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Abstract: This paper investigates the impact of debt financing on dividend payments when they face the agency costs of free cash flow. Focusing on a sample of 120 firms listed on the Saudi Stock Exchange during the period 2011-2021. The study found a negative association between agency cost of free cash flow and dividend payment. More importantly, our research highlights the significant role of long-term debt in making more prudent use of free cash flow. The obligation to meet interest and principal payments acts as an incentive for them to steer clear of unprofitable expenses and risky investments. Concurrently, long-term debt imposes restrictive clauses in debt contracts, such as minimum dividend distribution requirements, which further encourage higher dividend payments. Since interest and debt repayments are fixed obligations, using free cash flow for dividend disbursement is considered a more profitable and beneficial approach for shareholders in the context of Saudi Arabia.

Keywords: debt structure; agency cost of free cash flow; dividend payment; panel data analysis

1. Introduction

Within the field of corporate finance, dividend policy stands as a fundamental aspect that has captured the attention of researchers, maintaining its status as a prominent and continuously discussed subject. The significance of dividend policy persists as it captures the interest of management, shareholders, creditors, and academics. This interest stems from the recognition of how dividend policy is interconnected with other corporate decisions, including investment and financing. Moreover, the dividend policy directly affects shareholders' wealth, thereby emphasizing its importance in the overall financial landscape of a company. Similarly, conflicts of interest that can arise between managers and shareholders are significant factors that can impact firm value and are primary concerns for stakeholders. Managers are expected to utilize their talents and experience to enhance shareholder value. However, conflicts of interest arise when managers prioritize their personal goals and incentives over the interests of shareholders. These conflicts can manifest in various ways, such as managers prioritizing their own compensation or job security, taking excessive risks, focusing on short-term gains, or engaging in empire building. To mitigate these conflicts, stakeholders implement corporate governance practices, executive compensation structures, and monitoring mechanisms to create alignment between the interests of managers and shareholders. By addressing these conflicts, firms can strive for sustainable growth and long-term success while maintaining stakeholder trust.

For instance, managers are required to exercise their talents and experience to enhance shareholder value. They spend their time controlling production costs and ensuring the firm's growth and survival. To have effective control, they must have mastered the firm's running costs as well as the consequences of their behavior. However, any increase in these costs indicates that managers are unable to adjust them for declining sales and, as a result, penalize shareholders' financial well-being and profitability. In this study, we focus on the agency cost of free cash flow as our major concern.

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Previous literature has identified several relationships linking free cash flow and dividend payments (La Porta et al, 2000 and Giriati, 2016). These scholars have identified various connections and dynamics between these two factors. However, the existing literature has not yet explored the potentially important effect of debt structure on this relationship. On one side, firms need loans to finance their investments, whether in working capital or fixed assets. This choice is preferred if the borrowing costs are lower than the cost of equity. According to agency theory, debt financing reduces the possibility of management overinvestment. In particular, the presence of debt interest payments reduces the amount of discretionary free cash flow that managers have for investing in projects without adding value or for personal consumption. As a consequence, managers must generate sufficient funds to cover both interest payments and dividend distributions, resulting in improved financial returns for shareholders. By effectively utilizing debt financing to generate higher returns, shareholders have the opportunity to enhance their overall wealth and investment outcomes. On the other hand, high debt levels and substantial interest obligations associated with debt financing can restrict a company's ability to allocate funds for dividend payments to shareholders. Consequently, this can result in lower dividend yields and potentially diminish shareholder wealth. The requirement to allocate a significant portion of cash flow towards interest payments reduces the amount of available funds that can be distributed as dividends to shareholders, impacting their overall financial returns from their investment in the company. Thus, intriguing questions arise in this context: Can the debt financing structures maximize shareholder wealth in firms suspected of having an extreme agency cost of free cash flow? We examine Saudi firms to empirically test this conjecture and provide the very first observations regarding this topic. Several researchers have made valuable contributions to establish and examine the relationship between free cash flow with dividend policy. Therefore, the primary objective of this study was to investigate the significance of debt in serving as a monitoring mechanism to mitigate the level of discretionary funds under managerial control and align managerial actions with shareholder interests. Following this structure, we aim to present a coherent and logical progression of information. The initial focus of the study will be on formulating the theoretical framework and developing hypotheses, followed by the description of the methodology and empirical outcomes. Finally, we will conclude with a synthesis of the key findings and their broader implications.

2. Literature Review and Hypotheses

2.1. Agency Cost of Free Cash Flow and Dividend Payment

Free cash flow provides information about a firm's resistance to internal growth and financial constraints. It serves as the primary source of cash that firms rely on to fund dividend payments. According to Myers and Majluf (1984), firms utilize free cash flow when they are unable to obtain external funds due to inefficient or imperfect markets or when managers and capital providers face a situation of information asymmetry. The excess cash can also be utilized to mitigate price fluctuations, ensuring continued investment funding, particularly during periods of declining generated funds. Similarly, managers enhance firm value through free cash flow to maintain a balance between cash inflows and. However, it is important to consider that dividend payments are influenced when there is an agency cost of free cash flow. Jensen and Meckling (1976) proposed agency theory, which explores the dynamics of relationships and conflicts of interest between different stakeholders within an organization. In a similar vein, Jensen (1986) introduced the free cash flow hypothesis, which examines the potential effects of surplus cash flow on decision-making and agency conflicts between managers and shareholders. These theories provide valuable frameworks for understanding the complexities of corporate governance and financial management. In fact, free cash flow creates a desire among managers for the perquisite consumption, utilizing available funds for various activities that promote their personal utility, thereby harming shareholder returns (Stulz, 1990). Managers tend to invest in projects that bring indirect personal benefits rather than distributing money to shareholders (Kadioglu and Yilmazb, 2017; Kwon et al., 2021). Similarly, Jensen (1986) argues that dividends serve as a tangible and reliable commitment from managers to distribute cash to shareholders. This commitment is considered as an indication that the firm has a low agency cost

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of free cash flow. Zhanga et al. (2016) also suggest that while free cash flows can result in higher levels of investment, an elevated level of investment during periods of unfavorable future opportunities may indicate the presence of an agency problem. According to their perspective, when companies generate significant free cash flows, they have additional funds available for investment purposes. Increased investment can be viewed as positive when it reflects the company's ability to capitalize on profitable growth prospects. However, concerns arise when companies exhibit a higher level of investment during periods characterized by poor future opportunities. This pattern suggests a potential agency problem within the organization, where managers, driven by their own interests or incentives, engage in excessive or unwarranted investment activities that are not aligned with the long-term interests of shareholders. Such behavior can result in the misuse or wasteful allocation of resources, potentially undermining the firm. Building upon prior research, I support the Modigliani & Miller (1961) proposition, which suggests that the existence of agency costs related to free cash flows can restrict the availability of funds for dividend payments. Thus, I advance the first hypothesis.

Hypothesis 1: Agency cost of free cash flow has a negative effect on Dividend Payment

2.2. The Moderating Effect of Debt Financing

Within the framework of the agency problem between shareholders and creditors, the choice of debt presents one of the most important decisions that affect shareholder wealth. According to Flannery's study in 1986, debt financing discourages overinvestment of free cash flow and acts as a signal to investors, demonstrating the managers' commitment to meeting future cash flow obligations and their acceptance of monitoring by lenders. Similarly, Lang et al (1996) documented that firms with high agency costs of free cash flow use relatively more debt as a disciplinary mechanism to reduce overinvestment problems and avoid investing in low-return projects. If managers choose to misuse free cash flow for personal gain instead of fulfilling the firm's obligations, it can have serious implications, particularly in regard to debt repayment.

In such cases, the company may face difficulties in meeting its debt obligations, potentially leading to default. This outcome not only puts the managers' jobs at risk but also damages their professional reputation. In addition, high leverage is associated with better efficiency by reducing the problems associated with the separation of management control and increasing firm value through encouraging managers to take more action in favor of stakeholders. Managers who anticipate better firm productivity will have an advantage in taking on debt to convince the market to assess it at its fair price. However, if managers give a false signal regarding firm productivity, the risk of bankruptcy increases, especially with higher levels of debt. This also limits the firm's ability to increase new debt, thereby forcing the loss of significant investment opportunities (Harris and Raviv, 1990). Using a panel dataset consisting of 91 Indian manufacturing firms listed in the BSE 200 Index, Pandey and Sahu (2019) found that the positive impact of debt on firm profitability can be attributed to its ability to address the conflict of interest between managers and owners. Debt serves as a disciplinary tool, motivating managers to prioritize the welfare of the firm's shareholders. This discipline can arise from the fear of liquidation arising from the fixed committed payouts or the reduction of available free cash flow that managers can access. In both scenarios, debt acts as a catalyst, aligning managerial actions with the objectives of the firm's principals. Again, creditors can impose restrictions on highly leveraged firms by influencing the decision of profit distribution to shareholders and by increasing the interest rate on new debt. This can restrain the managerial capacity to actively pursue projects that generate positive net present value.

The above discussion supports the idea that assumes a crucial and integral role in minimizing the agency cost of free cash flow and, consequently, enhancing shareholder wealth. However, the present study aims to analyze the decision regarding the structure of debt, which can encompass both short-term and long-term debt. Firms need short-term financing to fund their investments in working capital and ensure the continuity of production and sales. Additionally, they utilize short-term debt as a means to address their long-term investment demands (Chen and Sun, 2023). According to the

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agency theory of Jensen and Meckling (1976), short-term debt helps mitigate the problem of underinvestment and, as a result, increases shareholder value. Using a sample of 5763 unique firms in 23 countries, Anginer et al (2021) suggested that Short-term debt can serve to mitigate agency conflicts and information asymmetry between managers and shareholders by subjecting managers to more frequent monitoring. Lenders monitor the firm's credit rating to determine whether to renew credit requests and, in case of non-repayments, they can transfer control to creditors. This finding is in accordance with the empirical support provided by Tosun and Senbet (2020) who suggest a substitution effect between short-term debt and good governance. Therefore, I anticipate the presence of a comparable relationship within the sample under examination and I suggests that short-term debt can effectively reduce the agency costs associated with free cash flow and consequently lead to higher returns for shareholders. Thus, I propose the second hypothesis.

Hypothesis 2: An increase in short-term debt negatively affects free cash flow and has a positive effect on Dividend Payment.

From the previous discussion, we argue that there is a belief that firms actively employ a strategy of using short-term debt as a means to mitigate financing costs and address management agency problems. However, other scholars dispute the idea that long-term debt financing can effectively mitigate the agency costs associated with free cash flow. One of the primary advantages is the relatively low financing costs associated with this type of funding, which can be attributed to tax-deductible interest. When a company takes on long-term debt, the interest paid on that debt is often tax-deductible. This implies that the company can reduce its taxable income by deducting the interest expense from its earnings. As a result, the firm's overall tax liability decreases, leading to a lower cost of financing. This can be particularly advantageous when compared to other forms of financing, such as equity financing, where there are no tax benefits associated with the cost of capital. Overall, the tax-deductible interest associated with long-term debt financing can provide firms with a cost advantage, enabling them to optimize their capital structure and allocate resources effectively to support their growth and value creation objectives.

Long-term debt financing offers stability in terms of interest payments due to its structured repayment schedule and often fixed interest rates. This stability can have a positive influence on a firm's value. It is commonly utilized to finance tangible assets that include property, plants, equipment, machinery, infrastructure, and other physical resources. According to D'Mello and Miranda (2010), long-term debt can effectively address agency problems by reducing excess investments and lowering abnormal capital expenditures. In circumstances where conflicts of interest between managers and shareholders are prominent, long-term debt financing serves as a mechanism to mitigate these conflicts and foster more disciplined investment decision-making. It imposes financial obligations, such as interest and principal payments, which act as a constraint on managers' discretion to allocate free cash flow for non-value-maximizing purposes. This limitation on available cash reduces managers' discretion and helps prevent the risk of wasteful spending. Furthermore, long-term debt providers, including bondholders and lenders, have a vested interest in ensuring that companies meet their debt obligations. They actively supervise the company's financial performance and investment decisions to safeguard their investment. This external monitoring serves as a means of regulating managerial behavior, thereby reducing the agency costs associated with free cash flow by holding managers responsible for their decisions. This can foster alignment between managers and shareholders by creating incentives for managers to use free cash flow to generate sufficient funds for debt services. The shared advantage experienced by the company and its creditors incentivizes managers to direct free cash flow towards projects and initiatives that enhance value and prioritize the interests of shareholders. This deliberate allocation serves to mitigate the likelihood of agency conflicts, fostering a more harmonious relationship among stakeholders. In summary, the utilization of long-term debt enables companies to effectively address agency costs related to free cash flow. This is achieved through the implementation of financial constraints, external monitoring, and the pursuit of a common alignment of interests between managers and shareholders. Consequently, long-term debt helps ensure that free cash flow is utilized in a manner that maximizes

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shareholder value while minimizing the risks of value-destroying investments and discretionary spending. Therefore, my third hypothesis documents a negative association between long-term debt and the agency cost of free cash flow, which, in turn, positively affects shareholder returns. Thus, I propose the third hypothesis.

Hypothesis 3: An increase in long-term debt negatively affects free cash flow and has a positive effect on dividend payment.

3. Data Models and Methodology

3.1. Data

For the empirical analysis, we utilize a sample of 120 Saudi firms listed on the Tadawul stock exchange during the period from 2011 to 2021. To gather the necessary financial variables for our study, we collected data from the WorldScoop database. By focusing on Saudi firms and utilizing this specific dataset, we ensured the relevance and reliability of the present empirical analysis in testing the hypotheses that investigate the impact of debt on reducing discretionary funds under managerial control. Table 1 displays the firms' classification by sector.

Table 1. Classification of firms by sectors.

Sectors	Number of firms	Percent %
Materials	37	30.83
Industrials	24	20
Consumer Discretionary	19	15.83
Consumer Staples	16	13.33
Real Estate	8	6.67
Health Care	7	5.84
Energy	5	4.17
Telecommunication Services	4	3.33

3.2. Models and Methodology

The estimation of the model follows the panel data approach, which allows for the incorporation of both cross-sectional and time series dimensions. Before proceeding with the regression analysis, it is customary to conduct diagnostic tests to examine the presence of heteroskedasticity and multicollinearity. To detect heteroskedasticity, we employ the Breusch-Pagan-Godfrey test. The result rejects the hypothesis of homoscedasticity. In addition, the results of the Wooldridge (2002) test indicate a p-value below 5%, suggesting the presence of first-order autocorrelation in the error terms. Therefore, we can conclude that there is a significant autocorrelation problem that needs to be addressed. Considering the simultaneous presence of heteroscedasticity and autocorrelation, it is recommended to employ the Generalized Least Squares (GLS) method. This approach enables us to effectively account for and mitigate both problem concerns in our model estimation. The primary aim of our initial econometric model in this study is to examine the hypothesis regarding the relationship between the agency cost of free cash flow and dividend payment. It is worth noting that we do not consider the moderating effect of debt structure. The first model is specified as a cross-sectional time series FGLS regression, and it is defined as follows:

$$DIV_{i,t} = \beta_0 + \beta_i Agency\ Cost\ of\ Free\ Cash\ Flow_{i,t} + \beta_j Debt\ Structure_{i,t} + \beta_k Control\ variables + \varepsilon_{it} \quad (1)$$

To investigate the potential impact of debt structure on the relationship investigated in the first model, a second model is introduced. This model includes an additional predictor variable, which is the interaction term between agency costs associated with the free cash flow debt structure. By incorporating this interaction term, the aim is to assess how the relationship between the agency cost of free cash flow and dividend payment may vary depending on different levels of debt structure.

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This allows for a more comprehensive of how the debt structure may moderate the relationship between the agency cost and dividend payment. The resulting model is the following:

$$DIV_{i,t} = \beta_0 + \beta_i Agency\ Cost\ of\ Free\ Cash\ Flow_{i,t} + \beta_j Debt\ Structure_{i,t} + \beta_k Agency\ Cost\ of\ Free\ Cash\ Flow_{i,t} * Debt\ Structure_{i,t} + \beta_l Control\ variables + \varepsilon_{it} \quad (2)$$

3.2.1. Dependent Variable

Dividends per share represent the profit distributed to shareholders for each share they hold. The ratio is computed by dividing the total dividends declared by the firm by the number of outstanding ordinary shares. The variable is highly valued by investors due to its direct impact on shareholder income. It is a straightforward and easily interpretable metric that allows investors to calculate their dividend payments over a specific period based on their share ownership. A Higher dividend per share indicates that shareholders are earning a consistent income on their investment, resulting in the perception of increased wealth creation for shareholders. In addition, it serves as a crucial metric for investors to understand and analyze the income-generating capacity of their stock investments, enabling them to make informed decisions and plan their financial strategies accordingly.

3.2.2. Agency Costs of Free Cash Flow Variable

Previous studies have used several measures of Free Cash Flow (FCF) as a proxy for the agency cost of equity. FCF is typically measured as free cash flow divided by total assets. Another measure, employed by Dittmar and Mahrt-Smith (2007), focuses on capturing excess cash within a firm. This measure draws attention to the potential for problems related to overinvestment problems, which can arise from high levels of assets in place or limited opportunities for future growth. In our study, we refer to Jensen (1986) approach to measure the agency costs of FCF. First, we will use the following formula to calculate FCF:

$$FCF = (Cash\ flow\ from\ operating\ activities - cash\ dividend - capital\ expenditure)$$

Second, we calculate the median of FCF and for Tobin's-Q for each sector composing our sample. A higher agency cost of FCF must satisfy the following conditions:

1: The firm's free cash flow (FCF) exceeds the median value of the sector. This condition indicates that the firm has a larger amount of available cash compared to other firms in the same sector. This situation can potentially raise concerns about agency problems, as managers may have more flexibility in deciding how to allocate excess cash. The increased discretion in cash allocation may not always align with the best interests of shareholders, as managers could potentially misuse the surplus cash for activities that do not maximize shareholder value.

2: The firm's Tobin's Q is lower than the median value of the sector. This indicates that the market values the firm's assets and growth prospects are less compared to other firms within the same sector. A lower Tobin's Q suggests that there may be underlying issues, such as agency problems or inefficient capital allocation, within the firm. The market's lower valuation could be attributed to concerns about the firm's ability to generate returns or effectively utilize its resources to create value for shareholders.

3.2.3. Debt Structure Variables

Debt can be divided into short-term and long-term debt. In our study, we define three measurements. First, we use the ratio of total debt to total assets. This ratio encompasses all categories of debt, including commercial debt, deposits received on order, tax debts, and regularization accounts. Second, we use the ratio of short-term debt to total assets. This ratio reflects the use of short-term debt to finance the firm's investment in current assets, ensuring the continuity of its production and sales. Third, we calculate the ratio of long-term debt to total assets, which measures the proportion of long-term debt in relation to the total asset value.

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3.2.4. Control Variables

The literature has examined several variables believed to impact a firm's decisions regarding dividend payments. This study specifically focuses on profitability, liquidity, and firm size as control variables. Previous research conducted in developed economies, such as Jensen et al. (1992) and Fama and French (2002), consistently reports a positive correlation between profitability and dividend payments. Using an unbalanced panel dataset consisting of 799 observations from companies operating in 15 different countries over a span of 14 years, Franc-Dąbrowskaa et al. (2019) confirm that high ROA tends to correspond to high dividend payments. These findings collectively reinforce the notion that the level of profitability is a crucial determinant in shaping dividend decisions. Furthermore, the literature suggests that corporate dividend policy is primarily influenced by a firm's cash position rather than its earnings, as demonstrated by studies conducted by Jabbouri (2016), which emphasize the significant impact of liquidity on a firm's dividend decisions. Firms that have greater cash availability are more inclined to pay dividends. Therefore, a positive correlation exists between a firm's liquidity and the likelihood of it paying cash dividends. This positive relationship supports the signaling theory of dividend policy. Additionally, we include firm size as a variable. According to the research conducted by Redding (1997) and Consler and Lepak (2016), firms with a larger size tend to have a higher propensity for dividend distribution. They tend to experience fewer financial limitations compared to their smaller counterparts. In this study, firm size is determined as the natural logarithm of total assets. Table 2 outlines a summary of the variables' definitions.

Table 2. Variable definitions and sources.

Variable		Definition	Sources
Dividend Payments	DIV	DIV = (total dividends paid - special dividends) ÷ (shares outstanding)	WorldScoop
Agency cost of free cash flow	AFCF	A higher agency cost of FCF must satisfy the following conditions: 1: Firm's free cash flow > The median FCF of Sector 2: Firm's Tobin's Q < the median Tobin's Q of Sector	Authors' calculations
Long-term debt ratio	LTD	Long-term debt to total asset	WorldScoop
Short-term debt ratio	STD	Short-term debt to total asset	WorldScoop
Liquidity	LIQ	Current Assets÷Current Liabilities	WorldScoop
Return on Asset	ROA	Net Income ÷Total Assets	WorldScoop
Firm size	SIZE	Total asset logarithm	WorldScoop

4. Findings and Results

4.1. Summary Statistics

Considering the descriptive results reported in Table 2, the average of dividend payments during the period under study is found to be 27%. The agency cost of free cash flow is observed in only 26% of our sample. This confirm that Saudi Arabian law played a significant role in shaping good corporate governance practices[1]. In Saudi Arabia, shareholders are empowered with the right

[1] The Corporate Governance Regulations, issued by the Capital Market Authority (CMA), play a pivotal role in defining the essential governance standards for listed companies in Saudi Arabia. These regulations encompass various aspects such as board composition, shareholder rights, disclosure requirements, risk management, and internal control, setting forth the necessary guidelines and obligations in these areas

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to request an examination of the company and access its records if they have suspicions regarding the board of directors or the actions of external auditors. The law safeguards shareholders' interests by ensuring their entitlement to receive dividends on their shareholdings and a portion of the residual profits in the event of the company's dissolution. Regarding the debt structure variables, it can be seen that the average of LTD is 12,27 % from 2011 until 2021, reaching an all-time high of 72,11 % percent in 2012. Lastly, average of STDR is 8,75 %. This indicates that Saudi firms depend heavily on long-term debt as a main source of leverage. Countries that provide better legal protection for shareholders experience reduced reliance on expensive external monitoring mechanisms, such as short-term debt, by firms. This result was confirmed by Hajisaaid (2020), who showed that Saudi firms exhibit a greater dependence on long-term funding for their operational needs in comparison to their reliance on short-term debt. Among the control variables, the mean and median values for profitability (ROA) are 9 percent, with a median of 4 percent. The mean value of liquidity (LIQ) is 2.14, and the median of this variable is 1.78, whereas these values for size (SIZE) are 8.31 and 8.35.

Table 3. Descriptive statistics.

Variables	Average	Min	Max	SD	Median
DIV	0.2709	0	2.0538	0.3823	0.1333
LTD	0.1227	0	0.7211	0.1525	0.0573
STD	0.0875	0	0.5666	0.1120	0.0408
ROA	0.0901	-0.3977	0.5280	0.0961	0.0758
LIQ	2.1433	0.0645	7.6854	1.3705	1.7827
SIZE	8.3189	4.4922	10.704	0.7640	8.3585
DichotomousVariables	**Modality**		**Frequency**		**Proportion**
ACFCF	1: presence of ACFCF		344		26.08
	0: Absence of ACFCF		975		73.92

Table 4 presents the correlation analysis. I employ Spearman correlation analysis to identify multicollinearity. The highest correlation coefficient observed among the variables is -0.44, specifically between firm size and long-term debt ratio. However, according to Gujarati and Porter (2010), a correlation coefficient exceeding 0.8 in absolute value is generally considered enough to indicate multicollinearity. This finding suggests that the explanatory variables are relatively independent of each other, reinforcing the reliability of the results.

Table 4. Correlation matrix.

	ACFCF	LTD	STD	ROA	LIQ	SIZE
ACFCF	1					
LTD	0.0815	1				
STD	0.0634	0.0046	1			
ROA	-0.1089	-0.2244	-0.1421	1		
LIQ	-0.0530	-0.2178	-0.4412	0.2045	1	
SIZE	0.0482	0.4158	0.1678	0.1859	-0.1769	1

4.2. Regression Analysis

Table 5 displays the first results of the panel data analysis. The analysis conducted demonstrates that, in the context of Saudi firms, there is a negative relationship between the agency cost of free cash flow and the dividend payment, which is significant at the 1% level. This result leads us to accept

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H1. The relationship is consistent with Modigliani & Miller (1961) who suppose that the presence of agency costs of free cash flows may limit the funds available for dividend payments. More specifically, the presence of free cash flow (FCF) induces managers to be involved in the perquisite consumption, utilizing funds for activities that primarily serve their personal interests rather than maximizing shareholder returns. As seen in Table 5, short-term debt did not seem to have a notable influence in determining dividend payment. The results confirm that Saudi firms exhibit a greater dependence on long-term debt. In particular, cash-rich Saudi firms have a higher probability of obtaining favorable credit terms from lenders, enabling them to secure a larger amount of long-term debt compared to short-term debt. Therefore, short-term debt does not play a significant role in determining dividend payments. In addition, we find that a negative and significant relationship is established between long-term debt (LTD) and dividend payments (DP). The consistent outcome is supported by Jabbouri (2016). Larger firms benefit from economies of scale, allowing them to negotiate more favorable terms and conditions when issuing long-term debt. This leads to lower issuance costs, as they can leverage their size and established relationships with financial institutions. As a consequence, firm size has a detrimental impact on dividend payments, with the fact that managers are more concerned about securing financing sources for future investment opportunities.

Table 5. Results of FGLS Estimates: The Effect of agency cost of free cash flow on dividend payments.

	Coefficients	Significance
Constant	- 1.6762	0.000
ACFCF	**- 0.0665**	**0.003*****
STD	**- 0.0551**	0.541
LTD	**- 0.7211**	**0.000*****
ROA	**2.2090**	**0.000*****
LIQ	**0.0268**	**0.000*****
SIZE	**0.1753**	**0.000*****
Wald chi2 (8) Prob> chi2	832.64 0.0000	

Among the control variables, the coefficient of ROA is 0.2090 which exposing impact of profitability on dividend payments. This result indicates that profitability, which presents a shared concern for both shareholders and managers, plays a fundamental role in guiding the formulation of dividend policy. The results obtained are in line with the findings of Dąbrowskaa et al. (2019), which provide confirmation of a positive association between high return on assets (ROA) and increased dividend payments.

Table 5 shows that firm liquidity (LEQ) has a significantly positive effect on dividend payments. This result confirms the finding of Jabbouri (2016) and Ali and Shaik (2022), who find that a greater cash availability are more inclined to pay dividends. Finally, the analysis confirms the previous findings concerning firm size. The coefficient is positive and statistically significant, which demonstrates that an increase in firm size leads to higher dividend payments. This result indicates that large Saudi firms employ dividends as a strategic mechanism to effectively convey costly positive signals regarding the promising prospects of the firm, the credibility and trustworthiness of management, and the successful management of agency conflicts.

As seen in Table 6, the impact of short-term debt on the association between the agency cost of free cash flow and dividend payments is not statistically significant, leading to the rejection of H2. This result can be attributed, among other factors, to the limited effectiveness of short-term debt in addressing the problem of underinvestment and, therefore, in enhancing shareholder value. Additionally, the estimated coefficient of the agency cost of free cash flow is significantly negative, while the estimated coefficient of ACFCF*LTD is statistically significant and positively related to dividend per share. Furthermore, the results indicate a higher level of moderation intensity (0.3626), suggesting that in the presence of the agency problem of free cash flow, the utilization of long-term

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debt becomes more effective and can enhance shareholder wealth. It is evident that bondholders aim to safeguard their risk exposure by imposing constraints on the company's involvement in certain activities, thus reducing debt agency costs. However, in the context of the agency cost of free cash flow, bondholders primarily focus on affirmative covenants which require the firm to undertake specified actions such as maintaining assets and financial ratios, or paying taxes, but they do not restrict financing activities such as dividend payments (Press and Weintrop, 1990). long-term debt can incentivize managers to distribute higher dividends. Since interest and debt repayments are fixed obligations, using free cash flow for dividend disbursement is considered as a more profitable and beneficial approach for shareholders. The stability provided by the structured repayment schedule and fixed interest rates of long-term debt acts as a deterrent, preventing management from misusing funds. This stability ensures that interest payments remain consistent and discourages reckless financial decisions. In addition, managers are motivated to reduce excess liquidity by distributing dividends rather than retaining funds within the firm. Consequently, the existence of excess free cash flow will be mitigated, compelling managers to act in the best interests of shareholders and reducing the agency costs associated with free cash flow. In situations where self-interest leads to the misuse of cash flows on unprofitable ventures like unrelated acquisitions or non-value-added activities, long-term debt serves as a mechanism to enforce financial discipline. This can effectively curb wasteful expenditures and promotes efficient resource utilization within the firm.

Table 6. Results of FGLS Estimates: The Moderating Effect of debt structure on the relationship between agency cost of free cash flow and dividend payments.

	Coefficients	Significance
Constant	-1.6610	0.000
ACFCF	**- 0.1418**	**0.000*****
STD	**- 0.1153**	0.249
LTD	**-0.8156**	**0.000*****
ACFCF* STD	**0.2421**	0.212
ACFCF* LTD	**0.3626**	**0.007*****
ROA	**2.0219**	**0.000*****
LIQ	**0.2093**	**0.000*****
SIZE	**0.2093**	**0.000*****
Wald chi2 (8)	848.29	
Prob> chi2	0.0000	

5. Conclusions and Policy Implications

This study explores the role of debt structure in reducing agency costs associated with free cash flow, which in turn, positively affects shareholder payments. Our overall conclusion is that long-term debt plays a crucial role in managing agency costs related to free cash flow and serves as a catalyst for higher dividend payments. This study makes a number of important contributions to the existing literature. First, the present paper integrates three significant theories: Jensen's theory of free cash flow (1986), Modigliani and Miller's theory of capital structure (1961), and Jensen and Meckling's theory of agency costs (1976). By merging these theories, the present study aims to offer a comprehensive comprehension of how a firm's financial structure and governance interrelate. Second, long-term debt in Saudi Arabian firms acts as a dual-function mechanism. Firstly, it enforces financial discipline by mitigating agency costs associated with free cash flow. Secondly, it serves as an incentive for managers to distribute higher dividends. Despite these important implications, this study has some limitations that should be addressed in future research. There are two potential avenues for future research in this area. Firstly, extending the observation period to include additional years would provide a more comprehensive analysis. This would allow for a deeper understanding of the long-term trends and dynamics related to the research topic. Secondly, future studies could incorporate internal corporate governance mechanisms, such as examining the impact

of managerial ownership on dividend payments. This would shed light on the disciplinary role that the ownership structure plays in influencing dividend decisions within firms. By considering these suggestions, researchers can further enhance the understanding of the relationship between observation periods and internal governance mechanisms in the context of dividend payments.

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