

Analyzing the Mutual Impact between Accounting Profit and Stock Returns for Joint Stock Companies Registered in Baghdad Stock Exchange

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Abstract

The research aims to test the two characteristics of the relationship between accounting profits and the stock returns, to find out the suitability of both of them in explaining the relationship between accounting profits and stock returns for joint stock companies registered in the Baghdad Stock Exchange, also aims to reaching the most appropriate specification for the relationship between the two variables of the company's stock dealing in the Baghdad Stock Exchange, and get a set of results, the most important of which are: the ability of changing for both of these variables in the profits share and the stock level of the profits does not explain more than 9,9% of the market returns of the Iraqi Joint Stock Companies registered in the Baghdad Stock Exchange, and the ability of changing of each variable in the stock share of profits explain the market returns of stocks which makes the matter of determining the variable explain the returns are possible or at least characterized by a certain degree of difficulty, the research concluded a set of recommendations, the most important are: the results of this study should be dealt with a kind of caution due to the small size of the market and the sample size in addition to the abnormal circumstances that falls under the Iraqi economy, not to mention the low efficiency of the market compared to the developed financial markets and also to repeat conducting such a study on other companies to verify the results concluded, especially with regard to the impact in the size of the companies.

Keywords: *accounting profits / stock returns*

Introduction:

Accounting profits are an important item of the financial statements, as they reflect the current and future status of the company, therefore, potential investors rely on them to evaluate their investment through what the current profits contain the ability to predict the continuity of

profits in the future. Testing the utility of accounting information in making investment decisions has become the focus of attention of the accounting literature. The interest has increased on this type of studies in response to the trend that emerged and called for the inability of historical cost accounting to be benefit in making

investment decisions. The usefulness of accounting information for investors in making their decisions related to investing in many developed stock markets such as the American and European markets has been tested by studying the relationship between accounting profits and stock returns, the results of studies in this context have shown a difference in the ability of accounting profits to explain the changes in the stock returns, as those studies showed that the difference in the profits can be due to many factors such as the nature of the accounting system used and its objectives, accounting standards and other factors. According to the subject importance to those who concerned in the accounting in the western world, especially in the United States and Britain, and as an extension of the researchers efforts in the field of investment theory. The current study aims to test the two characteristics of the relationship between accounting profits and stock returns, in order to find out the suitability of both of them in explaining the relationship between the accounting profits and the stock returns of the joint stock companies registered in the Baghdad Stock Exchange, and whether the most appropriate specification for the relationship between the stock variables traded in the Baghdad Stock Exchange.

First section: Methodology

First: The research problem:

Despite the multiplicity of models that define the relationship between the accounting profit and the return, there is no agreement on a specific model better than others, especially the Iraqi market in the representation of accounting profits of the relationship between accounting profits and market returns for the stocks of the companies registered in the Baghdad Stock Exchange, therefore, the research problem can be explained by the following question:

(what is the most appropriate specification for the relationship between accounting profits and

market returns for stocks traded in the Baghdad Stock Exchange?).

Second: the importance of research:

The importance of research can be defined as the following:

- 1- Examining the most appropriate specification for the relationship between accounting profits and market returns for stocks in the Baghdad Stock Exchange which represents the important specification in the local market.
- 2- This test help users of financial statements, in particular financial analysts, as they rely heavily on earnings per share in determining the stock prices.
- 3- The research provides evidence about the Iraqi market information content of stock profits.

Third: objectives of the research:

The research aims to test the two specifications of the relationship between accounting profits and the market profits of stocks, in order to find out the suitability for both of them in explaining the relationship between accounting profits and stock returns for the joint stock companies registered in Baghdad Stock Exchange, and the possibility to get the most appropriate specification for the relationship between the variables of stocks in Baghdad Stock Exchange.

Fourth: the research hypothesis:

The study is based on testing the following hypothesis:

H1: There is a statistically significant effect for each variable of the change in the stock profits on the market returns of stocks of Iraqi joint stock companies.

H2: The level variables of the stock profits explains the market returns of the shares of company in a better way than the explanation of the change variable in the share of profits.

H3: The ability of the profits to explain the market returns of shares will not be affected when the profits are represented by more than one variable in the model of the relationship between profits and returns.

The second section: A theoretical introduction to accounting profits and market returns for stocks.

First: The concept of accounting profits:

Accountants present the concept of profit in their analyzes and studies of accounting assumptions and principles (continuity of the accounting unit, periodic measurement of profit, matching revenues with expenses) due to the need of users for accounting information to know the profit of the economic unit at periodic intervals.

Profit is defined according to the accounting concept as: the difference between the total

revenue of the goods and the total costs, which is the amount left over to the institution after paying the returns of production elements that participate in the production process on a contractual basis, such as wages, interest and rent, in addition to other obligations such as taxes and depreciation. (Ali, 2016: 21)

There are two types of accounting profits, which are as follows:

- 1- Gross profit: it is the revenue from sales minus the cost of sold goods.
- 2- Net profit: total revenues minus total expenses.

Accountants and economists have differed in the principle of profit but sometimes meet in their sense in some aspects, and differ in others as shown in the following table: (Abu Nassar, 2009: 61)

Table (1)

Aspects of agreement and difference between accounting and economic profit

Comparison items	Profit according to accounting concept	Profit according to economic concept
Aspects of agreement	. the profit determined by the positive difference between revenues and expenses . relation of revenues to goods and service produced . relation of expenditures to cost of revenue acquisition . return on all investment activities	
Achieving revenue	Achieved by sale	at production
Expense item	All expenses actually paid or accrued, without implicit expenses	It consists of all actual expenses (clear expenses) and the calculated (implicit)
Price changing	It takes the historical cost principal	Takes price changing into account
Profit items	. owned capital . the work . the risk	The risk

Second: The predictive power of accounting profits:

Predictive power is one of the determinants of accounting profits information for the needs of users, and this is true in the financial markets as investment decisions are based on investor expectations and perceptions of the future performance of the economic unit. The financial statements stated that “information about the financial position and past performance is often used as a basis for forecasting the financial position and future performance and other matters of direct concern to users, such as dividends and changes in stock prices”, also, many parties, especially financial analysts, depend in their forecasting procedures for the economic performance and financial unit in the future on forecasting of financial statements data with specific reference to accounting profits. (Hamdan, 2014: 43)

The research emphasis on the ability of current profits to predict future cash flows, and focus on what the professional institutions had determined regarding the priority of information resulting from the application of the merit. The International Accounting Standards Board In the context of preparing and presenting the financial statements considered that the objective of the financial statements is: “provide information about the financial position, performance and changes in the financial position of the economic unit suitable for a broad base of users in making economic decisions”.(Manirath, 2011: 123)

The accounting researchers have discussed the suitability of accounting profits information in forecasting future cash flows, with a focus on operating cash flows, and this ability of accounting information to forecast and analyze future cash flows is one of the important matters by estimating future cash flows for the company in pricing the stocks. (Collins, 2008: 123)

The institutions ability to generate future cash flows is affected by the stock values, and the researchers considered that profits relevance as the ability of accounting profits in the current year to predict operating cash flows for the following year, as the relative ability for both of the accounting profits prepared according to accrual basis and the cash flows in predicting the ability of the company to generate cash flows which is a fundamental matter in accounting. (Ross, 2015: 71)

Third: earnings per stock:

Earnings per share expresses a financial indicator that includes information of fundamental importance in relation to evaluating the financial position of companies and must be disclosed and available to all investors because it is supposed to have an important role in making investment decisions. The International Accounting Standards Board has issued the International Accounting Standards No. 33 Earning per share. (Hasanen and Musawi, 2916: 33).

Earnings per share is one of the most important financial ratios used by investment professionals and there are many investors, including experienced ones give important care about earnings per share figure, even though it is one of the most deceptive ratios, so they must be caution and should not focus on it more than it deserves. Although the earnings per share has a fundamental impact on the market price of the share, there are a number of determinants for its use as a measure of performance, as the management may make more decisions.

The growth of current profits at the expense of future growth, for example reducing the amounts spent on capital investments, research and development, as growth in them cannot be relied upon to predict future growth. (Abdullah, 2016: 91).

Fourth: Stock returns:

Stock returns are calculated as a fixed return divided by the number of issued stocks. Although the companies pursue different accounting policies that may affect their returns in the financial statements. However, it is required to calculate the number of stocks in a fixed and consistent manner. Such guidelines reduce the ability of the companies to prove the number of stock returns and then adjust and amend it to suit specific conditions. The consistency of the computation improves the company's financial reporting and the ability of users to make useful comparisons between different companies.(Tariq, 2017: 353)

- 1- Calculation of returns: In order to access profit or loss returnable to ordinary shareholders it is necessary to deduct any dividends or other financing costs in respect of the preference stocks. Such adjustments will include the financial costs associated with any redemption payable on the preference stocks. Profits on redeemable preference stocks are usually included in the income statement as financing costs in accordance with (IAS 32) financial instruments, and when the dividend has not been announced in respect of non-cumulative preference stocks and no discount should be made in

this case, yet when the company has cumulative preference shares one year of dividends should be deducted regardless of when the dividend is announced and actually spent.(Amen, 2013: 56)

- 2- Calculating the average number of ordinary stocks: The average number of ordinary stocks is used when calculating the basic returns per share figure, and this takes into account the changes in the number of stocks during the period and the starting point is the number of stocks that were in circulation at the beginning of the period. This number is then adjusted according to the stocks that were issued or canceled during the period. And when the number of stocks are changed during the period, then the average factor should be applied, which is the number of days that the stocks were in calculation as a percentage of the total number of days in the period. (Alrajbi, 2017: 159).

Third section: practical approach:

First: description of the sample:

The study sample consists of 26 joint-stock companies registered in the Baghdad Stock Exchange for the year 2019 distributed among three industrial sectors at a rate of 65.4%, agriculture by 19.2% and finally service by a rate of 15.4% as shown in table No. (2).

Table (2)

Description of the study sample companies

Sector type	The number of sector companies in the market	Study sample	
		number	%
Industrial	34	17	50
Agriculture	29	5	17
Service	21	4	19
total	84	26	31

Those companies were selected on the basis of the following criteria:

- 1- Those companies are listed in the Baghdad Stock Exchange and their stocks dealing there since January 2, 2014.
- 2- These study sample companies did not suspend in their stocks by the board of directors of the market during the period from 1-6-2014 to 30-5-2019.
- 3- The companies selected for the study did not interrupt their circulation in the market for the period of more than 12 years.
- 4- The companies did not sold or merge during the period.

Second: analysis of research variables:

- 1- Market stock returns: The two researchers calculated the monthly market return for each company based on the data available in the market reports according to deal of these companies stocks for the period 2014 to 2019 in the market, using equation No. (1), then they determined the combined market return of the share for a period of 12 months to represent the combined market return for a year, according to equation No. (1).

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \dots\dots\dots (1)$$

Whereas:

R_{it} = market return of company l's stock at the end of the month t

P_{it} = closing price of the stock of company l at the end of month t

P_{it-1} = the opening price for the stock of company l at the beginning of month t

The two researchers relied on a sale window of twelve months length as it was appropriate to study the relationship between market returns of stocks and accounting profits. As for the researchers'

use of the opening prices for the sixth month of the company's fiscal year and the closing prices for the fifth month of the following year to measure the monthly and combined market returns for the fiscal year, it is an attempt by the researchers to include the date of issuing the company's financial statement in the window that measures market returns, because the financial statement are often issued four or five months after the end of the fiscal year on 31 December.

It is also noted from equation (1) that the two researchers used the expected return per stock in measuring the monthly and combined market returns for twelve months, in place of the unexpected return per stock, since the definition of the return does not play any role in determining the appropriate specification of the relationship between market stock returns and profits, and the expected fluctuation of stock prices between companies or over time is small compared to the changes in stock returns, and therefore the use of expected returns will give results very similar to those if unexpected returns are used. The two researchers also used the expected return per stock because using the unexpected returns is not good and may be worse than the use of the expected returns in the relationship of market returns to stocks.

2. The variable representing profits in the relationship specification: it represents two variables, namely: a- the change of the share of profits per stock: the two researchers measure this variable with the following equation:

$$\Delta EPS_{it} = \frac{X_{it} - X_{it-1}}{P_{it-1}} \dots\dots\dots (2)$$

Whereas:

ΔEPS_{it} = change in return per stock

X_{it} = the returns per stock of company I for the period t

X_{it} = share of returns per stock in company I for the period t-1

The scientific justification for using this variable in describing the relationship between market returns of stocks and profits is if stock prices reflect expectations about future profits before announcing those profits, then it is logical to link the change in price with the change in expected profits that approximates unexpected profits, because current profits approximate expected profits. This means profits behave randomly, therefore the unexpected profits are only that are related to the return on the stock during the simultaneous period of both variables.

b- the variable of the stock profits level: the two researchers measure this variable with the following equation:

$$EPS_{it} = \frac{X_{it}}{P_{it-1}} \dots\dots\dots (3)$$

Whereas:

EPS_{it} = the level of profits per stock

The two researchers have relied on measuring the variable on the book value of the company and on its profits, therefore the strength of the relationship level of the stock profits to the market returns is greater than the relationship of the change in the share of profits to the market returns.

3. The size of the company: the two researchers rely on expressing the size of the company on the basis of the market

values of the company's stock to distinguish between large and small companies, therefore, companies whose stock market values are higher than the average are classified as large companies, while companies whose market values are less than the average are considered to be small companies, according to that, the large companies are (20) companies, while the small companies are (6).

Second: main test forms:

The two researchers use the following simple and multiple regression models to test the study hypotheses:

1. To measure the effect of a variable of change in the share of returns per stock, the researchers use equation No. (4):

$$R_{it} = a_i + b_i \Delta EPS_{it} + e_{it} \dots\dots\dots (4)$$

2. To measure the variable effect of the returns level stock, the two researchers use equation No. (5):

$$R_{it} = a_i + b_i EPS_{it} + e_{it} \dots\dots\dots (5)$$

3. To measure the effect of each variable ΔEPS_{it} and EPS_{it} , the two researchers use equation No. (6):

$$R_{it} = a_i + b_{1i} \Delta EPS_{it} + b_{2i} EPS_{it} + e_{it} \dots\dots\dots (6)$$

Whereas:

e_{it} = form error

**table (3)
correlation matrix between study variables**

ΔEPS_{it}	R_{it}	Variable s
0.536	0.303	EPS_{it}
-	0.312	ΔEPS_{it}

The significance of the correlation coefficients was tested, under the level of significance (5%).

It is important to refer that the two researchers found a statistically acceptable correlation between the two variables in the research, as the value of Spearman's correlation coefficient between those two variables.

In order to ensure that the results are not of high correlation between the two independent variables in the model, which are ΔEPS_{it} and EPS_{it} . the two researchers tested the correlation between them by using the (VIF) Variance Inflation Factor test, which explains the ratio of actual variance to total variance and a scale (CN) Condition Number, which measures the sensitivity of regression estimates to small changes in the data and is defined as the square root of the largest value ratio to the small value in the correlation matrix of the two independent variables.

We must note in this regard that there is no firm rule to determine the importance of VIF, but Myers (27) indicated that if the value of the VIF is greater than 30, this means there is a high correlation between the two variables, and if the value of the VIF is less than 5 points, this means that there is no significance correlation between the variables. Also explained that if the square root of the CN value is greater than 1000, this indicates a high correlation between the independent variables.

Table No. (4) shows the results of the correlation test between the two independent variables in the research and indicates there is no statistically significant correlation between the two variables, which means that it can be used in the model.

Table (4)

VIF and CN test results

The year	ΔEPS_{it}		EPS_{it}		views
	VIF	CN	VIF	CN	
All years	1.976	1.454	1.976	1.00	132
2014	1.351	1.757	1.351	1.00	21
2015	1.897	1.688	1.897	1.00	24
2016	1.842	1.931	1.842	1.00	22
2017	1.956	1.867	1.956	1.00	21
2018	2.491	1.956	2.491	1.00	18
2019	1.874	1.309	1.874	1.00	26

Results:

H1 test results:

The results of the analysis of variance of Model No. (4,3) and included in Table No. (5) indicate the validity of what the two researchers is applicable to their first hypothesis, as the t value calculated for the value of the regression coefficient for both ΔEPS_{it} and EPS_{it} the each has a statistically significant effect on the market returns of stocks at the level of 5% significance.

The F-test of the two models showed their statistical acceptance at the 5% level of significance as well.

The results of this hypothesis also confirmed results regarding the decrease in the explanatory power R2 of the two variables of the profits, where no more than 0.0964 of the market returns was explained by the ΔEPS_{it} variable, while the ΔEPS_{it} variable did not explain more than 0.0887.

However, the two researchers do not believe that the reason behind the low R² is due to in error in specifying the relationship, but rather to the investment goal for investors in the Baghdad Stock Exchange because of the abnormal inflation situation that prevails in the Iraqi economy. They found themselves obliged to invest their money in order to save money from the risk of a decrease in purchasing value, and given the limited and even scarcity of investment tools available in the

economy. The Iraqi investors should invest in company stocks, and based on market theory, this increase in the demand volume which leads to an increase in stock prices, which provides an opportunity for the investor to achieve returns on his investments from stocks, this means that the market returns of stocks in Baghdad Stock Exchange are not sensitive to accounting profits as much as they are sensitive to the purpose of investment and general economic conditions.

Table (5)

Regression analysis results

EPS _{it}						ΔEPS _{it}					the year
Duribin-Watson	F	R ²	T	Bi		Duribin-Watson	F	R ²	T	Bi	
1.482	3.95*	0.0887	1.88*	0.423		1.491	4.13	0.0964	1.93*	0.398	All years
Residuals Statistics ^a						Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N		Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5.092E-02	5.936E-02	5.929E-02	7.366E-04	131	Predicted Value	4.051E-02	8.552E-02	5.929E-02	1.157E-02	131
Residual Std.	-.1794	.2506	2.966E-17	7.815E-02	131	Residual Std.	-.1948	.2478	3.326E-17	7.730E-02	131
Predicted Value	-11.358	.096	.000	1.000	131	Predicted Value	-1.624	2.267	.000	1.000	131
Std. Residual	-2.286	3.195	.000	.996	131	Std. Residual	-2.511	3.194	.000	.996	131
a. Dependent Variable: Y						a. Dependent Variable: Y					

* (10%) Indication level

H2 test results:

The results of the second hypothesis included in table (5) came in contrast to what is expected, as these results show that the EPS_{it} variable was not more capable than a variable in explaining the market returns of stocks, but rather its ability was

less than the ability, as evident from the determination coefficient R² for the two models. Undoubtedly, this result confirms the researcher's explanation of the low explanatory power of profits.

Table (6)

Hypothesis test results

F	R ²	EPS _{it}	ΔEPS _{it}			The year
		T	b2	T	b1	
3.11**	0.198	2.01**	0.451	1.59*	0.422	All years
Residuals Statistics ^a						
	Minimum	Maximum	Mean	Std. Deviation	N	
Predicted Value	4.051E-02	8.552E-02	5.929E-02	1.157E-02	131	
Residual Std.	-.1948	.2478	4.068E-17	7.730E-02	131	
Predicted Value	-1.624	2.267	.000	1.000	131	
Std. Residual	-2.501	3.182	.000	.992	131	
a. Dependent Variable: Y						

*indication level (10)%

**indication level (50%)

H3 test results:

It appears from the results of Model No. (6) that the explanatory profits for the market returns increase when the number of variables representing profits in the specification model increases, and this confirms the research hypothesis that the ability of profits in explaining the market returns of stocks will not be affected when the profits are represented by more than one variable in the relationship model between profits and returns.

Fourth section: conclusions and recommendations:

The most important conclusions and recommendations of the research will be addressed by the current section, as follows:

First: conclusions:

- 1- The ability of both the variable of the change in the share stock of the profits and its level variable does not explain more than 9.9% of the market returns of the Iraqi shareholding companies stocks registered in the Baghdad Stock Exchange.
- 2- The variation in the ability of change variable in the share of stock profits

and the variable of change in interpreting of the market returns makes the matter of determining the variable most explaining the returns not possible or at least characterized by a certain degree of difficulty.

- 3- Using more than one representative of profits in the relationship model makes profits more capable of explaining market returns and reduces the bias resulting from error in measuring profits.

Recommendations:

- 1- The results of this study should be treated with a kind of caution due to the small size of the market and the consequent relatively small size of the sample in addition to the abnormal circumstances of the Iraqi economy, not to mention the low market efficiency compared to the developed financial markets.
- 2- Repeat conducting such a study on other companies to verify the results it reached, especially with regard to the difference effect in the size of the company.

- 3- The use of more than one variable representing profits is one of several methods of improving the ability of interpretive profits of market returns. Therefore, researchers can examine another method such as the inverted method of the price-profit ratio.

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