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IMPACT OF FREE CASH FLOWS ON DIVIDEND PAY-OUT IN JORDANIAN BANKS

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ABSTRACT

Dividend pay-out is a concern for both managers and shareholders. The managers may use dividend policy to signal their performance. Thus, this study examines the effect of free cash flow, liquidity, bank size, leverage, profitability and bank age on the dividend pay-out ratio. The multiple regression analysis (panel data) was used to examine the hypothesis. The study found that free cash flow, liquidity, leverage and profitability were influential factors affecting the dividend pay-out ratio in Jordanian banks from 2004 to 2015. However, the bank size and bank age were found to be insignificantly related to the dividend pay-out in Jordanian banks. Similar to previous studies, this study suffered from different limitations. The main limitation was the data collection. The data was collected from Data Stream. However, only ten banks were found in the Data Stream reducing the sample to 120 observations/years. This study suggests that future studies to take into consideration the effect of the ownership structure on the dividend pay-out policy.

Contribution/ Originality: This study contributes to the existing literature in different ways. Firstly, it is one of the few studies to consider the dividend pay-out in the Arabic region. Also, few studies have considered the impact of liquidity on the dividend pay-out in the banking sector.

1. INTRODUCTION

Investigation of the dividend payout goes back to the mid of the twentieth century and since its existence it has been a debatable topic in business studies. It is believed that Lintner (1956) was the first who studied the dividend policy. He proved that the firm size and investment opportunity have a negative effect on the dividend payout in Switzerland. However, Miller and Modigliani (1961) showed the irrelevance of dividend payout. Thus, the dividend payout has been the focus of researchers to rationalize the existence of dividends (Agrawal & Jayaraman, 1994).

Black (1976) claims that "the harder we look at the dividends picture, the more it seems like a puzzle, with the pieces that do not fit together" (Black, 1976). The dividend pay-out issue is considered a hot topic in financial literature (Brealey & Myers, 2003) and one of the most debatable issues in financial management literature (Kinfe, 2011). Thus, different theoretical models have been created to find the most influential factors that affect the decisions of the corporate managers regarding dividend pay-out policy.

The global economy has suffered through the global financial crisis in 2008. Some of the largest institutions such as Lehman Brothers and Washington Mutual collapsed as a result of the financial crisis. Ivashina and Scharfstein (2010) attributed the failure of these institutions to the insufficient liquidity in these institutions.

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During the global financial crisis, governments worldwide tended to intervene to protect the rights of shareholders (Erkens, Hung, & Matos, 2012). Therefore, the lack of sufficient liquidity may lead the management to hold the cash in order to be reinvested in other businesses to provide some financial resources especially during the financial crisis. As a consequence of the lack of liquidity, the firms may use the profits to finance their activities which will reduce the dividend pay-out ratio. In some cases, the firms may not distribute any dividends to the shareholder during the financial crisis.

The decision of paying dividends might be affected by the financial crisis. Working in a crisis atmosphere may increase the uncertainty level of the profit and may exert more pressure on the management regarding the liquidity issues. Thus, the firms may rely more on equities rather than debts to finance their activities in order to mitigate the scrutiny of capital markets. Financing the activities by debt instead of equities brings the firms under greater scrutiny of capital markets (Easterbrook, 1984; Rozeff, 1982).

Distributing profits to shareholders ensures the commitment of the firm towards its shareholders (Agrawal & Jayaraman, 1994). In addition, this commitment reduces the discretionary resources under the control of managers and subjects them to greater monitoring by capital markets that occur when the firm seeks new capital (Agrawal & Jayaraman, 1994). In the same vein, paying dividends acts as a signal tool to reduce the information asymmetry between contracting parties about current and future profits (Bhattacharya, 1979). Myers (2000) argued that the managers pay dividends to avoid disciplinary actions that would be taken by the shareholders. In other words, the managers use the dividends as a tool to meet the satisfaction of the shareholders.

Agency theory is designed to organize the relationship between owners (principals) and managers (agents). The agency theory assumes that the managers are self-interested and motivated to maximize their own interests (Jensen & Meckling, 1976). Thus, increasing the free of cash flow in the hand of the management may increase the potential conflicts of interest between owners and managers (Jensen, 1986). In addition, free cash flow may lead to managerial inefficiency (Brush, Bromiley, & Hendrickx, 2000) which may result in increasing agency costs. Lin and Lin (2016) argue that increasing the free cash flow may lead the management to reinvest the cash in risky projects rather than distribute the money to the shareholders. Creating a mechanism that may control the management's discretions and reduce the agency cost is essential. Jensen (1986) suggests the dividends as an effective mechanism to control the management and to reduce the agency costs of free cash flow. Rozeff (1982) and Easterbrook (1984) attributed the reduction in the agency cost by paying dividends to market scrutiny. That is, firms who pay dividends are under greater scrutiny of capital markets because of the need to finance their activities by debt instead of equities.

When the management decides to pay dividends, the management needs to consider alternative financing policies to finance the firm's activities and expansion. In this sense, a conflict of interest may exist between managers and owners. Thus, the dividend pay-out might be used to mitigate such conflict. The manager may pay the dividends in a form of cash or shares of stock (stuck dividends). Stuck dividends are not true dividends because there is no money paid by the firms. On the contrary, paying dividends in a form of stuck dividend will increase the number of outstanding shares and reduce the share price (Hillier, Ross, Westerfield, Jaffe, & Jordan, 2010). Also, stuck dividends are considered as a financing policy rather than dividend policy. However, paying dividends in a form of cash may reduce the free cash flow and thus mitigate the conflict between managers and owners as suggested by the agency theory.

In addition, some other factors may influence the management regarding the decision of dividend pay-out such as liquidity, leverage, profitability, firm age and firm size (Eberhart & Damodaran, 1997; Rozeff, 1982).

The rest of this paper is organized as follows; the next section discusses the literature review and the development of the hypothesis. The third section presents the research methodology following by the data analysis and findings. The final section concludes the study and provides some suggestions for future research.

2. LITERATURE REVIEWS AND HYPOTHESIS DEVELOPMENT

2.1. Free Cash Flows and Dividend Pay-out

According to the free cash-flow hypothesis (Jensen, 1986) excess cash in the firms may lead to managerial inefficiency and increasing the agency costs. Thus, it is better to pay the excess cash in a form of dividends to the shareholders. Different authors empirically supported this hypothesis (e.g., (Amidu & Abor, 2006; Meckling & Jensen, 1992; Mollah, Keasey, & Short, 2000; Rozeff, 1982)). In addition, the agency theory assumes that the managers are self-interested, thus, they may use the surplus cash for their own interests or they may reinvest the cash in unprofitable projects (Jensen, 1986). According to Alli, Khan, and Ramirez (1993) excess cash in the firms reflects the ability of the firm to pay dividends more than current income. Dividend policies do not only signal the profitability of the firms but also the possibility of fluctuation in earnings.

Empirically, previous research (e.g., (Cai, 2013; Chen, Dou, Rhee, Truong, & Veeraraghavan, 2015; Lin & Lin, 2016; Richardson, 2006)) provides evidence of the effect of the free cash flows on the over-investment of the Chinese firms. This indicates that larger free cash flow firms show more noticeable over-investment. This is consistent with the free cash flow hypothesis which predicts that firms with larger free cash flows are more likely to lead to agency problems and managerial discretion. Guizani and Kouki (2012) examined the determinants of dividend policy using a sample of 44 Tunisian firms from 1998 to 2007. They concluded that the decisions on dividend policy were affected by free cash flow and profitability.

Previous studies provided support for the free cash flow hypothesis (Alli et al., 1993; Amidu & Abor, 2006; Ingram & Lee, 1997; Jensen, 1986; Musiega, Alala, Douglas, Christopher, & Robert, 2013). They concluded that the ability of the firm to pay dividends was related to high free cash flow.

Some studies reported a reverse relationship between free cash flow and dividend pay-out. Kania and Bacon (2005) reported a negative relationship between cash flow and dividend payout. Similarly, Adil, Zafar, and Yaseen (2011) argued that the increase in the operating cash flow reduced the dividend pay-out ratio. Additionally, some other studies supported the Miller and Modigliani (1961) study showing the irrelevance of dividend policy (e.g., (Agyei & Marfo-Yiadom, 2011; Al-Kuwari, 2009; Al-Shubiri, 2011; Gill, Biger, & Tibrewala, 2010; Kim & Gu, 2009)). Based on the above discussion and based on the free cash flow hypothesis, the following hypothesis was stated:

H₁: there is a significant positive relationship between free cash flows and dividend pay-out ratio.

2.2. Liquidity and Dividend Pay-out

Liquidity ratio is one of the most important ratios in the banks to ensure the banks have sufficient capital adequacy and solvency. The Basel Committee requires the liquidity ratio to be at eight percent as a minimum. However, the Jordanian Central Bank (JCB) tends to be stricter in this ratio; it requires the bank to have a minimum of 12%. Thus, as the dividend is payable in cash, firms with insufficient liquidity could be enforced to reduce their dividends or to pay dividends in form of stocks. The liquidity of the bank is not only a matter of concern of the government but also it is a matter of concern for the investors and creditors as well. Therefore, the liquidity of the banks is one of the most important factors influencing the management's decision to pay dividends.

Sufficient liquidity indicates the ability of the firm to meet its short-term liabilities. The liquidity ratio was found to be one of the main determinants factors affecting the decision of paying dividends in Pakistani financial and non-financial firms (Malik, Gul, Khan, Rehman, & Khan, 2013). In addition, liquidity was found to be the most determinant factor in explaining the dividend policy in Tehran Stock Exchange (Malik et al., 2013). Poor liquidity firms pay less dividends (Adil et al., 2011; Redding, 1997). Thus, as the banks in Jordan are required to have a sufficient liquidity ratio (minimum of 12%) the following hypothesis was formulated:

H₂: there is a significant positive relationship between liquidity ratio and dividend pay-out ratio.

2.3. Bank Size and Dividend Pay-out

Firm size is one of the most influential factors affecting the dividend policy. In the pioneer work of Lintner (1956) small firms paid more dividends in Switzerland. Gadhoum (2000) reported that larger firms used the information disclosure rather than dividend pay-out to signal their efficiency.

Some studies found a strong and positive relationship between firm size and dividend pay-out (Adjaoud & Ben-Amar, 2010; Afzal & Sehrish, 2011; Al-Gharaibeh, Zurigat, & Al-Harahsheh, 2013). Osman and Mohammed (2010) examined the effect of the firm characteristics and dividend pay-out in a sample of non-financial companies in Saudi Arabia; they concluded that the firm size, profitability and business risk were the most influential factors of the dividend pay-out. Large companies in Jordan were more diversified and they had higher dividend ratios (Al-Shubiri, 2011).

Based on the agency theory, owners may not be able to monitor the operation of the companies especially for the large companies. The theory suggests that large firms pay more dividends to reduce agency cost (Jensen & Meckling, 1976). In addition, large firms were found to have accesses to the capital market more easily and at lower cost, thus, they preferred to pay-dividends to facilitate their access to the capital market (Fama & French, 2002). Different studies have supported the agency theory's assumption. Jahankhani and Ghorbani (2005); Al-Kuwari (2009); Thanatawee (2011) and Imran (2011) found empirical evidence to support the agency theory in Iran, Gulf Cooperation Council, Thailand and Pakistan respectively. Thus, the following hypothesis is stated:

H_3: there is a significant positive relationship between bank size and dividend pay-out ratio.

2.4. Leverage and Dividend Pay-out

Leverage has been widely used as a determinant factor in the corporate finance studies. Leverage, or debt ratio, is calculated by dividing the total liabilities to the total assets and it has been argued that the leverage has a significant impact on the entire firm's result. Firms with higher leverage ratios mean that the firms tend to finance their activities from the capital market resulting in minimizing the agency cost. In other words, leveraged firms tend to pay more dividends, because they are under capital market scrutiny, in order to assure the business sustainability and creditability to both investors and creditors. Similar results were found by Jahankhani and Ghorbani (2005) and Parsian and Koloukhi (2014) indicating the significant role of the leverage ratio in determining the dividend pay-out. Also, leverage ratio might be used to examine the risk in the firm that may affect the dividend policy (Pruitt & Gitman, 1991).

Based on the agency theory, high leverage and high dividend pay-out might control the management's incentives to overinvestment or to invest in unprofitable projects. In addition, the theory suggests that the leverage in the firm monitors agency cost (Jensen & Meckling, 1976). However, managers have an inclination to overinvest if they are acting to maximize the firm's equity value rather than the entire firm value or if the firm has a risky outstanding debt (Jensen & Meckling, 1976). Thus, the following hypothesis is formulated:

H_4: there is a significant positive relationship between leverage ratio and dividend pay-out.

2.5. Profitability and Dividend Pay-out

Profitability is a concern for both managers and owners and it is one of the main determinants of the firm's dividend pay-out. The profitability represents the performance of the business and its ability to generate a profit that would ensure its growth and sustainability.

Profitability is the ability of a firm to generate a profit that would ensure its growth in the long and short term. Firms generating more profits may have higher dividend pay-out ratios and a positive association between firm profitability and dividends is expected. In general, the success of the firm can be explained by the performance over a given period.

Fama and French (2002) examined the dividend pay-out in the U.S firms between 1926 and 1999. They reported that firms with low profitability never paid dividends. Similarly, Truong and Heaney (2007) found that profitable firms paid more dividends. Denis and Osobov (2008) pointed out that firm size, life cycle, agency contraction, growth opportunity and profitability, influenced the dividend pay-out ratio. Additionally, Hashemi and Rasaeyan (2009) and Thanatawee (2011) provided evidence of the positive influence of the profitability on the dividend pay-out in Iran and Thailand respectively. The dividend pay-out ratio was also determined by the profitability measured by ROA and ROE in Malaysia (Ling & Juang, 2008). Al-Kuwari (2010) indicated that the possibility of paying dividends increased when the profitability of the firm was high. Thus, we predicted the following hypothesis:

H_5: *there is a significant positive relationship between bank's profitability and dividend pay-out.*

2.6. Bank Age

Firm age was widely ignored in the previous studies as an influential factor affecting the dividend policy. Newly formed companies tended to adopt a zero dividend pay-out (Watson & Head, 2010) due to the difficulties in accessing the capital market. Thus, young banks may use the generated profit to finance the operating activities and seldom pay dividends because they need huge capital for expansion. Newly formed companies might be attractive for investors who seek capital gain rather than dividends to avoid tax (Watson & Head, 2010). Firms with zero dividend pay-out ratios find it easy to avoid all costs pertaining to the dividend pay-out. Thus, newly formed banks are expected to have less dividend pay-out ratios and the following hypothesis was created:

H_6: *there is a significant positive relationship between the bank age and dividend pay-out.*

3. RESEARCH METHODOLOGY

3.1. Sample

The banking sector was considered as a sample of this study due to its strict system. The banking sector has a considerable representation in the capital market in Jordan (Ghabayen, Mohamad, & Ahmad, 2016). In Jordan, the banks are required to be publicly listed or institutionally affiliated or part of offshore firms (Jordanian Bank Act, 2006). There are 16 Jordanian banks in Jordan, 15 are listed and one is affiliated to another bank. Three of those banks are Islamic banks. The period of this study covered 12 years (2004-2015). The data was gathered from secondary sources, from Data Stream. The available data covered ten banks reducing the sample size to 120 observations-years (balanced panel data).

3.2. Research Model

In order to test the impacts of the bank characteristics on the dividend pay-out in the Jordanian banking sector, the following regression model was utilized:

$$DPR = \beta_0 + \beta_1 FCF_{it} + \beta_2 LIQ_{it} + \beta_3 BSIZ_{it} + \beta_4 LEV_{it} + \beta_5 PROFIT_{it} + \beta_6 AGE_{it} + \varepsilon$$

Where;

DPR was the dividend pay-out ratio, LIQ was the liquidity ratio, BSIZ was the bank size, LEV was the leverage, PROFIT was the profitability, AGE was the bank age and ε was the error term.

Table 1 presents the measurement of the dependent variable and independent variables as used by previous studies (Fama & French, 2002; Gadhoum, 2000; Ghabayen et al., 2016; Jensen & Meckling, 1976; Parsian & Koloukhi, 2014; Watson & Head, 2010).

Table-1. Operationalization of the variables.

Variables	Operationalization
Dividend pay-out Ratio	(Profit distributed to net profit)*100%.
Free cash flow	(Net profit minus changes in net capital minus changes in fixed assets) divided by total assets.
Liquidity	The percentage of the liquidity to the capital market as measured by the Basel Committee and Central Bank of Jordan.
Bank size	The natural logarithm of the total assets.
Leverage	The long-term debt divided by the total assets.
Profitability	Earnings before tax divided by total assets of the bank which is return on assets ratio (ROA).
Bank age	Number of years since the bank was incorporated.

4. DATA ANALYSIS AND DISCUSSION OF THE FINDINGS

Firstly, the study carried out the descriptive analysis to find the maximum, minimum, and standard deviation of all the variables in this study. Then, Pearson correlation was used to examine the correlations between the variables. The study used different diagnostic tests including normality, linearity, multicollinearity, homoscedasticity, autocorrelation tests. In addition, the Huasman test was used to decide the appropriate model for this study as suggested by Greene (2011). Lastly, after cleaning the data and avoiding all the possible misleading results, the hypotheses were tested.

4.1. Descriptive Analysis

In this section, the study provides a descriptive analysis of the variables as shown in Table 2. The dividend pay-out ratio (DPR) has a mean of 8 percent with a maximum of 50% and minimum of zero. The table reveals that the mean of the free cash flow (FCF) was almost -10 percent with a maximum and minimum of 16% and -74 percent respectively. In addition, the liquidity ratio had a mean of 17 percent with a maximum of 32% and minimum of 12%. This result indicates that all the Jordanian banks have complied with the Basel II and as well as with the Jordanian requirements.

The study measured the bank size as a log of the total assets. The Jordanian Banking Act required the banks to have a minimum of 100 million dinar (Almost \$140 million) as a registered capital market. This makes the banking sector the largest sector in the country. The descriptive analysis shows that the largest bank size was 10.71 and the smallest was 8.85 while the mean was 9.1.

Leverage, measured as long-term debt divided by the total assets, was found to be relatively high with a mean of 85% and minimum of 9% and maximum of 96%. The Jordanian banks' profitability, measured by ROA, was varied from -.01 percent to 6 percent. During the period of study, only one bank had recorded losses. Finally, the eldest bank in Jordan was incorporated since 1931 while the newest bank, included in this study, was incorporated since 1995. The average bank age was almost 40 years.

Table-2. Descriptive analysis.

Variable	Obs	Unit	Mean	St. Dev	Min	Max
DPO	120	Ratio	0.08	.191	0	.50
FCF	120	Ratio	-0.106	.121	-.735	.163
LIQ	120	Ratio	0.173	.051	.107	.32
BSIZ	120	Number	9.10	.391	8. 852	10.71
LEV	120	Ratio	0.847	.103	0.089	0.963
PROFIT	120	Ratio	0.020	.009	-.001	.059
AGE	120	Number	39.9	18.96	9	89

Note: DPR is the dividend pay-out ratio, LIQ is the liquidity ratio, BSIZ is the bank size, LEV is the leverage, PROFIT is the profitability and AGE is the bank age.

4.2. Pearson Correlation

The Pearson correlation was used to test the correlation between the dependent variable and independent variables and to test the correlations between the independent variables to detect multicollinearity (Weisberg, 2005). As shown in Table 3, all the independent variables were significantly correlated to the dependent variable at 1% except the bank age which was correlated at 10%. In addition, the Pearson correlation matrix was used in this study to detect multicollinearity. The multicollinearity problem appears when the correlation between two independent variables exceeds 80% (Gujarati, 2003). Table 3 shows that the highest correlation between the independent variables was found to be between the profitability and free cash flow (63%) which had not reached the cut-off point of 0.80.

Table-3. Pearson Correlation.

No	Var	DPO	FCF	LIQ	BSIZE	LEV	PROFIT	AGE	VIF	1/VIF
1	DPO	1.00								
2	FCF	0.45***	1.00						5.37	0.28
3	LIQ	0.41***	0.46***	1.00					2.44	0.64
4	BSIZE	0.56*	0.36***	-0.58***	1.00				6.75	0.22
5	LEV	0.29***	0.47**	0.32***	-0.37	1.00			8.23	0.17
6	PROFIT	0.67***	0.63***	0.43***	0.23	0.41***	1.00		1.38	0.87
7	AGE	-0.31***	0.26***	-0.15	0.41***	-0.22*	-0.39***	1.00	4.66	0.35

Note: *, ** and *** is the significant level at 10%, 5% and 1% respectively.
DPR is the dividend pay-out ratio, **LIQ** is the liquidity ratio, **BSIZ** is the bank size, **LEV** is the leverage, **PROFIT** is the profitability and **AGE** is the bank age.

Alternatively, variance inflation factor (VIF) and tolerance inflation factor (1/VIF) were also used to test the multicollinearity. The multicollinearity was considered a problem if the VIF value exceeded 10 or if the tolerance was less than 0.10 (Hair, Black, Babin, Anderson, & Tatham, 2010). In this study, neither the VIF nor the 1/VIF appeared to cause a problem as shown in Table 3.

4.3. Multiple Regression Analysis

Prior to analyzing the data, different analytical assumptions were used in order to avoid misleading results. Outliers, linearity, normality, multicollinearity, homoscedasticity and autocorrelation were used in this study and the needed treatments were made.

Some of the variables (Liquidity and free cash flow) were found to be non-normally distributed. Thus, the problem was solved by the transformation of the variables.

The data suffered from autocorrelation and homoscedasticity problems. Thus, the Drisc/Kraay standard errors structure was used as suggested by Driscoll and Kraay (1998).

The Hausman test was used to decide whether the fixed effect model or random effect model was more appropriate to be used in the study as suggested by Greene (2011). The significant result of the Hausman test meant the acceptance of the fixed effect and the rejection of the random effect and vice versa. The Hausman test accepted the fixed effect model in this study, thus, it was used to test the hypotheses.

Table 4 presents the results of the regression. After running the first model, we controlled the model by the time period (year). In the panel data, if the Hausman test decides the use of fixed effect model, there is a need to examine the effect of the year in the model. STATA provides a written command (*testparmi.year**) to check the need of using the year as a control variable (Torres-Reyna, 2007). The significant value of (*testparmi.year**) indicates that the coefficients for all years are jointly not equal to zero. Therefore, the model should be controlled by the year (Torres-Reyna, 2007).

This study showed that the effect of the time period was very significant. After controlling the model by the year, the R^2 increased from 32% (model 1) to 49% (model 2). Accordingly, this gave a general conclusion of the effect of the year on the dividend pay-out ratio of the Jordanian banks throughout the period of this study.

The first hypothesis suggests a positive significant relationship between free cash flow and dividend pay-out. The empirical result showed a positive significant effect of the free cash flow on the dividend pay-out ratio at 10 percent(t=2.11, p>0.1), thus, the hypothesis was accepted as shown in Table 4 (Model 1). However, after using the year as a control variable, the significance level increased to five percent (t=2.38, p>0.05). This result is consistent with the agency theory and free cash flow hypothesis. Previous studies concluded that dividend policy decisions were affected by free cash flow (Alli et al., 1993; Amidu & Abor, 2006; Guizani & Kouki, 2012; Ingram & Lee, 1997; Jensen, 1986; Musiega et al., 2013).

Table-4. Multiple regressions analysis.

Variable	Model (1)		Model (2)	
	Coef	t	Coef	t
Constant	0.185	2.11**	0.273	3.81***
Free Cash Flow	0.093	1.90*	0.018	2.38**
Liquidity	0.140	1.88*	0.177	2.01**
Bank Size	0.131	1.68*	0.097	1.06
Leverage	0.106	1.82*	0118	1.98**
Profitability	0.090	1.88*	0.094	1.91*
Bank Age	0.254	3.72***	0.019	0.73
Years	Not included		Included	
Number of Observations	120		120	
Number of Group	10		10	
Prob> F	0.000		0.000	
Wooldridge test	0.037		0.013	
Modified Wald test	0.000		0.000	
Hausman Test	0.002		0.000	
R2	0.32		0.49	

Note: *, **, and *** is the significant level at 10%, 5% and 1% respectively.

As noticed in the second model, the free cash flow was affected over a period of time and thus affected the decisions on dividing profits to shareholders. The main reason that could be behind this effect is the requirement of the Central Bank of Jordan to increase the capital market of the banks to 100 million JD (US $1.4 million) by 2010, thus the banks tends to divide in form of stocks in order to fulfill the requirement. Therefore, few banks pay dividends in form of cash resulting in reducing the level of the outgoing cash flow. In addition, the banks may use the profit to finance their activities instead of borrowing loans from outsiders at high costs. During the financial crisis (2008-2010), the banks may not have distributed dividends as a result of the lack of liquidity.

The second hypothesis postulates a significant positive relationship between the liquidity ratio and the dividend pay-out ratio in the Jordanian banks. The results indicated a significant positive relationship at 10 percent (t=1.88, p<0.10) and at five percent (t=2.11, p<0.05) after controlling the model by the year. The liquidity ratio was one of the most influential factors affecting the dividend pay-out ratio especially in the banking sector. This might be due to the requirement of Basel II and the Jordanian Bank Act that require the banks to have a sufficient level of liquidity to meet any contingency obligations. Thus, banks with insufficient level of liquidity would not divide profits to shareholders.

Regarding the bank size, the hypothesis suggests a significant positive effect of the bank size of the dividend pay-out ratio. The empirical results could not support this hypothesis, thus, the hypothesis was rejected. The general result of the effect of the bank size on the dividend pay-out was significant at low level (10%) but after using the year as a control variable, the significance level was diminished. The variance of the bank size was wider before 2010, but after the banks were required to increase their capital markets, the variance between the banks was noticeably reduced. As a result, the bank size had no effect on the dividend pay-out ratio.

The fourth hypothesis postulates a significant positive relationship between leverage and dividend pay-out. The empirical result supported the hypothesis at 5%. The agency theory suggested that leverage may control the

agency cost (Jensen & Meckling, 1976). In the case of Jordan, banks may pay the dividends in a form of stocks instead of cash to keep the leverage ratio at an acceptable level as was noticed rior to the year 2010.

The profitability measured by ROA was expected to have a significant positive relationship with the dividend pay-out. The hypothesis was accepted. The ROA was found to be positively related to the dividend pay-out at 10%. This result was consistent with the previous studies (Al-Kuwari, 2010; Fama & French, 2002; Hashemi & Rasaeyan, 2009; Ling & Juang, 2008; Thanatawee, 2011; Torres-Reyna, 2007). Accordingly, more profitable banks would pay more dividends. Managers may use the dividend policy to signal their profitability. As the profitability is the main concern of the managers and investors, the investors may exercise more pressure on the managers to pay higher dividends.

Finally, the last hypothesis postulates a significant positive effect of the bank age on the dividend pay-out ratio. The result showed a positive but insignificant relationship between the bank age and dividend pay-out. Thus, the hypothesis was rejected. Old banks are expected to be larger in size and, thus, pay more dividends. After using the year as a control variable to control the model, the effect of the bank age reduced from (t=3.72, p>0.01) to an insignificant level (t=0.73, p<0.1).

5. CONCLUSION

Dividend pay-out is a concern for both managers and shareholders. The managers may use the dividend policy to signal their performance. Thus, this study examined the effect of free cash flow, liquidity, bank size, leverage, profitability and bank age on the dividend pay-out ratio. The multiple regression analysis (panel data) was used to examine the hypothesis. The study found that free cash flow, liquidity, leverage and profitability were influential factors affecting the dividend pay-out ratio in the Jordanian banks from 2004 to 2015. However, the bank size and bank age were found to have insignificant relationships with the dividend pay-out ratios in the Jordanian banks.

Similar to all previous studies, this study suffered from different limitations. The main limitation was the data collection. The data was collected from Data Stream. However, only ten banks were found in the Data Stream reducing the sample to 120 observations/years. This study suggests that future research takes into consideration the effect of the ownership structure on the dividend pay-out policy.

This study has contributed to the body of knowledge in different ways. Firstly, it is one of the few studies to consider the dividend pay-out in the Arabic region. Few studies have considered the impact of liquidity on the dividend pay-out in the banking sector. The banks are required by the law to have sufficient liquidity to finance their activities. In addition, potential investors should be aware about the factors affecting the dividends. For example, the case of Jordan shows that the low cash dividends might be replaced by stock dividends to meet some requirements of the capital markets.

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