



THE RELATIONSHIP BETWEEN FIRM'S STOCK LIQUIDITY AND DIVIDENDS POLICY

(Empirical Study on Jordanian Banks Listed on Amman Stock Exchange)

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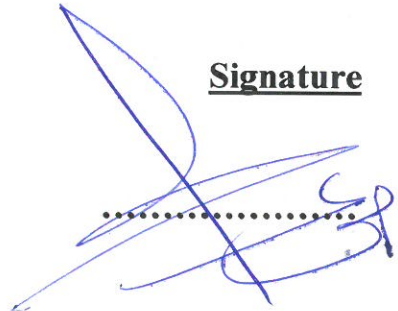
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This Thesis (The Relationship between Firm's Stock Liquidity and Dividends Policy) was Successfully Defended and Approved on 24th May, 2016.

Examination Committee

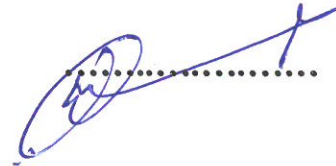
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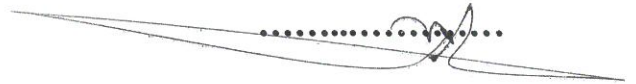
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Dedication

To Our Great Prophet Muhammad (ﷺ)

The Master of Tolerance

As His Wise Sayings on the Importance of “KNOWLEDGE”

“My Lord, save me from the useless knowledge.”⁽¹⁾

To My Beloved Mother

All That I am, or Hope to Be, I Owe to You

1. (Sahih Muslim)

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List of Abbreviations

Abbreviations	
ASE	Amman Stock Exchange
DPS	Dividend Per Share
EPS	Earnings Per Share
DPO	Dividend Payout Ratio
DP	Dividend Payer
P	Profitability
FS	Firm Size
GO	Growth Opportunities
SPRD	Stock Relative Spread
TO	Stock Turnover
ROE	Return on Equity
ROA	Return on Assets
NPV	Net Present Value

THE RELATIONSHIP BETWEEN FIRM'S STOCK LIQUIDITY AND DIVIDENDS POLICY

(EMPIRICAL STUDY ON JORDANIAN BANKS LISTED IN AMMAN STOCK EXCHANGE)

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ABSTRACT

This study aims to test the relationship between stock market liquidity and dividend policy for Jordanian banks listed on Amman Stock Exchange (ASE). The recent six years 2009-2014 were gouted in order to find some patterns and indicators in the behavior of dividend payout. The study examined the validity of the stock liquidity as one of the drivers of dividend payout policy. The results from sensitivity analysis, for the 15 banks with 90 observations taking into consideration the bank's characteristics (Size, Profitability and Growth Opportunities), lead us to conclude that: In the cross section, shareholders of less liquid common stock are more likely to receive bank cash dividends and vice versa. The findings support the assumption that cash dividend, indeed, at times compensating holders for lower stock liquidity to satisfy their need for liquidity. While investors with highly liquid stocks can create their home-made dividends. Two regression approaches were performed (Logistic and OLS regression) to test the validity of this relationship, in order to find out more accurate results. Furthermore, the findings indicate that banks with less (more) liquid stocks are more (less) likely to initiate or continue dividend payments. Finally, the researcher recommends the stock market liquidity as one

of the determinants when predict cash dividend for the Jordanian banks listed on Amman Stock Exchange.

Chapter 1: General Framework

1.1 Introduction

1.2 The Problem of the Study

1.3 The Purposes of Study

1.4 Significance of the study

In this chapter, this study represents the problem of the study and how it will contribute in settle the problem; furthermore, the study explains the purposes of the study and the significance of the study.

1.1 Introduction:

Dividend policy is one of the most controversial issues in the existing researches since it attempts to balance the conflict between managers and investors who take the risk by investing in the stocks of particular company, the scholars have latterly started looking at firms dividend policy in emerging markets and increasingly recognized that dividend policy may be affected by the stock liquidity. (Botoc and Pirtea, 2014)

The researcher seeks to test the relationship between banks stock liquidity and dividend policy and provides evidence of the link between firm dividend policy and stock liquidity. It examines whether the owners of less (more) liquid common stock are more (less) likely to receive cash dividends.

The study attempts to provide additional insight into dividend policies in emerging markets and perform the analysis while taking into consideration the firm size, profitability, and growth opportunities. The need to control for these variables take place since the liquidity of the firm's common stock can also be related to the size, profitability, and growth opportunities of the firm. Therefore, it is important to examine the link between firm dividend policy and liquidity after controlling for the possibility of such a relation. The study sheds additional light on 'dividend puzzle' by providing evidence from an emerging market such as Jordan.

1.2 The Problem of the Study:

The conflict of interest between shareholders and banks managers have been subjected to wide research for a long time with several theories in order to find some patterns and indicators in the behavior of dividend payouts(Griffin, 2010).

Banks in Jordan encountering a problem in relationship between their stock liquidity and dividend policy, which need to be determined in addition to develop new policies that will satisfy shareholders and meet the needs of banks management, the researcher believe that with investigating this problem and find some patterns to explain this relationship will contributes in settle the conflicts between stakeholders.

Study results may be used by stakeholders to take decision from alternatives when deciding to invest based on dividend yield for Jordanian banks. Furthermore, the study provides the base to predict dividend revenues in the future using the respectable determinants. (Singhania and Gupta, 2012)

Several studies extended these issues in the developed countries, for Jordan market, to the best of my knowledge; few studies examined the relationship between stock liquidity and dividend policy. This study will be prepared to answer the following questions:

Q1: What is the impact of bank stock liquidity on dividend policy?

Q2: What is the impact of bank's size on dividend policy?

Q3: What is the impact of bank's profitability on dividend policy?

Q4: What is the impact of bank's growth opportunities on dividend policy?

1.3 Purposes of Study:

The purposes of the study are summarized as the following:

1. Identify the problem of the relationship between bank's stock liquidity and dividend policy and contribute to find the optimum policies of interest for stakeholders.
2. To present the related theoretical and empirical point of view.
3. The study was prepared in a partial fulfilment of the requirements for master's degree in accounting.

1.4 Significance of the study:

The significance of the study arises from being the first study in Jordan which studied the relationship between bank's stock liquidity and dividend policy which covered the Jordanian banks listed in Amman stock exchange for the recent six years period between 2009-2014.

A company's dividend policy provides guidance on when and how much to pay or not to pay stockholders dividends and use profits for other purposes. When profits are held and not paid out as dividends, funds can be used for new product development, market expansion, or acquisition of other companies. The study also provides a guidance to investors and stockholders by creating subtitles to evaluate the firm dividend policy which enable them to make the investment decision and examines the alternatives. (Erbschloe, 2014)

To the investors, the study findings will be a cornerstone for them to establish optimum portfolios to be held at any given time, given the liquidity levels and the expected dividends. It will empower them to know what kind of information to be disclosed by firms

on the financial statement pertaining to liquidity and dividend payout ratio for rational decisions on companies to invest in.

For academicians, the findings of this study will make contributions to the existing hypothesis on investor's behavior towards liquidity of a firm and it will be used to establish research gaps and provide reference for further research under the field of dividend policy and liquidity.

For organizations and banks, the study will enable managers to institute policies that can create optimal liquidity levels and implement healthier dividend policies. Lastly, researchers will benefit by having in-depth understanding of the effect and correlation between stock liquidity and dividend payout policies of the banks. (Kibet, 2012)

Chapter 2: Theoretical Framework & Literature Review

2.1 Introduction

2.2 Theoretical Framework

2.3 Literature Review

2.4 Summary of Literature Review

2.5 Research Hypotheses

2.1 Introduction

In this chapter, this study explains the theoretical issue regarding stock liquidity as well dividend payout policy. In addition, this chapter also provides a review of previous empirical studies related to the subject of the study that have been carried out in different fields from hypotheses, which were developed.

2.2 Theoretical Framework

Investigations and literature on dividend policy have expanded to a large body of theoretical and empirical studies, especially of the dividend irrelevance hypothesis of Miller and Modigliani (1961). There is no general conclusions that have yet emerged after several years of investigation, and scholars can often disagree even about the same empirical evidence. This study concentrates on providing the reader with a comprehensive understanding of dividends and dividend policy by reviewing the main theories and explanations of dividend policy including dividend irrelevance hypothesis of Miller and Modigliani. This study also seeks to present the main empirical studies on determinants of stock liquidity. The study realized at a conclusion that the famous saying of Fisher Black (1974) regarding dividend policy "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together"

Earnings Dividend and Dividend Policy

Commonly dividends are defined as the distribution of earnings (past or present) among the shareholders of the company in proportion to their ownership (Frankfurter et al, 2003).

The payment dividends is an important indicating device used by corporations which routinely need cash in order to replace inventory and other assets whose replacement costs have increased or to expand capacity. As a result, corporations rarely distribute all of their net income to stockholders. Young, growing corporations may pay no dividends at all, while more mature corporations may distribute a significant percentage of their profits to stockholders as dividends. (Azhagaiah and Priya, 2008)

Dividends can be distributed only when the corporation's board of directors declare a dividend. Declaration is known as the date when board declares the dividend and it is on this date the liability for the dividend is created. Lawfully, corporations should have a credit balance in Retained Earnings account in order to declare a dividend. Virtually, a corporation must also have available cash balance large enough to pay the dividend without affecting the upcoming needs, such as asset growth and payments on existing liabilities. (Fama and French, 2000)

Dividend policies are defined as a firm's strategies with regards to paying out earnings as dividends contra retaining to reinvestment them in the firm. Dividend policy is the division of profit between payments to shareholders and retained earnings on the balance sheet accounts. It is thus an important part of the firm's long-term financing plans. Dividend policies including three approaches which have emerged as the most vastly supported throughout the finance community. (Kyle et al, 2013)

The first approach is the Smoothed Residual Dividend Policy. The principle for this policy is that the annual/quarterly change in the dollar amount of the dividend is kept to a minimum. Corporations who use this policy head for to delay any major changes to the dollar amount of their dividends paid to investors and do not react to short-lived changes in earnings. Being that these temporary changes in earnings can fluctuate drastically, the payout ratio for the particular firm can swing dramatically. The DPS is kept constant and is only altered if the long run profitability forecast of the firm has been modified.

The second approach of dividend policy is referred to as the Pure Residual Dividend Policy. By this policy, which puts a large assurance on fundamental analysis, theorize at the comparison between a firm's return on equity (ROE) and the rate of return that an investor could achieved by an alternative venture. The policy states that if the firm can achieve a higher ROE than an equally risky investment could be achieved in the market, investors prefer the company reinvest or plowback that dividend rather than pay it out. A time a firm has determined their optimal capital budget and the sufficient capital has been allocated to internal investments, then the remaining residual funds can then be used to payout a dividend accordingly. Since this policy's influence on the amount of dividend payout varies with the amount of earnings the firm generates, the dollar amount of paid out funds to investors can fluctuate vastly.

The third approach of dividend policy is the Constant Payout Residual Dividend policy approach. By this policy embodies the idea that a company should work to ensure that the payout ratio remains stable. To ensure that the payout ratio remains stable, management must adjust the dollar amount of dividends paid out according to the quarterly earnings results. This theory differs from the aforesaid Pure Residual Dividend Policy, since there is

no consideration of whether or not the firm can obtain a higher rate of return than that of an alternative investment of equal risk that their investors could achieved in the financial market. It is necessary that the issues beyond the payout of a dividend both from investor's perspective and the management's perspective be addressed. By analyzing the effects of dividend policy on stock price volatility. (Kyle et al, 2013)

Reasons of why corporations pay dividends?

The paid of dividend can be for many reasons. In some cases, dividends are paid to satisfy present stockholders (Azhagaiah and Priya, 2008). When high standard executives hold large of stock quantities, paying dividends can be seen as a form of a bonus for this executives. In certain cases, dividends may be paid as an indicator that the company is gainful. This may impact the opinions of stock analysts or future investors in the company (Li and Zhao, 2008). Corporations have attempted to use dividend payouts as a way to favorably influence their stock price. Announcing a major dividend payout, or making a larger than normal payout of dividends, may result in improved stock prices in the short-term, there is little supporting evidence that the strategy is constantly successful (Wann et al, 2008).

Firm's dividend policies continue to puzzle financial researchers and scholars. Miller and Modigliani (1961) advance the dividend irrelevance proposition—in perfect capital markets populated by rational investors, a firm's value is just a technique of the firm's investment opportunities and it is not connected with payout policy, a large body of literature examines the importance that managers and investors attach to dividend policy in light of the

irrelevance proposition. The occurrence point of these studies is to question some of the assumptions that define the perfect capital markets analyzed by Miller and Modig (1961).

One assumption of the dividend irrelevance proposition is that trading is frictionless so that investors can invest or liquidate their investments in a firm without incurring any direct or indirect costs at trading and without alteration the price of the underlying securities. If markets have no trading friction, investors with liquidity needs can create homemade dividends at no cost by selling the proper amount of their holdings stock in the corporation. As a result, investors should be indifferent between receiving a dollar of dividends and selling a dollar's worth of their investment. In actuality, trading friction is spreading widely throughout financial markets. Investors have to pay trading commissions and they either have to provide a price concession for an immediate execution or they have to wait until optimal execution of their trades. (Banerjee et al, 2007)

Stocks that pay cash dividends allow investors to satisfy their liquidity needs with less or no trading and thus enable them to avoid trading friction,- When trading friction exists in financial markets, an immediate implication of Miller and Modigliani (1961) is that, other things equal, firms with less liquid shares (i.e., shares with higher trading friction) are more inclined to pay dividends relative to firms with more liquid shares-an implication we term the "liquidity hypothesis of dividends." (Miller and Modigliani, 1961)

Free Cash Flow Theory:

Free cash flow represents the residual cash after deducting the money required for expansion and growth from operating cash flow, the assumption of free cash flow theory that firm will not be able to pay dividend to shareholders unless it generate the cash needed to maintain or expand its assets base and ensure to pursue opportunities that enhance firm value such as develop new products or make acquisitions. Excess cash can create overinvestment problem because they may be used to fund negative NPV projects and the management may wastefully use excess cash. To alleviate these problems, firms paying dividends to return excess cash to shareholders. (Thanatawee, 2011)

Life-Cycle Theory:

The firm life cycle theory of dividends asserts that the ideal dividend policy of a firm rely on the stage of firm in its life cycle. The implicit premise is that firms usually follow a life-cycle track from origin to maturity that is connected with a declining investment opportunity series and growth rate, and the cost of raising external capital decreased. The ideal dividend policy, originate from a trade-off between the costs and benefits of raising capital for new investments, evolves with these life-cycle-related changes. As the firm becomes more mature the ideal payout ratio increases. The empirical evidence generally supports the theory, in that dividend payment propensity is related to life-cycle characteristics – dividend payers are mature firms, with a high ratio of earned to contributed capital, while young, high growth firms do not pay dividends. (Thanatawee, 2011)

The Bird in the Hand Theory:

The theory of bird in the hand illustrates that shareholders favour dividends (certain) to retained earnings (less certain): then, corporations have to set a large dividend payout ratio to maximize firm stock price. Walter (1963) present the bird in the hand theory, which says that investors always prefer cash in hand rather than a future promise of capital gain due to minimizing risk in the early 1970s and 1980s.

Tax Preference Theory

This theory indicates that dividends are subject to a higher tax cut than capital gains. This theory further argues that dividends are subjected to tax directly, while capital gains tax will be realized when a stock is sold only. Therefore, for tax-related purposes, shareholders favour the retention of a firm's gain over the distribution of cash dividends. The advantage of capital gains treatment, however, may lead investors to prefer a low dividend payout, as opposed to a high payout. (Gardon, 1963)

The Agency Theory:

This theory is based on the conflict between managers and shareholder and the percentage of equity controlled by insider ownership should influence the dividend policy. Miller and Scholes (1978) find that the effect of tax preferences on clientele and conclude different tax rates on dividends and capital gain lead to different clientele. (Boshkoska, 2015)

Signaling Theory

Signaling theory was analyzed in the early 1980s; it revealed that information asymmetry between managers and outside shareholders allows managers to use dividends as a tool to signal private information about a firm's performance to outsiders. The explanation regarding the signaling theory given Williams (1985) dividends allay information asymmetric between managers and shareholders by delivering inside information of firm future prospects. Easterbrook (1984) gives further explanation regarding agency cost problem and says that there are two forms of agency costs; one is the cost monitoring and other is cost of risk aversion on the part of directors or managers.

Transaction Cost and Residual Theory

Another explanation for dividend policy is based on the transaction cost and residual theory. This theory indicates that firms incurring large transaction costs will be required to reduce dividend payouts to avoid the costs of external financing. (Easterbrook, 1984)

2.1.2 Stock Liquidity

Stock liquidity definition comprises many important forms. Some scholars assert on the pace of transactions, arguing that liquidity is the ability to make a transaction quickly and with no negative major influence on the price (minor change in the price accepted). Other scholars describe the liquidity as low transaction costs or as high activity of transactions. Other researchers propose that the stock liquidity may be considered as the frequency of stock trading in a market. Popularization of these considerations propositions that the stock liquidity is the ability to buy or sell a stock quickly and in a high-volume with no significant influence on price and without incurring high transaction costs. (Norvaisiene and Stankeviciene, 2014).

However, it is difficult to find an easy definition for Liquidity and the existence of common definition of liquidity is unrepresented. Generally, modest definition in one sentence mentioned that liquidity in a financial market is the ability to absorb smoothly the flow of buying and selling orders are not able to capture the phenomenon liquidity, since liquidity consists more than one-dimensional variable but consists many dimensions and there are four general aspects or dimensions generally distinguished: (Wyss, 2004)

1. Trading Time: The ability to perform immediate transaction at the common price. Time of waiting between next trades or the inverse, the number of trades per time unit are measures for trading time.

2. Tightness: The ability to buy and to sell an asset at about the same price at the same time. Tightness shows in the clearest way the cost associated with transacting or the cost of immediacy. Measures for tightness are the different versions of the spread.

3. Depth: The ability to buy or to sell a certain amount of an asset without influence on the quoted price.

A sign of illiquidity is an adverse market impact for the investor when trading. Market depth can be measured, aside from the depth itself, by the order ratio, the trading volume or the flow ratio.

4. Resiliency: The ability to buy or to sell a certain amount of an asset with little influence on the quoted price.

In order to measure the liquidity (Wyss, 2004) found that liquidity itself is not observable and it should be proxied by various measures of liquidity. He states that the results of using various measures of liquidity could be conflicted when estimating the liquidity of market, the measure of liquidity classified into two forms, first is the one-dimensional which takes one variable only into account, whereas the multi-dimensional liquidity measures try to hold various variables in one measure.

. In order to measure stock liquidity and its impact on dividend policy, company internal factors must be considered since this factors affects the liquidity, Norvaisiene and Stankeviciene (2014) examined company internal factors that's may affects the liquidity, their findings that there is positive relationship between company size and its stock liquidity as well other scientists confirmed, furthermore they found that assets liquidity is an important factor that affecting the stock liquidity, the results findings that there is significant positive relationship exists among the liquidity of assets and the liquidity of a stock and this positive impact will be greater in case of low growth potential.

(Alnaif, 2014) investigated the company internal factors that affected the stock liquidity and he found that the major factors must be considered while determine the stock liquidity as the following:

Firm's Size : a positive relationship between firm's size and stock liquidity are expected, the company stock liquidity will increase as the firm's size increase, since large companies are attract the investors and followed by analysts, furthermore, the size of large firms allows it to disclose a lot of information thereby liquidity will improved and information asymmetry will be reduced.

Firm's Profitability: Generally, investors prefer the profitable firm stock with high return on assets, so there is positive relationship between firm's profitability and stock liquidity.

Earnings per Share: illiquid stock require higher return to the investors, then a negative relationship between earnings per share and stock liquidity are expected.

To select a liquidity measure it should be informed that no single measurement can capture all liquidity aspects or dimensions, liquidity measures can classified into three categories with different measurements (Abdourahmane and Tonny 2002):

1. **Transaction cost measures:**

The distinction can be made between implicit transaction costs, which relate to expenses such as order processing costs and taxes associated with trades, and implicit transaction (execution) costs. Because bid-ask spreads may capture nearly all of these costs, they are the most commonly used measure of transaction costs, in dealer markets, the bid-ask spreads may reflect:

- i. Order processing costs.
- ii. Asymmetric information costs.
- iii. Inventory carrying costs.
- iv. Oligopolistic market structure costs.

Immediacy, for instance, is fostered by the existence of dealers who stand ready to buy and sell specific quantity of a financial instrument at the quoted bid and ask prices. This service entails inventory-carrying costs depending on the dealers squaring their positions toward the end of day which they must recover in addition to their order processing costs. But dealers also incur a risk by standing ready to trade based on asymmetric information. They must charge a premium to compensate for potential losses in providing a continuous market. Such cost are smaller, if there are numerous participants willing to trade with dealers, and thus revealing their asymmetric information. In addition, since immediacy is bought at a price, the latter is influenced by competition. Thus, a few dealers with oligopolistic power may have higher discretionary fees for immediacy. (Abdourahmane and Tonny, 2002)

The cost of trading financial assets and trading frictions can be captured by this measure in the markets, the best example of the transaction cost measures is the bid-ask spread which calculated as follow: (Heflin et al, 2001)

For each value of the sample and for each day, the difference between the best purchase price and the best sale price divided by the average of the two prices. Indeed, it is calculated over a year. And it is equal to the average of the spread computed for this period. **The higher bid-ask ratio come with lower liquidity.** (Attig, et al, 2006), (Damodaran, 2005).

2. Volume based measures:

Volume based measures are most useful in measuring breadth (the existence of both numerous and large orders in volume with minimal transaction price impact). Markets that are deep tend to foster breadth since large orders can be divided into several smaller orders to minimize the impact on transaction prices. Large numbers of trades are valuable source of information for transactors and particularly dealers. They obtain information from order flows, and imbalances in this order flow give them information about the accuracy of their quoted prices. Changes in these quoted prices trigger balancing order flows, which would counter price movements that are not warranted by fundamentals (resiliency). This process allow dealers to have a continuous information source as to whether price changes are permanent or transitory. When markets lack breadth and depth, the absence of the continuous information source provided by numerous and frequent trades may result in price discontinuities and uncertainty about equilibrium prices. Selling and buying sides of the market exist, transactors, and particularly dealers, may be able to execute orders without having to take risky inventory positions. Trading can also be enhanced if market makers can easily identify potential buyers and sellers, such as institutional investors with large portfolios. Trading volume is traditionally used to measure the existence of numerous market participants and transaction. Trading volume can be given more meaning by relating it to outstanding volume of the asset being considered. (Abdourahmane and Tonny 2002)

In order to capture the breadth and depth, this measure comparing the volume of transaction to price variability and find the liquid markets, the best example of the volume base measures is the turnover, which calculated as follow:

The ratio of shares traded to shares outstanding for calendar year i , Turnover captures trading frequency, that is, a stock with a higher (lower) turnover rate indicates that investors tend to hold the stock over a shorter (longer) time horizon; hence the stock is more (less) liquid, **so there is a positive relationship between stock turnover and stock liquidity**. This is consistent with Amihud (2002)'s argument. Existing research has widely used share turnover as a proxy for liquidity; see for example. Datar et al (1998).

3. **Equilibrium price-based measures:**

This measurement try to capture orderly movements towards equilibrium price to mainly measure resiliency. The definition of the equilibrium price is a situation in which the supply of a stock is exactly equal to its demand. Since there is neither surplus nor shortage in the market, price tends to remain stable in this situation and there is no pressure to change the price. Measure of liquidity when no information is hitting a stock must be more relevant than measures of liquidity when new information leads to new equilibrium values, thus unrefined measures of liquidity maybe nothing more than some kind of weighted average reflecting the frequency with which new information hits one stock as compared with other. (Bernstein, 1987)

Ideally, there is thus a need for an underlying structural model to identify the equilibrium price, but given the difficulty in determining whether new information is needed affecting the price of an instrument. (Hasbrouk and Schwartz, 1998)

The market efficiency coefficient exploits the facts that price movements are more continuous in liquid markets, even if new information is affecting the equilibrium prices;

the equation below measures the market efficiency coefficient: (Abdourahmane and Tonny 2002)

$$MEC = \text{Var}(R_t) / (T * \text{Var}(R_t))$$

Where:

T : number of short periods in each longer period.

Var (Rt) : variance of the logarithm of long-period return

(T*Var(Rt)) : variance of the logarithm of short-period return

The ratio would tend to be closer but slightly below one in more resilient markets, since a minimum of short-term volatility should be expected. Indeed, prices of assets with low market resiliency may exhibit greater volatility (more transitory changes) between periods in which their equilibrium price is changing. Factors that foster excessive short-period volatility (overshooting) result in MEC substantially below one. These factors include prices rounding, spreads, and inaccurate price discovery. (Bernstein, 1987)

For the best results, we use the transactions cost measure (bid-ask spread) in addition to volume-based measure (turnover) to capture the liquidity and examine its impact on dividend policy of the Jordanian banks listed in Amman stock exchange.

2.3 Discussing the Literature Review

In the early phases of corporate history, managers understand and realized the importance of high and constant dividend distributions. In some methods, this was due to the analogy investors made with the other form of financial security then traded, denominated government bonds. Bonds paid a regular and stable interest payment, and corporate managers realized that investors preferred shares that performed like bonds ‘paid a regular and stable dividend’. For example, Bank of North America in 1781 paid dividends after only six months of operations, and the bank decade entitled the board of directors to distribute dividends regularly out of profits. “Paying consistent dividends remained of substantial importance to managers during the first half of the 19th century”. In addition to the importance placed by investors on dividend stability, another issue of late corporate dividend policy to emerge early in the nineteenth century was that dividends viewed as an important type of information. The lack, inaccuracy and deficiency of financial information usually resulted in investors choose their valuation of corporations through their dividend payments rather than reported income. In short, investors were usually suffering with inaccurate data regarding the performance of a firm, and investors chose to use dividend policy as a way of predicting what management’s views about future performance might be occurred. Consequently, an increase in divided payments tended to be reflected in increasing of stock prices. As corporations became conscious of this outcome, it increased the possibility that managers of corporations might be use dividends to indicate strong earnings prospects and/or to support a company’s share price because investors may read dividend announcements as a proxy for income growth. (Al-Malkawi et al, 2010)

In sum, three main conflicted theories of dividends payments can be viewed. Some argue that arising dividend payments increases a firm's value. Another argue claims that high dividend payouts have the adverse effect on a firm's value; that is, it minimize firm value. The third theoretical approach emphasize that dividends should be irrelevant and all effort spent on the dividend decision is useless.(Frankfurter et al, 2003)

Magni (2007) investigate Miller and Modigliani's (1961) evidence of dividend irrelevance is based on the assumption that the amount of free cash flow generated by the fixed investment policy is equal or less than the dividends distributed to investors and dividend policy is not irrelevant if retention is allowed, Magni (2007) viewed that even in case of retention the dividend irrelevance proposition holds. He found that the main assumption has not to do with retention but with the net present value of the additional funds (either retained or raised): if net present value is zero, dividend irrelevance applies. Until the present, the dichotomy retention or no-retention is valuable, because if agency problems are present, managers tend to retain funds and invest them in negative net present value plans, thus the zero net present value assumption must be set aside, as well that dividend irrelevance no more apply. The dichotomy retention/no-retention is still useful: if retention is chosen by managers, then net present value is determined by managers' actions; if extra-distribution is chosen by managers, net present value is determined by expectations of new shareholders. In other way, investor's wealth is fully controllable by managers only in case of retention. So, retention has not to do with irrelevance but has to do with the controllability of investor's wealth by managers. Managers have motivation in retaining earnings because they can fully control investor's wealth. Therefore, one may certainly

claim that retention bears a strong relation to dividend irrelevance issues if agency problems are assumed.

Kibet (2010) examined the effect of firm (liquidity, leverage, profitability, cash flow, corporate tax, sales growth, earning per share) on dividend policy of companies listed in Nairobi stock exchange for the period of 2007-2011, the findings from the firms considered presented that, there exist a positive influence of liquidity on dividend payout. As the level of liquidity increases, the dividends paid out level do also increase and vice versa. From the data collected, analyzed and conclusion made thereof showed that, firms maintain high liquidity thresholds in order to mitigate any likelihood of financial distress and they do this by embracing the best business practices through optimum working capital management. It also showed that firms maintain high liquidity levels in order to settle dividends as they fall due. The study also revealed that profitability plays a major role in dividend payout and consequently the companies which posted higher profits translated this to higher dividends paid out to investors. Profitability of a firm is an indicator of a firms' capacity to pay dividends and thus higher profits declared signals higher dividend payout. Earnings per share had an insignificant effect on dividend payout, meaning that even if the return per share is high, the same will not translate to higher dividends.

In India, (Singhania and Gupta, 2012), investigated the determinants of dividend in 50 index companies, they examined the impact of four variables whether it has significant influence on the dividend policy or not, these variables are firm's size (market capitalization), firm's growth and investment opportunity, the firm's debt structure and firm profitability and experience, the findings propose that debt structure and firm profitability and experience are found to be insignificant in the Indian companies and this results do

negate some theories of dividend determinants. Firm's size, firm's growth and investment opportunity found to be significant.

Some researchers examined the drivers of dividend payout policy using generalized method of moment's system technique as (Botoc and Pirtea, 2014), they examined the drivers of dividend payout policy by analyzing the pattern of 2,636 corporations from sixteen non-developing countries (emerging). According to the generalized method of moment's system technique, the major finding support residual cash flow theory as well as the substitution form, and stand in against to the life-cycle theory. The findings from sensitivity analysis was leading to conclude that if shareholders protection is high, then cash needed in explaining dividend payout is more significant; and if shareholders protection is poor, liquidity appears to be more significant. The prospectors on this topic are Miller and Modigliani (1961), the originator of the dividend irrelevance theory. According to this theory, dividend relevance theories have been advanced. Such theories include , life cycle, bird in the hand, free cash flow ,tax preference, catering, signaling, agency costs and clientele effects.

Botoc and Pirtea (2014) were attempt to provide more results for the residual cash flow theory using the relationship between cash position and dividend payout. Because dividends are paid from cash, and, in accounting terms, dividends represent current obligations (liabilities), they suggest a proxy that reflects the ability of a company to use current assets less stock (liquidity ratio) to pay off current liabilities, and a proxy that indicates how much cash is used in day-to-day activities which identified as working capital. Furthermore (Botoc and Pirtea, 2014) investigated whether the results of the previous findings have changed over time. Their findings support for the theory of residual

cash flow of dividend because liquidity and cash management impact dividend distributions. Particularly, when shareholders highly protected, cash needs is more necessary in explaining dividend distributions, and when shareholders protection is low, liquidity appears to be more important. In addition they found support for the substitution model of dividends payout. , ignored of the firm's risk, the higher dividend distributions are expected in countries with weak shareholders protection for the need of developing a good reputation. According to traditional measures, the business cycle seems to be insignificant in explaining the dividend distributions, in contrast with the life-cycle theory of dividends, the major differences are the insignificance of growth opportunities and the positive effect of debt ratio, the later being consistent with the trade-off theory of capital structure. Generally, corporations from emerging countries display dividend distributions models that are relatively similar to those of corporations from developed countries.

The impact of firm stock liquidity on dividend payout policy were examined by Griffin (2010), he suggest a negative and inverse relationship and referred to dividends indeed at times compensating for lower stock liquidity holders, Companies that used to distribute dividends are often traded at a premium against those that do not distribute dividends. Shareholders in the corporations can receive cash flow and the need to sell shares are not necessary; therefore, traditionally, corporations tend to pay relatively high dividends which hold by those on a fixed income. Executives compare the degree of current level of dividend with those in that past and current earnings and tend to make stable level of dividends over the time. Corporations alternatives of preferred option depends on many assumptions, First assumption is the future performance and projects that the firm has. Company with high future growth opportunities (holds many projects) used to held the

dividends to minimum or totally retained and vice versa. Furthermore, the expectations of the shareholders whether the company will pay dividends or not are highly important, since company history with high and continues dividend paying expected to suffer of sudden inverse of dividends payout policy related to the stock price. Thus, companies are required to give a visible indications regarding expected future dividends policy. Furthermore, Griffin (2010) found that if shares receiving dividends then the need for liquidity will be eliminated, because shareholder will not be forced to wait along for a buyers or sacrifice with lower price to attract buyers, so dividends will provide the investors with returns needed. In the opposite side, liquid shares holders can create their own quickly dividends by selling a portion of portfolio with low cost, perhaps with higher prices. But he still in doubt if this inverse relationship valid in emerging countries because the liquidity is lower than which founded in developed countries.

Al-Qaisi and Omet (2010) examined the stability issue of dividend policy and or its determinants for Jordanian companies listed in Amman Stock Exchange for the period of 1995-2005, their study try to answer the question ‘if the Jordanian companies follow stable dividend policy’ and they compare between companies sectors or groups, the results of their study indicated that listed Jordanian companies follow stable policies and the extent of this stability is much lower than companies which are listed on more advanced stock markets such as the USA. In addition, the results reflect the fact that the banking and services companies follow more stable dividend policies than the industrial and insurance companies.

Al-Haddad et al (2011) examined the dividend policy of listed banking corporations in the Amman Stock Exchange (ASE) during the period (2000-2006). Dividend payout ratios and the related dividend policy's stability are also examined; the results found that the banking sector follows unstable cash dividend policies.

Ahmad and Wardani (2014) focused on the effect of fundamental factor on dividend policy of 98 firms listed Indonesia Stock Exchange during the period of 2006 to 2009. The study used logit regression to find the relationship between independent variable and dependent variable. The study findings that profitability and firm size have positive significantly correlation with dividend policy. Liquidity and leverage have negative significantly correlation with dividend policy. Moreover, the results show that growth opportunities has no significant correlation with dividend policy.

Measuring the liquidity in emerging markets were analyzed by Lesmond (2005) using bid-ask spreads as closely mirror to propose liquidity estimates. These results show that Latin American markets are generally less liquid than are the South Asian, East Asian, European, and African/Middle-Eastern markets, regardless of size grouping. Combining the results for price, volume, and firm size categorizations, these results highlight the limits of using general country descriptors or firm characteristics of trade difficulty for liquidity assessments in emerging markets.

Amihud (2002) examined the proposition that asset expected returns are increasing in illiquidity, and how it is known that illiquidity explains differences in expected returns across stocks, a result that is confirmed here. His findings that, over time, market expected illiquidity affects the ex-ante stock excess return, and provides compensation for the lower

liquidity of stocks relative to that of Treasury securities. And, expected stock excess returns are not constant but rather vary over time as a function of changes in market illiquidity.

Sudhahar and Saroja (2010) investigated the trends and determinants of the dividend policy of banks in India which are actively traded under Bombay Stock Exchange for the period of ten years 1997-2007, the results found that Indian banks have adopted a consistent dividend policy during the study period. It is found that 50% of the banks have distributed more than 36% of their earnings as dividend. Furthermore, the dividend policy of Indian banks is also effect positively by return on investment (ROI), followed by last year dividend payout ratio and volume of sales.

In Egypt market, Omran and Pointon (2004) found a link between dividends and firm liquidity and profitability; the results find that reductions in dividends are associated with a lack of liquidity and profitability. Their findings support the arguments, for actively traded shares, retentions are more significant than dividends while for the non-actively traded shares, the accounting book value is the most important determinant of the share price, and not dividends or earnings. Dividend Payout Ratios. Small firms pay out less (retain more). The result suggests a role for reducing dividends and retaining more in order to finance investment opportunities. In order to finance investment opportunities, firms whose shares are not actively traded tend not to pay out a smaller proportion of earnings as dividends.

Banerjee et al, (2007) examines this liquidity hypothesis of dividends. They taking into consideration the control variables through their analysis, which includes firm profitability, size, and growth opportunities. They believe that the need to control for these variables arises for at least two reasons. First, their use as determinants of dividend policy is consistent with the role of dividends in controlling the agency costs of free cash flow

(Easterbrook, 1984) and with a pecking order pattern, where firms avert issuing securities due to asymmetric information costs and other flotation costs and consequences. The significance of these characteristics in the firm's decision to pay dividends is empirically examined in Fama and French (2000). Second, common stock liquidity of the firms can also be related to the profitability, size and growth opportunities of the firm. Thus, it is important to examine the impact of stock liquidity on dividend policy after taking in consideration of the controlling for the potential of such a relation. The main conclusions of their research was summarized that in the cross section, firms with high liquid stocks (i.e., stocks with high trading activity, a low proportion of no trading days, and a low price impact of order flow) are less likely to pay dividends (and vice versa). These results persist after the taking into consideration the firm control variables explained. Furthermore in liquid markets, investors will have a lower demand for cash dividends from the stocks they hold since investors can create homemade dividends cheaply. As a consequence, firms with less (more) liquid stocks will have higher (lower) incentives to distribute cash dividends to investors. They found also that cash dividends and stock market liquidity act as alternative from investor's point of view. Companies that declared dividend distributions reduce the values sensitivity to aggregate liquidity, maybe because they lower investor exposure to systematic liquidity risk. Thus, the effect of dividend policy on firm value is possible because of market insufficiency.

Contribution/ Originality, and different of other studies:

The inverse relationship validity of stock liquidity and dividend payout were examined and settled in many developed countries markets, for emerging countries the validity of this inverse relationship still in doubt because the liquidity is lower than which founded in

developed countries and the investors may cannot create their own dividends by stock trading (Griffin, 2010), thus, this study is prepared to test the validity of this inverse relationship and matching between developed and emerging markets, to the best of my knowledge few studies were investigated this relationship in emerging countries, this issue not examined in Jordanian emerging market for the quoted period from 2009-2014, the banks characteristics were taken in consideration to don't negate many researches.

2.4 Summary of Literature Review

Author	Year	Study Summary	Results
Botoc and Pirtea	2014	Investigate the drivers of dividend payout policy by analyzing the behavior of 2,636 companies from sixteen emerging countries.	The results found when investor protection is high, cash needs is more important in explaining dividend payout; when investor protection is poor, liquidity seems to be more important.
Ahmad and Wardani	2014	The impact of (firm size, profitability, liquidity, leverage, growth) on dividend policy.	Size and profitability are significant positive. Liquidity and leverage are significant negative. Growth has no significant.
Singhanian and Gupta	2012	Find the validity of firm (size, profitability, debt structure and growth opportunities) to determine the dividend policy in Indian companies listed in national stock exchange for the period during 2000-2009.	Firm size and growth are significant determinants of corporate dividend policy. Firm profitability and debt structure found to be not significant determinants of corporate dividend policy.
Al-Haddad et al	2011	Examine the stability of dividend policy for listed banking corporations in ASE during 2000-2006.	The Results found that the banking sector follows unstable cash dividend policies.

Kibet	2010	Find the effect of (liquidity, leverage, profitability, cash flow, corporate tax, sales growth, industry and earnings per share) on dividend payout for companies listed is Nairobi Stock Exchange during 2007-2011.	The results found that liquidity and cash flow have positive effect on dividend policy. Leverage, profitability, corporate tax, sales growth, and earning per share have negative effect on dividend policy.
Griffen	2010	Examines liquidity and dividend policy on the international level to determine what relationship the liquidity of firm's stock has on the decision of how much dividend to disburse to investors.	There is an inverse relationship between stock liquidity and the dividend amount paid.
Al-Qaisi and Omet	2010	Examine the stability of dividend policy for listed companies in ASE during 1995-2005.	The Results found that all sectors follows stable cash dividend policies especially the banking sector.
Sudhahar and Saroja	2010	Investigated the trends and determinants of the dividend policy of banks in India which are actively listed Bombay Stock Exchange for the period of ten years 1997-2007.	The results indicated that Indian banks have adopted a consistent dividend policy during the study period. The dividend policy is also effect positively by return on investment (ROI), followed by last year dividend payout ratio and volume of sales.

Magni	2007	The study test Miller and Modigliani's (1961) proof of dividend irrelevance, which based on the assumption that the amount of dividends distributed to shareholders is equal or greater than the free cash flow generated by the fixed investment policy and claim that, if retention is allowed, dividend policy is not irrelevant.	The key assumption has not to do with retention but with the NPV of the extra funds. If NPV is zero, dividend irrelevance applies. Yet, the dichotomy retention/no-retention is useful, because if agency problems are present, managers tend to retain funds and invest them in negative-NPV projects, and therefore the zero-NPV assumption must does not apply any more.
Banerjee et al,	2007	The impact of firm (liquidity, size, profitability, growth) on dividend policy.	Size and profitability are significant positive, Liquidity and Growth are significant negative
Lesmond	2005	Measuring the liquidity in emerging markets using bid-ask spreads	Results show that Latin American markets are generally less liquid than are the South Asian, East Asian, European, and African, Middle-Eastern markets.
Omran and Pointon	2004	Try to find a link between dividend and firm (liquidity, profitability, size, growth).	Dividend has positive link with firm profitability and size. Dividend has negative link with firm growth and stock liquidity.
Amihud	2002	Examined the proposition that asset expected returns are increasing in illiquidity.	His findings that, over time, market expected illiquidity affects the ex-ante stock excess return, and provides compensation for the lower liquidity of stocks.

2.5 Research Hypotheses:

Reference to the literature review the following formulated hypotheses will be tested on order to achieve the study objectives:

H01: There is no significant relationship between bank's stock liquidity and bank's dividend policy.

H02: There is no significant relationship between bank's size and bank's dividend policy.

H03: There is no significant relationship between bank's profitability and bank's dividend policy.

H04: There is no significant relationship between bank's growth opportunities and bank's dividend policy.

Chapter 3: Methodology

3.1 Population

3.2 Sample

3.3 Data Sources

3.4 Variables and Measurements

3.5 Statistical Techniques Used

3.6 Schematic Diagram of the Study

3.1 Population

Study population includes all Jordanian banks listed in Amman Stock Exchange (ASE), which consist of 15 banks according to the official website, the reasons behind choosing the banks sector were as follows:

1. The necessary data of the banks are available to achieve the objective of the study during 2009-2014. Furthermore, the financial reports are available for those banks for the study period.
2. In order to achieve study objectives and do not negate some theories, we adopted the population as in many studies which investigated in dividend payout policy such as the study of Sudhahar (2010), Linda et al (2012), Kanas (2012), Magen (1971) and Mayne(1980).
3. Jordan's banking sector is one of the main pillars of economic support.
4. Jordan's banking sector subjected to the following:
 - Corporate Governance according to the instructions of the Central Bank of Jordan, which focuses on the principles of Corporate Governance issued by the Organization for Economic Cooperation and Development (OECD).
 - International financial reporting standards disclosure (IFRS).
 - Committees resulted from B.O.D as Audit committee, Internal Control Committee that result in more transparent and regular disclosures.
 - Securities exchange commission regulations.
 - The Basel Committee on Banking Supervision regulation, Basel I, II and Basell III.

- Advanced technological systems: banks depends on high-security advanced technological systems which reduce human error, intentional or unintentional and offers the possibility of early and rapid detection of any deviation or malfunction.

3.2 Sample

This study consists of all fifteen Jordanian banks listed in Amman stock exchange (ASE) , the most recent six years from (2009-2014) were quoted, the final number of banks included in the study analysis was 15 banks with 90 observations, outliers observations were winsorized at their annual 0.5th and 99.5th percentile in order to ensure that our results are not driven by extreme values.

3.3 Study Tools

3.3.1 Data Sources

Main data was obtained and collected from Amman stock exchange website, Secondary data was extracted from the audited annual reports and financial statements disclosed in the quoted banks websites for the years needed. Data requirements on additional variables used in some of the tests dictate the actual sample sizes of these tests.

3.3.2 Framework of Data Collection

The study focused on the test of relationship between bank's stock liquidity and dividend policy for Jordanian banks listed on Amman stock exchange, the researcher was able to obtain the above information from the company guide uploaded at ASE website, which consist all the financial ratios needed for this empirical study.

3.4 Variables and Measurements

3.4.1 The dependent variable: Dividend Policy

In order to answer the questions of the study problem, two measurements of dividend policy are used with two models and different regression analyses for each model as the following:

- A. According to Kibet (2012) the dividend policy was measured based on the cash ratio distributed to investors and linear regression analysis used to explain the ratio, the dividend ratio measured based on the following formula:

$$\mathbf{DPO_{it} = DPS_{it} / EPS_{it}}$$

Where

DPO_{it}: Dividend Payout Ratio for Bank *i* in year *t*.

DPS_{it}: Dividend per Share for Bank *i* in year *t*.

EPS_{it}: Earnings per Share for Bank *i* in year *t*.

- B. According to Banerjee et al (2007), the dividend policy was measured based on whether the firm is a dividend payer or non-payer, firm is defined as a dividend payer. And the logistic regression used to predict dividend payers.

$$DP = \text{binary } (0, 1)$$

Where

DP_{it}: Dividend Payer in year t .

0 : Bank i who do not distribute cash dividend to investors in year t .

1 : Bank i who distribute cash dividend to investors in year t .

3.4.2 The independent variable: Stock Liquidity

Liquidity itself is not observable, so it is subjected to many measurements, the study use two common measurements in order to capture most aspects:

- **The Relative Spread:**

For each value of the sample and for each day, we calculate the spread, as the difference between the best purchase price and the best sale price divided by the average of the two prices. Indeed, it is calculated over a year. And it is equal to the average of the spread computed for this period. This variable was measured in the same way by Heflin (2001) and Attig et al (2006).

$$SPRD_{j,t} = (\text{price ASK}_{j,t} - \text{price BID}_{j,t}) / Mt$$

Where:

Price ASK_{j,t} : is the price ask of stock j on day t ;

Price BID_{j,t} : is the price bid of stock j on day t ;

Mt: $(\text{price ASK}_{j,t} + \text{price BID}_{j,t}) / 2$

- **Turnover** = the ratio of shares traded to shares outstanding for calendar year i , Turnover captures trading frequency, that is, a stock with a higher (lower) turnover rate indicates that investors tend to hold the stock over a shorter (longer) time horizon, hence the stock is more (less) liquid. This is consistent with Amihud (2002)'s argument.

Existing research has widely used share turnover as a proxy for liquidity; see for example Datar et al (1998).

3.4.3 Control Variables:

- **Firm Profitability:** Another control variable is profitability, measured as return on assets (ROA). A company with higher profitability can afford to pay out dividends, and thus a positive association is expected. (Botoc and Pirtea, 2014), which calculated as follow:

Income before extra-ordinary items +Interest Expenses divided by total assets.

- **Firm Size:** We predict a positive relation between size and dividend payout because larger companies have better market access and thus should be able to pay higher dividends. To measure size (S), we use natural logarithm of sales.

$$FS_{it} = \text{Ln of Current Year Sales}_{it}$$

- **Firm Growth and Opportunities:** To measure growth opportunities, we use the one-year growth rate in total assets. Since future investments are profitable, the reinvestment policy is likely to be used instead of paying dividends. Therefore, we expect a negative relation between growth opportunities and dividend payout. (Botoc and Pirtea, 2014). which calculated as follow:

$$GO_{it} = (\text{Total Assets}_{it} - \text{Total Assets}_{it-1}) / \text{Total Assets}_{it}$$

3.5 Statistical Techniques Used

Two regression methods used in analysis in order to explain each model of the study:

- OLS Regression to explain Model (1).
- Logistic Regression to explain Model (2).

Model Specification

To examine the relationship between bank stock liquidity and dividend policy for Jordanian banks listed in (ASE) as shown in the literature review done in Chapter 2. In order to identify the relationship and to show the extent of the strength, the following regression models will be used.

Model (1)

$$DPO_{it} = \alpha + \beta_1 P_{it} + \beta_2 FS_{it} + \beta_3 GO_{it} + \beta_4 SPRD_{it} + \beta_5 TO_{it} + e_{it}$$

Model (2)

$$DP_{it} = \alpha + \beta_1 P_{it} + \beta_2 FS_{it} + \beta_3 GO_{it} + \beta_4 SPRD_{it} + \beta_5 TO_{it} + e_{it}$$

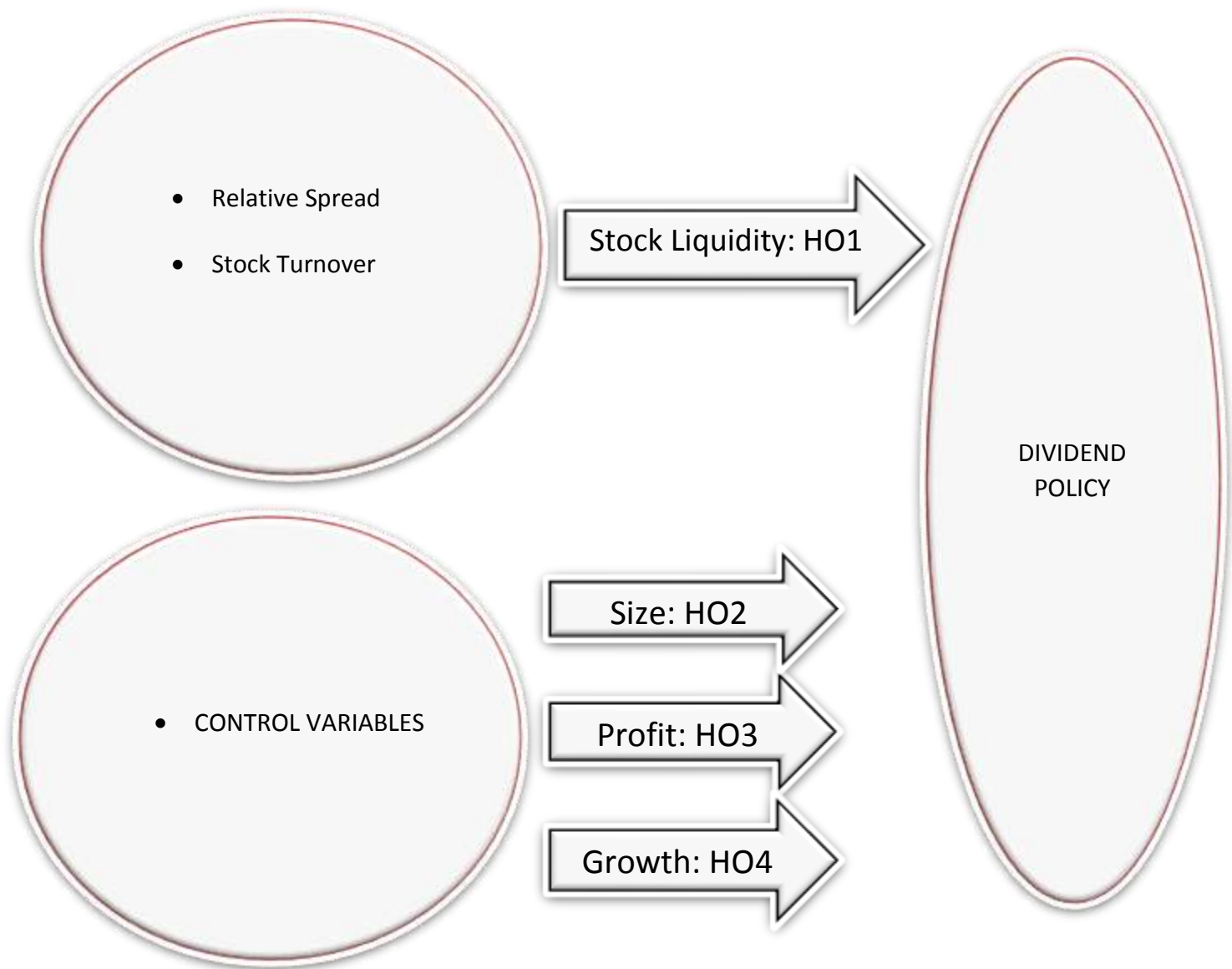
Where:-

DPO	Dividend Pay-Out Ratio for bank i in year t
DP	Dividend Payer for bank i in year t
P	Profitability of bank i in year t
FS	Size of bank i in year t
GO	Growth opportunities for bank i in year t
SPRD	Relative Spread for bank i in year t
TO	Stock turnover for bank i in year t
A	the Intercept of the Regression Equation
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$	Regression Co-efficient of Independent Variables
E	Error Term

3.6 Schematic Diagram of the Study

Independent Variables

Dependent Variable



**Diagram was prepared by the researcher

Chapter 4: Analysis and Results

4.1 Introduction

4.2 Descriptive Statistics

4.3 Multicollinearity test

4.4 Correlation Results

4.5 Hypotheses Testing and Results Discussion

4.1 Introduction

Three steps are performed for the results of the empirical analysis, first step is the descriptive statistics of the study variables, and correlation results is the second step, the third step is the regression analysis to test the hypotheses of the study as the following sections.

4.2 Descriptive Statistics

The descriptive statistics was performed via number of parameters such as mean, minimum, maximum, standard deviation, Table (1) describes the descriptive statistics for the study variables related to 90 observation of the 15 banks listed in Amman stock exchange for the recent six years 2009-2014 where the average of growth opportunities (the one year change in total assets) is (0.088) which indicates that banks within the sample face trend to increase in total assets investments comparing with previous year. Moreover, profitability (return on assets) is on average (0.012) which indicates that banks within the sample face on average a good period with positive percentage of income to total assets. Whereas, the average natural logarithm of bank size is (18.71).

As depicted in table (1) the average relative spread is (0.0163) and the average turnover is (0.106), these results imply that stock liquidity in ASE is lower than that of other emerging markets such as China, Taiwan and Korea, included in Lesmond (2005)¹.

¹Lesmond (2005) examines liquidity in emerging markets and finds that the values of the bid-ask spread and turnover ratio for Korea are (0.012) and (0.664), for China (0.0075) and (0.508), and for Taiwan (0.007) and (0.726), respectively

For the dependent variable (Dividend Payout Ratio), the average is (0.39) which indicates that dividend-payers with good period of positive income try to satisfy shareholders needs and continue paying dividend increasingly comparing with the period at Al-Qaisi and Omet (2010) since they found that the mean of dividend payout ratio for Jordanian banks sectors was (0.237) during 1995-2005.

Table 1. Descriptive statistics for the study variables, 90 firm-year observations				
Variable	Minimum	Mean	Maximum	Std. Deviation
SPRD	.0030	.016392	.0646	.0125480
TO	.0010	.106042	.6120	.1356476
GO	-.1623	.088039	.4830	.0897012
Profit	-.0148	.012222	0.0251	.0057316
DPO	.0000	.396424	.8571	.2955214
FS	15.5298	18.281792	20.9791	1.0582262
<p>Note:</p> <p>The table provides a descriptive statistics for the study variables</p> <p>DPO is the dividend payout ratio: Dividend per share / Earnings per share.</p> <p>FS is the firm size calculated by natural logarithm of current year sales.</p> <p>GO is the growth opportunities measured by one year change in total assets.</p> <p>TO is the ratio of shares traded to shares outstanding.</p> <p>SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices.</p> <p>Profitability is the return on assets.</p>				

Table (2) depicts the frequency distribution for the dividend payers and non-payers of 15 bank listed on ASE during the study period.

Table 2. Frequency distribution for dummy variable		
Variable	Frequency	Percent
Dividend-Payers	63	70
Non-Payers	27	30
Total	90	100

The table depicts that 70% of the observations showed that firm's strategy is to divide the profit between payments to shareholders and retained earnings (i.e. Dividend payers) while 30% of the observations showed that the firm's strategy was to retain the profit instead of distribute it as a dividend (i.e. non-payers) which indicate the dominant Jordanian bank over the study period are dividend-payer and thus try to satisfy their shareholders' need.

4.3 Multicollinearity Test

Before interpreting the results of this study two methods were used to test whether there is multicollinearity between the explanatory variables; the correlation matrix and variance inflation factor (VIF).

4.3.1 Correlation between independent variables

Table (3) provides a correlation matrix between explanatory variables where according to Filed (2005) multicollinearity problem exists when the independent variables are highly correlated particularly when correlation coefficient is more than (0.80 or 0.90), however table (3) indicates that correlation among explanatory variables are less than 0.8 or .90. whereas, this does not mean that multicollinearity problem does not exist since Myers (as cited in Tauringana and Arfifa, 2013) stated that multicollinearity problem may exist in spite that the correlation coefficients are not very high thus further test should be run to ensure that multicollinearity problem does not exist and this can be done through variance inflation factors (VIFs) test.

Table 3. correlation between explanatory variables					
Variable	Spread	TO	GO	FS	Profit
SPRD	1				
TO	-.217*	1			
GO	.205	.110	1		
FS	-.277**	-.214*	-.505**	1	
Profit	-.038	-.159	-.398**	.304**	1

FS is the firm size calculated by natural logarithm of current year sales.

GO is the growth opportunities measured by one year change in total assets.

TO is the ratio of shares traded to shares outstanding.

SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices.

Profitability is the return on assets

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

4.3.2 Variance Inflation Factor Test

As a further test of multicollinearity problem, VIF test was run where table (4) provides the results of variance inflation factor test. Table (4) presents the tolerance and variance inflation factor (VIF), according to the Ghazali (2010) the multicollinearity problem exist when VIF is more than 10 and tolerance level is greater than 1, however the table showed the level of VIF is less than 10 and tolerance is less than 1 which indicates that there is no serious multicollinearity problem and no serious increase the variance of regression coefficients and interpreting the results, this conclusion support the use of logistic regression analysis and help in obtaining accurate results about the relationship between the variables.

Table 4: Variance Inflation Factor For OLS Regression		
Variables	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
SPRD	.835	1.197
TO	.864	1.157
GO	.672	1.488
Profit	.816	1.225
FS	.660	1.514

Notes:

The table provides the variance inflation factor test

SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices.

FS is the firm size calculated by natural logarithm of current year sales.

GO is the growth opportunities measured by one year change in total assets.

TO is the ratio of shares traded to shares outstanding.

Profitability is the return on assets.

4.4 Correlation Results

Table (5) presents the bivariate correlation that used in order to test the relationship between study variables; table (5) provides the correlation coefficients between study variables.

It can be noticed from the table, that relative spread has a significant positive correlation coefficient with dividend payout ratio which lead to predict more dividend connected to higher relative spread (**higher relative spread means less stocks liquidity**), stock turnover has negative significant correlation coefficient with the dividend payout which mean the increase in stock turnover (**higher turnover means more stock liquidity**) linked with less dividend payout ratio (payers).

Table 5. Correlation coefficients between explanatory variables	
SPRD	.245 [*]
TO	-.390 ^{**}
GO	-.281 ^{**}
Profit	.410 ^{**}
FS	.451 ^{**}
Notes: The table provides the correlation coefficient between dependent and independent variables Dependent variable is the dividend payout ratio: Dividend per share / Earnings per share. FS is the firm size calculated by natural logarithm of current year sales. GO is the growth opportunities measured by one year change in total assets. TO is the ratio of shares traded to shares outstanding. SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices. Profitability is the return on assets ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).	

As can be noticed, bank growth opportunities has negative a significant correlation coefficient with the dividend payout which indicates that individually the increase in bank growth opportunities do decrease the dividend, bank size has positive significant correlation coefficient with the dividend payout which mean the smaller bank size the less dividend payer when consider them individually which don't negate several theories, bank profitability has positive correlation coefficient with the dividend payout which mean that individually the more profitable bank the highest dividend payer which also don't negate several theories.

4.5 Hypotheses Testing and Results Discussion

4.5.1 OLS Regression Results

In order to achieve study objective to examine the influence of stock liquidity and dividend payout ratio (the amount paid to investors) the OLS regression was run, where table (6) reports the results of model (1)

The results as summarized in the table suggest that the 42.2% variation in the dependent variable can be explained by the explanatory variables. Moreover, this model is significant with F-statistic value of (13.935) and $p=0.000$, suggesting that the model is statistically valid. Accordingly, the first null hypothesis **HO1** is rejected and the alternative one is accepted which states "There is relationship between bank's stock liquidity and dividend policy". This result support the results of Griffin (2010); Li et al (2014); Banerjee et al (2007).

Table 6. OLS regression results			
Variable	Coefficients	T-value	Sig.
(Constant)	-1.982	-3.727	.000
Spread	7.853	3.778	.000**
Turnover	-0.403	-2.131	.036*
Growth	-0.047	-.145	.885
Profitability	13.459	2.923	.004**
Size	0.117	4.207	.000**
R Square = 45.3% Adj-R² = 42.2%		F= 13.935 Sig. = 0.000	

Notes:

The table provides OLS regression results for model (1) of the study. The model is:

$$DPO_{it} = \alpha + \beta_1 P_{it} + \beta_2 FS_{it} + \beta_3 GO_{it} + \beta_4 SPRD_{it} + \beta_5 TO_{it} + e_{1it}$$

DPO is the dividend payout ratio: Dividend per share / Earnings per share. FS is the firm size calculated by natural logarithm of current year sales. GO is the growth opportunities measured by one year change in total assets.

TO is the ratio of shares traded to shares outstanding. SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices. Profitability is the return on assets.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

The results revealed that dividend policy is positively affected by relative spread, an indication that the higher the relative spread and thus the lower the stock liquidity the higher the dividend payout ratio, this results is significant at 0.01 level of significance.

Accordingly, it can be concluded that there is a positive relationship between relative spread and dividend policy.

As can be noticed in table (6), the dividend policy is affected negatively by stock turnover, an indication that the lower the stock turnover (i.e. the lower the stock liquidity) the higher the dividend pay-out ratio where this result is significant at 0.05 level of significance. Accordingly, it can be concluded that there is a negative relationship between stock turnover and dividend policy.

The results showed that dividend policy is positively affected by bank's size at 0.01 level of significance, which mean that the larger bank size the more likely the bank is to pay more amount of dividend and vice versa, Accordingly, the second null hypothesis **HO2** is rejected and the alternative one is accepted which state "there is a significant relationship between bank size and dividend policy". This result supports the results of Kuzul and Orsag (2011); Fama & French (2000); Banerjee et al (2007).

The results also showed that dividend policy is positively affected by bank's profitability at 0.01 level of significance, which mean that bank with more return on assets are more likely to pay more amount of dividend and vice versa. Accordingly, the third null hypothesis **HO3** is rejected and the alternative one is accepted which states that "there is a significant relationship between bank's profitability and dividend policy", this result supports the arguments of Sudhahar and Saroja (2010); Omran and Pointon (2010); Kuzul and Orsag (2011); Fama and French (2000) and inconsistent with the arguments of Singhania and Gupta (2012) where their results found dividend payout ratio to be insignificant with profitability.

The results also pointed out that bank's growth is insignificant related to dividend policy, Accordingly, the fourth null hypothesis **HO4** is accepted which states that "there is no significant relationship between bank's growth opportunities and dividend policy", this result is consistent with Ahmad and Wardani (2014) and inconsistent with Kibet (2010), Singhanian and Gupta (2012), Banerjee et al (2007).

4.5.2 Logistic Regression Results

Table (7) depicts the results of model (2) which aims to examine the relationship between the likelihood of paying dividend and banks' stock liquidity.

Table 7. Logistic regression results		
Variable	B	Sig.
(Constant)	-193.855	.006
Spread	211.200	.044*
Turnover	-12.204	.031*
Growth	-5.948	.553
Profitability	867.503	.031*
Size	10.206	.006**
Cox & Snell R Square = 0.636 Chi-Square = 91.053 Sig. = 0.000		

Notes:

The table provides Logistic linear regression results for model (2) of the study. The model is:

$$DP_{it} = \alpha + \beta_1 P_{it} + \beta_2 FS_{it} + \beta_3 GO_{it} + \beta_4 SPRD_{it} + \beta_5 TO_{it} + e_{2it}$$

DP is dividend payer: Assign one if company pay dividend and zero otherwise. FS is the firm size calculated by natural logarithm of current year sales. GO is the growth opportunities measured by one year change in total assets.

TO is the ratio of shares traded to shares outstanding. SPRD is the average of daily difference between the best purchase price and the best sale price divided by the average of the two prices. Profitability is the return on assets.

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

As revealed in table (7), relative spread is positively influence the likelihood of dividend at 0.05 level of significance, an indication that banks with high relative spread and thus lower stock liquidity are more likely motivated to pay dividend. The results also showed that stock turnover is negatively influence the possibility of dividend at 0.05 level of significance, an indication that banks with high stock turnover and thus high stock liquidity are less likely motivated to pay dividend. Consequently, it can be argued that there is a negative relationship between bank's stock liquidity and dividend policy. These outcomes are consistent with Banerjee et al (2007), Ahmad and Wardani (2014).

The results indicated that bank's growth opportunities are insignificant related to the possibility of paying dividend which is consistent with the OLS regression results and support the results of Ahmad and Wardani (2014) and inconsistent with Kibet (2010), Singhania and Gupta (2012), Banerjee et al (2007).

As can be noticed from the table, the probability of dividend payments is positively affected by bank's size at 0.05 level of significance, an indication that large banks are more likely pay dividend to their shareholder relative to small one. This result is consistent with Kuzul and Orsag (2011); Fama & French (2000); Banerjee et al (2007).

The table also indicates that the likelihood of paying dividend is positively affected by bank's profitability at 0.01 level of significance, an indication that profitable companies are more likely motivated to pay dividend and satisfy their shareholder. This result is consistent with Sudhahar and Saroja (2010); Omran and Pointon (2010); Kuzul and Orsag (2011); Fama and French (2000) and contradict with the arguments of Singhania and Gupta (2012), where their results found dividend payout ratio to be insignificant with profitability.

It can be concluded that logistic linear regression provides the similar results of OLS regression with a difference in the level of significance and the coefficient of determination which leads to conclude that stock liquidity, measured using relative spread and stock turnover, affect the banks' dividend policy, measured through dummy variable (i.e. whether the company pay dividend or not) and dividend payout ratio (i.e. DPS/EPS).

Table (8) The Study Results summary of Hypotheses Testing

Hypothesis	Hypothesis No.	Type of Test	Result of Test
There is no significant relationship between bank's stock liquidity and dividend policy.	HO1	Logistic Regression	Reject Null Hypothesis
		OLS Regression	Reject Null Hypothesis
There is no significant relationship between bank's size and dividend policy.	HO2	Logistic Regression	Reject Null Hypothesis
		OLS Regression	Reject Null Hypothesis
There is no significant relationship between bank's Profitability and dividend policy.	HO3	Logistic Regression	Reject Null Hypothesis
		OLS Regression	Reject Null Hypothesis
There is no significant relationship between bank's growth opportunities and dividend policy.	HO4	Logistic Regression	Accept Null Hypothesis
		OLS Regression	Accept Null Hypothesis

Chapter 5: Conclusions and Recommendations

5.1 Introduction

5.2 Conclusions

5.3 Recommendations

5.1 Introduction

This chapter contains of conclusions of the study “The Relationship between Firm’s Stock Liquidity and Dividends Policy: Empirical Study on Jordanian Banks Listed on Amman Stock Exchange”. Furthermore, this chapter includes the most important recommendations of the study in the light of the results of the study.

5.2 Conclusions

Based on what has been discussed during the study data analysis and testing of the hypotheses, the researcher come out with the following conclusions:

The inverse relationship validity of stock liquidity and dividend policy were examined and settled in many developed countries’ markets. For emerging countries the validity of this inverse relationship still in doubt because the liquidity is lower than which was found in developed countries (Griffin, 2010), and the investors who invest in the stock of certain bank may be unable to create their own dividends by stock speculating. Thus, this study is prepared to test the validity of this inverse relationship and matching between developed and emerging markets. To the best of my knowledge, few studies were investigating this relationship in emerging countries; the bank’s characteristics were taken into consideration to avoid negating many research studies.

The results of testing hypothesis HO1 using logistic regression indicates that the amount of dividend paid is affected negatively by stock liquidity, which means that bank’s with more stock liquidity have the less ability to pay dividend and vice versa. The payout policy of bank is related to the liquidity of its common stock. In illiquid markets, investors will have a higher demand for cash dividends from the stocks they hold. In highly liquid markets,

however, investors can cheaply create homemade dividends. As a result, banks with more (less) liquid stocks will have lower (higher) incentives to distribute cash dividends to shareholders.

Furthermore, the results of testing hypothesis HO1 using OLS regression indicates that dividend payout ratio is affected negatively by stock liquidity, hence dividend payout ratio is affected positively by relative spread (higher spread results in illiquid stocks), and dividend payout ratio is affected negatively by stock turnover (higher turnover resulted in higher liquidity) which means that investor with more (less) stock liquidity are less (more) likely to receive more dividend.

And the results of testing hypothesis HO2, HO3, HO4 using OLS regression indicates that dividend payout ratio affected positively by bank's profitability, which means that bank's with more return on assets ratio are more likely to pay more amount of dividend and vice versa, while dividend payout ratio is not affected by bank's growth opportunities which do negate some theories. Furthermore, dividend payout ratio is affected positively by the bank's size which means that larger banks are most likely to pay more amount of dividend and vice versa.

Finally, the findings provide support to the assumption that dividends indeed at times compensating holders for lower stock liquidity to satisfy their demand for liquidity, while investors with highly liquid stocks can create homemade dividends, Furthermore, we find that banks with less (more) liquid stocks are more (less) likely to initiate or continue or pay larger dividend ratio. Finally, we recommend the stock market liquidity as a substitute to predict dividend payers and dividend ratio. Table (9) represents the definitions of the independent variables and their expected sign on dividend policy as a result of the study.

Table 9. Definitions of the Independent Variables and their Expected sign on Dividend Policy

Name	Definitions	Predicted Sign
Relative Spread	(price ASK – price BID)/Mt (2)	Positive
Stock Turnover	The ratio of shares traded to shares outstanding	Negative
Size	Natural logarithm of sales	Positive
Profitability	Return on assets.	Positive
Growth opportunities	One-year growth rate in total assets dA/A	No Sign

5.3 Recommendations

The results of the study realized on the conclusion of the famous saying of Fisher Black regarding dividend policy "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together". By looking at the results of the study data analysis and testing of hypotheses, the researcher recommend the following:

- To the investors, the study recommends to use the study findings as a cornerstone for them to establish optimum portfolios to be held at any given time, given the liquidity levels and the expected dividends. It will empower them to know the kind of information to be disclosed by firms on the financial statement pertaining to liquidity and dividend payout ratio for rational decisions on bank to invest in.
- For academicians, the study recommends to add the findings of the study contributions to the existing hypothesis on investor's behavior towards liquidity of a firm and it will be used to establish research gaps and provide reference for further research under the field of dividend policy and liquidity.
- For banks, the study recommends to use the findings which will enable managers to institute policies that can create optimal liquidity levels and implement healthier dividend policies.

- For future studies, it is recommended to extend with banks characteristics such as debt structure, investor's protection level, assets liquidity; and deal with the firm characteristics as dependent rather than simply as "control variables". Furthermore, expansion with more sectors such as industrial companies with more observations could be more useful in enabling the researchers to generalize the results and enhancing the quality of results itself, also the study recommend to use different measurements for the study variables especially the liquidity various measurements in order to add more justifications for the results.

Finally, the researcher recommends future studies concerning testing the validity of cash flow theory and life-cycle theory as one of the dividend drivers of Jordanian companies.

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العلاقة بين سيولة أسهم الشركات وسياسة توزيعات الأرباح

(دراسة تطبيقية على البنوك الأردنية المدرجة في سوق عمان المالي)

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المشرف

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الملخص

تهدف الدراسة إلى اختبار العلاقة بين سيولة أسهم البنوك وسياسة توزيع الأرباح للبنوك الأردنية المدرجة في سوق عمان المالي خلال السنوات الستة الأخيرة من 2009-2014 في محاولة لإيجاد بعض الأنماط والمؤشرات لسياسة توزيع الأرباح، اختبرت الدراسة صلاحية سيولة الأسهم كأحد محددات توزيعات الأرباح، وكانت نتائج تحليل بيانات 15 بنكاً والتي احتوت على 90 مشاهدة مع الأخذ بعين الاعتبار خصائص البنوك وهي حجم البنك وربحية البنك ودرجة نمو البنك، أظهرت أن المستثمرين في الأسهم ذات السيولة المنخفضة يحصلون على توزيعات أعلى بينما يحصل المستثمرون في الأسهم ذات السيولة العالية على توزيعات أقل.

تدعم نتائج البحث فرضية أن توزيعات الأرباح تكون ضرورية لتعويض المستثمرين في الأسهم ذات السيولة المنخفضة بينما يحقق المستثمرون في الأسهم ذات السيولة العالية عوائدهم من خلال التداول. تم استخدام نوعين من تحليل الانحدار لاختبار الفرضيات حيث تم استخدام الانحدار الرمزي (الثنائي) والانحدار المتعدد لاختبار صلاحية العلاقة وللحصول على نتائج دقيقة. كما أشارت الدراسة إلى أن البنوك ذات سيولة الأسهم المنخفضة تقوم بالإعلان وتوزيع الأرباح بشكل متكرر ومستمر. وأوصت الدراسة بإمكانية استخدام سيولة أسهم البنوك كمحدد لتوزيعات الأرباح.

Appendix (1)

Jordanian Banks Listed on Amman Stock Exchange (ASE)

الرمز الحرفي	الرمز الرقمي	السوق	الاسم المختصر للبنك
JOIB	111001	1	البنك الإسلامي الأردني
JOKB	111002	1	البنك الأردني الكويتي
JCBK	111003	1	البنك التجاري الأردني
THBK	111004	1	بنك الاسكان
AJIB	111005	1	بنك الاستثمار العربي
JDIB	111006	2	بنك الأردن دبي الإسلامي
UBSI	111007	1	بنك الاتحاد
ABCO	111009	1	بنك المؤسسة العربية
INVB	111014	1	البنك الاستثماري
EXFB	111017	1	بنك المال
SGBJ	111020	1	بنك سوسيته جنرال -الأردن
CABK	111021	1	بنك القاهرة عمان
BOJX	111022	1	بنك الاردن
AHLI	111033	1	البنك الاهلي
ARBK	113023	1	البنك العربي