IMPACT OF STATE AND FOREIGN OWNERSHIP AND FREE CASH FLOW ON DIVIDEND POLICY WITHIN A GOVERNANCE CONTEXT

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Abstract

This study investigates the impact of state ownership (*SO*), foreign ownership (*FO*), and free cash flow (*FCF*) on dividend policies of Vietnamese-listed companies from 2014 to 2023. Furthermore, control variables are also included in the model, including firm age (*AGE*), firm size (*SIZE*), current ratio (*CUR*), quick ratio (*QR*), return on assets (*ROA*), asset turnover ratio (*ATR*), and COVID-19 (*COVID19*). To examine this impact, we conducted various statistical methods, including pooled ordinary least squares (OLS), fixed-effects model (FEM), random-effects model (REM), and feasible generalized least squares (FGLS) estimation analysis on 4,840 observations from 484 companies. We find that *SO* and *FO* positively influence both cash dividend yield (*CDY*) and dividend payout ratio (*DPR*) (Setiawan et al., 2016; Boshnak, 2021; Tnushi et al., 2023), while *FCF* shows no significant impact (Azfa & Mirza, 2010; Mughal & Muddasir, 2023). The study also reveals that the COVID-19 pandemic significantly affected dividend policies. These findings contribute to the understanding of dividend determinants in emerging markets and provide insights for policymakers and investors in the context of evolving ownership structures and external shocks.

Keywords: Cash Dividend Yield, Dividend Payout Ratio, Free Cash Flow, State Ownership, Foreign Ownership

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1. INTRODUCTION

As of 2024, Vietnam's stock market has been in operation for 28 years, including the establishment of the State Securities Commission in November 1996. As of June 30, 2024, Vietnam's stock market grew strongly with 744 listed enterprises. Specifically, 402 businesses are listed on the Ho Chi Minh City Stock Exchange (HOSE) and 342 businesses are listed on the Hanoi Stock Exchange (HNX). The world and Vietnamese economies are heavily affected by the COVID-19 pandemic, with many businesses

falling into bankruptcy, experiencing business difficulties, and reduced profits. COVID-19 has affected the stock market, making investor psychology unstable. Some studies on dividend policy during the COVID-19 pandemic include Ali (2022), Ali et al. (2022), and Linh et al. (2024). Dividend policy determines the distribution of a business's profits, giving the choice of using after-tax income to reinvest or pay dividends to shareholders. For each company, the most important financial policy is the dividend policy. Shareholders' investment when holding stocks may be risky, but dividends will be a worthy reward they receive (Kim et al., 2021). On stock exchanges, dividend payments are very abundant. The company can choose a reasonable form of dividend payment depending on each period (Truong et al., 2023).

There have been many studies recorded domestically and internationally related to factors affecting dividend policy, such as Ofori-Sasu et al. (2017), Sharma (2018), Jaara et al. (2018), Pinto and Rastogi (2019), Ganguli et al. (2020), Phuoc (2022), and Nhu and Phuoc (2022). However, there are also many studies on individual factors such as Boshnak (2021), Hasan et al. (2021), Tnushi et al. (2023), and Buertey et al. (2023). Nguyen et al. (2017) believe that in Vietnam, the stock market mostly lacks external governance mechanisms and ownership structure. The ownership structure is identified as an important factor in deciding dividend distribution. In addition, other factors also play a very important role in dividend payments, such as liquidity, and free cash flow (FCF). In case the company has difficulty with liquidity, the company chooses to pay dividends in shares rather than paying dividends in cash (Azfa & Mirza, 2010). From the companies' perspective, operating proceeds play an important role in determining payout amounts. FCF shows the availability of profitable projects and financial constraints, if any, which can increase or decrease the dividend payout ratio (DPR) of companies.

Thus, up to this point, empirical studies on the factors affecting dividend payment policy have mainly focused on the dividend behavior of companies in strongly developed economies rather than in emerging economies. On the other hand, studies pay little attention to the cash flow aspect, while cash flow is a potential determinant of dividend policy (Surya et al., 2024). Furthermore, research related to ownership structure and FCF of companies listed on the Vietnamese Stock Exchange is limited. Therefore, this study was conducted, and it is expected that the research results will contribute empirical evidence to Vietnam's developing stock market. On the other hand, it provides scientific evidence for companies to set appropriate dividend payment policies.

The research content includes the following parts. Section 2 provides the related literature and the development of hypotheses. Section 3 explains the research methods. Section 4 presents the results of experimental findings. Section 5 discusses the findings. Section 6 gives the conclusions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Literature review

Dividend policy is a topic that has been widely addressed by researchers over the years, demonstrated through the development of theories, consistent with the development of the financial market (Dissanayake & Dissabandara, 2021; El Ammari, 2021; Khalaf et al., 2023; Laksana et al., 2024). The following specific theories show that a company's dividend policy is influenced by many factors. In 1961, research by Miller and Modigliani (1961) challenged the common belief that paying dividends increases the firm value and argued that in perfect capital markets, a firm's decision to pay dividends does not affect the value of the firm affect business value. Dividend payments will depend entirely on investment decisions. This argument is also based on the customer effect, which asserts that a business changing its dividend policy may cause some shareholders to lose out to other businesses with more attractive dividends. Arguing contrary to Miller and Modigliani's theory, Lintner (1956) and Gordon (1962) proposed the hypothesis that dividends reduce investor risk, and were named "bird-in-the-hand". This theory argues that in markets with imperfect information, a company that pays high dividends will have reduced risk or certainty of future earnings that will attract investors and vice versa. In general, a company's dividend payment policy is affected by the psychology of shareholders. Gordon (1963) proposed a theory based on the dividend stream, according to which cash dividends are preferred by investors because they reduce investor risk. However, a company paying dividends in cash will affect cash flow and liquidity, reducing the availability of cash for managers to use.

Based on the FCF theory, Jensen and Meckling (1976) argued that paying dividends by dividend-paying companies overcomes the problem arising from the separation of ownership and control in the company. In fact, when FCF weakens, the operating cash flow (OCF) of business managers is also limited (Khair et al., 2023). Raising capital on the financial market helps managers achieve their business plans. However, the use of capital is not only managed by existing shareholders but must be supervised by investors. Capital exploited in the financial market by mobilizing loans will increase financial leverage, which means potential financial risks. Easterbrook (1984) also has a similar view; these theoretical views all support the relationship between ownership structure and organizational behavior due to the "agency problem". When a company has a high DPR, cash flow management within the business will be limited.

While Bhattacharya (1979) did not note a positive correlation between cash flow risk and dividend rate, Jensen et al. (1992) noted that there is a negative correlation between risk and dividends, meaning a company that has high risk will reduce dividend payments. The dividend signal theory of Bhattacharya (1979), and John and Williams (1985) found that investors can view information about the level of dividends paid as the basis for forecasts about the company's prospects, volatility in dividend policy not only reflects the actual state of operations but is also a signal about the company's prospects. Transparency of information, especially information about dividend policy, is the basis for market forecasts and investment decisions.

In chronological order, there have been many studies applying the above theories, such as Azfa and Mirza (2010), Manneh and Naser (2015), and Ofori-Sasu et al. (2017). Jaara et al. (2018) study used the panel dataset of 100 non-financial companies in

Jordan from 2005–2016 to investigate the determinants of dividend policy; Ni and Zhang (2019), Buertey et al. (2023) share the same view that mandatory social responsibility disclosure benefits stakeholders but harms shareholder welfare. However, Buertey et al. (2023) did consider the relationship in the pre- and post-COVID-19 contexts; Boshnak (2021) studies the impact of ownership structure and board composition on the dividend payment policy of 280 companies listed at Saudi-listed firms over the period 2016 to 2019. The study suggests the following: future authors could investigate the impact of board composition and ownership structure on dividend policy at Tadawul more broadly. Furthermore, future research further analyzes additional board characteristics, ownership structure, and control variables, incorporating interviews with key actors to capture their insights into the firm dividend policy in Saudi Arabia; Tnushi et al. (2023) showed that shows that institutional share ownership and foreign share ownership improve dividend policy. The study has limitations that do not generalize the results to other areas; Linh et al. (2024) studied the impact of factors on corporate dividend payment policy with data on companies listed on the stock market from 2019 to 2021 (COVID-19 pandemic). The author's findings are meaningful for investors, but the study also suggests that future research should consider whether dividend payments are different between industries or not. Studies on listed companies include Nasrulloh et al. (2024) who analyzed the impact of return on assets (ROA) and FCF on DPR on the Indonesia Stock Exchange (IDX); Abdurrozaq et al. (2024) who examined the impact of corporate governance on dividend policy on the IDX; Kaur and Kaur (2024) analyzed the impact of board composition and ownership structure on dividend payout policy of some listed companies in India. In addition, there are many other studies on factors affecting dividend policy, such as Dahiya et al. (2023), Nishikawa et al. (2023), and Mustafa et al. (2024).

The summary of domestic and foreign research on dividend payment policy is very rich and diverse but gives different results. The results of such conflicting studies require detailed studies based on specific experimental results. While previous studies have examined dividend policies in developed markets, there is limited research on the interplay of ownership structure and FCF in emerging markets like Vietnam. This study aims to address this gap by investigating how state ownership, foreign ownership, and FCF impact the dividend policies of Vietnamese listed companies, particularly in the context of the COVID-19 pandemic.

2.2. Development of hypotheses

Empirical research by Hasan et al. (2021) shows that companies controlled by state shareholders often have higher and more regular dividend payout rates than companies controlled by families. Supporting the above view, Jain (2022), and Ershova et al. (2023) also found similar evidence. That means high dividends are paid not to reduce agency costs or convey information to shareholders but for the benefit of state shareholders. Enterprises with a high percentage of state ownership often have a long history of operating under state sponsorship. These businesses are less affected by financial constraints. Although the corporate bond market in Vietnam is quite small, state-owned enterprises have easy access to funding from the banking system (with a small group of large commercial banks dominated by state ownership). On the other hand, for divestment to follow a convenient schedule and attract investors in the market, a high dividend policy can accompany enterprises with a high state ownership ratio, and vice versa. Therefore, the study expects:

H1: State ownership has a positive relationship with the dividend policy of the enterprise.

Nguyen Thi et al. (2023), and Bene (2023) found evidence that the share ownership ratio of foreign shareholders has a negative impact on the cash DPR. Foreign investors can monitor board operations better than domestic shareholders and reduce costs from companies' hidden activities. Meanwhile, Baba (2009), and Farooq et al. (2024) found that the higher the foreign ownership, the higher the DPR in Japanese enterprises. This conclusion may explain why foreign investors prefer firms that pay dividends when their control is not strong enough to prevent management's self-interested behavior or that's too costly. They will demand a higher cash DPR to reduce FCF within the company. In the annual reports of listed enterprises, the study found that foreign investors rarely participate in the executive board of enterprises. Instead, they enter the market as investors, simply seeking income like other individual investors in the market. With low and dispersed ownership, they do not have a large enough incentive, and it is costly to monitor the behavior of company management. Instead, they favor high DPRs. Therefore, the study expects:

H2: Foreign ownership has a positive relationship with the dividend policy of the enterprise.

The agency cost theory of Jensen and Meckling (1976) argues that companies should pay higher dividends to prevent managers from investing capital in inefficient projects and wasteful activities when there is more FCF but no better investments. The availability of cash flow is considered more important than the availability of earnings because earnings do not really reflect a company's ability to pay cash dividends (Manneh & Naser, 2015). The relationship between FCF and dividend payment policy is noted by many researchers (Rochmah & Ardianto, 2020; Mughal & Muddasir, 2023; Surya et al., 2024). Therefore, the study expects:

H3: Free cash flow has a positive relationship with the dividend policy of the enterprise.

3. RESEARCH METHODOLOGY

3.1. Study design

Based on the theory and research overview, the study proposes two research models. Model 1 analyzes the impact of ownership structure (using two representative variables, state ownership (*SO*) and foreign ownership (*FO*) the impact of the representative variable free cash flow (*FCF*) on cash dividend yield (*CDY),* and Model 2 on dividend payout ratio (*DPR*). Furthermore, control variables are also included in the model including firm age (*AGE*), firm size (*SIZE*), current ratio (*CUR*), quick ratio (*QR*), return on assets (*ROA*), asset turnover ratio (*ATR*), and COVID-19 (*COVID19*).

3.2. Population and sample

The study examines ownership structure and cash flow factors affecting dividend policy from companies listed on the Vietnamese stock market from 2014–2023, with 4840 observations of 484 companies in 10 industry groups.

3.3. Research model and variable measurements

The relationship examined in this study will be measured using the following model. The variables in the research model are presented in detail in Table 1.

Model 1

$$CDY_{i,t} = \beta_0 + \beta_1(SO_{i,t}) + \beta_2(FO_{i,t}) + \beta_3(FCF_{i,t}) + \beta_4(AGE_{i,t}) + \beta_5(SIZE_{i,t}) + \beta_6(CUR_{i,t}) + \beta_7(QR_{i,t}) + \beta_8(ROA_{i,t}) + \beta_9(ATR_{i,t}) + \beta_{10}(COVID19_{i,t}) + \varepsilon_{i,t} \quad (1)$$

Model 2

$$DPR_{i,t} = \beta_0 + \beta_1(SO_{i,t}) + \beta_2(FO_{i,t}) + \beta_3(FCF_{i,t}) + \beta_4(AGE_{i,t}) + \beta_5(SIZE_{i,t}) + \beta_6(CUR_{i,t}) + \beta_7(QR_{i,t}) + \beta_8(ROA_{i,t}) + \beta_9(ATR_{i,t}) + \beta_{10}(COVID19_{i,t}) + \varepsilon_{i,t} \quad (2)$$

Table 1. Model variable definitions and measurement

Variable	*Symbol*	*Measurement*	*Source*
Dependent variables			
Cash dividend yield	*CDY*	Amount of dividends paid for 1 share/share price	Linh et al. (2024)
Dividend payout ratio	*DPR*	Dividend per share/earnings per share	
Independent variables			
State ownership	*SO*	(Number of shares owned by the state / total number of shares issued) * 100%	Azfa and Mirza (2010), Manneh and Naser (2015), Boshnak (2021), Setiawan et al. (2016), Hasan et al. (2021), Jain (2022), Ershova et al. (2023), Tnushi et al. (2023)
Foreign ownership	*FO*	(Number of foreign-owned shares / total number of shares issued) * 100%	Manneh and Naser (2015), Setiawan et al. (2016), Boshnak (2021), Hasan et al. (2021), Tnushi et al. (2023), Nguyen Thi et al. (2023), Farooq et al. (2024)
Free cash flow	*FCF*	Operating cash flow (OCF) - Capital expenditure (CAPEX), in there: OCF = Earnings before interest and taxes (EBIT) - depreciation – tax; EBIT = total profit before taxes and interest; CAPEX (1 year) = current property, plant, and equipment (PPE) - previous year's PPE + asset depreciation	Azfa and Mirza (2010), Manneh and Naser (2015), Widyanti and Widyasari (2020), Rochmah and Ardianto (2020), Chau (2023), Mughal and Muddasir (2023)
Control variables			
COVID-19	*COVID19*	Dummy variable (*COVID19* = 1: COVID-19 period from 2019–2021; *COVID19* = 0: outside the period 2019–2021)	Buertey et al. (2023), Ali Taher and Al-Shboul (2023), Xu et al. (2023)
Firm age	*AGE*	Number of years since incorporation. Calculated from the time the company is listed until the end of 2023	Ofori-Sasu et al. (2017), Hasan et al. (2021), Louziri and Oubal (2022)
Firm size	*SIZE*	Total debt to total assets	Azfa and Mirza (2010), Manneh and Naser (2015), Jaara et al. (2018), Tnushi et al. (2023), Linh et al. (2024)
Current ratio	*CUR*	Current assets / current liabilities	Pinto and Rastogi (2019), Marito and Sjarif (2020), Wahjudi (2020)
Quick ratio	*QR*	Current assets – inventory / short-term liabilities	Purwaningsih et al. (2020), Jain et al. (2022)
Return on assets	*ROA*	Net income to total assets = profit before tax / total assets	Hasan et al. (2021), Bossman et al. (2022), Ukpong and Ukpe (2023)
Asset turnover ratio	*ATR*	Net revenue / total assets	Olokoyo (2013), Susanti and Restiana (2018)

Source: Authors' elaboration.

3.4. Statistical methods used

Research data analysis through Stata 17 software. First, the study performed regression analysis using the pooled ordinary least squares (OLS) model. When performing, the results from the pooled OLS model were not sufficient, so the fixed-effects model (FEM), and random-effects model (REM) were deployed. The study continued to perform the Hausman test between FEM and REM to select the best model. From there, the study examines the defects and regression of feasible generalized least squares (FGLS). Research and compare pooled OLS, FEM, and REM models to choose the more optimal model. The selected model is tested to determine whether the model has autocorrelation, heteroscedasticity, and multicollinearity. When the phenomenon of heteroscedasticity or autocorrelation still exists in the selected model, regression analysis according to the FGLS model is performed to overcome and provide the most optimal final regression model. However, the study can use another alternative method using the autoregressive distributed lag model (ARDL). This is also an important economic forecasting model widely applied in economics, a model for time series data, in which a regression equation is used to predict the current values of a dependent variable based on both the current value of an explanatory variable and the lagged (past period) values of this explanatory variable.

4. RESULTS

4.1. Descriptive statistics

Table 2 shows that the number of companies paying dividends ranges from 24.38% to 84.09% in each period year; The average *DPR* reached 67.87%, accounting for over 2/3 of the companies paying cash dividends during this period. Statistical data also shows 10 occupations, including information technology, industry, oil and gas, consumer services, pharmaceuticals and healthcare, consumer goods, banking, materials, finance, and community utilities. Of these, the industry with the largest proportion is industry, accounting for 35%. *CDY* with an average value of 0.0415183; *DPR* represents the cash dividend payment ratio of a business with an average value of 0.4757074.

Table 2. Descriptive statistics of research variables

Variable	*Obs.*	*Mean*	*Std. dev.*	*Min*	*Max*
CDY	4.840	0.0415183	0.0578029	0	1.2912
DPR	4.840	0.4757074	1.634026	-8.603	77.1896
Covid19	4.840	0.3	0.4583049	0	1
AGE	4.840	10.13636	3.714607	1	23
SO	4.840	0.2261664	0.2534445	0	0.9672
FO	4.840	0.1094505	0.147801	0	0.9501
SIZE	4.840	11.9774	0.7757328	10.12846	15.30805
QR	4.840	2.205762	7.8299	0	168.91
CUR	4.840	3.245531	8.153761	0	169.26
ROA	4.840	0.0571101	0.0770561	-0.6246	0.8391
FCF	4.840	8.38979	457.1113	-6136	18270
ATR	4.840	1.134719	1.150772	-0.12	11.42

Source: Authors' elaboration.

4.2. Correlation coefficient

The study continues to analyze the correlation matrix between variables in the two models with the dependent variables *CDY* and *DPR*. According to Table 3, the possibility of multicollinearity of the model is insignificant because the absolute value is < 0.6 and the correlation coefficients of the variables are small.

Table 3. Correlation coefficient matrix of research variables

Variable	*DPR*	*CDY*	*COVID19*	*AGE*	*SO*	*FO*	*SIZE*	*QR*	*CUR*	*ROA*	*FCF*	*ATR*
DPR/CDY	1.0000	1.0000										
COVID19	-0.0385	-0.0359*	1.0000									
AGE	0.0020	-0.1944*	0.2991*	1.0000								
SO	-0.1168	0.2013*	-0.0374*	-0.0594*	1.0000							
FO	0.0114	0.0193	-0.0379*	0.0313*	-0.1046*	1.0000						
SIZE	0.0678	-0.1217*	0.0399*	0.1291*	-0.0594*	0.2892*	1.0000					
QR	0.0152	-0.0616*	-0.0037	-0.0237*	-0.0636*	-0.0110	-0.1029*	1.0000				
CUR	0.0277	-0.0540*	0.0027	-0.0097	-0.0699*	-0.0075	-0.1316*	0.9630*	1.0000			
ROA	-0.0515	0.2947*	-0.0173	-0.0635*	0.0521*	0.1219*	-0.0900*	-0.0229	0.0188	1.0000		
FCF	0.2678	-0.0072	-0.0162	0.0063	0.0427*	0.0250*	0.0910*	-0.0057	-0.0086	-0.0046	1.0000	
ATR	-0.0144	0.1871*	-0.0258*	-0.0197	0.2173*	-0.0657*	-0.2734*	-0.1057*	-0.1119*	0.1999*	-0.0243*	1.0000

*Note: * p < 0.1.*
Source: Authors' elaboration.

The study performed an OLS analysis after a correlation analysis between variables. The results show that R^2-square values = 0.264 and 0.251 show that 26.4% and 25.1% of *CDY* and *DPR* are explained by the independent variables: *SO, FO, FCF*, and control variables: *COVID19, AGE, SIZE, QR, CUR, ROA, ATR*. In addition, the p-value of both models corresponds to *CDY* and *DPR* with Sig. = 0.0000 < = 0.05 shows that this estimation method is statistically significant.

After OLS analysis, the study conducted the Wooldridge test, and the results showed a p-value < 0.05, meaning the model has heteroskedasticity. Research and analyze data according to FEM and REM. Research on choosing between FEM and pooled OLS with two models shows that FEM is more optimally chosen than pooled OLS because the F-test results with Prob. > F = 0.0000.

Testing the choice between REM and pooled OLS with both models shows a p-value < 0.05. Specific results are as follows:

- *CDY* model: chibar2(01) = 109.73, Prob. > chibar2 = 0.000;
- *DPR* model: chibar2(01) = 741.96, Prob. > chibar2 = 0.000.

The results show that there is a difference when using pooled OLS and REM; REM is chosen because it is more optimal.

Research continues to test the choice between FEM and REM: By Hausman test with hypothesis H_0. There is a difference between FEM and REM.

The results with both models for each dependent variable are as follows:

Model 1 (*CDY*): The model has Prob. (0.0000) < α (0.05), so it accepts H_0 at α = 5%. The results of FEM and REM are different, so research using FEM is more meaningful.

Model 2 (*DPR*): The model has Prob. (0.0000) < α (0.05), so it accepts H_0 at α = 5%. The results are different for FEM and REM, studies using FEM have higher significance, correlation, and heteroskedasticity.

However, FEM was selected for both models with variables *CDY* and *DPR*, testing the phenomenon of autocorrelation and heteroscedasticity showing specific results as shown in Table 4.

Table 4. Heteroskedasticity test (Xttest3) and Wooldridge test results

Test	*CDY*	*DPR*
Test for heteroskedasticity (xttest3)	Prob. > F = 0.2450	Prob. > F = 0.0000
Autocorrelation test Wooldridge	Prob. > Chi^2 = 0.00	Prob. > Chi^2 = 0.00

Source: Authors' elaboration.

The study examines the defects and uses FGLS regression to overcome them.

Table 5 summarizes the results of pooled — OLS, FEM, REM, and FGLS in terms of the levels of the dependent variables *CDY* and *DPR*. According to Table 5, research shows the impact and relationship of factors on the dividend policy.

Table 5. OLS, FEM, REM, and FGLS model estimation results

Variable	*OLS*		*FEM*		*REM*		*FGLS*	
	CDY	*DPR*	*CDY*	*DPR*	*CDY*	*DPR*	*CDY*	*DPR*
COVID19	0.00394** (2.26)	0.132** (2.47)	0.00691*** (4.23)	0.150*** (2.78)	0.00552*** (3.39)	0.134** (2.54)	0.00472*** (4.97)	0.0669*** (8.03)
AGE	-0.0531*** (-12.19)	-0.475*** (-3.57)	-0.0984*** (-16.77)	-0.827*** (-4.27)	-0.0669*** (-14.16)	-0.498*** (-3.63)	-0.0433*** (-17.01)	-0.299*** (-10.07)
SO	0.0362*** (11.68)	0.661*** (6.98)	0.00742 (0.86)	0.530* (1.85)	0.0331*** (7.65)	0.662*** (6.40)	0.0385*** (20.19)	0.525*** (19.67)
FO	0.0137** (2.50)	0.256 (1.53)	0.0441*** (4.00)	-0.0252 (-0.07)	0.0206*** (2.89)	0.250 (1.39)	0.0160*** (5.72)	0.295*** (7.95)
SIZE	-0.00470*** (-4.27)	-0.101*** (-3.01)	-0.0223*** (-5.04)	-0.0704 (-0.48)	-0.00343** (-2.18)	-0.0988*** (-2.69)	-0.00424*** (-8.90)	-0.0591*** (-9.57)
QR	-0.0000638 (-0.17)	-0.0564*** (-5.02)	-0.000572 (-1.27)	-0.0604*** (-4.06)	-0.000270 (-0.67)	-0.0572*** (-4.93)	-0.000321 (1.37)	-0.0267*** (-6.34)
CUR	-0.000286 (-0.80)	0.0534*** (4.92)	-0.000357 (-0.82)	0.0629*** (4.39)	-0.000414 (-1.07)	0.0547*** (4.88)	-0.0000908 (-0.40)	0.0259*** (6.22)
ROA	0.188*** (18.18)	0.0405 (0.13)	0.196*** (14.42)	1.087** (2.41)	0.189*** (16.36)	0.162 (0.49)	0.178*** (25.26)	0.155** (2.25)
FCF	0.000000615 (0.37)	0.00000487 (0.10)	0.000000517 (0.30)	0.00000405 (0.07)	5.04e-08 (0.03)	0.00000406 (-0.08)	6.66e-08 (0.11)	0.00000247 (0.67)
ATR	0.00399*** (5.51)	0.0466** (2.11)	0.00446** (2.43)	0.00363 (0.06)	0.00301*** (3.03)	0.0467* (1.94)	0.00500*** (10.25)	0.0562*** (8.54)
_cons	0.124*** (9.19)	1.829*** (4.43)	-0.144*** (-2.82)	0.260 (0.15)	0.123*** (6.53)	1.831*** (4.08)	0.101*** (16.21)	1.077*** (13.37)
N	4840	4840	4840	4840	4840	4840	4840	4840
R-square	0.264	0.251	0.278	0.211				
F-test					Wald $Chi^2(10)$ = 741.96 Prob. > Chi^2 = 0.0	Wald $Chi^2(10)$ = 109.73, Prob. > Chi^2 = 0.0	Wald $Chi^2(10)$ = 2825.31, Prob. > Chi^2 = 0.0	Wald $Chi^2(10)$ = 1496.32, Prob. > Chi^2 = 0.0

*Note: t-statistics in parentheses * p < 0.1, ** p < 0.05, *** p < 0.01.*
Source: Authors' elaboration.

5. DISCUSSION

The analysis results show that the dividend payment policy before the COVID-19 pandemic and after the COVID-19 pandemic had a huge impact. During the COVID-19 pandemic (2019–2021) and outside the period 2019–2021, the results show that cash dividend payments have a positive impact on corporate value. This may stem from investors' reactions when the epidemic occurs or the increase or decrease in the scale of investment opportunities that can increase or hinder the business's ability to grow its cash flow. The ability to access external financial resources can also increase or decrease liquidity and solvency, leading to differences in dividend payments before and after the COVID-19 pandemic.

Regression results using the FGLS method show that the *SO* and *FO* of enterprises in both models have a positive and statistically significant relationship with dividend policy. The higher the shareholders' ownership, the higher the *DPR*. This result is consistent with the research results of Manneh and Naser (2015), Setiawan et al. (2016), Boshnak (2021), and Tnushi et al. (2023). However, the research results are not similar to the results of Azfa and Mirza (2010), Hasan et al. (2021), Jain (2022), Ershova et al. (2023), Nguyen Thi et al. (2023). Through the regression coefficient, the study shows that domestic investors have an influence equivalent to the influence of foreign investors. Vietnam's stock market is new, but domestic investors have quite a lot of experience and the ability to monitor and analyze financial situations like foreign investors. Therefore, domestic investors may wish to share profits with shareholders. High dividend payments can be a form of divestment according to the state's roadmap, or create favorable conditions for state capital divestment. Besides, state-owned companies often have easy access to external capital, especially bank loans, which support a high dividend payment policy. Similar to the *SO* variable, the *FO* variable also has a positive impact on the cash *DPR*. This proves that although foreign investors have cultural and geographical differences, they have a lot of experience in global investment. So, they will use many tools as well as many measures to evaluate the prospects of the business. Increased ownership by foreign investors may lead to the need for increased pressure on information disclosure by local enterprises.

Our finding that *FCF* does not significantly impact dividend policy contradicts some previous studies. The consequence is consistent with the study of Azfa and Mirza (2010), and Mughal and Muddasir (2023). However, the results are not consistent with the research of Manneh and Naser (2015), Rochmah and Ardianto (2020), Widyanti and Widyasari (2020), and Chau (2023). This may be due to the unique characteristics of the Vietnamese market, where firms may prioritize reinvestment over dividend payments even when *FCF* is high. This means businesses with high cash flow have low *DPRs*. This requires effective business

and investment leadership and good expenditure management to generate high *FCF*. Management should use part of its FCF to pay dividends.

This study also incorporates some very important control variables and finds that *SIZE* has a statistically significant negative relationship with dividend policy. The consequences are not consistent with the research of Manneh and Naser (2015), Jaara et al. (2018), Tnushi et al. (2023), and Chau (2023), but consistent with the research results of Azfa and Mirza (2010), Linh et al (2024). Although large-scale companies are mature companies, have easier access to the capital market, have lower costs, and are subject to fewer constraints, they are not necessarily able to pay dividends higher than small-sized companies. In addition to increasing undivided profits to reinvest in assets, the large scale of assets will cause a series of business costs of the enterprise, such as depreciation costs, business management costs, and financial costs to increase, reducing net profits and negatively affecting the dividend yield. Next, the consequence shows a negative and statistically significant relationship between *AGE* and dividend policy. This result is consistent with the research results of Ofori-Sasu et al. (2017) but is not consistent with the results of Hasan et al. (2021).

CUR has a statistically significant relationship with *DPR*; however, *CUR* is not statistically significant with *CDY*. This outcome is consistent with the research of Pinto and Rastogi (2019). Similar to the *CUR* variable, the *QR* variable has a negative and statistically significant relationship with *DPR*, but *QR* is not statistically significant with *CDY*. This result is consistent with the research results of Purwaningsih et al. (2020). The *CUR* means that the fulfillment of the company's short-term ability varies in determining the dividend to be distributed to shareholders. *ROA* has a positive and statistically significant relationship with *CDY* and *DPR*. The results are consistent with the research of Hasan et al. (2021), Bossman et al. (2022), and Ukpong and Ukpe (2023). *ROA* represents a company's profitability. According to FCF theory, businesses with high profitability will have high FCF, and companies that generate higher profits will also generate higher dividends for shareholders. Therefore, they tend to pay dividends in cash. *ATR* similarly also has a positive and statistically significant relationship with dividend payout policy. This result is consistent with the research of Olokoyo (2013), Susanti and Restiana (2018).

6. CONCLUSION

This study provides evidence that ownership structure, particularly state and foreign ownership, significantly influences the dividend policies of Vietnamese listed companies. Contrary to some previous studies, we find that free cash flow does not impact dividend decisions in this context. The COVID-19 pandemic emerged as a significant factor affecting dividend policies, highlighting the importance of considering external shocks in dividend policy research. These findings contribute to the literature on dividend policy in emerging markets and have important implications for investors and policymakers. Besides, the research results are also meaningful for market managers and policy-makers to better control the market. Therefore, the authors propose several recommendations.

- Maintain a stable cash dividend policy: Signaling theory holds that all announcements of dividend payments are seen as the company's signals to investors about the business situation. A change in dividend policy can make investors think that it is a signal sent by the company, signaling a change in the company's growth. In addition, the company owns many promising projects for the future. In other words, the company is developing or facing financial difficulties, forcing it to increase or decrease the amount of dividends paid to shareholders. Therefore, companies need to pay attention to the signaling impact of dividend policy when making decisions because reducing dividends can cause negative impacts, affecting investor psychology and causing a negative reduction in stock price. Nothing affects stock prices faster than dividend announcements.
- Improve the efficiency of cash flow management from business activities: To maintain stability in dividend payments and improve business efficiency, companies must have measures and plans to manage cash flow efficiently by forecasting and planning cash flow. The company needs to forecast the exact amount of money and time it will spend shortly, such as rent, inventory, salaries, wages, withheld taxes, or other payables, equipment, and cash dividends. However, some companies use debt at a high rate, increasing the burden of interest payments. Furthermore, the company pays high cash dividends, so retained profits are low. At the same time, the company needs to manage receivables by offering discount policies, performing credit checks on all new partners who do not pay in cash, and issuing invoices promptly. Issue invoices promptly and immediately follow up if late payments appear, and overdue accounts. On the other hand, the company manages its payables by taking full advantage of debt payment terms and communicating with suppliers to let them know the current status of the company to gain trust.
- Improve the efficiency of corporate financial management: Companies should create conditions for managers to be trained, research, and learn modern financial theories and applications to work. Financial management is more accurate and professional. Some tasks, such as forecasting, planning, analysis, evaluation, and budgeting, when using financial tools, help result in more accurate and faster results. This contributes to improving financial management efficiency, thereby maximizing equity value.
- Evaluate and choose the optimal funding source structure: If the use of loans is effective and the profit rate is quite high, companies should increase the debt ratio, increase profits, and create favorable conditions for facilitating companies to access loan capital more easily, supporting a stable cash dividend payment policy. Companies with good returns on assets can consider a reasonable loan level based on the debt ratio that the world's leading companies are applying.

However, the study has some limitations as follows: The generalized moment method has not been used to estimate panel data; this study only focuses on important financial indicators of companies and does not include non-financial factors such as debt status (credit selling policy), motivation of management, or company management. Future research could explore the underlying mechanisms of these relationships and extend the analysis to other emerging markets for comparative insights.

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