Dividend Policy and Firm Value Evidence of Tunisian Firms

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Abstract:

This study explores the simultaneous relationship between dividend policy and firm values, using a sample of around 83 non-financial firms for the period from 2010 to 2015 in a Tunisian context. The results show that, when we use simultaneity equations, dividend payments do not appear to significantly affect firm value, nor does firm value affect dividend policy. The empirical analysis suggests that simultaneity is crucial in analyzing dividend policy and firm value.

Keywords: Dividend policy, Firm Value, Tunisian Firms
JEL Classification Codes: G35 , G32 .

ملخص: تحاول هذه الدراسة كشف العلاقة المتزامنة بين سياسة توزيع الأرباح وقيم الشركات، وذلك باستخدام عينة من حوالي 83 شركة غير مالية للفترة من 2010 إلى 2015 في السياق التونسي. تظهر النتائج أنه عندما نستخدم المعادلات المتزامنة، لا يبدو أن مدفوعات الأرباح تؤثر بشكل كبير على قيمة الشركة، ولا تؤثر قيمة الشركة على سياسة توزيع الأرباح. ويشير التحليل التجريبي إلى أن التزامن أمر بالغ الأهمية في تحليل سياسة توزيع الأرباح وقيمة الشركة.

كلمات مفتاحية: سياسة توزيع الأرباح ، قيمة المؤسسة، المؤسسات التونسية.

تصنيفات JEL :...: G35 , G32 :

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1. INTRODUCTION

Dividends are considered the ultimate goal of business investment (Ammar Zahid et al., (2023)). It is the most researched topic in the corporate finance literature (Kilincarslan and Demiralay (2020)); numerous studies and theories focus on the motivation and determinants of this policy (Ammar Zahid et al., (2023)).

Dividend policy is the company's steering policy that determines the profits paid to shareholders and the profits held to finance future investments. Indeed, two cases are considered in this context. On the one hand if the management decides to pay dividends, the amount of profit owned is reduced and, therefore, the internal funding source will decrease. On the other hand, if management decides not to pay dividends, it will increase funding from internal sources (Wahjudi (2020)).

In practice, firms tend either to pay dividends with relatively stable amounts or to increase the amount regularly for two reasons. First reason explains the preferences of an investor who prefers stable dividends. Second reason refers the Signal Theory that considers dividend increase as a good sign that firms have good prospects, and vice versa (Wahjudi (2020)).

Dividend payment is a way that shows that a manager seeks to increase firm value and keeps the owner's equity growth by retaining the profit available to the shareholders into retained earnings. In this case, the manager seeks an optimal dividend policy that maximizes the corporate value. According to Meissner and Brigham (2001), the optimal dividend policy is a dividend policy that can create a balance between current dividends and future growth, which leads to the maximization the company's stock price.

Under modern circumstances, the attractiveness and investment costs are inherently associated with firm value. Dang et al., (2020) say that firm value is a topic that attracts a great deal of attention from firm executives and researchers. It strongly reflects the effectiveness of an organization as well as the growth of that organization in the long-term (Sampurna and Romawati, (2020); Shah and Khalidi, (2020)). According to Collins et al.,

(1997); Burgstahler and Dichev, (1997), the Rational investors perceive this indicator as a signal for making investment decisions thanks to the significant correlation between firm value and earnings.

Therefore, understanding what factors influence firm value and the extent to which this relationship is a crucial question. To date, there has been a great deal of studies addressing these questions (Endri and Fathony, (2020); Nguyen and Bui, (2020); Aggarwal and Padhan, (2017); Adenugba et al., (2016); Chen and Chen, (2011); Dang et al., (2019); Sudiyatno et al., (2020); Burgstahler and Dichev, (1997)). For example, Sudiyatno et al. (2020) find that there are both internal and external factors influencing firm value. The internal factors include capital structure, profitability, free cash flow, firm size, liquidity, and ownership structure, whereas external factors comprise interest rates, inflation, and other macro-indicators. However, given the different research findings on the correlation between those variables, several arguments have been raised. For example, Aggarwal and Padhan (2017) and Dang et al. (2019) showed that firm size significantly influences firm value while several other authors suggest a reverse pattern (Endri and Fathony, (2020)). Chen and Chen (2011) believe that capital structure is negatively associated with firm value, whereas Adenugba et al. (2016) point out a positive relationship. To address this argument, this study will provide more evidence on the determinants of firm value in Vietnam.

Based on the background description of the problem, this study aims to analyze the variables that significantly affect dividend policy and firm value in Tunisian context, using simultaneous equations. In the Tunisian context, previous empirical researches have studied each decision separately. As such, none of the studies explain simultaneously the dividend decision and firm value.

The rest of the paper is structured as follows. Following this introduction, Section 2 presents a review of the literature, covering the fundamental determinants relating to dividend decision and firm value. Section 3 describes the sample of firms, variable definitions, data sources and methodology. Section 4 presents the results of the empirical tests. Discussions in Section 5 present the conclusion of the paper.

2. Literature Review

2.1 The Determinants of Dividend Policy

According to Wahjudi (2020), dividends are the share of profits earned by the company to shareholders that are proportional to the number of the shares held. It can be either cash or stock. It has an influence on shareholders and firm value. Shareholders generally want a relatively stable dividend distribution, because it not only reduces the uncertainty of expected returns from their investments but also increases shareholders' confidence in the company, which leads to an increase in the share value.

The Relationship between Leverage and Dividend Policy

According to Wiagustini (2010), leverage is the ability of a company to meet its financial short-term and long-term obligations. The higher leverage ratio indicates that a company has a great obligation to pay its engagement and the lower leverage ratio indicates that the company is able to meet its funding needs with its own capital. In other words, the high liabilities to be paid will reduce the profit earned by the company, which will certainly reduce the dividend payout. In line with a research conducted by Lopolusi (2013) and Sunarya (2013), debt has a negative effect on dividend.

The Relationship between Firm Size and Dividend Policy

Firm size is an indicator of the magnitude of the agency problem. Indeed, the larger the firm, the greater the agency problems, the more legitimate the use of dividend distribution. In addition, large firms are characterized by the ease in obtaining external funds, in particular by appealing to the financial market. Thanatawee (2011) shows that larger companies tend to pay higher dividends.

The Relationship between Liquidity and Dividend Policy

A high level of liquidity is a sign of a company performing well. In fact, with a higher liquidity level, it will be easier for the company to fulfill the obligation of dividend payment. The result of a research by Huda and Abdullah (2014) better explains when liquidity level has a positive influence on dividend payout.

The Relationship between Profitability and Dividend Policy

The net profit earned by the company is a source of the dividends payment. Therefore, dividends will be distributed when the company makes a profit. Profitability is, thus, the most decisive factor in dividend distribution (Litner, 1956).

The Relationship between Cash Flow and Dividend Policy

Guizani and Kouki (2012) prove that firms experiencing higher free cash flow rate pay more dividends, which is consistent with Jensen's cash flow hypothesis (1986) stating, that when a firm has more cash than needed to fund positive NPV investment projects, it is better for managers to return excess cash to shareholders in the form of dividends to maximize shareholder wealth.

The Relationship between Firm Risk and Dividend Policy

Al-Najjar and Belghitar (2011) and Munyarin and Kwenda (2016) prove a negative relationship between risk and dividend distribution. They point out that high-risk companies tend to pay lower dividends.

The Relationship between Growth Possibility and Dividend Policy

The result of David Denis and Valeriy Sibilkov (2010) also show some implications for the corporate literature on distribution policy. In the presence of expensive external financing, the distribution policy is relevant because it influences the ability of companies to undertake all future projects with positive net present value. A large dividend payment constrains investments, whereas a low dividend payment creates agency and free cash flow problems. David Denis and Valeriy Sibilkov's (2010) results, in this context, provide indirect support for the life-cycle-based theories of optimal distribution policy, in which young firms and higher-growth firms limit dividends in order to preserve cash. On the other hand, weaker and more mature-growth companies increase payouts to alleviate overinvestment issues.

2.2 The Determinants of Firm Value

The Relationship between Debt and Firm Value

Many authors have studied the link between debt and firm value; however, the results of these authors are contradictory. On the one hand, Hirdinis, (2019) shows that debt has a beneficial effect on the firm's value.

However, Shah and Khalidi (2020) and Sampurna and Romawati (2020) highlight a negative relationship between debt and firm value.

The Relationship between Firm Size and Firm Value

According to Irawan et al. (2022), the firm size refers to the quantity expressed in specific units to measure the business scale, such as total assets, total sales, market capitalization, total revenue, and total sales. Related studies show different results. Sampurna and Romawati (2020) show that size and the value of a company are significantly and positively correlated. However, Shah and Khalidi (2020) argue that firm size has a negative influence on firm value. In contrast, Endri and Fathony (2020) indicated that the size of the comapny does not have a significant impact on firm value.

The Relationship between Liquidity and Firm Value

According to Nguyen and Bui (2020), liquidity is defined as the firm's ability to pay short-term debts. Aggarwal and Padhan (2017) show that liquidity positively affects firm value. However, Anton (2016) indicate that liquidity has no significant impact on firm value.

The Relationship between Profitability and Firm Value

According to the Signaling Theory, high profitability reflects the good performance of the firm's assets to which the market has also responded positively. The work of Ifada, et al. (2019) substantiates this relationship.

The Relationship between Free Cash Flow and Firm Value

According to Mansourlakoraj and Sepasi (2015), free cash flow shows the money that a company obtains after payment of required expenses for maintenance or development of assets. Positive value of free cash flow means that the firm has excessive cash after payment of expenses and investments. Negative value of free cash flow indicates that the company has not made adequate profit to cover its costs and investment activities.

The Relationship between Company Growth and Firm Value

According to Ben yamin and Endri (2019), growth opportunities show that a company is able to maintain its position in economic and industrial growth.

The Relationship between Dividend and Firm Value

Endria and MochFathony (2020) indicate that dividend policy has a

significant positive effect on the value of the company in financial sector companies listed on the Stock Exchange for the period 2013-2017. The results are in line with the research conducted by Egbeonu et al. (2016) and Budagaga (2017), which shows that dividend policy had a significant positive effect on firm value. Dividends, as part of the company's net income, are determined by the directors to be distributed to shareholders proportionally according to the ownership of shares in the company (Zulkifli et al., 2017). With the existence of legal certainty and good corporate governance related to dividend policy, it would eventually be able to increase the value of a company.

Based on these theoretical and empirical works, the present study hypothesizes that:

H1: Dividend policy has a significant effect on firm value.

H1a: Dividend policy has a significant effect on Added Value.

H1b: Dividend policy has a significant effect on Added value allocated to employees.

H1c: Dividend policy has a significant effect on Added value allocated to shareholders.

H1d: Dividend policy has a significant effect on Added value allocated to the State.

H1e: Dividend policy has a significant effect on Added value allocated to lenders.

H2: Firm value has a significant effect on dividend policy.

H2a: Added Value has a significant effect on dividend policy.

H2b: Added value allocated to employees has a significant effect on dividend policy

H2c: Added value allocated to shareholders has a significant effect on dividend policy.

H2d: Added value allocated to the State has a significant effect on dividend policy.

H2e: Added value allocated to lenders has a significant effect on dividend policy.

3. Empirical Study

To empirically test the hypotheses formulated above, we choose the Tunisian public limited companies. For data collection, we used two data sources, namely the site of the stock market intermediary Tunisian Value and the site of the Tunis Stock Exchange. These sites provide a list of listed companies as well as their activity reports, annual reports and financial statements for the period from 2010 to 2015.

We retained as an initial sample the companies listed on the Tunis Stock Exchange for the period 2010 to 2015 and which are in number of 50 companies.

However, we eliminate from this initial group companies in the financial sector, such as banks, insurance companies, leasing companies and investment companies, since their treasury policies are different from those of companies belonging to the industrial, commercial and tourist sectors.

Since our study focuses on unlisted companies, visits to accounting firms were essential in order to have an additional list of Tunisian public limited companies coupled with their accounting and financial reports for the years from 2010 to 2015. We collected data of 48 companies.

Our final sample is made up of 32 non-financial companies listed on the Tunis Stock Exchange and 48 unlisted non-financial companies. Our final sample is made up of 80 non-financial anonymous companies.

3.1 Variable Definition

Table 1 contains the definition of all the variables used in this study.

DEPENDENT VARIABLES	
Dividend policy (DIV)	The dividend policy is the primary source of shareholder remuneration. DIV is a variable that takes the value of 1 when the company distributes dividends and 0 if otherwise (Ferreira and Vilela (2004)).
The partnership value according to the reflection of Poulain-Rehm (2006)	A variety of studies have measured firm values. These measures are used to calculate shareholder value. In this study, we measure the value of the firm in a partnership context via the recipients of this value. For each company in our sample, we calculate the perceived value for each of its partners, namely employees, shareholders, lenders and the State. The following table illustrates the measurements of each variable.

Indicators	Measure
Added Value (AV)	Turnover – Intermediate consumption
Added value allocated to employees (EMPAV)	(Staff costs + employee profit-sharing)/Added Value
Added value allocated to shareholders (DAV)	Dividend/ Value Added
Added value allocated to lenders(CREAV)	(Interest + Assimilated charges)/ Added Value
Added value allocated to the State(STAAV)	(Payment of taxes + taxes and similar payment + tax on profits) / Added value

Independent variables	
Debt (DET)	Debt is measured as the ratio between the book value of long-term and short-term debt divided by the

	book value of total assets. This measure is used by Bhabra (2007).
Firm size (FIRM-SIZE)	The size o firm is a variable that expresses the capacity of the company to hijack the takeover (Harford et al. (2008)). It is often calculated as the natural logarithm of book value of total assets (Harford et al. (2008))
Liquidity (CASH1)	CASH1 is the current liquidity ratio. This ratio is equal to short-term assets / short-term liabilities (Raheman and Nasr (2007)).
Liquidity (CASH2)	CASH2 is the ratio of cash and cash equivalent to net assets, where net assets are calculated as assets minus cash and cash equivalent (Kusnadi (2005)).
Return on Assets (ROA)	Return on assets is defined as net income / total assets. This measure is used by Kowalewski et al. (2007).
Return on Equity (ROE)	Return on equity is defined as net income / equity

The financial literature reveals a set of measures of profitability such as return on equity, return on assets and operating profit. In the framework of this study, we retain return on assets and return on equity.

Cash Flows (CASHFLOW)	Cash flows are calculated by Dittmar et al. (2003) who define the cash flow ratio as operating income to which depreciation and amortization are added and interest, tax and dividends are subtracted and divided by net assets.
Firm Risk (FIRM-RISK)	Firm risk is measured by the variability of return on equity. This measure is used by Munyari and Kwenda (2016).
Growth opportunities(GRO-OPP)	Growth opportunities are measured by revenue growth. This measure is used by Pinkowitz and Williamson (2004).

3.2 Models

To explain the relationship between the dividend policy and the

creation of value on the one hand, and the dividend policy and the distribution of value on the other hand, we have used the simultaneous equations through five models. MES are models in which there is more than one equation connected via variables on the left, which are also on the right. An MES is, therefore, an arrangement between the endogenous variables and the exogenous variables in which:

• It corresponds for each endogenous variable an equation
• Each equation is attached to the others
• Endogenous variables are joint dependent variables.

Model 1

$DIV=\int(AV, DET, FIRM\text{-}SIZE, CASH1, ROA, CASHFLOW, FIRM\text{-}RISK, GRO\text{-}OPP, Z_1, \varepsilon_1)$
$AV =\int(DIV, DET, FIRM\text{-}SIZE, CASH2, ROE, CASHFLOW, GRO\text{-}OPP, Z_1, \varepsilon_1)$

Model 2
$DIV=\int(EMPAV, DET, FIRM\text{-}SIZE, CASH1, ROA, CASHFLOW, FIRM\text{-}RISK, GRO\text{-}OPP, Z_2, \varepsilon_2)$
$EMPAV=\int(DIV, DET, FIRM\text{-}SIZE, CASH2, ROE, CASHFLOW, GRO\text{-}OPP, Z_2, \varepsilon_2)$

Model 3
$DIV=\int(DAV, DET, FIRM\text{-}SIZE, CASH1, ROA, CASHFLOW, FIRM\text{-}RISK, GRO\text{-}OPP, Z_3, \varepsilon_3)$
$DAV =\int(DIV, DET, FIRM\text{-}SIZE, CASH2, ROE, CASHFLOW, GRO\text{-}OPP, Z_3, \varepsilon_3)$

Model 4
$DIV=\int(CREAV, DET, FIRM\text{-}SIZE, CASH1, ROA, CASHFLOW, FIRM\text{-}RISK, GRO\text{-}OPP, Z_4, \varepsilon_4)$

CREAV =∫(DIV,DET, FIRM-SIZE , CASH2, ROE, CASHFLOW, GRO-OPP,Z_4,ε_4)

Model5
DIV=∫(STAAV, DET, FIRM-SIZE , CASH1, ROA, CASHFLOW, FIRM-RISK, GRO-OPP,Z_5,ε_5)
STAAV =∫(DIV, DET, FIRM-SIZE , CASH2, ROE, CASHFLOW, GRO-OPP,Z_5,ε_5)

4. Results Analysis

4.1 Descriptive statistics

Table 2: Descriptive statistics of dependent variables and independent variables

Variables	Obs	Mean	Std.dev	Min	Max
DIV	400	0.7879	0.4073	0	1
AV	400	14.19	2.89	2.423	19.57
EMPAV	400	0.395	0.593	-1.558	3.559
DAV	400	0.5138	0.846	0	9.465
CREAV	400	1.186	1.813	-0.041	5.945
STAAV	400	0.667	1.374	-0.106	11.82
DET	400	0.3265	0.326	0.00458	2.4873
FIRM-SIZE	400	16.303	2.2191	10.9125	21.29
CASH1	400	0920.	0.122	0.00009	071
CASH2	400	2.524	3.2157	0.1232	37.301
ROA	400	0.0664	0.0945	-0.028	0.7293
ROE	400	0.098	0.58	-5.48	7.659
CASHFLOW	400	0.1923	0.1957	-0.0848	1.9728
FIRM-RISK	400	0.222	1.69	-6.174	15.008
GRO-OPP	400	0.382	1.225	-4.38	6.4

For the period from 2011 to 2015, 0.787 Tunisian companies distribute the dividend. This value shows the importance of the dividend distribution for the shareholders of the company.

The added value varies between a minimum of 2.423 and a maximum of 19.57. Its average value is 14.19. The added value allocated to employees is on average 0.395. It varies from a minimum of (-1.558) to a maximum of 3.559. The value added allocated to shareholders has an average of 0.513, a minimum of 0 and a maximum of 9.465. This maximum value shows that the dividend presents 9 times the added value. The added value allocated to lenders has an average value of 1.186. It varies from a minimum of -0.041 and a maximum of 5.945. The maximum value shows the importance of the financial burden and the debts used. The average value added allocated to the State (STAAV) is 0.667. This value varies between a minimum of (-0.106) to a maximum of 11.82

The average debt ratio is 0.326. The minimum debt value is 0.0045. This value shows that this company has other sources of finance. The maximum value is 2.487. This value shows that this company has an abusive use of debt.

The average size of Tunisian companies is 16,303. The company size ranges from a low rate of 10.912 to a high rate of 21.29.

The profitability of the company is measured by the return on assets (ROA) and the return on equity (ROE). The return on assets is on average 0.066. Its standard deviation is 0.945. This profitability varies from a minimum of (-0.280) to a maximum of 0.729. The return on equity is on average 0.098It varies from a minimum of ((-5.063)) to a maximum of 7.659. 0.580 is the value of standard deviation.

CASH 1 is measured by has an average value of 0.092. This value is very close to that documented by Ozkan and Ozkan (2004) on a sample of companies in Great Britain for the period 1995-1999. Its standard deviation is 0.122. Its minimum is 0 and its maximum is 0.071. This value presents a remarkable variability since it goes from a zero minimum to a maximum of 0.71, which can be explained by the disparity of practices of firms in terms of holding cash, as evidenced by Ozkan and Ozkan (2004).

CASH2 is measured by the current liquidity ratio. This measure has an

average value of 2.525. It varies from a minimum of 0.123 to a maximum of 37.301. This ratio shows the importance of current assets and their components compared to current liabilities and their components.

The average cash flow is 01.92. Its minimum value is (-0.094). Its maximum value is 1.972. Its standard deviation is 0.195.

The average of firm risk of Tunisian companies is 0.222. Its standard deviation is 1.698. It varies from a low rate of (-6.174) to a high rate of 15.008. Munyari and Kwenda (2016) document an average risk of 0.37, a minimum risk value is 0.001 and a maximum risk value of 3.62.

The possibility of growth is measured by the variation in turnover. On average, the growth opportunity is 0.382, which is low compared to the results found by Munyari and Kwenda (2016) who document an average growth opportunity of 0.46 for firms in Zimbabwe. The minimum value is (4.382). This value shows that this company is facing difficulties in terms of increasing turnover. The maximum value is 6.4.

4.2 Correlation Matrix

The verification of the correlations between explained and explanatory variables makes it possible not to include in our regressions variables strongly   correlated   with   each   other.

Table 3: correlation matrix

	DIV	AV	EMPAV	DAV	CREAV	STAAV	DET	FIRM-SIZE	CASH1	CASH2	ROA	ROE	CASH FLOW	FIRM-RISK	GRO-OPP
DIV	1														
AV	-0.369	1													
EMPAV	0.1716	-0.5921	1												
DAV	0.3139	-0.5260	0.5239	1											
CREAV	0.2895	-0.6719	0.7328	0.5649	1										
STAAV	0.2406	-0.5109	0.4591	0.4156	0.5223	1									
DET	-0.3841	0.3205	-0.1754	-0.2358	-0.2399	-0.2137	1								
FIRM-SIZE	-0.3503	0.6417	-0.5592	-0.4927	-0.6091	-0.4666	0.3196	1							
CASH1	0.0971	-0.1555	0.0994	0.0627	0.1075	0.1095	-0.1337	-0.1682	1						
CASH2	0.1775	-0.2386	0.1687	0.0816	0.1580	0.0946	-0.2767	-0.1874	0.2070	1					
ROA	0.4102	-0.2387	0.0849	0.2463	0.2134	0.2476	-0.3696	-0.2887	0.1705	0.0914	1				
ROE	0.2069	-0.0	-0.03	0.0738	0.0543	0.0699	-0.1	-0.0	0.0827	0.0739	0.3231	1			

		117	58				460	621								

	MODEL1			MODEL2			MODEL3			MOD
	DIV	AV		DIV	EMPAV		DIV	DAV		DIV
DIV	-	0.159 0.855	DIV	-	0.74 0.215	DIV	-	0.866 0.039**	DIV	-
AV	-0.0146 0.823	-	EMPAV	0.0077 0.697	-	DAV	-0.9027 0.713	-	STAAV	-0.33 0.719
DET	-0.275 0.000***	0.524 0.187	DET	-0.267 0.000***	-0.270 0.219	DET	-0.435 0.327	0.039 0.837	DET	-1.352 0.652
FIRM-SIZE	-0.016 0.811	1.034 0.000***	FIRM-SIZE	-0 .0135 0.778	-0.258 0.000***	FIRM -SIZE	-0.18 0.658	-0.138 0.000***	FIRM-SIZE	-1.588 0.713
CASH1	-0.039 0.789	----	CASH1	-0.0043 0.774	-	CASH1	-0.14 0.824	-	CASH1	0.375 0.924
CASH2	-	-0.072 0.005**	CASH2	--	0.029 0.039**	CASH2	--	-0.015 0.213	CASH2	-
ROA	1.170	-	ROA	1.237	-	ROA	1.953	--	ROA	-0.108

CASH FLOW	0.1 304	- 0.2 384	0.25 38	0.1 567	0.19 27	0.1 286	0.0 217	- 0.2 153	0.00 82	- 0.03 59	0.0 620	0.0 249	1		
FIRM- RISK	0.0 110	- 0.0 394	0.09 19	0.0 234	0.02 74	0.0 060	- 0.0 550	- 0.0 778	0.04 29	- 0.03 07	0.0 373	- 0.1 332	- 0.0426	1	
GRO- OPP	0.1 446	- 0.2 323	0.15 76	0.1 254	0.23 18	0.1 938	- 0.0 834	- 0.2 152	0.02 18	0.01 50	0.0 815	0.0 433	0.0890	0.0 142	1

4.3 Results

	0.00***			0.000***			0.378			0.688
ROE	-	0.281 0.078	ROE	--	-0.076 0.387	ROE	-	-0.076 0.205	ROE	-
CASH FLOW	0.142 0.193	-1.057 0.014	CASH FLOW	0.097 0.578	0.874 0.000***	CASH FLOW	0.382 0.552	0.104 0.619	CASH FLOW	1.40 0.694
FIRM-RISK	-0.003 0.730	-	FIRM-RISK	-0.009 0.444	-	FIRM-RISK	-0.005 0.829	-	FIRM-RISK	-0.103 0.713
GRO-OPP	0.018 0.267	-0.130 0.050	GROW-OPP	0.0177 0.261	0.0455 0.214	GROW-OPP	0.028 0.499	-0.0073 0.819	GROW-OPP	0.686 0.713
CONS	1.248 0.000	-2.55 0.076	CONS	0.920 0.342	5.05 0.000***	CONS	4.139 0.597	2 .100 0.003	CONS	3.006 0.706
R^2	0.000	0.000	R^2	0.000	0.000	R^2	0.000	0.000	R^2	0.000

DIV: dividend policy, **AV:** Added Value, **EMPAV:** Added value allocated to employees, **DAV:** Added value allocated to shareholders, **CREAV:** Added value allocated to lenders **STAAV:** Added value allocated to the State, **DET:** Debt, **FIRM-SIZE:** the natural logarithm of book value of total assets, **CASH1:** current liquidity ratio, **CASH2:** the ratio of cash and cash equivalent to net assets, **ROA:** Return on assets, **ROE:** Return on equity, **CASHFLOW:** Cash Flows, **FIRM-RISK:** Firm risk, **GRO-OPP:** Growth opportunities

The five models provide different results. Models 1, 2, 4 and 5 show that the Dividend policy has no effect on the value of the firm. Therefore, hypotheses H1a, H1b, H1d and H1e are not verified.

Model 3 proves that the dividend policy significantly affects the shareholder value created. This relationship can be explained by the importance of dividend for shareholders. It constitutes a source of shareholder remuneration, which shareholders try to protect against any decline. Hypothesis 1c is, therefore, verified.

Debt has a negative influence on the dividend policy in the five models but a significant influence for model 1 and model 2. This relationship shows that the use of debt reduces the dividend distribution. However, debt has no influence on the value of the firm in the five models.

The size of the firm has no influence on the dividend policy and the value of the firm measured by STAAV. On the other hand, the size of the company has a positive and significant influence on the other values of the company.

The liquidity measured by CASH1 has no influence on the dividend policy for all five models.

The liquidity measured by CASH 2 has a significant and negative impact on the added value and the value of the State. Indeed, the increase in

liquidity reduces the partnership value and the value created for the State.

On the other hand, the increase in liquidity increases the payroll. This increase illustrates a positive and significant relationship with the value created by employees.

Profitability measured by ROA has a positive and significant effect on the dividend policy. The increase in profitability leads to an increase in the level of dividend distribution.

Profitability as measured by ROE has no bearing on enterprise value for all five models.

However, cash flow has a positive and significant influence on the EMPAV, but no influence on the dividend policy for all five models.

Company risk has no affect on dividend policy.

For all five models, growth options have no influence on the dividend policy. However, they have a positive and significant influence on CREAV. This relationship shows that growth options can guarantee creditor repayment.

5. CONCLUSION

This paper investigates the simultaneous relationship between dividend policy and firm value for about 80 Tunisian non-financial firms for the period between 2010-2015. In order to investigate possible interdependencies, we use a simultaneous equation model that reports the relation between dividend decision and firm value.

The following findings have been demonstrated. First, the dividend policy has only significant influence on shareholders value. Second, firm value has no significant influence on dividend policy. The results show that, when we use simultaneity equations, dividend payments do not seem to significantly affect firm value, nor does firm value affect dividend policy.

The empirical analysis suggests that simultaneity is crucial in analyzing dividend policy and firm value. This study is among the first studies that looked into the relationship between dividend policy and firm value in the Tunisian context. Although the current study is based on a small sample of firms, its findings suggest an important conclusion for Tunisian companies in the area of financing.

However, with a small sample size, the results should be addressed

with some caution, as the results may not be relevant to all Tunisian companies. This research has prompted many questions requiring further investigation. It would be interesting to assess, for example, the effects of dividend policy and firm value in a simultaneous equation framework by integrating governance mechanisms.

Moreover, it would be important to include in the analysis of the relationship between these policies and the managers' behaviors

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