Determinants of Equity Share Prices of the Listed Banks in Amman Stock Exchange: Quantitative Approach

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Abstract

This study is attempted to identify the quantitative factors that influence share prices for the listed banks in Amman Stock Exchange over the period 2005-2011 using empirical analysis of a set of independent and dependant variables. In the present study, the ratio analysis, Correlation and a linear multiple regression models have been selected to measure the individual as well as combined effects of explanatory variables on the dependant variables. The empirical findings shows that, there is a positive correlation between the independent variables DPS (correlation coefficient =.51), EPS (correlation coefficient =.84) BV (correlation coefficient =.81), PE (correlation coefficient =.81) and S (correlation coefficient =.57) and dependant variable MP and it is also significant at 1% probability level. However, further empirical findings that, there is a significant positive relationship between EPS and the MP of the listed banks in Jordan. This is evident in the t-statistics value of 2.29 and a P>|t| = (.03). Moreover, moreover, there is a significant relationship between banks BV and MP. This is evident in the t-statistics value of (2.110 and the P>|t| =.04). Another empirical finding from the regression analysis shows a positive relationship between P/E and MP. This is evident in the t-statistics value of (5.90 and the P>|t| =.00). Empirical findings from the regression analysis on the relationship between S and MP indicate that there is an inverse relationship between S and MP. This is however evident in the t-statistics value of (-2.28 and P>|t| =.03).Finally, other variables (DPS and DP) have insignificant impact on MP.

Keywords: Financial Factors, Equity Share Prices, Earning Per Share, Book Value per Share, Dividend Payout, Price Earnings Ratio

1. Introduction

The present study re-visits the existing postulates on determinants of stock prices for the listed Jordanian banks during the period 2005-11. Nevertheless, while several prior empirical studies from developed economies have shed light on the effect of financial performance, dividend payouts, and financial leverage on the share price of firms, the same is not true in developing economies like Jordan. In addition, findings from prior studies indicate that share price determination is a very much diverse and conflicting area of finance. Every aspect of this phenomenon has a disagreement. From the basic philosophy to the econometric models there are different schools of thought. In Jordan, there is no sufficient literature to explain the contextual features of financial information and stock market. All of these facts create the need for further studies with simple models, large sample data, and wider span. This study therefore tends to fill this gap in literature by examining the relationships between stock prices of listed banks in Jordan and the factors that could impact on it.

As demonstrated by Nwude (2004) the capital market is a market for securities, where business enterprises and governments can raise long-term funds. The capital market, which includes the stock market and the bond market, plays a vital role in economic prosperity that fosters capital formation and sustains economic growth. Stock markets are more than a place to trade securities; they operate as a facilitator between savers and users of capital by means of pooling of funds, sharing risk, and transferring wealth. Kurihara (2006) found that Stock markets are essential for economic growth as they ensure the flow of resources to the most productive investment opportunities. Stock is the evidence of ownership after investor has invested certain amount of money to a company. In the context of stock markets, prominent financial economists have developed a number of concepts which are known to be essential prerequisites for fulfilling their economic roles.

These concepts include pricing efficiency, operational efficiency, and allocation efficiency. The determinants of stock prices are often a matter of debate. Determining share prices is a complex and conflicting task. According to economic theory, the price of any asset is usually determined by the market forces. However, a number of empirical studies have been conducted on the determinants of stock prices. Some of these studies looked at the relationships between stock prices and the factors that could impact on it. The link between fundamental factors (e.g. firm earnings, dividends and book-value per share) and stock price changes has always remained as the focus area of interest for market analysts, fund managers, and investors. According to Fama (1970), a stock market is said to be efficient (pricing) if current securities' prices reflect all available information. In an efficient market, stock prices would be analysed by Technical Analysis or Fundamental Analysis. Technical analysis evaluates the stock price movement and predicts the future stock price based on historical data of stock price. Fundamental Analysis evaluates the intrinsic value of the company and compares it to the stock price.

According to Jones and Charles (2004), the comparison of these analyses will give insight to the investor whether the stock price is undervalued or overvalued and it will assist the investor in making the decision. Stock prices would be determined primarily by fundamental factors. Various researchers have found important fundamental factors that determine the share prices for different markets, viz., dividend, retained earnings, size, earnings per share, dividend yield, leverage, payout ratio, and book value per share. A stock price in an efficient (price) market provides investors with a good measure of any firm's performance and its value. Srinivasan (2013) noticed that, understanding the impact of various fundamental variables on stock price is very much helpful to investors as it will help them in taking profitable investment decisions.

In general, Shiller (1981) found that stock prices are not stable and fluctuate excessively in relation to the news about fundamentals (as dividends) primarily due to market irrationality. Zhong, Darrat & Anderson (2003) detected a significant non fundamental component in US equity prices, while Cochrane (1991) suggested funneling the efforts in the direction of a better rational model of fundamentals. The objective of this study is to study the impact of the internal factor on the Stock prices of Jordanian banks. In the light of the aforementioned objective, the remaining part of this paper has been divided into five sections. Section II presents the review of literature, Section III explains methodology used in the study, Section IV provides empirical results and discussion, and finally, Section VI represents the main findings and conclusion of the study.

2. Key Statistics of the Amman Stock Exchange

The Amman Stock Exchange (ASE) was formed on 1 January 1978. Since its formation, the market has experienced some growth in a number of aspects. Table.1 reports the key statistics of the Amman Stock Exchange during the period 2005-2011. It is clear from the table that the number of listed companies increased from 201 companies in 2005 to 277 in 2010, which then declined to 247 companies in 2011 and an average 247 during the study period. However, the performance of the ASE is less impressive when judged by the ratio of market capitalization to GDP with a decrease from 326.6 percent in 2005 to about 93.5 percent in 2012. Moreover, Turnover Ratio fluctuated from 58.2 % in 2011 to 102.2% in 2010 and averaged 89.9% during the study period. Market price to earning fluctuated from 14.4 times in 2009 to 44.2 times in 2005 and averaged 24.4 times during the study period. Nonetheless, Market price to book value ratio fluctuated from 1.5 times in 2011 to 3.2 times in 2005 and averaged 2.5 times during the study period. Similarly, it must be noted that the Dividend Yield Ratio fluctuated from 1.6 % in 2005 to 3.3 % in 2011 and averaged 2.4% during the study period. On the other hand, Earning per share ratio fluctuated from 0.1 JOD in 2009 and 2010 to 0.4 % in 2005 and averaged 0.2 JOD during the study period. Despite the improved performance in some Arab stock exchanges over the past years, most of the Arab stock markets have declined to varying degrees since the beginning of the global financial crisis till the end of 2011. Consequently, we can state that the ASE experienced sharp fluctuations (falls) in 2005-2011. Moreover, it must also be pointed out that the main indicators of ASE were bearish in comparison with 2005 due to the repercussions of the regional financial and political crisis.

Table1. Key Statistics of the Amman Stock Exchange

Year	Number of Listed Companies	Market Capitalization / GDP (%)	Turnover Ratio (%)	P/E Ratio (times)	P/BV (times)	Dividend Yield Ratio (%)	EPS (JD)
2005	201	326.6	94.1	44.2	3.2	1.6	0.4
2006	227	233.9	101.1	16.7	2.9	2.3	0.2
2007	245	289.0	91.2	28.0	3.0	1.8	0.2
2008	262	216.7	91.5	18.8	2.2	2.5	0.2
2009	272	149.6	91.3	14.4	1.8	2.8	0.1
2010	277	122.7	102.2	26.3	1.7	2.7	0.1
2011	247	102.7	58.2	22.6	1.5	3.3	0.2
average	247	205.9	89.9	24.4	2.3	2.4	0.2

3. Key Statistics Banking Sector in Jordan- Some Descriptive Statistics and Information

In Jordan, the period 2005-2011 have witnessed a great success in the banking sector. By of the end of 2011, the banking sector registered 26 banks working through more than 695 branches spread across the Kingdom, and this created a high level of competition in performance, quality, and prices of the financial services. The Central Bank of Jordan (CBJ) classifies the banks into two major categories; namely national banks and branches of foreign banks. Each of these categories is further divided into commercial banks and Islamic banks.

As for the banking policy, the CBJ introduced measures and procedures to strengthen the soundness of the banking system and increase the degree of competitiveness amongst its units. Furthermore, these measures aim to enhance banks' capacity in the area of risk management, based on best international standards and practices; particularly, the implementation of Basel II recommendations and stress testing instructions. Table.2 reports the key statistics of the Banking Sector in Jordan during the period 2005-2011. It is clear from table.2 that the total assets grew by 86.3 % as compared to 2005. Similarly, total deposits were up by 79.4 % in 2011 as compared to 2005. While this is impressive, the outstanding balance of extended credit facilities grew by 384.14 % in 2011 as compared to 2005.

Table 2. Key Banking Indicators in Jordan

	Total Assets (million JD)	Total Credit (million JD)	Total Deposits (million JD)
2005	21,086.5	1865.4	3799.9
2006	24,237.6	2312.4	3877.2
2007	26,815.6	3077.4	4144.1
2008	29,796.6	4353.1	4732.0
2009	31,956.9	5203.4	5290.0
2010	34,973.1	5686.3	5992.2
2011	39,275.3	9030.8	6816.0
Average	29,734.5	4,504.1	4,950.2
Growth Rate	86.3%	384.14%	79.4%

3. Review of Literature

A number of studies have been undertaken to identify the factors influencing stock prices in different stock markets. The pioneering work on determinants of share prices by Collins (1957) for US banks identified dividend, net profit, operating earnings, and book value as the factors influencing share prices. Following Collins, there have been various attempts to identify the determinants of stock prices for different markets.

Wayne & Campbell (1998) provided a global asset pricing perspective on the debate over the relation between predetermined attributes of common stocks, such as ratios of price-to-book value, cash-flow, earnings, and other variables to the future returns. The study presents an empirical framework for attacking the problem at a global level, assuming integrated markets. The study presents new evidence on the relative importance of risk and mispricing effects, using monthly data for 21 national equity markets. The study found that the cross-sectional explanatory power of the lagged attributes is related to both risk and mispricing in the two-factor model, but the risk effects explain more of the variance than mispricing.

Nathan Taulbee (2005) measured the influences of macroeconomic indicator on the stock market in S&P 500. The result showed that the GDP have a significant correlation with the stock price where unemployment and inflation have no significant correlation with the stock price.

Al-Tamimi (2007) defined a model to regress the variables. The multi-correlation test revealed very strong correlation between gross domestic product and crude oil price, gross domestic product, foreign exchange rate, lending interest rate, and inflation rate. All the variables had strong positive correlation with stock prices apart from the interest rate and foreign exchange rate, which had strong negative correlation with stock prices.

Nawazish Mirza (2008) studied book to market (B/M) ratio as key determinant of share prices. He concluded that the value and size of premium given to investor will boost up the investors to invest more in the stock as a result of which the stock prices will rise. The premium is related with the Book to Market Ratio as explained in Fama and French Model for the Portfolio Return. It was also concluded that the size of the firm also play a very important role in value of stock. As market capitalization and B/M ratio is used in Fama and French to calculate the return. Nawazish said that besides these factors the environmental and economic factors can also influence the share prices.

George Tweneboah and Anokye M. Adam (2008) researched stock prices in Ghana on data from 1991 to 2006. They used T-bill rates as measures of interest rates, consumer price index as measure of inflation rate, inward foreign direct investment, and exchange rate as macroeconomic factor. After applying different available models of correlation, regression, and integration they concluded that the exchange rate, a macroeconomic factor, has long run relationship between the stock prices of Ghana. While the inflation rate, FDI and interest rates are the key determinants of stock prices in Ghana.

Jin Dehuan and Zhenhu Jin (2008) investigated correlation between firm performance (Return on Equity, earning per share, profit margin, return on asset, changes in sales, and total asset turnover) and stock price of the top performing stocks listed on Shanghai Stock Exchange study . Their study shows that all the variables are significantly correlated with stock price in the year before crisis. However, in the crisis period the firm performance have no explanatory power toward stock price movement.

Uddin (2009) analyzed the relationship of microeconomic factors with the stock price by using Multiple regression analysis. This research found a significant linear relationship among market return and some microeconomic factors such as net asset value per share, dividend percentage, earning per share of bank leasing, and insurance companies. He also found that non-linear relationship among the variables is insignificant at 95 percent level of significance.

G.R Fisher (2009) determined the relationship between British share prices and different quantitative variables. It showed the impact of dividends, undistributed profits, and company size on share prices taken from five cross-sectional samples of equities quoted on the London Stock Exchange between 1949 and 1957.

Al- Shubiri (2010) investigated the relationship of microeconomic factors with the stock price by using Simple and Multiple regression analysis. 14 commercial banks of Amman Stock Exchange, for the period of 2005 -2008, were selected for the study. The study found highly positive significant relationship between market price of stock and net asset value per share; market price of stock dividend percentage, gross domestic product. It also Found negative significant relationship on inflation and lending interest rate .

Faris AL- Shubiri (2011), Investigated the determinants of the dividend policies of the 60 industrial firms listed on ASE for the period of 2005-2009, and to explain their dividend payment behavior. In this study, the Tobit regression analysis and Logit regression analysis were used. The results show that, there is a significant effect of Leverage, Institutional Ownership, Profitability, Business Risk, Asset Structure, Growth Opportunities, and Firm Size on the dividend payout in listed firms of Amman stock exchange as the same determinations of dividends policy as suggested by the developed markets.

Sanjeet Sharma(2011) examined the empirical relationship between equity share prices and explanatory variables such as: book value per share, dividend per share, earning per share, price earnings ratio, dividend yield, dividend payout, size in terms of sale, and net worth for the period 1993-94 to 2008-09. The results revealed that earning per share, dividend per share, and book value per share has significant impact on the market price of share. Furthermore, results of study indicated that dividend per share and earnings per share being the strongest determinants of market price, so the results of the study supports liberal dividend policy and suggests companies to pay regular dividends.

Irmala, Sanju and Ramachandran (2011) focused on identifying the determinants of share prices in the Indian market. The study used panel data pertaining to three sectors viz., auto, healthcare, and public sector undertakings over the period 2000-2009 and employed the fully modified ordinary least squares method. The results indicated that the variables dividend, price-earnings ratio and leverage are significant determinants of share prices for all the sectors under consideration. Moreover, profitability is found to influence share prices only in the case of auto sector.

Khan & Amanullah (2012) investigated the different determinants of share prices and the relationship of these determinants with the share prices of Karachi Stock Exchange (KSE) 100 index of Pakistan. 5 quantitative determinants, namely Book to Market (B/M) ratio, Price Earning (P/E) ratio, Dividend, Gross Domestic Product (GDP), and Interest Rate were selected to find out the direction and strength of relationship. A sample of 34 companies has been randomly selected from 34 sectors of KSE. Ten years' (2000-2009) data has been collected for the sample companies. The tools used for analysis are Linear Multiple Regression and Correlation Model. It has been concluded that all the factors selected have positive and significant relationship with share prices except Interest rate and B/M ratio. The rise in GDP, dividend and P/E ratio leads to rise in share prices. B/M ratio and interest rate are negatively related to share prices.

Uwuigbe, Olowe, Olusegun, and Godswill (2012) examined the determinants of share prices in the Nigerian stock exchange market. A total of 30 listed firms in the Nigerian stock exchange market were selected and analyzed for the study using the judgmental sampling technique. Also, the Nigerian stock exchange fact book and the corporate annual reports for the period 2006- 2010 were used for the study. The paper basically modeled the effects of financial performance, dividend payout, and financial leverage on the share price of listed firms operating in the Nigerian stock exchange market using the regression analysis method. The study found a significant positive relationship between firms' financial performance and the market value of share prices of the listed firms in Nigeria. Consequently, the paper concludes that firms' financial performance, dividend payouts, and financial leverage are strong determinants of the market value of share prices in Nigeria.

Raimony & El-Nader (2012) examined the sources of the ASE price index volatility, using monthly data between 1991 and 2010. The volatility returns of the ASE are estimated through utilizing the ARCH /GARCH model with /without dummy variable, and to measure the shocks of each variable, the Impulse Response Function (IRFs) is applied. The results of the study revealed that the ARCH (1) performs well. It also indicated that RMS2, CPI, E1, WAIR and the dummy variable have an adverse impact on the ASE returns volatility, while RGDP played a positive effect. The volatility equation shows that the mean (ω) is smaller than that of the parameter of lagged squared error term (γ). ARCH (1) (represented by γ) is positive and statistically significant at 1% level, while GARCH (1, 1), represented by δ, is negative with the dummy variable but not statistically significant. The sum of ($\gamma + \delta$) is greater than unity, demonstrating that the volatility increases over time. The dummy variable (η) has an inverse influence on the ASE index returns volatility and is statistically significant at 1%. The results from the (IRFs) support the significance of dynamic association between the monthly return index and the macroeconomic variables.

Srinivasan (2012) examined the fundamental determinants of share price in India. The study employed panel data consisting of annual time series data over the period 2006-2011 and cross-section data pertaining to 6 major sectors of the Indian economy, namely, Heavy and Manufacturing, Pharmaceutical, Energy, IT and ITES, Infrastructure, and Banking. The panel data techniques, viz. Fixed Effects model and Random Effects model have been employed to investigate the objective. The empirical results revealed that the dividend per share has a negative and significant impact on the share price of manufacturing, pharmaceutical, energy, and infrastructure sectors. Earnings per share and price-earnings ratio are being the crucial determinants of share prices of manufacturing, pharmaceutical sector, energy, infrastructure, and commercial banking sectors. Size is being a significant factor in determining the share prices of all sectors under consideration except manufacturing. Moreover, the book value per share positively influences the share prices of pharmaceutical, energy, IT & ITES, and Infrastructure.

Malhotra & Tandon (2013) attempted to determine the factors that influence stock prices in the context of National Stock Exchange (NSE) of 100 companies. A sample of 95 companies was selected for the period 2007-12 and linear regression model was used. The results indicated that firms' book value, earning per share, and price-earnings ratio are having a significant positive association with firm's stock price while dividend yield is having a significant inverse association with the market price of the firm's stock.

From the review of literature on share price determinants, it can be observed that most of the studies have used either time-series or cross-section data. There have also been attempts to identify the share price determinants using panel data. The extant literature available strongly supports the movement of stock price as a consequence of firm specific factors such as dividend, book value, earnings etc.

4. Research Methodology

The present study deals with fundamental analysis of share valuation as it focuses on factors relating to the company. This section explains in detail the objectives, period, sample, database, and methodology used in the study.

4.1. Objective & Data Base

The present study has been undertaken to examine the empirical relationship between stock prices and selected internal factors variables (book value per share, dividend per share, earning per share, price earnings ratio, dividend payout, size in terms of total assets) for the period 2005-2011. Data have been derived from the income statements and the balance sheets of the listed banks published in the ASE and CBJ. In addition, data was gathered from Books, papers, articles, and Specialized International Journals.

4.2. Sample & Period of Study

The Sample population will cover all Jordanian banks listed in ASE presented in table.3.

Table 3: Jordanian Banks listed in ASE, and network of branches (2011)

Bank's Name	Date of Establishment	Abbreviation	No of Branches
Arab Bank	1930	ARBK	79
Arab Banking Corporation (Jordan)	1989	ABCO	25
Arab Jordan Investment Bank	1978	AJIB	11
Bank Al Etihad	1991	UBSI	24
Bank of Jordan	1960	BOJX	67
Cairo Amman Bank	1960	CABK	66
Capital Bank of Jordan	2004	EXFB	16
Invest bank	1989	INVB	9
Jordan Ahli Bank	1956	AHLI	50
Jordan Commercial Bank	1978	JCBK	27
Jordan Kuwait Bank	1977	JOKB	44
Societe Generale de Banque/ Jordanie	1993	SGBJ	15
The Housing Bank for Trade& Finance	1974	THBK	105
Jordan Islamic Bank	1979	JOIB	62
Jordan Dubai Islamic Bank	2010	JDIB	12

Out of these fifteen banks, seven banks have been selected on the basis of the following conditions:

- The necessary financial data required for calculating the measures of dependent and independent.
- Variables pertaining to all the required years (2005-2011) is available.
- The bank did not skip dividend for any two successive years in the time span of 2005-2011.
- The average earning per share of any three successive years is not zero or negative during the period 2005-2011.
- Furthermore, only those banks whose price data is available are retained in the sample size.
- It is listed in Amman stock exchange.

In this context, a sample of seven Jordanian banks(49 observations) over the 2005-2011 interval are presented in table.4.

Table 4: Sample Banks and network of branches (2011)

Bank's Name	Date of Establishment	Abbreviation	No of Branches
Arab Bank	1930	ARBK	79
Bank of Jordan	1960	BOJX	67
Cairo Amman Bank	1960	CABK	66
Jordan Ahli Bank	1956	AHLI	50
Jordan Kuwait Bank	1977	JOKB	44
The Housing Bank for Trade& Finance	1974	THBK	105
Jordan Islamic Bank	1979	JOIB	62

4.3. Ratio, correlation, and Regression Analysis

In the present study, the ratio analysis, Correlation and a linear multiple regression models have been selected to measure the individual as well as combined effects of explanatory variables on the dependant variables. The analysis has been employed to study the effect keeping in view that this method has certain advantages which are not available in any other multivariate discriminate analysis. The statistical significance of regression coefficients have been worked out and tested with the help of t test. The coefficient of determination is computed to determine the percentage variation in the dependent variables explained by independent variables. Also adjusted R2 and change statistic values are measured. The 'F' values are also computed to test the significance of R2 with 'F' distribution at one, five, and ten percent level of significances.

4.4. Research Variables

After going through the literature review about 10 determinants were obtained. 5 of them are tested here. Details are given in table.5.

Table 5. Variables Involved in the Study.

Abbreviation	Variables	Type	Unit	Equations
MP	Market price	Dependent	JOD	MP= closing price of stock at the end of the financial year of the bank has been taken
DPS	Dividend per Share	Independent	JOD	DPS= Total amount of dividend paid to equity shareholders/Number of equity shares outstanding
EPS	Earnings per Share	Independent	JOD	EPS = [Net Profits after Tax – Preference Dividend] / Number of Equity Shares Outstanding
BV	Book Value	Independent	JOD	BV =[Equity Share Capital + Shareholders Reserves]/Total No. of Equity Shares Outstanding
DP	Dividend Payout Ratio	Independent	%	DP={ Dividend per Share/ Earning Per Share }X 100
P/E	Price /Earnings Ratio	Independent	Times	P/E =Market Price of Share/ Earnings per Share
S	Size	Independent	-	natural logarithm of total assets

4.5. Research Model

Following Malhotra and Tandon (2013) the current study investigates Market Price of the equity share as a function of dividend per share, earning per share, dividend payout ratio, price earnings ratio, and size.

$$\mathbf{MP = \beta 0 + \beta 1 DPS + \beta 2 EPS + \beta 3 BV + \beta 4 DP + \beta 5 P/E + \beta 6 S + \varepsilon}$$

- MP represents market price of the share.
- DPS represents dividend per share.
- EPS represents earning per share.
- BV represents book value per share.
- DP represents Dividend Payout of the share.
- P/E represents price earning ratio per share.
- S represents the size (natural logarithm of total assets).
- ε = Error terms.
- $\beta 0$ = constant term

- β1 to β6 = regression coefficient for respective variables

4.6. Hypothesis

The present study seeks to test the following which have been based on the literature undertaken to identify the factors influencing stock prices in different stock markets.

As observed by researcher such as Malhotra (1987), Piotrosbi D. Et al. (2004), Zakir and Khanna(1982), Stock price can change minute by minute due to changes in the buying and selling pressure. Due to these changes it becomes difficult to decide as to which market price should be regressed as a measure of dependent variable. In the present study, closing price of stock at the end of the financial year of the bank has been taken. However, the dividend rate of a company has a significant influence on the market price of a share. The dividends generally influence the share price in a positive direction as depicted in earlier empirical works such as Gordon (1959), Desai (1965), Irfan & Nishat (2000), and Gitmon & Lowrence (2004). This finding leads us to the first hypotheses to be tested:

H1: There is a positive relationship between DPE and MP.

EPS serves as an indicator of a company's profitability. The increasing earnings per share generally results in high market price. According to Ball and Brown (1968) & Baskin (1989), the earning per share has a positive relationship with market price, i.e., higher the earning per share, higher will the market price be. Based on theory and these empirical results, leads us to second hypotheses to be tested:

H2: There is a positive relationship between EPS and MP.

BV is just one of the methods for comparison in valuing of a company. A relatively high BV in relation to MP often occurs when a stock is undervalued. Grewal (1986) found that a high BV usually indicates that the company has a good record of past performances, i.e. high reserves therefore high market price. Various studies such as Zahir & Khanna (1982) and Krishan (1984), have considered this ratio as a determinant of share price. These findings lead us to the third hypothesis to be tested:

H3: There is a positive relationship between the BV and MP.

DP provides an idea of how well earnings support the dividend payments. Researchers have different views about whether dividend payout materially affects the long term share prices. Dhanani, (2005) who used a survey approach to capture managerial views and attitudes of corporate managers regarding dividend policy found that dividend policy serves to enhance corporate market value. In fact, more mature companies tend to have a higher payout ratio. Linter (1956) linked dividend changes to earning while Shapiro (1962) valuation model showed dividend streams discounted by the difference in discount rate and growth in dividend should be equal to share price. This predicts direct relation between payout ratio and the price- earnings multiple. Conversely,, it means that there is an inverse relation between payout ratio and share price changes. The hypothesis that could be tested, based on these findings is:

H4: There is a negative relationship between DP and MP.

P/E indicates the extent to which the earnings of each share are covered by its price. It tells whether the share price of a company is fairly valued, undervalued, or overvalued. In general, a high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E. According to Molodovsky (1953) the Price-to-earnings ratio has gained enormous popularity for evaluating individual stocks, sectors, and stock markets as potential investments. Malhotra & Tandon (2013) indicated that firms' book value, earning per share, and price-earnings ratio are having a significant positive association with firm's stock price. Therefore, the next hypothesis that could be tested from these findings is:

H5: There is a positive relationship between P/E and MP.

The size of the firm can be measured in many ways, e.g. through turnover, paid-up-capital, capital employed, total assets, net sales, etc. In the present study size is measured with the help of total assets. However, large companies generally offer better investment opportunities to investors than the smaller ones. The companies by virtue of their higher production generally occupy a stronger and dominant position in the stock market. The shares of large companies are actively traded in the stock exchange; they provide more liquidity and marketability to the investors. Thus the temptation to buy shares of large companies leads to increase its market price of share. Chandra (1981) indicated that size has significant positive impact on market price of share. The hypothesis derived from these findings is:

H6: There is a positive relationship between the S and MP.

5. Empirical Analyses

5.1. Ranks of the sample Banks based on their Averages

In order to summarize the classification of the banks based on rank of their activities, table.6 is prepared. It is clear from table.6 that ARBK bank gained the first rank position in MP, EPS, BV, P/E, and S. Whereas, THBK bank gained the first position in DPS and DP. On the contrary, AHLI bank gained the last position among other banks in MP and EPS. CABK bank gained the last position in DPS and S. On the other hand, BOJX bank gained the last position in BV and P/E. However, JOKB bank gained the last position DP.

Table 6. Ranks of the sample Banks Based on their Averages (2005-2011)

bank\variables	MP(JOD)	DPS(JOD)	EPS(JOD)	BV(JOD)	DP(%)	P/E(Times)	S
JOIB	5	6	5	6	5	4	5
JOKB	3	3	2	3	7	5	4
THBK	2	1	3	2	1	2	2
CABK	4	7	4	4	6	6	7
BOJX	6	4	6	7	3	7	6
AHLI	7	5	7	5	2	3	3
ARBK	1	2	1	1	4	1	1

5.2. Descriptive Statistics of the Variables

Findings from the descriptive statistics as presented in table.7shows that, MP has obtained mean (median) 7.37 JOD (4.17 JOD) over the study period. This variable has minimum value of (1.43 JOD) and maximum one at (63.3 JOD) during the study period. However, in terms of standard deviation this ratio registered (9.8) during the study period. On the other hand, DPS has obtained mean (median) 0.16 JOD (0.15 JOD) over the study period. This variable has minimum value of (0.00 JOD) and maximum value at (0.30 JOD) during the study period. In terms of standard deviation DPS registered (0.076) during the study period. Also, the table shows that, that EPS has obtained mean (median) 0.39 JOD (0.34 JOD) over the study period. This variable has minimum value of (0.098 JOD) and maximum at (1.14 JOD) during the study period. In terms of standard deviation EPS registered (0.203) during the study period. The variable BV has obtained mean (median) 3.22 JOD (2.20 JOD) over the study period. This variable has minimum value of (1.612 JOD) and maximum value at (10.57 JOD) during the study period, in terms of standard deviation BV registered (2.217) during the study period. DP has obtained mean (median) 45.47% (44.32) over the study period.

This variable has minimum value of (0) and maximum value at (84.15%) during the study period, in terms of standard deviation DP registered (20.765) during the study period. Similarly P/E has obtained mean (median) 16.25 times (13.23 times) over the study period. This variable has minimum value of (6.70 times) and maximum value at (55.68 times) during the study period, in terms of standard deviation P/E registered (9.602) during the study period. Moreover, S has obtained mean (median) 9.47 (10.38) over the study period. This variable has minimum value of (9.07) and maximum value at (10.38) during the study period, in term of standard deviation this ratio registered (0.399) during the study period. The table also shows that, there is a greater variation in the data set of MP, DP, and P/E because of the size difference of banks. Some of the banks are well established since a long period, and thus they have strong financial base and employ higher capital and equity which increases bank's MP, DP, and P/E. All the other variables have low standard deviation values which show consistency of data set and values close to the mean.

However it can be observed from Table.7 that values of the explained variable i.e. MP as well as the explanatory variables is fluctuating over the period 2005-2011 which could be owing to global financial crisis leading to overall economic slowdown

Table 7. Descriptive Statistics of the Variables

	MP(JOD)	DPS(JOD)	EPS(JOD)	BV(JOD)	DP(%)	P/E(Times)	S
2005	17.27	0.11	0.60	3.75	17.77	23.61	9.3
2006	6.86	0.16	0.38	3.12	46.87	16.41	9.4
2007	8.55	0.18	0.42	3.38	49.76	19.11	9.4
2008	5.46	0.15	0.38	2.86	41.10	12.87	9.5
2009	4.63	0.15	0.31	3.03	50.52	14.51	9.5
2010	4.78	0.17	0.32	3.19	55.25	15.56	9.6
2011	4.07	0.18	0.33	3.19	57.03	11.69	9.6
N	49	49	49	49	49	49	49
Mean	7.37	0.16	0.39	3.22	45.47	16.25	9.47
Median	4.17	0.15	0.34	2.20	44.32	13.23	9.32
Minimum	1.43	0	0.098	1.612	0	6.70	9.07
Maximum	63.3	0.30	1.14	10.57	84.15	55.68	10.38
Std. Deviation	9.8	0.076	0.203	2.217	20.765	9.602	0.399

5.3. Pearson's Correlation analysis

Pearson correlation was used to find the relationship between variables at 5% level of confidence. The Pearson correlation analysis result as presented in Table.8 shows that, there is a positive correlation between the independent variables DPS (correlation coefficient = 0.508) , EPS(correlation coefficient = 0.842) BV (correlation coefficient = 0.812),PE (correlation coefficient = 0.814) and S (correlation coefficient = 0.567) and dependant variable MP and it is also significant at 1% probability level.

Table 8. Pearson's Correlation matrix

		MP	DPS	EPS	BV	DP	PE	S
MP	Pearson Correlation	1	.508	.842	.812	-.217	.814	.567
	Sig. (2-tailed)		.000	.000	.000	.134	.000	.000
DPS	Pearson Correlation		1	.498	.665	.444	.476	.722
	Sig. (2-tailed)			.000	.000	.001	.001	.000
EPS	Pearson Correlation			1	.753	-.471	.531	.464
	Sig. (2-tailed)				.000	.001	.000	.001
BV	Pearson Correlation				1	-.046	.753	.891
	Sig. (2-tailed)					.754	.000	.000
DP	Pearson Correlation					1	.113	.255
	Sig. (2-tailed)						.441	.078
PE	Pearson Correlation						1	.666
	Sig. (2-tailed)							.000
S	Pearson Correlation							1

5.4. Regression Analysis

Regression was used to find the coefficients and Analysis of variance (ANOVA) was used in testing the hypotheses and to measure the differences and similarities between the sample banks according to their different characteristics. Findings from the regression analysis result for the selected banks as depicted in Table.9 indicates that, the R-Square which is often referred to as the coefficient of determination of the variables is.91. The R-Square which is also a measure of the overall fitness of the model indicates that the model is capable of explaining about 91% of the variability the share prices of banks. This means that the model explains about 91% of the systematic variation in the dependent variable. That is, about 9% of the variations in MP of the sampled banks are accounted for by other factors not captured by the model. This result is complimented by the adjusted R- square of about 89.5%, which in essence is the proportion of total variance that is explained by the model.

Similarly, findings from the Fishers ratio (i.e. the F-Statistics which is a proof of the validity of the estimated model) as reflected in Table.9, indicates that, the F is about 69.46 and a p-value that is equal to 0.05 (P-value =.05), this invariably suggests clearly that simultaneously the explanatory variables are significantly associated with the dependent variable. That is, they strongly determine the behavior of the market values of share prices. Further, The Durbin- Watson statistics value is 2.02 which means that the error term is independent and is free of autocorrelation.

However, further empirical findings provided in Table.9 show that there is a significant positive relationship between EPS and the MP of the listed banks in Jordan. This is evident in the t-statistics value of 2.291and a P>|t| (.03). This outcome basically implies that with all other variables held constant, an increase or a change in EPS of banks, say by 1% will on the average bring about a 42 % increase in the MP. That is an increase in the EPS of banks will also lead to a positive improvement in the MP of the listed banks. In essence, we can deduce from this result that the EPS of banks has a significant positive impact on the MP of listed banks in Jordan. Interestingly, These results are inconsistent with those of other studies (Brown 1968, Baskin 1989, Malhotra& Tandon 2013) This is in line with the propositions of Ball and that the earning per share has a positive relationship with market price, i.e., higher the earning per share, higher will the market price be. Hence H2 is accepted.

Moreover, Table.9 also shows a significant positive relationship between banks BV and MP. This is evident in the t-statistics value of (2.11 and the P>|t| =.04). This outcome basically implies that an increase in BV will invariably bring about a significant increase in the MP. In other words with all other variables held constant, an increase or a change in BV of banks, say by 1% will on the average bring about a 46 % increase in the MP. This outcome nevertheless corroborates the findings provided by (Malhotra & Tandon,2013) where it was observed that, firms' book value, earning per share, and price-earnings ratio are having a significant positive association with firm's stock price. Since, book value per share depicts the owner's funds, a higher book value per share is perhaps perceived by an investor to be an indicator of the sound financial position of a company for investing. Hence H3 is accepted.

Another empirical finding from the regression analysis shows a positive relationship between P/E and MP. This is evident in the t-statistics value of (5.893and the P>|t| =.00). This outcome basically implies that an increase in P/E will invariably bring about a significant increase in the MP. In other words, with all other variables held constant, an increase or a change in P/E of banks, say by 1% will on the average bring about a 49 % increase in the MP. This outcome is consistent with findings of (Malhotra & Tandon, 2013) that firms' book value, earning per share and price - earnings ratio are having a significant positive association with firm's stock price. Hence H5 is accepted.

Empirical findings from the regression analysis on the relationship between S and MP indicate that there is an inverse relationship between S and MP. This is however evident in the t-statistics value of (-2.275and P>|t| =.03). This result basically means that with the influence of other variables held constant, as S changes; say by 1%, on average, MP changes by -39% in the opposite direction. This result further indicates that S is a significant determinant of MP for the sample listed firms in Jordan. This result opposes the result of (Chandra 1981) study, which stated that size has significant positive impact on market price of share. Hence H6 is rejected.

Finally, other variables (DPS and DP) have insignificant impact on MP. However, this indicates that, in the crisis period the firm DPS & DP have no explanatory power toward stock price movement. This result opposes the result of (Gordon 1956,Desai 1965, Irfan & Nishat, 2000, Gitmon & Lowrence 2004, Linter 1956) that, the dividends generally influence the share price in a positive direction. However, Farsio et al., (2004) argues that a causal relationship that exists between earnings and dividends are based on short periods of time and are therefore misleading to potential investors. Therefore, dividends have no explanatory power to predict future earnings. Hence H1 & H2 are rejected.

Table 9: ANOVA, Model Summary & Coefficient for Each Variable with the dependant Variable

Variables	B	Beta	t	Sig
(Constant)	73.243		1.920	.062
DPS	3.535	.027	.188	.851
EPS	20.378	.421	2.291	.027
BV	2.030	.458	2.110	.041
DP	.016	.035	.251	.803
P/E	.499	.487	5.893	.000
S	-9.478	-.389	-2.275	.028
R	.953			
R-Square	.908			
Adjusted R Square	.895			
F	69.459			
Sig.Prob (F-statistic)	.000			
Durbin-Watson	2.023			

7. Conclusions

The global financial crisis, which was triggered by the housing bubble in the United States (US) in 2006, has resulted in disastrous impacts on the global financial markets. In light of that, great transformations in the Jordanian financial market have occurred. Therefore, studying and analyzing the determinants of equity share prices become a great importance. In this context, this study attempted to identify the quantitative factors that influence share prices for the listed banks in ASE over the period 2005-2011.The study has chosen dividend per share, earning per share, book value per share, dividend payout, price earnings ratio, and size in terms of total assets as possible determinants of share prices and employs the regression and correlation analysis to identify the share price determinants. Based on the results of the empirical analysis, the variables earning per share, book value per share, price earnings ratio, and size are significant determinants of share prices for all the banks under consideration. Hence, the present study confirms that the study of financial factors prove to be beneficial for the investors in Jordan , as these factors posses strong explanatory power and hence, can be used to make accurate future forecasts of stock prices. Therefore, investors are suggested to take care of accounting variables of company before investing.

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