FINANCIAL DETERMINANTS AFFECTING COMMERCIAL BANKS STOCK MARKET PRICES

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ABSTRACT

The existence of an appropriate indicator to assess changes in stock prices is one of the most crucial and basic issues related to stock exchange operations, with the aim of helping investors to identify changes that occur in stock prices and the reason behind that. This paper aimed at investigating the financial determinants affecting stock market prices of commercial banks listed at Amman stock exchange (ASE). Where the financial determinants include earning per share (EPS), dividends per share (DPS), return on assets (ROA), return on equity (ROE). This research was based on descriptive analytical approach; as simple regression, analysis was employed to test the study hypotheses. Also, data was extracted from the annual financial reports pertaining to Jordanian commercial banks under scrutiny from 2014 to 2019, since the study sample included (13) commercial banks. The results show that EPS and DPS had no impact on stock market prices of commercial banks listed in ASE, while ROA and ROE had a significant impact on stock market prices changes. In this connection, the study recommends the need to develop the more comprehensive procedures related to the approved laws and regulations with the aim of raising the levels of disclosure, improving transparency and enhancing the level of investors' awareness of stock market risks, in a way that helps disseminate all information about banks and helps investors make rational investment decisions.

Keywords: Financial Determinants, Stock Prices, Commercial Banks, Investment Decision, Market

INTRODUCTION

Stock market value is one of the most important dimensions that securities` dealers and investment portfolio managers look forward to, because they include an important part of the return that the dealer obtains in the form of capital gains, which may be considered more important than the uncertain periodic distributions of cash or stock dividend, because of such capital gain often exceeds the values of distributed profits (Arsal, 2021). The Stock Exchange is the appropriate place where investors gather to exchange and trade securities, such markets must be characterised with a high degree of transparency and efficiency, so that it reflects its effects on the decisions of all dealers and their transactions (Harjuna, 2020). Given the importance of the relationship between stock markets and company specific factors, it is essential and advisable from an investor's point of view to have knowledge and awareness about stock price determinants in order to realise an optimum investment decision. Therefore, stock market prices` determinants have always been of keen interest to investors, managers and scholars. Stock market prices are affected by many factors, whether general economic or stemming from within the company or from the financial market, as these factors play a major role in determining and predicting the market prices of shares (Bustani, 2020). Understanding Stock market movement is very complicated to understand, and predicting it is even more hard. The attempts to stabilizing

stock market value is one of the main issues for market participants, since stock market fluctuation may lead to gigantic losses (Gujarati, 2003; Almahadin, and Tuna 2016). Measuring and assessing the stock prices changes is an important concept in finance, and in investment decisions in particular, due to its dynamic behavior (AL-Najjar, 2016). This creates the need for empirical analysis, which can help in understanding and predicting the stock market prices movements.

In light of the above facts, this study study attempts to investigate the impact of four variables on stock market prices` changes of companies listed at Amman Stock Exchange - ASE. The remaining part of the study has been structured as follows: Section 2 emphasizes on the importance and objective of the study while section 3 relates to the prior studies conducted on the relevant topic. Section 4 highlights the data collection and methodology and Section 5 is devoted to the analysis and findings. Section 6 concludes the paper with discussion, conclusions and recommendations thus, offering a pathway for further research.

RESEARCH PROBLEMS AND QUESTIONS

The problem of the study lies in knowing the extent to which the future market values of the shares traded in the ASE are affected by the financial determinants, and the ability of these variables to predict the market values of the shares. These determinants are EPS, DPS, ROA, and ROE. Since the ASE is characterized by complete transparency of information and financial data free of charge, Jordanian commercial banks must use this information and data to serve their investment decisions. Based on that, the researcher raises the following main question:

- Is there any impact of EPS on stock market prices for commercial banks listed in ASE?
- Is there any impact of DPS on stock market prices for commercial banks listed in ASE?
- Is there any impact of ROA on stock market prices for commercial banks listed in ASE?
- Is there any impact of ROE on stock market prices for commercial banks listed in ASE?

LITERATURE REVIEW

ASE seeks to be the most important stock exchange in the region by providing all the necessary technical and legislative means to make it a focus of attention and attraction for local and foreign investors, by providing a fair market for dealing in securities characterized by a high degree of transparency, efficiency, liquidity and depth (Al-Tal, 2014). ASE was established on March 11, 1999 under the Securities Law as an independent administrative and financial institution, managed by the private sector, since it is not intended for profit, and entrusted with it to play the executive role as an organized market for the trading of securities in Jordan under the supervision of the Securities Commission (Shaban, et al., 2017). ASE is managed by a seven-member board of directors and an executive director who manages and monitors the daily business of the exchange. Membership of ASE consists of financial intermediaries and any other bodies specified by the Board of Commissioners of the Securities Commission, who constitute the Stock Exchange's General Authority. ASE is committed to providing principles of fairness, transparency, efficiency and liquidity, as ASE seeks to provide a healthy environment for securities trading, establish the foundations of sound and fair-trading, and protect the dealers in the capital market. To do this, ASE implemented regulations and instructions that are in line with international standards. Also, ASE provides electronic systems, interconnection facilities, and halls equipped with modern tools and technical means in order to monitor trading operations in

the market and coordinates with the Authority in following up on these operations (Khasawneh & Staytieh, 2017).

ASE is keen on establishing cooperation relations with international stock exchanges, associations and organizations and entering into agreements with them, and participating in Arab and international conferences and seminars, as it is an active member of the Arab Stock Exchanges Union, the European Asian Stock Exchanges Federation, the International Federation of Exchanges, and the International Organization of Securities Authorities (Saymeh & Salameh, 2019). One of the most important future projects for ASE is to seek full membership in the International Federation of Exchanges, and update its technical structure, especially the trading system, the extensive land network, and the development of control, inspection and communication systems with brokers and shareholding companies, in addition to developing ways of disseminating information and restructuring all Its publications, especially the monthly statistical bulletin and corporate shareholder guide (Areiqat et al., 2019).

The term financial market is a broad term that describes any market in which securities are traded, including stocks, bonds, currencies and derivatives, so the financial market refers to the place or frame in which the seller and buyer are contacted through intermediaries or directly to trade in securities (buying and selling) of all kinds of instruments (Nicolescu, et al., 2020). Moreover, financial markets can be defined as the organized means through which, the demand and supply of money are combined whether by direct or indirect contact through companies operating in this field (Salameh & Alzubi, 2018). Thus, financial markets can be defined as the place that creates a mechanism for the issuance and exchange of financial assets in light of an organized structure of financial institutions in order to protect the national economy by providing the necessary guarantees for dealers within this market (Liebi, 2020). Many traders tend to focus on a single financial market, but it is important to have a comprehensive view of all financial markets, as they may affect each other. Some of these financial markets are inherently more inclined to be long-term, short-term, or a combination of both, the mortgage market, for example, is where many long-term loans originate, while financial debt markets are focused on the short-term (Ruhani et al., 2018). Financial markets have economic functions that may not be clear, but in reality, they represent the link between the different sectors of society, that is, between savers and producers. So sectors need to invest their savings in more beneficial and ambitious projects, and productive sectors always need financial resources to help them continue to perform their economic function. As the financial markets perform their basic economic function by transferring surplus funds (savings) from the sectors, they own to those sectors that have a shortfall in funds (Salameh & Alzubi, 2018).

Stock Price fluctuation in the Stock market are the most closely observed economic phenomena among the researchers, investors companies' management and policy makers. Stock prices mainly determined by the forces of demand and supply. Still there is no clear proof that tells us, actually which factors are responsible for the fluctuation in the stock prices. Thus, this study investigates the impact of some internal factors on stock market prices changes at ASE. In Jordan stock market price is susceptible many factors. Thus, in this study, there are four financial determinants under investigation that may impact stock market prices; EPS, DPS, ROA, & ROE, which explained in detail below.

EPS

Al-Othman, 2019; Hasiholan & Sudjiman, 2020 and Saputro, 2019 EPS is one of the important indicators that reflect the share real value, as it implies as how much profit each shareholder earns after tax deductions (Arsal, 2021). Hasiholan & Sudjiman (2020) stated that

EPS is a good indicator of company`s overall financial performance. Noted Financial Management authors Brigham and Houston state that "Shareholders care about all both current and expected dividend, they also imply that EPS is the primary reason for the growth in stock market price and dividend. Zacks (1979) proclaim that most investors pay attention to companies` earnings history when selecting stock. Al-Othman, (2019) profess that EPS growth leads maximizing owners` wealth. (Al-Nimer, et al., 2013; Ahmed 2018), revealed that there is significant impact of EPS on Stock price of publicly listed banks in Jordan. EPS can be defined as a proxy of net profit after tax minus the preferred stock dividends that is divided by weighted average number of ordinary shares, and represents the return that shareholders earn on each share they own in the company (Saputro, 2019). Based on the above, Hypothesis 1 (H_1) is formed as follow:

H_1: *There is no statistical significant impact of EPS on stock market prices of commercial banks listed at ASE.*

DPS

DPS is the ratio of dividends declared to common shareholders divided by the number of common shares (Ahmed, 2018). Also, it is defined as a policy established by the institution, which is related to its nature and compatible with its current decisions, regarding profit distribution in the form of cash or shares, or withholding part of the profits for the necessity of future decisions related to expansion and opportunities for growth and investment (Arsal, 2021). Alrabadi, et al., (2021) concluded that DPS policy positively related to stock price variation, as it affects profit retention volume that can be used in the future for various purposes. Shareholders usually prefer to receive periodic dividends with fixed rates and values that are somewhat stable over the years because the variable dividends rates may impose a negative impact on stock market value (Okafor and Mgbame 2011; Harjuna, 2020). Chang et al., (2008) performed an empirical study on the Taiwan Stock Exchange (TSEC) and concluded that DPS does not have any impact on stock market price in the long run. Also (Ahmed, 2018), concluded that there is a statistical significance of the relationship between DPS and stock market prices in Pakistan. Arsal (2021), found that there is a clear relationship between DPS and firm value and its shares While Docking and Koch (2005) stated that any change in the DPS will lead to a change in stock market price. Based on the above, Hypothesis 2 (H_2) is formed as follow:

H_2: *There is no statistically significant impact of DPS on stock market prices of commercial banks listed at ASE.*

ROA

ROA is one of the most traditional financial indicators on which the measurement of financial performance is based, as it is considered one of the most important ratios that measure the company's success and its ability to achieve future profits through its total assets owned, where high rate of ROA indicates that the company is effective in managing its assets (Bustani, 2020; Wijaya & Sedana, 2020; Rusdiyanto, 2020). ROA is calculated by dividing company's net profit by average total assets (Daniswara & Daryanto, 2020). Das and Pattanayak (2009) has proven that ROA possess a positive impact on stock market price in Bombay Stock Market. (Ng et al., 2020; Daeli 2018) concluded that an increasing ROA would have a positive impact on

company`s value. While (Awan et al. 2018; Al-Nimer, et al., 2013) found that company financial performance had no impact on company`s value. Based on above explanation, Hypothesis 3 (H3) is formed as follow:

H$_3$: *There is no statistically significant impact of ROA on stock market prices of commercial banks listed at ASE.*

ROE

ROE is the main profitability ratio that investors use to measure how much of a company's income is returned as equity, as it reveals how effectively a company generates profits from the money that equity investors put into the business (Juwita & Diana, 2020). This rate is calculated by dividing the company's net profit by the total shareholders' equity, since the high ROE indicates that the company is actively using the investors' equity contributions to generate additional profits and return profits to the investors at an attractive level (Ansari, 2020). Purnamasari (2015) in his study on Indonesia Stock Exchange stated that ROE had the significant impact on stock price

Based on mentioned above, Hypothesis 4 (H$_4$) is formed as follow:

H$_4$: *There is no statistically significant impact of ROE on stock market prices of commercial banks listed at ASE.*

METHODOLOGY

Based on literature review, the research model consisted of stock market prices as dependent variable, as well as EPS, DPS, ROA, & ROE as independent variables. The research model can be formulated as follow:

$$\textbf{\textit{Stock Market Prices}} = \beta_0 + \beta_1\,(EPS) + \beta_2\,(DPS) + \beta_3\,(ROA) + \beta_4\,(ROE) + \mathcal{E}.$$

The independent variables for research model in line with works of (Arsal, 2021; Daniswara & Daryanto 2020; Ahmed 2018)). The below equations were adopted for the purpose of independent variables calculations:

EPS = (Net income - Preferred Stock Dividends) ÷ (Outstanding Shares)
DPS = (Total Dividends Paid) ÷ (Shares Outstanding)
ROA = (Net Income) ÷ (Average Assets)
ROE = (Net Income) ÷ (Average equity)

The descriptive analytical approach was used in the study by employing an empirical analysis of the stock price data pertaining to Jordanian commercial banks listed at ASE. This study is based on 13 Jordanian commercial banks. The selected banks are Arab Bank, Bank of Jordan, Cairo Amman Bank, Capital Bank of Jordan, Jordan Kuwait Bank, Jordan Ahli Bank, Arab Jordan Investment Bank, Bank al Etihad, SOCIETE GENERALE DE BANQUE – JORDANIE, Jordan Commercial Bank, The Housing Bank for Trade and Finance, Investment Bank, and Arab Banking Corporation – Jordan. In this research, ASE index related to financial sector will represent the proxy of Jordanian commercial banks performance for the period 2014

to 2019. Regression coefficients was calculated to test the impact of independent variable (EPS, DPS, ROA and ROE) on banks financial performance as dependent variable (financial sector index).

Correlation analysis and Collinearity

To ensure the reliability of the independent variables to the model being studied, and to ensure that the variables are free of linear and multiple correlation phenomenon, multi-collinearity was used, and as table-1 disclose all the parameters values related to the variables are greater than 1 and below 10. Thus no variables will be excluded (Alin, 2010; Tabachnick, & Fidell, 2007), indicating the absence of linear collinearity and correlation between the variables. Moreover, as variables tolerance value is below 0.20 it should be excluded from the model, it's obvious that such values related to independent variables is above the bench mark (Salmerón-Gómez, García-García & García-Pérez, 2021).

Table 1 MULTI-COLLINEARITY TEST		
Variables	**Tolerance**	**VIF**
EPS	0.674	4.025
DPS	0.547	3.264
ROA	0.592	3.897
ROE	0.628	4.153

Testing Hypotheses

Simple regression analysis was used to test study hypotheses as shown below.

H$_1$: *There is no statistically significant impact of EPS on stock market prices for commercial banks listed in ASE.*

Table 2 THE IMPACT OF ROA ON STOCK MARKET PRICES						
Model	**R**	**R2**	**F**	**β**	**t**	**Sig.**
EPS and Stock Market Prices	0.219	0.204	217.625	-0.067	1.439	0.12

Significance at the 0.05 level (2-tailed)

Based on Table 2 results, its noticeable that there is no significant impact EPS on commercial banks index performance where Sig. value is 0.120, which is higher than 0.05, leading to acceptance of the hypothesis (H$_1$). This results are in line with (Al-Nimer, et al., 2013; Ahmed 2018). Moreover, calculated F value was equal to (217.625), since it is lower than F statistic value (224.583) at the significance level (0.05), as well as the t-value of (1.439), which is lower than t tabulated (1.96) at the significance level (0.05), which confirms that there is no impact of EPS on stock market prices. Furthermore, the coefficient of determination (R^2) reflected a low value of 0.204, as it is a low value. This means that EPS had the ability to interpret 20.4% of the impact of EPS on stock market prices, while 79.6% of the changes are due to random variables that are uncontrollable.

H₂: *There is no statistically significant impact of DPS on stock market prices for commercial banks listed in ASE.*

Table 3 THE IMPACT OF DPS ON STOCK MARKET PRICES						
Model	R	R2	F	β	t	Sig.
DPS and Stock Market Prices	0.235	0.226	213.324	-0.259	1.41	0.215

Significance at the 0.05 level (2-tailed)

Table 3 reveal that also the independent variable DPS reflected no significant impact on stock market prices for commercial banks listed at ASE (Sig. 0.215>0.05), leading to acceptance of the hypothesis (H₂), this matches (Chang et al., (2008) study results, but contradict with (Ahmed, 2018; Docking and Koch, 2005; and Alrabadi, et al., 2021). Additionally, calculated F value was equal to (213.324) which it is lower than F statistic value (224.583) at Sig. =0.05, also t-value of 1.410 which is lower than t-tabulated (1.96). This confirms that there is no impact of DPS on stock market prices. Regarding R^2 value of 0.226, it implies that DPS had the ability to interpret 22.6% of the impact of DPS on commercial banks stock market prices.

H₃: There is no statistically significant impact of ROA on stock market prices for commercial banks listed in ASE.

Table 4 THE IMPACT OF ROA ON STOCK MARKET PRICES						
Model	R	R2	F	β	t	Sig.
ROA and Stock Market Prices	0.589	0.618	265.301	0.359	4.269	0

Significance at the 0.05 level (2-tailed)

Usually positive ROA should be reflected on stock market price, as it's a good indicator that the entity financial performance is efficient (Das and Pattanayak, 2009; Ng et al., 2020; Daeli 2018) concluded that DPS reflected a positive impact on companies' financial performance. This study results imply that ROA imposes a significant impact on banks` stock market price (Sig. value=0.000) with β value of 35.9%, indicating that 35.9% of the change in banks index is attributed to banks` ROA. Moreover, calculated F value was equal to (265.301), since it is greater than F statistic value (224.583) at the significance level (0.05), as well as the value of t was (4.269), which is greater than t tabulated (1.96) at the significance level (0.05), which confirms that there is an impact of ROA on stock market prices. Also ROA can explain almost 61.8% of the changes in banks` stock market price (R^2=0.618)

H₄: *There is no statistically significant impact of ROE on stock market prices for commercial banks listed in ASE.*

Table 5 THE IMPACT OF ROE ON STOCK MARKET PRICES						
Model	R	R2	F	β	t	Sig.
ROE and Stock Market Prices	0.539	0.572	255.605	0.287	3.874	0

Significance at the 0.05 level (2-tailed)

ROA and ROE are interrelated indicators as they normally possess the same impact on the dependent variable. As demonstrated on above table-5, there is a significant impact of ROE on commercial banks index indicator (Sig. value=0.000, β value=0.287) (Purnamasari, 2015; Ansari, 2020). The impact may be moderate, and this due to the fact that stock market price is affected also by micro factors such as GDP, inflation rate, interest rate and exchange rate. Subsequently, ROE determinant co-efficient factor can explain 57.2% of the change occur on stock market price, as approximately 42.8% of the changes are due to random variables that are uncontrollable.

DISCUSSION AND CONCLUSIONS

The main objective of this paper is to analyze factors affecting stock`s market price of shares of commercial banks listed at ASE for the period 2014-2019. The results showed that there was no impact of EPS on stock market prices for commercial banks listed in ASE. This result is inconsistent with Ahmed (2018); Arsal (2021), which revealed that EPS had a significant impact on stock prices. This may be due to the fact that the returns were not translated into cash distributions in the form of cash dividend by most banks, as they were either retained for later years use, or were distributed in the form of bonus shares to increase banks` paid-up capital. Moreover, it may be due to the fact that, ASE investors are indifferent regarding EPS when taking investment decisions as most of ASE investors are individuals with small capital, as they are concern mainly with fast daily capital gain. In order to enhance EPS effect on stock market price, banks` management should strive for more attractive investments that generates more sustainable returns which will ultimately be reflected on shareholder`s value or share`s book value that will lead to increase in stock market value.

The results also revealed that there was no impact of DPS on stock market prices for commercial banks listed in ASE. This result may be due to the fact that Jordanian commercial banks adopt different dividend policies, additionally banks have no sustainable distribution policy. This result is in contradiction with Ahmed (2018); Arsal (2021), which stated that DPS is one of the financial vector that have a significant impact on banks` stock market value but in consistency with Okafor & Mgbame (2011), as DPS is usually linked to management financing decision considering retained earnings as one of the elements that are included in self-financing decision on one hand, or investment decision on the other hand.

Regarding ROA factor, which reflected a positive and significant impact on banks` stock market prices (Purnamasari 2015; Rusdiyanto et al. 2020). This may be attributed to the positive impression realised by high ROA on banks' reputation by investors, lenders and other related parties, which leads better demand on shares leading to high market prices. Finally, results also implied that ROE bears statistical significant impact on stock market prices, which is consistent with Khan et al. (2011); Purnamasari (2015); Daniswara & Daryanto (2020), while Sunaryo (2020) indicated that ROE bears no significant impact on market stock prices. These results suggest that ROA and ROE play a major role in shaping stock market price. These conclusions can work as a guide to potential investors, and focus on determinants that impact stock market price. Also banks` management should concentrate and work in improving their financial performance figure that may have a positive impact on stock market value to attract more investors. Such results can be considered reliable as it included 100% of listed commercial banks, and such kind of studies are imperative to investors that are interested in investing in emerging markets such as ASE. It's very obvious that banks specific factors are not the only determinants of stock market price, factors such as GDP,

inflation rate and market interest rate as a macroeconomic factor definitely impact stock market performance and cannot be overridden, therefore further studies can be conducted taking into consideration such determinants

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