

Dividend Policy and Share Price Volatility: Evidence from Jordan

Dr. Sufian Radwan Almanaseer¹

¹ Business Economic Department, Business Faculty, Tafila Technical University, Jordan

Correspondence: Dr. Sufian Radwan Almanaseer, P. O. Box 179, Tafila 66110, Jordan. E-mail: sufian.r.manaseer@gmail.com

Received: February 17, 2019
doi:10.5430/afr.v8n2p75

Accepted: March 15, 2019
URL: <https://doi.org/10.5430/afr.v8n2p75>

Online Published: March 18, 2019

Abstract

The aim of this study was to study the relationship between dividend policy and share price volatility in insurance companies listed in the Amman Stock Exchange. A sample of 20 companies from 23 insurance companies listed in the Amman Stock Exchange was selected. The current study used two main measurements of dividend policy, dividend yield, and payout ratio, by applying multiple linear regressions for the period 2008 to 2017. The main regression model was modified by adding control variables including firm size, earnings volatility, financial leverage and growth in assets. The study finds a significant negative relationship between share price volatility and dividend yield and payout ratio. But the most impact variable on share price volatility was dividend yield.

Keywords: dividend policy, dividend yield, insurance companies, payout ratio, share price volatility

1. Introduction

One of the most important disputed decisions made by companies is the dividend policy, in addition to its role in saving money as an alternative of the banking by which companies can find sources for financing their investments relying on retained earnings which are one of the internal financial sources. This might contradict the process of the dividend policy which is considered as a very important issue for the investors who believe in less risk (Boca, 2011), as assumed in Miller and Modigliani's theory (1961) that stated in case of the optimal capital market, the decision of cash dividend to shareholders and its amount might have no effect on the company value (Miller and Modigliani, 1961), while Boca (2011) indicates that shareholders care about the dividend policy in company which influences the development of the company and its investments growth.

Consequently, Onofrei (2003) and Toma et al. (2003) illustrate that by adopting a clear policy in the company concerning the dividend, this will strengthen the investors' trust in the company and achieve their point of view about the stability of dividends and the capability of the company to do that. This will maintain stability at the share price in the stock markets. Moreover, Bărbuță-Mișu (2010) find that dividend policy considered one of the main subjects for the decision to invest in the company. This is reflected in the price and demand for shares. Additionally, Toma and Brezeanu (1996) assure that dividend policy is one indicator for the performance in the company in comparison with other competitive companies and the increase in the share price after announcing the increase in the dividend is consistent with previous studies (Koch and Sun, 2004; Dhaliwal, Erickson, and Trezevant, 1999; Graham and Kumar, 2006; Dahlquist, Robertsson, and Rydqvist, 2007; Hotchkiss and Lawrence, 2007; and Desai and Jin, 2011).

Lintner (1956) was the first that highlighted the dividend policy by assuring that most administrations avoided making any modifications in ratios of the dividend which might be changed in the following years. While Bhattacharya (1979), John and Williams (1985) and Miller and Rock (1985) suggested that the companies used the changes in the dividend in order to clarify their future attitudes and, accordingly, managers have information about the dividend more than any outsourced concerning the increase in share price. Based on Arnold (2008) and Lee (2009), the managers, after payment of the interest and taxes, could distribute the dividend to the shareholder as a part of the net income, retained earnings or reinvest them in the company to increase the share price.

The announcing of the dividend is considered as a difficult decision that the administration should make because of its influence on investors and company, and the necessity to coordinate between the distributed and the retained earnings which are needed to finance the company processes. This conforms to the questions raised by Lintner (1956):

1- Which better change the current ratio of the dividend or to keep them?

2- Do the shareholders want to gain fixed dividend or dividend related to the earnings?

3- Which kind of dividend policy attracts investors?

The main aim of this study is to study the relationship between dividend policy and share price volatility in insurance companies listed in the Amman Stock Exchange. By exploring the relationship between dividend policy and share price volatility, this study expects to help management's and investor's in predicting how the share price will act.

The limitations of the study, the study is only conducted on the Jordanian insurance companies listed in the Amman Stock Exchange for the period 2008-2017

The study is structured as follows: at first, a review of literature about the dividend policy and share prices. The second part is the theoretical framework and review of related studies. The third part is the methodology used in the study, methods of data collection, the sample, the model of the study, the method of measuring variables and statistical analysis. Forth part is for discussion of results and recommendations.

2. Theoretical Part and Related Studies

Dividend policy is considered as a strategic alternative of companies in order to determine the source of finance for its investment decisions. However, this policy is controlled by some factors such as investors preference, earnings, opportunities of investment, governmental policies and taxes, so a big number of dividends is regarded as a message of low risk to other parts. All of these affect the stock exchange in the markets (Gordon, 1963; Baskin, 1989). There are varied forms of dividend such as cash dividend, distribution of shares, share split and repurchase of stock. Thus, the important question is about the forms, the amounts of this dividend and its effect on share prices (Baskin, 1989).

There are three schools of thoughts concerning the relationship between the dividend policy and share price (Damodaran, 2010): The first school maintains that no effect for the dividend policy on the share price and the company value (Miller and Modigliani, 1961; Black and Scholes, 1974). The second one assumes that the dividend is bad for shareholders due to tax deprivation that leads to a low value (Brennan, 1970; Litzenberger and Ramaswamy, 1979). Whilst the third one indicates that the dividend is preferable for shareholders because it increases their wealth by affecting the share prices (Harkavy, 1953; Gordon, 1963; Ball et al., 1979; Woolridge, 1983). More to add, The Signaling Theories show that the increase in the dividend payouts of the earnings provides a good sign to the markets about company earnings in the future (Miller and Rock, 1985). These theories are clarified as follows:

1- Miller and Modigliani's Theory (1961). States that the investors are equal in the dividend and reinvesting the net profit to perform better growth which leads to an increase of the capital earnings for investors through increasing the share prices. This theory faced criticism because it assumes that the company is working in a perfect competition; namely, there is an independence of investment for dividend policy. This is unreal due to the lack of flexibility in the stock exchange and a shortage of information for all shareholders in the stock market.

2- The Bird in the Hand Theory (Gordon, 1963). Postulates that there are a relationship and an influence of the dividend on the potential capital gains for the investors. It assumes that there is a stability in the ratio of income on the investment, the required rate of return, the growth rate of the company, ratios of dividends for the shareholders and relying on the owners' equity by the company administration to finance its investments.

3- The Theory of the Effect of the Asymmetric Information of the Dividend on Investors (Miller and Modigliani, 1961) which indicates that investors consider any change in the dividend policy as a sign for potential gains for the company; the higher dividend refers to a positive expectation for the company to achieve future earnings and vice versa. This theory maintains that changes in the dividend is taken as a signal for the future earnings and offer information about the company earnings in the future of that might affect negatively or positively the share prices.

4- The Theory of Dividend Policy effect on the company Investors. This theory implies that some investors prefer a higher rate of dividends while others prefer to retain the earnings and reinvest them in the company. Elton and Gruber (1970) show that the investors' preferences towards the dividends are varied, also the dividend policy does not only affect the share price in the stock market but also it includes the company investors.

2.1 Previous Studies

Though the relationship between the dividend policy and the share price volatility is still unsolved, many researchers all around the world conducted studies to investigate this impact.

Baskin (1989) studied this relationship on a sample of 2344 companies in the United States in the years 1967-1986. The study revealed a strong negative relationship between dividend yield and share price volatility. Similar results

were found in Allen and Rachim (1996) in a study on a sample of 176 companies in the Australian Securities Exchange (ASX) in the period 1972-1985. Hussainey et al. (2011) in the United Kingdom in the years 1998-2007.

In Pakistan, Nazir et al. (2010) study the relationship between dividend policy, dividend payout ratio and share price volatility, in a sample of 73 companies listed in Karachi Stock Exchange, in the period 2003-2008. The study revealed a positive relationship between dividend policy and share price volatility, and a negative relationship between payout ratio and share price volatility. While Shah and Noreen (2016) studied the relationship between dividend yield, dividend payout ratio and share price volatility in non-financial companies. They found a negative relationship between the three variables. However, in his study on financial companies, Hamid et al. (2017) found a positive relationship between dividend payout ratio and share price volatility.

In Jordan, Al-Malkawi (2007), in his study on a sample of 160 companies listed in Amman Stock Exchange in the period 1989-2000, found the ratio of shares owned by the insiders and state ownership affects widely dividend payouts. Additionally, the company size, age, and profitability are critical factors to decide dividend policy in Jordan. Moreover, Al-Shubiri (2011) concluded in his study about the determinations of the dividend in the Jordanian industrial companies listed in Amman Stock Exchange in the period 2005-2009 that there is an important impact of financial leverage, institutional ownership, profitability, work risks, assets structure, opportunities of growth and firm size on dividend policy. Another study conducted by Ramadan (2013) on a sample of 77 Jordanian industrial companies listed in Amman Stock Exchange in the period 2000-2011 revealed that there was a negative impact of the dividend yield and dividend payouts on share price volatility. Similarly, Al Qudah and Yusuf (2015) on the Jordanian companies listed in the Amman Stock Exchange in the period 2001-2011. The study showed a negative influence of dividend yield and dividend payouts on share price volatility. While another study by Al Abbadi et al. (2016) on a sample of 40 Jordanian industrial companies listed in Amman Stock Exchange in the period 2010-2014 found that there was an influence of dividend policy on the Jordanian industrial companies' market price.

In Malaysia, Santhi and Sim (2011) studied the main determinations that affected the decision of dividend payouts in the food industrial companies listed in Bursa Malaysia in the period 2004-2008. They found that most companies relied on the debt ratio when making a decision of dividends. The study also found that there was a positive relationship between the current share price and adopting dividend policy. Consequently, Hashemijoo et al. (2012) studied a sample of 84 consumer products companies listed in Bursa Malaysia in the period 2005-2012. The results of the study showed a negative impact of dividend payouts and dividend yield on share price volatility.

On the other hand, Zakaria et al. (2012) studied a sample of 77 building companies listed in Bursa Malaysia in the period 2005-2010. The results showed a positive impact of dividend yield and dividend payouts on share price volatility. Differently, Sew et al. (2015) studied a sample of 319 companies from different sectors listed in the Kuala Lumpur Stock Exchange. The study concluded that there was a negative impact of dividend yield and dividend payouts on share price volatility.

In India, Gupta and Banga (2010) discussed the main factors that affected decision-making concerning dividend policy; these factors were financial leverage, liquidity, profitability, growth, equity. The financial leverage and liquidity were the main factors in adopting dividend policy in Indian companies.

In Saudi Arabia, Alzomaia and Al-Khadhiri (2013) study the factors for determining dividends in the non-financial companies listed in the Saudi Stock Exchange during 2004-2010. The study maintained that these companies relied on the current and previous earnings for each share to determine dividend policy.

In Nepal, Chhetri (2008) studied the relationship between dividend policy and share price in the companies listed in Nepal Stock Exchange during 2008-2013. The study found that there was a positive relationship between dividend policy and share price.

In Iran, Lashgari and Ahmadi (2014) study the relationship between dividend policy and share price volatility in a sample of 51 companies listed in Tehran Stock Exchange in the period 2007-2012; they concluded that there was a negative relationship between dividend policy and share price volatility.

Throughout reviewing previous studies, it is noticed that there is no clear evidence concerning the relationship between dividend policy and share price volatility, so this relationship is still questionable and needs deeper and wider research. Moreover, there are no studies that specifically dealt with insurance companies listed in the Amman Stock Exchange. Thus, the researcher considers this study as the first one that has been implemented on the insurance companies listed in the Amman Stock Exchange.

3. Methodology

3.1 Hypotheses of the Study

Accordingly, the hypothesis of the study is formulated as follows:

The Main Hypothesis:

H_0 : There is no significant relationship between dividend policy and share price volatility.

Then, the following sub-hypotheses are derived as follows:

H_{01} : There is no significant relationship between the dividend yield and share price volatility.

H_{02} : There is no significant relationship between the payout ratio and share price volatility.

3.2 The Population and the Sample of the Study

The population of the study includes all insurance companies listed in the Amman Stock Exchange during the period 2008-2017; they are 23 companies. 20 companies of them were chosen as a sample of the study based on the following conditions:

- 1- Availability of all required data to examine the variables.
- 2- No merger process occurred.
- 3- The fiscal year ends on the 31st of December.
- 4- Availability of the financial reports for all companies.
- 5- The continually of the company listed in the Amman Stock Exchange during the period of testing and analysis.

The data were collected from the annual reports that are announced on the website of the Amman Stock Exchange. And, the share prices were calculated from the Amman Stock Exchange website.

3.3 The Mathematical Model

In this study, the researcher adopted Baskin's Model (1989) which agrees with many recent studies conducted on this topic. Hence, the equation of the multiple linear regression for the variables affected share price volatility is as follows:

$$SPV = a_0 + a_1DY + a_2PR + e \dots\dots\dots(1)$$

Baskin suggested adding the following control variables that affect share price volatility: Firm Size, Earning Volatility, Financial Leverage, and Growth in assets. The main formula of regression becomes as follows:

$$SPV = a_0 + a_1DY + a_2PR + a_3FS + a_4EV + a_5LEV + a_6GRO + e \dots\dots\dots(2)$$

Where:

- SPV = Share Price Volatility for the fiscal year i for firm j
 DY= Dividend Yield for the fiscal year i for firm j
 PR = Payout Ratio for the fiscal year i for firm j
 FS = Firm Size for the fiscal year i for firm j
 EV = Earnings Volatility for the fiscal year i for firm j
 LEV = Financial Leverage for the fiscal year i for firm j
 GRO = Growth in Total Asset for the fiscal year i for firm j
 e = error

3.3.1 Measuring the Model's Variables

Dependent Variable:

To determine SPV, the study adopted Baskin's model (1989) which agrees with many recent studies conducted on this topic (Hashemijoo et al., 2012; Sew et al., 2015; and Shah & Noreen, 2016). Hence, the equation will be:

$$SPV = \sqrt{\frac{\sum[(Hi-Li)/(\frac{Hi+Li}{2})]^2}{n-1}}$$

(3)

Where:

Hi = the Highest share price for the fiscal year i for firm j.

Li = the Lowest share price for the fiscal year i for firm j.

i = years of the study from 2008 to 2017

Independent Variables:

The calculation of DY is based on Baskin’s model (1989) which agrees with many recent studies conducted on this topic (Hussainey et al., 2011; Hashemijoo et al., 2012; Sew et al., 2015; and Shah & Noreen, 2016). Hence, the equation will be:

$$DY = \sum_{i=1}^n \frac{DPSi/PRICEi}{n} \dots\dots\dots (4)$$

Where:

DPSi = Dividend Per Share for the fiscal year i for firm j.

PRICEi = Price Per Share of the common stock for the fiscal year i for firm j.

The calculation of PR is based on Baskin’s model (1989) which agrees with many recent studies conducted on this topic (Wild et al., 2007; Marshall et al., 2011; Sew et al., 2015; Shah and Noreen, 2016). Hence, the equation will be:

$$PR = \sum_{i=1}^n \frac{DPSi/EPsi}{n} \dots\dots\dots (5)$$

Where

DPSi = Dividends Per Share for the fiscal year i for firm j.

EPsi = Earnings Per Share for the fiscal year i for firm j.

Control Variables:

The calculation of FS is based on Baskin’s model (1989) which agrees with many recent studies conducted on this topic (Al-Malkawi, 2008; Sew et al. 2015). Hence, the equation will be:

$$FS = \ln \sum_{i=1}^n \frac{MVi}{n} \dots\dots\dots (6)$$

Where:

MVi = Market Value of the firm for the fiscal year i for firm j.

The calculation of EV is based on Baskin’s model (1989) which agrees with many recent studies conducted on this topic (Allen and Rachim, 1996; Zakaria et al., 2012; Hashemijoo et al., 2012). Hence, the equation will be:

$$EV = \sqrt{\frac{\sum_{i=1}^n (Ri-\bar{R})^2}{n-1}} \dots\dots\dots (7)$$

$$\bar{R} = \sum_{i=1}^n \frac{Ri}{n}$$

Where:

Ri = Ratio of EBIT to Total Assets for the fiscal year i for firm j.

The calculation of LEV is based on Baskin’s model (1989) which agrees with many recent studies conducted on this topic (Bowman, 1980; Gaver and Gaver, 1993; Peterson, 1999; and Al-Malkawi, 2008). Hence, the equation will be:

$$LEV = \sum_{i=1}^n \frac{DEBTi/EQUITYi}{n} \dots\dots\dots (8)$$

Where:

DEBT_i = Total Debt for the fiscal year i for firm j.

EQUITY_i = Shareholders' Equity for the fiscal year i for firm j.

The calculation of GRO is based on Baskin's model (1989) which agrees with many recent studies conducted on this topic (Allen and Rachim, 1996; Hashemijoo et al., 2012 and Sew et al., 2015). Hence, the equation will be:

$$GRO = \left(\sum_{i=1}^n \frac{\Delta ASSET_i}{ASSET_i} \right) / n \dots\dots\dots (9)$$

Where:

$\Delta ASSET_i$ = change in Total Assets for the fiscal year i for firm j.

ASSET_i = Total Assets at the beginning of the fiscal year i for firm j.

4. The Statistical Analysis and Discussion of Results

4.1 Descriptive Analysis

Table 1 below illustrates the descriptive analysis for all variables of the study included in the regression model for the whole sample by which the means and the standard deviations for all variables are calculated.

Table 1. The Statistical Description of Variables

Variable name	Mean	Standard Deviation
SPV	0.53181	0.74009
DY	0.02045	0.03176
PR	0.34815	0.72818
FS	5.9976	0.38356
EV	0.01963	0.01398
LEV	0.70683	7.15568
GRO	0.02096	0.32328

Based on Table 1, it is noticed that the firm size (FS) has the highest mean which is of 5.9976, whilst the dividend yield (DY) gets the lowest means with a value of 0.02045. This means that the administrations of the insurance companies seek for a specific limit of the retained earnings to face any company decline. This agrees with the results of (Hashemijoo et al., 2012). On the other side, the financial leverage (LEV) has the highest standard deviation 7.155681 while the earning volatility (EV) gets the lowest one of 0.013981.

Relying on the equation of Parkinson (1980) and Baskin (1989) to estimate the standard deviation for the return of the stock markets through multiplying the SPV (0.53181) by the fixed value (0.6008). The result is 31.95% which is consistent with (Hashemijoo et al., 2012) that stated that the standard deviation reached 39.6%. However, the result is less than the results found out in (Zakarai et al., 2012) which reached 56.72% for the constructions and materials companies in Malaysia, and less than what (Al Qudah and Yusuf, 2015) concluded in their study in which the standard of deviation was 44.25% for the Jordanian companies during 2001-2011.

4.2 Pearson Correlation Analysis

Table 2 below represents the results of the Pearson Correlation Coefficient to measure any correlation between the variables of the study at any level during the period of the study.

Table 2. Pearson Correlation between the Variables of the Study

	SPV	DY	PR	FS	EV	LEV	GRO
SPV	1						
DY	-0.27307	1					
PR	-0.21345	0.55503	1				
FS	-0.16059	0.27327	0.41379	1			
EV	0.14602	-0.28539	-0.20969	-0.163	1		
LEV	-0.05049	-0.05221	-0.03954	-0.08396	0.10379	1	
GRO	0.01971	0.09697	0.04025	0.08762	-0.07552	-0.02633	1

Table 2 above illustrates a negative correlation between SPV and DY which reached -0.27307. This agrees with (Baskin, 1989; Hashemijoo et al., 2012). While it is inconsistent with the results found out in Allen & Rachim, (1996) and Al Qudah & Yusuf (2015). More to add, the table reveals that there is a negative correlation between SPV and PR out of -0.21345 and this agrees with the studies which assured the negative influence of PR on share price (Baskin, 1989; Allen & Rachim, 1996; Hashemijoo et al., 2012 and Al Qudah & Yusuf, 2015).

Consequently, Table 2 represents the correlation between the SPV and FS which was also negative with a value of -0.16059. Similarly, this result conforms to the results in Al Qudah and Yusuf (2015), and Hashemijoo et al. (2012). The FS correlates positively with other variables. As large companies are usually more various, and the small companies might have less general information, it is expected that large companies will face fewer risks and volatility in share prices. Moreover, this result means that large companies tend to show high ratios of earnings.

Table 2 also reveals that there is a positive correlation between SPV and EV which reached 0.14602 and this conforms to Hashemijoo et al. (2012) and contradicts the results of Al Qudah and Yusuf (2015).

Table 2 also shows a negative correlation between DY and LEV with a value of -0.05221 which indicates that a company with high financial leverage might have low payouts.

Then, the table 2 also illustrates that there is a negative correlation between the EV and PR which reached -0.20969; this is inconsistent with the results of Al Qudah and Yusuf (2015) which refers to a reduction in the payouts by the companies to the shareholders.

Furthermore, table 2 reveals a positive correlation between the DY and PR that reached 0.55503 which means there are multiple correlations between the DY and PR, and according to Drury (2008) who stated that the problems in multi-co linear correlation appear when the rate of correlation exceeds 70%. To solve this problem, control variables were added to the main Multiple Linear Regression to investigate any change in results; this was done in two procedures: first one, the PR was excluded, and in second one DY was excluded, as well.

4.3 Regression Analysis:

Table 3 below shows the results of the regression equation (1) analysis.

Table 3. The Results of Regression Based on: $SPV = a_0 + a_1DY + a_2PR + e$

Model	Coefficients	Std. Error	t-stat	Sig.
(Constant)	0.066	0.006	11.075	0.000
DY	-5.206	1.914	-2.719	0.007
PR	-0.090	0.083	-1.088	0.277

Notes: implies Significance at level of 5 %; $R^2=0.0801$; $Adj.R^2=0.07$; $F-stat. =8.577$; $F-prob. =0.0002$

Table 3 shows the results reveal that there is a strong negative correlation between SPV and DY whilst there is an insignificant negative correlation between SPV and PR. Thus, the main null hypothesis is not accepted.

Table 4 below presents the results of the regression equation after adding the control variables FS, EV, LEV, and GRO to the regression equation number (2) as follows:

Table 4. Results of Regression Based on: $SPV = a_0 + a_1DY + a_2PR + a_3FS + a_4EV + a_5LEV + a_6GRO + e$

Model	Coefficients	Std. Error	t-stat	Sig.
(Constant)	0.154	0.078	1.768	0.000
DY	-4.878	0.139	-2.481	0.001
PR	-0.054	0.053	-0.616	0.383
FS	-0.015	0.291	-1.057	0.002
EV	0.278	0.366	1.025	0.006
LEV	-0.079	0.268	-1.110	0.268
GRO	0.121	0.445	0.764	0.445

Notes: implies Significance at level of 5 %; $R^2=0.97$; $Adj.R^2=0.69$; $F-stat. =3.463$; $F-prob. =0.000$

Table 4 shows the existence of the strong negative correlation between the SPV and DY and an insignificant negative correlation between SPV and PR. The Table also illustrates a negative correlation between the SPV and the FS which is consistent with the results of (Al Qudah and Yusuf, 2015; Baskin, 1989 and Hashemijoo et al., 2012). The results assure a positive correlation between SPV and EV which indicates that the companies with a high level of earnings volatility have a high level of share price volatility; the high level of EV indicates high levels of risks in the companies and this conforms with Hashemijoo et al. (2012) but contradicts Al Qudah & Yusuf (2015) and Allen and Rachim (1996). Thus, these findings lead also not to accept the main null hypothesis.

Now, the PR is excluded for the regression equation number (2) because of the strong correlation with DY. The regression equation becomes as follows:

$$SPV = a_0 + a_1 DY + a_2 FS + a_3 EV + a_4 LEV + a_5 GRO + e \dots\dots\dots (3)$$

Based on the results of the regression equation (3), the analysis of the results is shown in Table 5 below.

Table 5. Results of Regression Based on: $SPV = a_0 + a_1 DY + a_2 FS + a_3 EV + a_4 LEV + a_5 GRO + e$

Model	Coefficients	Std. Error	t-stat	Sig.
(Constant)	0.171	0.082	2.068	0.000
DY	-5.470	0.713	-3.192	0.001
FS	-0.018	0.013	-1.332	0.001
EV	0.285	0.271	1.051	0.002
LEV	-0.079	0.712	-1.121	0.263
GRO	0.124	0.157	0.792	0.429

Notes: implies Significance at level of 5 %; $R^2=0.95$; $Adj.R^2=0.72$; $F-stat.=4.093$; $F-prob. =0.000$

The results on Table 5 refers to the existence of the strong negative correlation between the SPV and DY which means there is a negative impact of the DY on the SPV and this agrees with Hashemijoo et al. (2012), so the first sub-hypothesis is not accepted.

In the next procedure, DY is excluded from the regression equation number (2) due to the existence of a strong correlation with PR. The equation will be as follows:

$$SPV = a_0 + a_1 PR + a_2 FS + a_3 EV + a_4 LEV + a_5 GRO + e \dots\dots\dots (4)$$

Table 6 below represents the results of the analysis of the regression equation (4).

Table 6. Result of Regression Based on: $SPV = a_0 + a_1 PR + a_2 FS + a_3 EV + a_4 LEV + a_5 GRO + e$

Model	Coefficients	Std. Error	t-stat	Sig.
(Constant)	0.153	0.088	1.739	0.000
PR	-0.161	0.078	-2.065	0.004
FS	-0.016	0.014	-1.128	0.002
EV	0.411	0.269	1.526	0.001
LEV	-0.076	0.722	-1.064	0.288
GRO	0.091	0.159	0.573	0.566

Notes: implies Significance at level of 5 %; $R^2=0.68$; $Adj.R^2=0.44$; $F-stat.=2.848$; $F-prob. =0.000$

The results assure the existence of the negative correlation between the SPV and PR which means there is a negative impact of PR on SPV which is also consistent with Hashemijoo et al. (2012). Therefore, the second sub-hypothesis is not accepted.

Generally, throughout discussing the different stages of regression equation analysis, it is noticed that the DY is negatively and strongly correlated with SPV which agrees with the results of some previous studies (Baskin, 1989; Allen & Rachim, 1996; Hashemijoo et al., 2012; Al Qudah & Yusuf, 2015). However, Allen & Rachim (1996) refers that there is an insignificant negative correlation between SPV and DY. More to add, the study shows a negative correlation between SPV and PR and this agrees with some previous studies (Baskin, 1989; Allen and Rachim, 1996; Hashemijoo et al., 2012; Al Qudah and Yusuf, 2015).

5. Conclusions:

This study aims at investigating the relationship between dividend policy and share price volatility by focusing on the insurance companies listed in the Amman Stock Exchange. A sample of 20 insurance companies out of 23 companies was chosen. To examine the relationship between dividend yield and payout ratio with share price volatility, Multiple Linear Regression was conducted during the period 2008-2017, then the equation was expanded by adding the control variables: Firm Size, Earning Volatility, Financial Leverage, and Growth.

The results show a negative relationship between share price volatility and the two main variables: dividend yield and payout ratio. This is supported by the results of Baskin (1989), Allen & Rachim (1996), Hashemijoo et al. (2012) and Al Qudah & Yusuf (2015). At last, the study assured a strong relationship between dividend yield and share price volatility among other variables; this refers to an increase of dividend yield and payout ratio in the Jordanian insurance companies which helps in achieving the stability in share price which reduces the risks of share price volatility.

The study also shows a negative relationship between share price volatility and firm size which agrees with other studies (Baskin, 1989; Hashemijoo et al., 2012; Al Qudah & Yusuf, 2015), and is inconsistent with Allen and Rachim (1996). This means when the large companies are more profitable, stable and financially proper, they have fewer risks of share price volatility.

It is noticed in this study that there is a positive relationship between share price volatility and earnings volatility, meaning the more stable profitability in the company, leads to less volatility in share prices.

Additionally, the study states that there is a relationship between share price volatility and growth in assets; the higher levels of growth, the higher risks of shares and this contradict Hashemijoo et al. (2012) and Lashgari and Ahmadi (2014). However, this study assures an insignificant negative relationship between share price volatility and financial leverage.

To conclude, the managers of the companies are able to deploy the dividend policy to affect share price volatility. Concerning the limitations of the study, the study is only conducted on the Jordanian insurance companies listed in Amman Stock Exchange for the period 2008-2017, so the results would not be generalized to study the behavior of share price volatility for all companies from different sectors in Amman Stock Exchange.

It is recommended to conduct more studies in other sectors during longer periods with adding variables like interest prices, level of inflation, and gross domestic product in an attempt to clarify comprehensively share price volatility.

References

- AL- Shubiri, F.N. (2011). Determinants of Changes Dividend Behavior Policy: Evidence from the Amman Stock Exchange. *Groppelli and Nikbakht Finance*, 5th Ed.
- Alabbadi, A., Al-Amarneh, A., Abuorabi, M., (2016). The Impact of the Dividend Policies on the Value of the Stock of Public Shareholding Companies in the Jordanian Industrial Sector. *International Management Review*, 12(2).
- Allen, D.E. & Rachim, V.S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175-188. <https://doi.org/10.1080/096031096334402>
- Al-Malkawi, H.A.N. (2008). Factors influencing corporate dividend decision: evidence from Jordanian panel data. *International Journal of Business*, 13(2), 177.
- Al-Malkawi, H-A. N. (2007). Determinants of Corporate Dividend Policy in Jordan: An Application of the Tobit Model. *Journal of Economic and Administrative Sciences*, 23(2), 44-70. <https://doi.org/10.1108/10264116200700007>
- Anas Al Qudah & Aziz Yusuf. (2015). Stock Price Volatility and Dividend Policy in Jordanian Firms. *Research Journal of Finance and Accounting*, 6(22).
- Appannan, S. & Lee Wei Sim. (2011). A study on leading determinants of dividend policy in Malaysia listed companies for food industry under consumer product sector. *2nd international conference on business and economic*, 946-976.
- Arnold, G. (2008). *Corporate Financial Management*. Harlow: Pearson Education Ltd.
- Ball, R., Brown, P., Finn, F.J. & Officer, R.R. (1979). Dividends and the value of the firm: evidence from the Australian equity market. *Australian Journal of Management*, 4(1), 13-26. <https://doi.org/10.1177/031289627900400102>

- Bărbuță-Mișu, N. (2010). *Management financiar*. Europlus Publishing House, Galati.
- Baskin, J. (1989). Dividend policy and the volatility of common stocks. *The Journal of Portfolio Management*, 15(3), 19-25. <https://doi.org/10.3905/jpm.1989.409203>
- Bhattacharya, S. (1979). Imperfect Information, Dividend Policy, and the “Bird in the Hand” Fallacy. *Bell Journal of Economics*, 10, 259–70. <https://doi.org/10.2307/3003330>
- Black, F. & Scholes, M. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *Journal of Financial Economics*, 1(1), 1-22. [https://doi.org/10.1016/0304-405X\(74\)90006-3](https://doi.org/10.1016/0304-405X(74)90006-3)
- Boca, G.D. (2011). Quality Risk Management Iceberg, XXV Micro CAD. *International Scientific Conference*, University of Miskolc, Hungary, Section P: Economic Challenges in the 21st Century, 2011.
- Bowman, E.H. (1980). A risk/return paradox for strategic management. *Sloan Management Review*, 21(3), 1-46.
- Brennan, M.J. (1970). Taxes, market valuation and corporate financial policy. *National Tax Journal*, 23(4), 417-427.
- Chhetri, G.R. (2008). Dividend and Stock Prices: A Case of Nepal. An unpublished M.Phil. Thesis submitted to Tribhuvan University.
- Dahlquist, M., G. Robertsson, & K. Rydqvist. (2007). Direct Evidence of Dividend Tax Clienteles. Working Paper, *Swedish Institute for Financial Research*.
- Damodaran, A. (2010). *Applied Corporate Finance*. John Wiley & Sons, New Jersey.
- Desai, M., & L. Jin. (2011). Institutional Tax Clienteles and Payout Policy. *Journal of Financial Economics*, 100, 68–84. <https://doi.org/10.1016/j.jfineco.2010.10.013>
- Dhaliwal, D., M. Erickson, & R. Trezevant. (1999). A Test of the Theory of Tax Clienteles for Dividend Policies. *National Tax Journal*, 52, 179–94.
- Drury, C. (2008). *Management & Cost Accounting*. 7th edition. London: Cengage Learning.
- Elton, E.J. & Gruber, M.J. (1970). Marginal Stock Holders Tax Effect and the Clientele Effects. *Review of Economics and Statistics*, 52, 68-74. <https://doi.org/10.2307/1927599>
- Gaver, J.J. & Gaver, K.M. (1993). Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of Accounting and Economics*, 16(1), 125-160. [https://doi.org/10.1016/0165-4101\(93\)90007-3](https://doi.org/10.1016/0165-4101(93)90007-3)
- Gordon, M.J. (1963). Optimal investment and financing policy. *The Journal of Finance*, 18(2), 264-272.
- Graham, J., & A. Kumar. (2006). Do Dividend Clienteles Exist? Evidence on Dividend Preferences of Retail Investors. *Journal of Finance*, 61, 1305–1336. <https://doi.org/10.1111/j.1540-6261.2006.00873.x>
- Gupta, A. & Banga, C. (2010). The Determinants of Corporate Dividend Policy. *Decision*, 37(2), 63-77.
- Hamid, K., Khurram, M.U. & Ghaffar, W. (2017). Juxtaposition of micro and macro dynamics of dividend policy on stock price volatility in financial sector of Pakistan: (comparative analysis through common, fixed, random and GMM effect). *Journal of Accounting, Finance and Auditing Studies*, 3(1), 64-79.
- Harkavy, O. (1953). The relation between retained earnings and common stock prices for large listed corporations. *Journal of Finance*, 8(3), 283-297.
- Hashemijoo, M., Ardekani, A.M. & Younesi, N. (2012). The impact of dividend policy on share price volatility in the Malaysian stock market. *Journal of Business Studies Quarterly*, 4(1), 111-129.
- Hotchkiss, E., & S. Lawrence. (2007). Evidence on the Existence of Dividend Clienteles. Working Paper, Boston College.
- Hussainey, K., Mgbame, C. O. & Chijoke-Mgbame, A. M. (2011). Dividend policy and share price volatility: UK evidence. *The Journal of Risk Finance*, 12(1), 57-68. <https://doi.org/10.1108/15265941111100076>
- John, K., & J. Williams. (1985). Dividends, Dilution, and Taxes: A Signaling Equilibrium. *Journal of Finance*, 40, 1053–1070. <https://doi.org/10.1111/j.1540-6261.1985.tb02363.x>
- Koch, A., & A. Sun. (2004). Dividend Changes and the Persistence of Past Earnings Changes. *Journal of Finance*, 59, 2093–2116. <https://doi.org/10.1111/j.1540-6261.2004.00693.x>
- Lashgari, Z. & Ahmadi, M. (2014). The impact of dividend policy on stock price volatility in the Tehran stock exchange. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 3(10), 273-283.

<https://doi.org/10.12816/0018408>

- Lee, S. W. (2009). Determinants of dividend policy in Korean banking industry. *Banks and Bank Systems*, 4(1), 67-71.
- Lintner, J. (1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *American Economic Review*, 46, 97–113.
- Litzenberger, R.H. & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices: theory and empirical evidence. *Journal of Financial Economics*, 7(2), 163-195. [https://doi.org/10.1016/0304-405X\(79\)90012-6](https://doi.org/10.1016/0304-405X(79)90012-6)
- Marshall, D.H., McManus, W.W. & Viele, D.F. (2011). Accounting: What the Numbers Mean. *McGraw-Hill*, New York, NY.
- Miller, M.H. & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433. <https://doi.org/10.1086/294442>
- Miller, M.H. & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031-1051. <https://doi.org/10.1111/j.1540-6261.1985.tb02362.x>
- Nazir, M. S., Musarat, M., Waseem, N. & Ahmed, A. F. (2010). Determinants of Stock Price Volatility in Karachi Stock Exchange: The Mediating Role of Corporate Dividend Policy. *International Research Journal of Finance and Economics*, 55, 100-107.
- Onofrei, M. (2003). *Finanțele întreprinderii*. Economică Publishing House, Bucharest.
- Parkinson m. (1980). The extreme value method for estimating the variance of the rate of return. *Journal of Business*, 53, 61-65.
- Peterson, P. (1999). *Analysis of Financial Statements*. Wiley, New York, NY, p. 9.
- Ramadan, I.Z. (2013). Dividend policy and price volatility: empirical evidence from Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(2), 15-22.
- Sew, E.H., Albaity, M. & Ibrahimy, A.I. (2015). Dividend policy and share price volatility. *Investment Management and Financial Innovations*, 12 (1), 226-234.
- Shah, S.A. & Noreen, U. (2016). Stock price volatility and role of dividend policy: empirical evidence from Pakistan. *International Journal of Economics and Financial Issues*, 6(2), 461-472.
- Toma, M. & Brezeanu, P. (1996). *Finanțe și gestiune financiară*. Economică Publishing House, Bucharest.
- Toma, M., Alexandru, F., Armeanu, D. & Isărescu, D. (2003). *Gestiunea financiară de întreprindere*. Economica Publishing House, Bucharest.
- Wild, J., Subramanyam, K.R. & Robert, F.H. (2007). *Financial Statement Analysis*. McGraw-Hill International, Boston.
- Woolridge, J.R. (1983). Dividend changes and security prices. *The Journal of Finance*, 38(5), 1607-1615. <https://doi.org/10.1111/j.1540-6261.1983.tb03844.x>
- Zakaria, Z., Muhammad, J. & Zulkifli, A.H. (2012). The impact of dividend policy on the share price volatility: Malaysian construction and material companies. *Management*, 2(5), 1-8.