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The Effect of Cash and Stock Dividends on the Banks Tobin's Q

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***Abstract*— This study aimed at investigating the effect of cash and stock dividends taking into consideration the control variables on Tobin's Q in Jordanian commercial banks listed on Amman Stock Exchange. To achieve this objective, the study depended on financial reports published in stock exchange market for (16) Jordanian commercial banks during the period from 2009 to 2015, and used multiple and stepwise regression to test study hypotheses. The results of the study indicate that there is a significant and positive effect of cash and stock dividends on Tobin's Q, and this effect in the favor of cash dividends over stock dividends on Tobin's Q in Jordanian commercial banks.**

***Keywords*— dividends, stock dividends, Tobin's Q, Jordanian commercial banks)**

I. Introduction

The decision to distribute dividends is considered as important decisions taken by management, because this decision has a direct impact on the investor and the company, as the primary goal of any investor is to make profits and current earning under continued distribution process, and management need to make balance between dividends and retained earnings, especially in the new and developing companies that are needed of funds. There are various kinds of dividends distribution followed by companies, the most common of them, cash dividends, stock dividends, and in a few cases include, distributions of the company's products or securities, these kinds of dividends distribution included management's expectations about future earnings of the company and used by financial markets in evaluating stock prices and other securities. Pettit, [16] points that significant new information is communicated through the announcement of the dividends, so management may use dividends as a means of expressing their estimates for the company's ability to generate profits and maintain liquidity. Many researchers such as, [17], [12] have sought in-deep study the impact of cash flows represented in distributed dividends on the behavior of investors through studying relationship between market shares returns with accounting income which represents an estimation of company's performance reality. The issue of dividends distribution is still a controversial debate among researchers even dubbed by many researchers term (The dividends puzzle).So this study came to address the effect of dividends distribution in Jordanian commercial banks, which most took form of cash dividends and stock dividends in the Tobin's q, "which connect between share book and market value, and consider the most commonly used measure to determine the company's value and performance" [13]. This research has contributed as an addition in the scientific literature by studying the effect of dividend policy in the form of cash dividends or stock dividends that relied upon by managers as signal theory through connected information to the financial market, reflected on the investors and shareholders trading behavior, in turn affects the shares values of these companies. Also this study has contributed by comparing the effect of the cash dividends and stock dividends in the equity valuations to reach an optimal form of dividend policy that has a positive effect on the shares value, and thus the value of the company as a whole.

II. Theoretical Framework & Literature Review

The dividend policy has a significant effect on the company's value and performance, and can be explained from the perspective of agency theory, that means increasing the distribution of stock dividends not issuing new capital shares to finance their needs, then increasing the value of the old shareholders shares, and thus maintains their ability to influence the moral on the company's decisions. Also, the greater of retain returned earnings and volume of liquidity. On the other hand, the issue of stock dividends involves costs, including the cost of issue shares and information, and increasing the volume of trading shares in the market, which could affect the market price share, and could influence negatively on the ability of the company to sustain their investors who desired to obtain cash dividends as current income. The announcement of dividends considered as tool used by the administration in signaling their expectations about future earnings of the company, and use by the financial markets in a review of stocks and other securities prices. Pettit, [16] concluded that the new and important information is communicated through the announcement of the dividends, which may be used by the administration as a way to express their estimates about the company's ability to generate profits and provide liquidity. Foster and Vickrey, [8] supports the conclusion that the distribution of stock dividends will likely have positive unexpected returns, and the results showed that financial market used distributions of stock dividends in determining the equilibrium price of the shares and that these distributions tend to produce positive unexpected returns unconditional with the size of stock dividends distributions. Aharony and Swary, [2] showed that distribute profits on a form of stock dividends have a positive impact on the company's value, as they reflect a good information on the company financial situation, in addition the shareholders interpret the stock dividends as an indicator for the growth of the company's profits in the future through retained profits and re-investment it rather than relying on external sources that may be considered more expensive and complicated to funds their needs. The study of Mitra and Owers, [15] tested the informational content of the announcement of cash dividends in shareholder reaction, so that the results indicated that the announcement of cash dividends associated with importance high degree of unusual returns. As well as the Lakonishok and Lev, [14] studied the reasons for distribution stock dividends, and explained why the market responded in appositive action towards these distributions? The results show that the main reason for this positive action is to adjust the level of prices to suit the level of market or industry prices, because these distributions provided signal by the managers to transfer positive information about the company performance. The Atiase and Bamber, [4] aimed at studying the effect of the dividends announcement on the trading investors behavior. The study found that reacted of investors correlates positively with the level of variation in stock prices and information before and after the announcement of the dividends. Gharaibah and Jaafar, [9] concluded that the information regarding distribution dividends in the Amman financial market reflected on share prices before three months of distribution date. Bin Namon, [7] studied the strength and direction of the relationship between dividends and retained earnings and stock prices, and the study found that the relationship between dividends and stock prices more than the relationship between retained earnings and stock price. Bashikh, [6] expanded to search the effect of different factors such as book value of share, earning per share, dividends, and return on equity, that helps to explain the changes in the market value of the share in the various sectors in the Saudi stock market. The study found that there are significant positive correlations between the dividends and the market value of the share in the financial and services and industrial sectors. The aim of the study Zagreb and, Sharab, [18] to demonstrate the relationship between the announcements of the dividends with the shares market price listed on the Palestine securities exchange market, the study found a statistically significant relationship between the cash dividend per share, and returned earnings per share with the shares market price. Although the impact of cash dividend per share larger than the impact of returned earnings per share on both stock price and trading volume in the financial market. The aim of the study AL-Twaijry, [3] is to test the relationship between earnings, dividends, returns, and stock prices in the UK stock market. pointed out there is a strong correlation between the market share price, dividends, and earnings, and also the results showed that the dividends is strong variable to predict stock prices, while returns is the strongest factors in predicting dividends and changes in stock prices.

III. Research Methodology

This study was conducted depending on an inclusive review of the related literature to develop hypothesis and objectives. In order to address the practical aspects of study, it depends on the data annually published on financial reports of (16) Jordanian commercial banks trading in stock exchange market during the period from 2009 - 2015.

The study depended on different statistics method to test the appropriately of study date such as (variance inflation factors (VIF), Durbin- Watson's (D-W) Heteroscedasticity – Test), and applying the ordinary least squares method in the linear regression models. Multiple and step wise linear regression models were used to test the effect of the independent variables, and the control variables on the dependent variable, then the effect was represented between the dependent and independent and control variables as linear equations. Finally paired samples (t) test was used to test the significant deference between the means of independence variables.

IV. Statistical Results

In terms of using the linear regression model values of the items must follow the normal distribution, so by depending on the central limit theory which states that the condition of the normal distribution of the data that its items are more than 30 items. Johnson, [12] the study samples were 112 items, so we can consider that the data distribution followed the normal distribution. And to test the absence of the autocorrelation problem between the data limits of the random error in the regression model. It has been relying on Durbin- Watson's test; it show in this study the (D-W) calculated value was greater than the maximum value (D-W) for all linear regression models, which indicates the absence of the autocorrelation problem between the limits of the random error in the linear regression models. Finally to test the random variance homogeneity error (Heteroscedasticity -Test) for applying the ordinary least squares method in the linear regression models, by using White test it showed that the significant of F-statistics value for the values of all hypothesis of the study is more than 5%, it refers to the absence of data from the instability homogeneity of the sum squared residuals for all the regression models in this study, [11].Then the study can apply multiple linear regressions to test the hypotheses of the study.

Then the study will present the hypotheses test in the Jordanian commercial banks trading in stock exchange market during the period from 2009 - 2015. The results of multiple linear regressions testing as showed in table (1)

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TABLE I. RESULTS OF MULTIPLE REGRESSION TESTING

$Tobin'sQ_{i,t}$	$\alpha_{i,t}+\beta_1 CD_{i,t}+\beta_2 SD_{i,t}+\beta_3 \text{InAS}_{i,t}+\beta_4 \text{InDE}_{i,t}+\beta_5 \text{InCF}_{i,t}$	
R-SQUARED	0.395	
Adj.R-squared	0.367	
F-statistic	F-RATIO	14.11
	PROB.)F (	0.000
Constant	COEFFICIENT	11.463
	T-TEST	4.716
	SIG (T)	0.000
CDi,:Cash Dividends	COEFFICIENT	1.212
	T-TEST	6.377
	SIG (T)	0.000
SD_(i,t):Stock Dividends	COEFFICIENT	0.285
	T-TEST	3.665
	SIG(T)	0.000
InAS i,t :natural logarithm of Total Asset	COEFFICIENT	-7.136
	T-TEST	-3.988
	SIG(T)	0.000
InDE_(i,t): natural logarithm of Total Debit	COEFFICIENT	6.271
	T-TEST	3.695
	SIG(T)	0.000
InCF_(i,t): natural logarithm of Total Cred Facilities	COEFFICIENT	0.168
	T-TEST	0.645
	SIG(T)	0.521

a. Sample of a Table footnote. *(Table footnote)*

The table (1) shows a statistically significant effect for the regression model related to the independent variables cash dividends and stock dividends taking into consideration the control variables (total asset, total debit, credit facilities) on the explanation of the depending variable Tobin's Q in the regression model, it show R^2 = 0.395, indicated 39.5% of variance in Tobin's Q can be explained by the variance of the cash dividends and stock dividends and the controls variables. The value of (F=14.111) at a significant level (Sig F=0.000), indicates the acceptance of the regression model and the explanation factor (R^2) at a significance level (a≤0.05).

The regression coefficient value related to the effect of cash dividends on Tobin's Q in the regression model was (Beta=1.212) and (t=6.377) with the significance level (sig (t) =0.000), which means a positive effect of the cash dividends on Tobin's Q and indicating the increase in the cash dividends in the Jordanian commercial banks will effect positively in the improving Tobin's Q. As a result, the null hypothesis is rejected and the alternative one is accepted and states: **There is positive effect of cash dividends on Tobin's Q of Jordanian commercial banks during the period from 2009 to 2015.**

This result agreed with Mitra and Owers [15], Abu al-Qasim [1], and Zagreb and, Sharab [18], concluded positive effect of cash dividends on stock prices.

Reference to the table (3) the regression coefficient value related to the effect of stock dividends on Tobin's Q in the regression model was (Beta=0.285) and (t=3.665) with the significance level (sig (t) =0.000), Therefore a positive effect of the stock dividends on Tobin's Q and indicating the increase in the stock dividends in the Jordanian commercial banks will effect positively in the improving Tobin's Q. As a result, the null hypothesis is rejected and the alternative one is accepted, states: **There is positive effect of stock dividends on Tobin's Q of Jordanian Commercial Banks during the period from 2009 to 2015.**

So this result agreed with Foster and Vickrey [8], Aharony and Swary [2], Lakonishok and Lev [14] and Banker, Das, Dater [5], concluded positive effect in stock prices after distribution of stock dividends.

The regression coefficient value related to the effect of controls variables (total asset, total debit, and credit facilities) in the multiple regression models showed negative effect for the natural logarithm of total asset, and positive effect for the natural logarithm of total debit on **Tobin's Q**, thereby results show that the regression coefficient value (Beta) was (-7.136), (6.271), respectively, with the significance level (sig (t) =0.000). Also table (3) shows there was no significant effect for natural logarithm of credit facilities on **Tobin's Q** as the value of coefficient (Beta) was (0.168) with the significance level (Sig (t) = 0.521) which was not statistically significant at (α ≤ 0.05) level.

Then the multiple regression equation can be reformulated to show the effect of cash dividends and stock dividends tacking into consideration controls variables on **Tobin's Q of Jordanian commercial banks during the period from 2009 to 2015** can be demonstrated as follows:

$$\textbf{Tobin's } Q_{i,t} = 11.463 + 1.212 * CD_{i,t} + 0.285 * SD_{i,t} + -7.136 * \text{InAS}_{i,t} + 6.271 * \text{InDE}_{i,t} + \beta_5 \text{InCF}_{i,t} + \varepsilon_{i,t}$$

To test the hypothesis concerning the difference effect of both cash and stock dividends on Tobin's Q, it has been relying on step wise regression, being this method the best in the identification and ordering independents variables that

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have strongest explanatory effect in the prediction of the dependent variable with statistically significant level ,then the strongest explanatory power for independent variables enter the first model, were excluded variables that do not check equation condition to stay within the first model. Then the second model will appear and third model in orderly form. The result of this test shown in table (2) was as follows:

TABLE II. STEP WISE REGRESSION

MODEL	R SQUARE	ADJUSTED R SQUARE	F	SIG.	COEFFICIENTS BETA	T	SIG.	
1	(CONSTANT)	.212	.205	30.18	.000	1.188	19.75	.000
	CASH DIVIDENDS					.461	5.50	.000
2	(CONSTANT)	.282	.269	21.76	.000	1.127	18.565	.000
	CASH DIVIDENDS					.487	6.022	.000
	STOCK DIVIDENDS					.265	3.273	.001
3	(CONSTANT)	.313	.294	16.68	.000	5.209	2.843	.005
	CASH DIVIDENDS					.800	4.956	.000
	STOCK DIVIDENDS					.307	3.757	.000
	NATURAL LOGARITHM OF TOTAL ASSET					- .358-	- 2.229-	.028
4	(CONSTANT)	.393	.37117.63	.000	11.60	4.803	.000	

Reference to table (2), which showed a step wise regression of the study variables, showing that the first model regression was associated with the effect of the cash dividends on Tobin's Q with strongly explanatory power R2 amounted to 21.2%, which means cash dividends had the highest effect on Tobin's Q comparing with other independent variables of the study, then the second model in the stepwise regression for both cash dividends and stock dividends with strongly explanatory power R2 amounted to 28.2%, indicated that the stock dividends had additionally explanatory power of 7%, (28.2% - 21.2%), which is associated with explanatory R2 power between the second model and first model differences.

Thereby the result in table (2) showed the value of regression coefficient (Beta) for both cash and stock dividends were 0.487, 0.265, respectively, which implicitly means there is a difference effect of the cash dividends and stock dividends on the Tobin's Q.

Also to enhance the step wise regression result related with the difference effect of the cash and stock dividends on the Tobin's Q, paired samples (t) test was used as showed in table (3)

TABLE III. PAIRED SAMPLES T TEST

Paired Sample		Paired Differences	
	95% Confidence Interval of the Difference Upper		
	Pair 1 cash dividends – stock dividends		
t		df	Sig. (2-tailed)
3.159		111	.002

We can notice from the table (3) that the value of (t) test was (3.159) with the significance level (sig (t) =0.002). Therefore there was statically significant difference between the value of cash dividends and stock dividends means, at a significant level (α ≤ 0.05). Then upon step wise regression and paired samples (t) test results, the acceptance of the alternative hypothesis of the study that states that: **there is difference effect of cash and stock dividends on Tobin's Q of Jordanian commercial banks during the period from 2009 to 2015.**

So this result agreed with Grinblatt, et.al [10], Bashikh [6], and AL-Twaijry [3], found there is a positive effect to cash and stock dividends on stock prices.

V. Conclusion and recommendations

The study reached the following conclusions:

A. There is a significant positive effect to the dividend policy in the book and market value of the company shares, where it was found the existence of statically significant positive effect for both the cash dividends and stock dividends on Jordanian commercial banks Tobin's Q.

B. There is statically significant positive effect to the indebtedness in Tobin's Q, which is considered as an indicator of the ability of Jordanian commercial banks to benefit from leverage advantages. While the effect of total assets was significantly negative in Tobin's Q, which considers as an indicator of inability of Jordanian commercial banks to exploit economies big size.

C. The cash dividends have more positive effect in Tobin's Q as compared with the effect of stock dividends in the Jordanian commercial banks, that may explain that investors do not have enough cash surpluses but rely on cash dividends as important income to cover their needs.

The study recommended several recommendations, highlighted by:

- The need for banks managers to increase their interest in decisions concerning dividend policy, because of their impact on investors, reflected on the trading behavior and therefore financial market, uses dividends information in securities valuations, reflected the investors' expectations about the company's future performance.
- The important of distributed part of company's profits as cash dividends up to be an incentive for shareholders to continue invest their capital in company's shares, and not dispose their shares by selling them.
- In the case of the failure of the company to distribute dividends, it would require that the percentage of reserved earnings be appropriate and justifiable, and therefore it must be reported to the shareholders and get their approval because these profits are the rights to them, and convince them that reserved earnings is important to strengthen the company's financial position, financing renovations and necessary expansions in the light of changing circumstances, and maintain the purchasing power of capital in light of rising general level of prices.
- The management company recommends adopting conservative policy for the distribution of dividends to shareholders and proposing adequate reserve provisions to cover the risk that the company may be faced, so from period to period the researcher proposes to reliance on distributions stock dividends, giving opportunity to return current profits and create opportunities for new investment, thereby supporting the company's ability to continue in the future and to achieve a high level of profits and attract new capital, and thus there will be a real profit in the coming years for shareholders, who fixed their number thereby increasing the number of shares they own. Also stock dividends favorable especially if the dividends are characterized exempted from income tax, while cash dividends are subject to income tax, as is in Jordan's tax law case.
- The researcher recommended conducting similar studies and relying on different variables such as stock returns and trading volume. In addition to study the effect of dividend policy in other sectors rather than-banking sector.

Finally, the researcher believes that the adoption of the cash dividend policy is not an easy decision, since they constitute an implicit commitment from management to maintain the future rate of distribution in order to enhance shareholder confidence in line with the performance growth and its stability. And the companies must determine the dividend policy based on their profits, earning's quality, availability of liquidity, in addition to the presence of expectations for their performance during the subsequent periods. Therefore, adopted adequate dividend policy stimulates shareholders and investors to rush and investment in their shares and leads to increase the resources of these companies, and expected to have a positive impact in the book and market values of their shares, and improve the investment climate in the financial market.

References

[1] Abu Al-Qasim, M. (2005). The effect of the dividend on the stock market price, Master thesis, Sudan University for Science and Technology.

[2] Aharony, J., Falk, H., & Swary, I. (1988). Information content of dividend increases: the case of regulated utilities. *Journal of Business Finance & Accounting*, *15*(3), 401-414.

[3] Al-Twaijry, A. (2006). An analysis of the relationships among stock prices and returns, dividends and earnings in the UK Stock Market. *Journal of King Saud University*, *18* (2), 63-91.

[4] Atiase, R. K., & Bamber, L. S. (1994). Trading volume reactions to annual accounting earnings announcements: The incremental role of pre disclosure information asymmetry. *Journal of Accounting and Economics*, *17*(3), 309-329.

[5] Banker, R. D., Das, S., & Datar, S. M. (1993). Complementarity of prior accounting information: The case of stock dividend announcements. *Accounting Review*, 28-47.

[6] Bashikh, M. (2012). The effect of earning per share on investors decisions in the Saudi Financial Market, Master thesis, Zarqa Private University.

[7] Bin Namon, H. (1989). Dividends policies and its effect on share price in the Jordanian Industrial companies listed at the Amman Financial Market, Master thesis, University of Jordan.

[8] Foster III, T. W., & Vickrey, D. (1978). The information content of stock dividend announcements. *Accounting Review*, 360-370.

[9] Gharaibah, & Jaafar, (1988). The Content of the accounting figures from the information in the Jordanian public shareholding companies, *Yarmouk Research Journal*, A Series of Humanities and Social Sciences, *4* (2), 201-233.

[10] Grinblatt, M. S., Masulis, R. W., & Titman, S. (1984). The valuation effects of stock splits and stock dividends. *Journal of financial Economics*, *13*(4), 461-490.

[11] Gujarati, D. N. (2003). *Basic Econometrics*. Tata McGraw-Hill Education.

[12] Johnson, O. T. (2004). Information theory and the central limit theorem. World Scientific.

[13] Kim, J. Y., Kwak, J., & Lee, K. (2015). Estimating Tobin's Q for listed firms in Korea (1980-2005): Comparing alternative approaches and an experiment with investment functions. *Seoul Journal of Economics*, 28, (1), 1-30.

[14] Lakonishok, J., & Lev, B. (1987). Stock splits and stock dividends: Why, who, and when. *The Journal of Finance*, *42*(4), 913-932.

[15] Mitra, D., & Owers, J. E. (1995). Dividend initiation announcement effects and the firm's information environment. *Journal of Business Finance & Accounting*, *22*(4), 551-573.

[16] Pettit, R. R. (1972). Dividend announcements, security performance, and capital market efficiency. *The Journal of Finance*, *27*(5), 993-1007.

[17] Zapar, M. I. (2002). International Accounting, Ended, South Western: Thomoson Learning.

[18] Zagreb, H., & Sharab, S. (2006). The effect of the announcement dividends on the stock price in Palestine Stock Exchange, *Journal of the Islamic University*, *5* (2), 557-579.