature continues to evolve, future research will likely focus on refining existing theories and incorporating new factors that have emerged in the contemporary financial environment (Iqbal, 2018; Ahmed & Rehman, 2019; Roy & Madheswaran, 2020; Kallianiotis, 2022; Ahmad, 2022). Moreover, studies that focus on specific regions or countries, such as Argentina or other emerging economies, can help to provide a more nuanced understanding of how firms in these contexts make their financing decisions and what factors drive those decisions. While the body of research on capital structure is vast and multifaceted, the factors that determine the financial behavior of firms remain complex and context-dependent. Theories like the trade-off and pecking order models provide valuable frameworks for understanding how firms balance debt and equity in their capital structure decisions (Audi, 2016; Sever, 2019; Jammazi & Mokni, 2021), but empirical evidence continues to vary based on the economic environment. The ongoing debate and exploration in the field suggest that future studies will need to consider a broader range of factors, especially those that are unique to emerging economies, to gain a more comprehensive understanding of corporate financing decisions (Ali & Rehman, 2015; Audi & Ali, 2019).

The capital structure of companies is influenced by a range of strategic and operational decisions, which in turn affect their profitability, risk profile, and growth opportunities. These decisions are not only shaped by the individual characteristics of the company but are also heavily dependent on the structural and functional characteristics of the sector in which the company operates (Audi & Al Masri, 2024). For example, companies in capital-intensive industries often rely more on debt financing, while companies in sectors with high growth potential might lean towards equity financing. Additionally, the size of a company plays a crucial role in determining its financing decisions (Ali & Zulfiqar, 2018; Roussel et al., 2021; Audi et al., 2024). Larger companies tend to have more access to various forms of capital, both debt and equity, whereas smaller companies, particularly SMEs (Small and Medium-sized Enterprises), often face limitations due to their size, financial history, and limited access to capital markets. Therefore, the theories and empirical findings regarding capital structure in large enterprises may not always be applicable to SMEs, which face different challenges and opportunities in managing their financing (Aguei et al., 2020; Audi et al., 2021; Yildirim & Celik, 2021; Charklader & Padmapriya, 2021).

Another important factor influencing capital structure decisions is the legal, social, economic, and fiscal context of the country in which a company operates. The legal framework regarding property rights, tax policies, and bankruptcy laws, for example, can significantly impact a company's ability to raise capital. Additionally, social factors, such as the level of financial literacy or the cultural perception of debt, may affect financing choices. Economic conditions, such as inflation rates, interest rates, and overall economic stability, also shape how companies finance their operations. Countries with robust financial systems and favorable business climates often offer easier access to debt and equity markets, while companies in

emerging or developing economies may face more difficulties in accessing financing, which can constrain their capital structure choices. While much of the capital structure literature has focused on companies in developed economies, where data availability is more abundant, there is a growing recognition of the need to investigate these issues in emerging and developing economies (Hoang et al., 2021). Developed countries generally provide a more stable and predictable environment for firms to raise capital, and the theories on capital structure—such as the trade-off theory, the pecking order theory, and the market-timing theory—have been extensively tested in these contexts (Oktayiani et al., 2020; Yakubu et al., 2021). However, the applicability of these theories in emerging markets remains underexplored. Booth et al. (2001) conducted one of the earliest studies on the capital structure of companies in developing countries and found that while the same basic determinants of capital structure exist, the influence of specific national policies and economic contexts leads to differences in financing behavior. Argentina, like many other developing economies, presents a unique case for investigating the capital structure of SMEs. SMEs in Argentina, particularly in the manufacturing sector, face challenges that are different from their counterparts in developed countries. These challenges include high inflation, limited access to credit, volatile currency exchange rates, and an unstable economic environment. Such factors can affect the availability and cost of both debt and equity financing for Argentine SMEs. Additionally, government policies such as tax incentives, subsidies, and regulations can either encourage or hinder access to financing, shaping the capital structure decisions of these firms. This study, therefore, aims to explore the determinants of capital structure in Argentine manufacturing SMEs, seeking to identify the factors that most influence their financing decisions. Given the lack of empirical studies on the capital structure of SMEs in Argentina and similar developing economies, this research will contribute valuable insights into the financial behavior of firms in these contexts (Ngyyen et al., 2020; Jansen et al., 2023). By investigating how factors such as firm size, profitability, asset structure, and market conditions interact with the legal and economic environment of Argentina, this study will provide a better understanding of the capital structure decisions of Argentine SMEs. The findings of this research could also offer practical implications for policymakers and business managers, particularly in terms of improving access to finance and fostering a more supportive environment for SME growth and development.

2. LITERATURE REVIEW

After the seminal contributions of Modigliani and Miller (1958), a vast body of literature has sought to explain the financial behaviour of firms, particularly their capital structure decisions. These studies have laid the foundation for developing various theories, which have been tested across companies of different sizes, industries, and economic contexts (Kraus and Litzenberger, 1973; Jensen and Meckling, 1976; Myers, 1984; Myers and Majluf, 1984; Berger and Udell, 1998; among others). Among these theories, the trade-off theory and the pecking order theory have emerged as two of the most prominent frameworks for understanding corporate financial decisions. This paper focuses on these two theories, as they provide relevant insights into the financial behaviour of small and medium-sized enterprises (SMEs) operating in an emerging economy like Argentina.

The trade-off theory emphasizes the balancing act between the benefits and costs of debt financing. Firms gain tax advantages from debt, as interest payments are tax-deductible, reducing the overall cost of capital. However, debt also introduces potential costs, including the risk of financial distress and bankruptcy, as well as agency costs arising from conflicts of interest between shareholders and debt holders (Kraus and Litzenberger, 1973; Jensen and Meckling, 1976). According to this theory, firms strive to find an optimal leverage ratio that minimizes the total costs associated with debt while maximizing its benefits. In this context, the trade-off theory suggests that firms with stable cash flows and substantial tangible assets are more likely to take on higher levels of debt, as they are better positioned to manage financial distress. On the other hand, the pecking order theory takes a different approach. It posits that firms follow a hierarchy in their financing preferences, prioritizing internal funds (retained earnings) over external financing options such as debt or equity (Myers, 1984; Myers and Majluf, 1984). This preference stems from issues related to information asymmetry, where external investors may have less knowledge about the firm's financial health and prospects compared to its managers. As a result, managers are reluctant to issue new equity, which could signal undervaluation of the firm’s shares to the market, potentially leading to a decline in stock prices. Instead, firms use retained earnings first, followed by debt, and resort to issuing new equity only as a last option. The pecking order theory suggests that firms with greater internal resources or higher profitability are less likely to rely on external financing, particularly debt.

Numerous empirical studies have tested these theories to identify the specific factors that influence the financial behaviour of firms. Some of the most widely examined determinants include size, profitability, asset tangibility, growth potential, and business risk (Michaelas et al., 1999; Watson and Wilson, 2002; López-Gracia and Sogorb-Mira, 2008; Daskalakis and Psillaki, 2008; Frank and Goyal, 2009; Hovakimian and Li, 2011; Aybar-Arias et al., 2012; Degryse et al., 2012). Larger firms typically have easier access to credit markets and can negotiate better terms for financing, while smaller firms, particularly SMEs, often face higher borrowing costs and limited access to external capital. Profitability plays a key role, as more profitable firms are better able to rely on retained earnings, reducing their dependence on external funding. Tangible assets serve as collateral, making it easier for firms to secure debt financing, while firms with higher growth potential may prefer equity to avoid the risks associated with excessive leverage. Firms with greater business risk, on the other hand, tend to adopt more conservative capital structures to mitigate the likelihood of financial distress. While much of the literature has focused on firms in developed economies, there remains a significant gap in understanding how these theories apply to firms

in emerging economies. The financial behaviour of firms in developing countries often differs due to structural and contextual factors, such as limited access to capital markets, high transaction costs, and economic instability (Fama and French, 2002; Tong and Green, 2005). Booth et al. (2001) conducted one of the earliest studies in this context and found that while many determinants of capital structure are similar across developed and developing countries, national policies and economic conditions significantly influence financing behaviour in emerging markets.

This study specifically examines SMEs in Argentina, a context that presents unique challenges and opportunities. SMEs are vital to the Argentine economy, as they contribute significantly to employment, innovation, and economic growth. However, these firms often face substantial barriers to financing, including dependence on the banking system, underdeveloped financial markets, and economic volatility. Issues such as information asymmetry (Stiglitz and Weiss, 1981), high transaction costs (Beck and de la Torre, 2007), and structural fragility exacerbate these challenges, leaving SMEs with limited financing options and increasing their vulnerability to financial distress (Chen et al., 2014). In emerging economies like Argentina, the limited development of financial markets restricts SMEs' access to alternative funding sources, such as equity markets. As a result, these firms are heavily reliant on bank financing, which is often subject to strict collateral requirements and high interest rates. This reliance on banks, combined with the challenges posed by economic instability and inflation, underscores the importance of informed financing decisions for SMEs. Poor financial decisions can exacerbate vulnerabilities, leading to financial distress or even bankruptcy. Therefore, SMEs must carefully evaluate their financing options to ensure their survival, growth, and long-term sustainability.

3. METHODOLOGY

This paper investigates the financial leverage of SMEs, focusing on the relationship between the key determinants of capital structure, such as company size, profitability, growth, and business risk, and the level of debt. Theories like the trade-off theory and the pecking order theory offer different perspectives on these relationships, especially when applied to SMEs in emerging economies. According to the trade-off theory, larger firms have better access to credit at lower costs, which can reduce information asymmetry and mitigate the risk of financial distress, leading to a positive relationship between firm size and debt (Ang et al., 1982; Rajan and Zingales, 1995). Additionally, more profitable firms are more likely to use debt to gain tax advantages, which supports a positive relationship between profitability and leverage (Graham, 2000; Fama and French, 2002). However, some dynamic perspectives suggest a negative relationship between profitability and debt, as companies with higher profitability may prefer to rely on internal funds to avoid the risks associated with debt (Gaud et al., 2005; Hennessy and Whited, 2005).

In contrast, the pecking order theory suggests a negative relationship between profitability and debt, arguing that firms with higher profitability prefer to finance investments through retained earnings rather than taking on external debt (Norton, 1991; Van der Wijst and Thurik, 1993; Chittenden et al., 1996). Both theories highlight that firms may not fully exploit the tax benefits of debt due to conservative borrowing practices, leading to an overall lower level of leverage (Booth et al., 2001; Drobetz and Fix, 2003). Regarding growth, the trade-off theory predicts a negative relationship between growth opportunities and leverage, suggesting that firms with high growth prospects may be hesitant to take on debt due to the increased risk of financial distress (Jensen, 1986; Fama and French, 2002). On the other hand, the pecking order theory predicts a positive relationship between growth and debt, as firms with growth opportunities may prefer debt financing to fund their expansion (Gaud et al., 2005; Chang et al., 2009; Guney et al., 2011). Both theories also suggest a negative relationship between corporate risk and debt, as higher volatility in earnings increases the risk of default, which may make creditors hesitant to lend and raise the cost of borrowing (Barclay et al., 1996; Frank and Goyal, 2009). Therefore, SMEs with greater business risk may have difficulty securing financing at favorable terms, which limits their ability to leverage debt.

The data for this study were collected from 181 SMEs in the Buenos Aires region of Argentina, focusing on manufacturing companies. Given the country's high inflation rate, the balance sheet data were normalized and converted into U.S. dollars to account for inflationary distortions. The period of analysis spans from 2016 to 2023, with a stratified sampling methodology used to select companies based on an economic criterion, which allowed for a more efficient estimation process. The sample includes companies of varying sizes and turnovers, improving the generalizability of the findings. The results will help provide further empirical evidence on the determinants of capital structure for SMEs in Argentina, contributing to the broader literature on financial behaviour in emerging markets.

The table 1 provides a description of the variables used in the analysis, categorizing them into the dependent and explanatory variables. The dependent variable is leverage, which is the ratio of total liabilities to total assets. This ratio helps to measure a company's financial leverage, indicating how much of its assets are financed through debt as opposed to equity. It reflects the degree to which a company relies on borrowed capital to fund its operations and investments. The explanatory variables include size, profitability, tangibility, growth, and business risk. Size is measured by the logarithm of total assets, capturing the scale of the company. Larger firms are often able to secure different types of financing, and their size may influence their financial decisions, including leverage. Profitability is the ratio of EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) to total assets. This variable assesses how efficiently a company is generating earnings from its assets, which is important because more profitable companies may be able to handle higher levels of debt. Tangibility refers to the ratio of fixed tangible assets to total assets. It measures how much of a company’s assets are physical and tangible, such as

machinery and real estate. Firms with more tangible assets may have better access to borrowing, as these assets can serve as collateral. Growth is calculated as the ratio of the change in total assets from one period to the previous period, divided by the total assets in the previous period. This variable reflects the rate at which a company is expanding its asset base, which could influence its financing needs and its approach to leverage.

Lastly, business risk is represented by the standard deviation of EBIT (Earnings Before Interest and Taxes), indicating the volatility or variability in a company's earnings. Companies with higher earnings volatility are considered riskier, and this may impact their ability or willingness to take on more debt. Each of these explanatory variables offers insights into different aspects of a company's operations, performance, and financial structure, which could influence its leverage decisions.

Table 1: Description of Variables

Dependent Variable	
Leverage	Ratio Total Liabilities/Total Assets
	Explanatory variables
Size	Logarithm of Total Assets
Profitability	Ratio EBITDA/Total Assets
Tangibility	Ratio Fixed Tangible Assets/Total Assets
Growth	Ratio (Total $Assets_{i,\ t}$–total $Assets_{i,\ t-1}$)/Total $Assets_{i,\ t-1}$
Business Risk	Standard Deviation EBIT

4. RESULTS AND DISCUSSION

The table 2 presents the descriptive statistics for the variables used in the analysis, including their mean values and standard deviations. The variable LEV (leverage) has a mean of 0.41 and a standard deviation of 0.36. This suggests that, on average, companies in the sample have a leverage ratio of 41%, but there is significant variability in this ratio, as indicated by the relatively high standard deviation. This indicates that some companies are highly leveraged, while others have much lower leverage. SIZE, which represents the logarithm of total assets, has a mean of 9.44 and a standard deviation of 1.32. This suggests that, on average, companies in the sample are of a large size, but the substantial standard deviation indicates considerable variation in the size of firms across the sample. For PROF (profitability), the mean is 0.14, with a standard deviation of 0.08. This indicates that, on average, companies have a relatively low level of profitability relative to their total assets. The standard deviation suggests that some companies are more profitable than others, with a fairly wide range of profitability observed. The TANG (tangibility) variable has a mean of 0.36 and a standard deviation of 0.21. This indicates that, on average, about 36% of the companies' assets are tangible, but the variation is noticeable, suggesting differences in asset structures among companies in the sample.

The GROW (growth) variable has a mean of 1.12 and a standard deviation of 0.23. This suggests that, on average, companies have experienced some growth in their asset base, with moderate variation in the growth rates across the sample. Lastly, RISK (business risk), measured by the standard deviation of EBIT, has a mean of 0.03 and a standard deviation of 0.04. This low mean indicates that, on average, companies have relatively low volatility in their earnings. However, the standard deviation suggests that there are some companies with more significant fluctuations in their earnings, contributing to higher business risk. Overall, the descriptive statistics show a diverse sample of companies with varying levels of leverage, size, profitability, tangibility, growth, and business risk. The standard deviations highlight the differences within the sample, indicating a broad range of values for each variable.

Table 2: Descriptive statistics

Variables	Mean	StDev
LEV	0.41	0.36
SIZE	9.44	1.32
PROF	0.14	0.08
TANG	0.36	0.21
GROW	1.12	0.23
RISK	0.03	0.04

The table 3 presents the correlation matrix for the variables under consideration, highlighting the strength and direction of the relationships between leverage (LEV) and the other explanatory variables. The correlation matrix reveals the relationships between leverage and the other variables in the analysis, as well as the relationships among the explanatory variables themselves. Leverage is positively correlated with size, indicating that larger companies tend to have slightly higher leverage ratios. However, this relationship is not particularly strong. Leverage and profitability show a weak negative correlation, suggesting that more profitable companies may use less debt. This could reflect a preference for relying on internal funds rather than taking on additional debt. Similarly, leverage is positively correlated with tangibility, indicating that companies with a higher proportion of tangible assets tend to have higher leverage. Tangible assets can serve as collateral for loans, potentially making

it easier for firms to access credit and take on more debt.

The correlation between leverage and growth is negligible, suggesting that a company's growth rate in terms of assets does not significantly affect its leverage decisions. Business risk, measured by the standard deviation of EBIT, has a weak negative correlation with leverage, implying that companies with higher business risk do not necessarily have lower leverage, although the relationship is not strong. Looking at the relationships between the explanatory variables, size and profitability show a small negative correlation, indicating that larger firms may not be as profitable on average. Size and tangibility are positively correlated, suggesting that bigger companies tend to hold more physical, tangible assets. However, the correlation between size and growth is nearly zero, suggesting that company size does not have a strong impact on the rate of asset growth. Business risk shows a weak negative correlation with size, indicating that larger firms may face slightly less business risk. Profitability and tangibility are also weakly positively correlated, suggesting that more profitable companies tend to have a slightly higher proportion of tangible assets. Profitability and growth are more positively correlated, suggesting that more profitable firms are more likely to experience asset growth, as they may have more internal funds to reinvest. The relationship between tangibility and growth is weak, indicating that companies with more tangible assets do not necessarily experience higher growth in terms of asset expansion. Similarly, tangibility and business risk show almost no correlation, suggesting that the level of tangible assets has little bearing on the level of business risk. Finally, growth and business risk show a very weak positive correlation, suggesting that a company's growth in assets does not significantly influence its exposure to business risk. Overall, the matrix highlights that while there are some weak to moderate relationships between the variables, the connections between leverage and the explanatory variables are not particularly strong, indicating that other factors may influence leverage decisions beyond those considered in this analysis.

Table 3: Correlation Matrix

Variables	LEV	SIZE	PROF	TANG	GROW	RISK
LEV	1					
SIZE	0.246*	1				
PROF	−0.141*	−0.132*	1			
TANG	0.238*	0.271*	0.191*	1		
GROW	0.009	0.007	0.457*	0.137*	1	
RISK	−0.064*	−0.169*	0.079*	0.031*	0.011	1

The table 4 provides the results of a panel least squares regression analysis with leverage as the dependent variable. The coefficients for each explanatory variable indicate their estimated effect on leverage, with significance levels denoted by asterisks. Standard errors are provided in parentheses. Size has a positive and statistically significant effect on leverage. This suggests that larger companies are more likely to use higher levels of debt, which could be due to their greater access to credit markets and their ability to manage debt effectively. The positive coefficient indicates that an increase in size is associated with an increase in leverage. Profitability has a negative and statistically significant effect on leverage. This implies that more profitable firms tend to rely less on debt, potentially preferring to use internal funds for financing. This finding aligns with the pecking order theory, which suggests that firms prioritize internal financing over external debt. Tangibility has a positive and statistically significant effect on leverage, indicating that companies with a higher proportion of tangible assets tend to have more debt. Tangible assets can serve as collateral, making it easier for firms to obtain loans and increasing their leverage levels. Growth, represented by the change in total assets, has a negative coefficient, but it is not statistically significant. This indicates that asset growth does not have a meaningful impact on leverage in this analysis. This may suggest that other factors play a more significant role in determining leverage levels during periods of growth.

Table 4: Panel Least Squares

Dependent Variable: Leverage

Variables	Coefficients
SIZE	0.038*** (0.009)
PROF	−0.127*** (0.033)
TANG	0.083** (0.041)
GROW	−0.007 (0.003)
RISK	0.029 (0.079)
Constant	0.512***
R^2	0.069
Adjusted R^2	0.067

Business risk has a positive coefficient but is also not statistically significant. This implies that the variability in earnings does not have a strong or consistent effect on leverage in the sample analyzed. Firms facing higher risk may not necessarily alter their leverage strategies based on earnings fluctuations. The constant term is positive and statistically significant,

representing the baseline level of leverage when all explanatory variables are held constant. This suggests that even in the absence of specific effects from the variables in the model, firms maintain a certain baseline level of leverage. The R-squared value is relatively low, indicating that the model explains about seven percent of the variation in leverage. The adjusted R-squared, which accounts for the number of explanatory variables in the model, is slightly lower but close to the same value. This suggests that while the model identifies some statistically significant relationships, a large proportion of the variation in leverage remains unexplained, likely due to other unobserved factors. In sum, size, profitability, and tangibility are significant determinants of leverage, with size and tangibility positively associated and profitability negatively associated. Growth and business risk do not appear to have a meaningful impact on leverage in this analysis. While the model captures some important relationships, the relatively low R-squared suggests that further investigation into additional factors influencing leverage may be needed.

The results of this study provide valuable insights into the determinants of financial leverage for SMEs in Argentina, offering significant implications for both theory and practice. One of the key findings is the positive relationship between firm size and leverage. Larger firms face fewer problems of information asymmetry and are less prone to financial distress, which makes it easier for them to access credit. This result aligns with the trade-off theory, which suggests that bigger companies have more collateral and face lower monitoring costs, thus allowing them to obtain financing at lower rates. This relationship highlights the fact that larger firms are generally more attractive to lenders because they are perceived as less risky, especially in the context of emerging economies like Argentina, where SMEs often struggle to secure funding. On the other hand, the study found a significant negative relationship between profitability and leverage, which supports the pecking order theory. According to this theory, profitable firms prefer to finance their investments using retained earnings rather than relying on external debt. This means that companies with higher profits are less inclined to take on debt, as they can internally generate the resources needed for their operations and growth. This finding also underscores the notion that SMEs with good financial performance prefer to avoid the costs and risks associated with borrowing, opting instead for self-financing whenever possible.

Another important finding of this study is the positive relationship between asset tangibility and leverage. The results show that tangible assets, such as property or equipment, serve as important collateral for lenders, thus reducing the risk associated with lending. In emerging economies like Argentina, where creditor protection is weaker than in developed countries, the availability of tangible assets plays a crucial role in securing loans. This finding supports earlier research, which has shown that firms with more tangible assets are better able to access credit, as these assets provide lenders with a form of guarantee. This is especially important in contexts where information asymmetry can be a significant barrier to accessing financing. The relationship between growth and leverage, however, was not statistically significant in this study. While the trade-off theory suggests that high-growth firms might prefer to retain equity capital to avoid the risks of debt, the pecking order theory predicts that growing firms are more likely to take on debt to finance their expansion. The lack of statistical significance in the Argentine context suggests that other factors, such as access to credit markets or sector-specific conditions, may play a more important role in determining the capital structure of growing firms. This may indicate that growth opportunities alone do not always drive financing decisions, particularly when other structural or economic factors are at play.

Similarly, the relationship between business risk and leverage was not statistically significant, though it suggested a positive association. While the general expectation is that higher business risk would discourage firms from taking on debt due to the increased cost of borrowing, the findings suggest that other factors might be at play. In emerging economies like Argentina, SMEs may have limited access to financing options, which may force them to take on debt even if they face higher business risks. This finding points to the complexity of capital structure decisions in emerging markets, where the typical determinants of leverage may be influenced by a combination of external factors, including economic instability and limited access to financial markets. To assess the robustness of the findings, the study also used an alternative measure of financial leverage, which is the ratio of total debt to total capital. This analysis reaffirmed the results that firm size and asset tangibility are positively related to leverage, while profitability remains negatively associated with debt. In this additional analysis, growth and business risk continued to show little significance, suggesting that while these factors may theoretically influence financing decisions, they have less of an impact in practice in the Argentine context.

The findings of this study have several important implications for policymakers, financial institutions, and SMEs in Argentina. For policymakers, the results highlight the need to improve access to financing for smaller firms. Supporting SMEs through policies that reduce information asymmetry and enhance creditor protection could improve their ability to obtain loans, particularly for firms that lack significant tangible assets. This is especially relevant in emerging economies where SMEs often face barriers to financing due to underdeveloped capital markets and a lack of reliable financial information. For SMEs, the study suggests that maintaining profitability and having tangible assets can significantly improve their ability to access financing. Profitable firms are better positioned to self-finance their investments, but when external financing is required, having collateral in the form of tangible assets can make a substantial difference. This highlights the importance for SMEs to focus on building their asset base and managing their profitability to reduce reliance on debt. For financial institutions, the results suggest that size and asset tangibility are important factors in lending decisions. Lenders in Argentina may find it easier to offer credit to larger firms with tangible assets, as these firms are perceived as less risky. However, financial institutions could also consider how to support smaller firms that may lack substantial tangible assets,

possibly by developing more flexible lending products or offering lower interest rates to reduce the financial burden on SMEs.

5. CONCLUSIONS

The purpose of this paper was to investigate the relationship between leverage and its key determinants in the context of Argentine SMEs, with a particular focus on the trade-off theory and the pecking order theory. While these two theories have been extensively tested in developed countries, there remains a gap in the literature when it comes to emerging economies, especially in terms of their applicability to SMEs in these regions. Furthermore, studies that explore the financial behavior of firms in emerging markets like Argentina have often yielded incomplete or controversial results, highlighting the need for further empirical research. To conduct the study, a stratified sampling methodology was employed, ensuring a diverse and representative sample of 181 firms from various sectors of the Argentine economy. This method was chosen to improve the accuracy of estimates and provide a comprehensive view of the financial practices of firms of different sizes and turnover. The data used in the analysis was gathered through a questionnaire, which collected balance sheet information from the participating firms. Given the high inflation that has characterized Argentina's economic environment in recent years, all financial data were normalized and adjusted to US dollars to account for the impact of inflation on financial figures. The findings of the study provide valuable insights into the financial behavior of SMEs in Argentina. Specifically, the analysis revealed that both size and asset tangibility have a positive and significant effect on leverage. Larger firms and those with a higher proportion of tangible assets are more likely to take on debt, which is consistent with the predictions of the trade-off theory. According to this theory, larger companies can access credit at lower costs due to their size and stability, and tangible assets serve as collateral, making them more attractive to lenders. On the other hand, profitability showed a significant negative impact on leverage, which aligns with the pecking order theory. The pecking order theory suggests that more profitable firms prefer to use internal funds rather than external debt to finance their investments. This finding supports the idea that firms with higher profitability are less reliant on debt and are more likely to finance their operations through retained earnings. However, the study did not find significant effects for the variables of growth and business risk. While the literature often suggests that high-growth firms may be more inclined to use debt to fund their expansion, the results in this study did not support this view, indicating that other factors may be more influential in determining the capital structure of Argentine SMEs. Similarly, the relationship between business risk and leverage was not statistically significant, suggesting that, in the context of Argentina, factors such as firm size, profitability, and asset tangibility may play a more crucial role in financing decisions than the perceived level of risk. In conclusion, this study contributes to the understanding of capital structure decisions in emerging economies by providing empirical evidence on the relationship between leverage and its determinants in Argentina. The results underscore the importance of firm size, profitability, and asset tangibility in shaping the financial behavior of SMEs. However, the lack of significant findings for growth and risk suggests that other factors, possibly related to the economic environment or access to financing, may influence these decisions. Given the limited research on this topic in emerging markets, further studies are needed to explore the specific economic and institutional factors that affect the capital structure of SMEs in countries like Argentina. Future research could also consider the role of external financing sources, such as trade credit or government support programs, in the capital structure decisions of firms in developing economies.

REFERENCES

Adjasi, C. K., & Yu, D. (2021). Investigating South Africa's Economic Growth: The Role of Financial Sector Development. *Journal of Business and Economic Options*, *4*(3), 19-29.

Agyei, J., Sun, S., & Abrokwah, E. (2020). Trade-off theory versus pecking order theory: Ghanaian evidence. *Sage Open*, *10*(3), 2158244020940987.

Ahmad, S. (2022). Managing Microfinance: Navigating Efficiency and Sustainability Challenges in Bangladesh's Financial Landscape. *Journal of Business and Economic Options*, *5*(1), 1-7.

Ahmed, F., & Rahman, F. U. (2019). Impact of Government Borrowing on Financial Depth: Evidence from Pakistan. *Journal of Business and Economic Options*, *2*(2), 88-94.

Ali, A., & Rehman, H. U. (2015). Macroeconomic instability and its impact on gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.

Ali, A., & Zulfiqar, K. (2018). An Assessment of Association between Natural Resources Agglomeration and Unemployment in Pakistan. *Pakistan Vision*, *19*(1), 110-126.

Ali, S. B., & Mohsin, A. (2023). Exploring Financial Soundness and Economic Growth Dynamics in Pakistan. *Journal of Business and Economic Options*, *6*(1), 1-15.

Audi, M. (2016). Adoption of mobile banking applications in Lebanon.

Audi, M., & Al Masri, R. (2024). Examining the Impacts of Regulatory Framework on Risk in Commercial Banks in Emerging Economies. *Journal of Business and Economic Options*, *7*(2), 10-19.

Audi, M., & Al Masri, R. (2024). Examining the Impacts of Regulatory Framework on Risk in Commercial Banks in Emerging Economies. *Journal of Business and Economic Options*, *7*(2), 10-19.

Audi, M., & Ali, A. (2019). *The Advancement in Information and Communication Technologies (ICT) and Economic Development: A Panel Analysis* (No. 93476). University Library of Munich, Germany.

Audi, M., Kassem, M., & Roussel, J. (2021). Determinants of banks fragility in the MENA region using a dynamic model. *The Journal of Developing Areas*, *55*(1).

Audi, M., Poulin, M., & Ali, A. (2024). Determinants of Business Freedom in Developing Countries: The Role of Institutional Development and Policy Mix. *International Journal of Economics and Financial Issues*, *14*(4), 188-199.

Aybar-Arias, C., Casino-Martínez, A., & López-Gracia, J. (2012). On the adjustment speed of SMEs to their optimal capital structure. *Small Business Economics, 39*(4), 977–996.

Banyen, T. (2022). Behavioral Drivers of Stock Market Participation: Insights from Ghanaian Investors. *Journal of Business and Economic Options*, *5*(2), 1-13.

Barclay, M. J., & Smith, C. W. (1996). On financial architecture: Leverage, maturity, and priority. *Journal of Applied Corporate Finance, 8*(4), 4–17.

Beck, T., & de la Torre, A. (2007). The basic analytics of access to financial services. *Financial Market Institutions and Instruments, 16*(2), 79–117.

Berger, N. A., & Udell, F. G. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance, 22,* 613–673.

Booth, L., Aivazian, L., Demirgüç-Kunt, A., & Maksimovic, V. (2001). Capital structures in developing countries. *The Journal of Finance, 56*(1), 87–130.

Chaklader, B., & Padmapriya, B. (2021). Impact of cash surplus on firm's capital structure: validation of pecking order theory. *Managerial Finance*, *47*(12), 1801-1816.

Chang, C., Lee, A. C., & Lee, C. F. (2009). Determinants of capital structure choice: A structural equation modeling approach. *Quarterly Review of Economics and Finance, 49*(2), 197–213.

Chen, J., Hughes, C., & Sensini, L. (2014b). Credit risk measurement of SMEs. *International Conference on Economics, Finance and Risk,* 139–163.

Chittenden, F., Hall, G., & Hutchinson, P. (1996). Small firm growth, access to capital markets, and financial structure: Review of issues and an empirical investigation. *Small Business Economics, 8,* 59–67.

Daskalakis, N., & Psillaki, M. (2008). Do country or firm factors explain capital structure? Evidence from SMEs in France and Greece. *Applied Financial Economics, 18*(2), 87–97.

Degryse, H., Goeij, P., & Kappert, P. (2012). The impact of firm and industry characteristics on small firms' capital structure. *Small Business Economics, 38,* 431–447.

Drobetz, W., & Fix, R. (2003). What are the determinants of the capital structure? Some evidence from Switzerland. *Working Paper.* University of Basel.

Fama, E., & French, K. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The Review of Financial Studies, 15*(1), 1–33.

Frank, M., & Goyal, V. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management, 38,* 1–37.

Gaud, P., Hoesli, M., & Bender, A. (2007). Debt-equity choice in Europe. *International Review of Financial Analysis, 16*(3), 201–222.

Graham, J. R. (2000). How big are the tax benefits of debt? *Journal of Finance, 55,* 1901–1942.

Guney, Y., Li, L., & Fairchild, R. (2011). The relationship between product market competition and capital structure in Chinese listed firms. *International Review of Financial Analysis, 20*(1), 41–51.

Hall, G., Hutchinson, P., & Michaelas, N. (2004). Determinants of the capital structure of European SMEs. *Journal of Business Finance and Accounting, 31*(5/6), 711–728.

Harris, M., & Raviv, A. (1991). The theory of capital structure. *The Journal of Finance, 46*(1), 297–355.

Hennessy, C. A., & Whited, T. M. (2005). Debt dynamics. *Journal of Finance, 60*(3), 1129–1165.

Hoang, L. D., Viet, N. Q., & Anh, N. H. (2021). Trade-off theory and pecking order theory: Evidence from real estate companies in Vietnam. *Economics and Business Quarterly Reviews, 4*(2).

Hovakimian, A., & Li, G. (2011). In search of conclusive evidence: How to test for adjustment to target capital structure. *Journal of Corporate Finance, 17*(1), 33–44.

Iqbal, A. (2018). Determinants of Micro Finance in Pakistan. *Journal of Business and Economic Options*, *1*(1), 15-22.

Jammazi, R., & Mokni, K. (2021). Enhancing Risk Management Practices: Insights from VAR Forecasting in Financial Markets. *Journal of Business and Economic Options*, *4*(1).

Jansen, K., Michiels, A., Voordeckers, W., & Steijvers, T. (2023). Financing decisions in private family firms: a family firm pecking order. *Small Business Economics*, *61*(2), 495-515.

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review, 76*(2), 323–329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360.

Kallianiotis, I. (2022). Tax Reform Imperative: Alleviating Financial Burden and Fostering Middle-Class Prosperity in the US Economy. *Journal of Business and Economic Options*, *5*(1), 48-57.

Khan, M. A. (2022). The impact of earnings management on financial metrics: Insights from Pakistani firms. *Journal of Business and Economic Options*, *5*(3), 34-43.

Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance, 28*(4), 911–922.

López-Gracia, J., & Sogorb-Mira, F. (2008). Testing trade-off and pecking order theories financing SMEs. *Small Business Economics*, *31*(2), 117–136.

Michaelas, N., Chittenden, F., & Poutzioris, P. (1999). Financial policy and capital structure choice in U.K. SMEs: Empirical evidence from company panel data. *Small Business Economics, 12*(2), 113–130.

Modigliani, F., & Miller, M. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review, 53*(3), 433–443.

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review, 48*(3), 261–297.

Myers, C. (1984). The capital structure puzzle. *The Journal of Finance, 39*(3), 574–592.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187–221.

Nguyen, H. M., Vuong, T. H. G., Nguyen, T. H., Wu, Y. C., & Wong, W. K. (2020). Sustainability of both pecking order and trade-off theories in Chinese manufacturing firms. *Sustainability, 12*(9), 3883.

Norton, E. (1991). Capital structure and small public firms. *Journal of Business Venturing, 6*, 287–303.

Oktaviani, M., Mochklas, M., & Fahmi, E. (2020). *Pecking Order Theory as a Strengthening Capital Structure*.

Omri, M. B. (2022). Understanding the Relationship Between Liquidity and Banking Financial Stability in Islamic and Conventional Banks. *Journal of Business and Economic Options*, *5*(1), 39-47.

Psillaki, M., & Daskalakis, N. (2009). Are the determinants of capital structure country or firm-specific? *Small Business Economics, 33*, 319–333.

Rajan, R., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *Journal of Finance, 50*, 1421–1460.

Roussel, Y., Ali, A., & Audi, M. (2021). Measuring the money demand in Pakistan: a time series analysis. *Bulletin of Business and Economics (BBE), 10*(1), 27-41.

Roy, S., & Madheswaran, S. (2020). The Nexus between Financial Sector Development and Economic Growth: Evidence from Asian Countries. *Journal of Business and Economic Options*, *3*(2), 39-45.

Sever, C. (2019). Exploring Model-Based Approaches to Contagion in Global Financial Markets: A Survey. *Journal of Business and Economic Options*, *2*(4), 166-172.

Sogorb, M. F. (2005). How SME uniqueness affects capital structure: Evidence from a 1994–1998 Spanish data panel. *Small Business Economics, 25*(5), 447–457.

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review, 71*(3), 393–410.

Tong, G., & Green, C. J. (2005). Pecking order or trade-off hypothesis? Evidence on the capital structure of Chinese companies. *Applied Economics, 37*, 2179–2189.

Van der Wijst, N., & Thurik, R. (1993). Determinants of small firm debt ratios: An analysis of retail panel data. *Small Business Economics, 5*, 55–65.

van Zanden, J. L. (2023). Examining the Relationship of Information and Communication Technology and Financial Access in Africa. *Journal of Business and Economic Options*, *6*(3), 26-36.

Wali, R. M. (2018). Analysis of Financial Ratios and Credit Risk Ratings in the Banking Industry: Insights and Findings. *Journal of Business and Economic Options*, *1*(2), 52-59.

Watson, R., & Wilson, N. (2002). Small and medium-sized enterprise financing: A note on some of the empirical implications of a pecking order. *Journal of Business Finance and Accounting, 29*(3/4), 557–579.

Yakubu, I. N., Kapusuzoglu, A., & Ceylan, N. B. (2021). Trade-off theory versus pecking order theory: The determinants of capital structure decisions for the Ghanaian listed firms. In *Strategic outlook in business and finance innovation: Multidimensional policies for emerging economies* (pp. 111-122). Emerald Publishing Limited.

Yıldırım, D., & Çelik, A. K. (2021). Testing the pecking order theory of capital structure: Evidence from Turkey using panel quantile regression approach. *Borsa Istanbul Review, 21*(4), 317-331.