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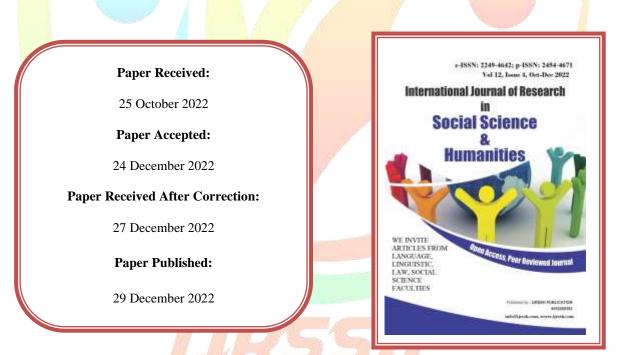
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THE EFFECT OF CAPITAL RESTRICTIONS ON THE MARKET VALUE OF THE STOCKS OF A SAMPLE OF IRAQI BANKS

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## ABSTRACT

The research aims to study the impact of the change in the market value resulting from the increase in the capital of a sample of banks listed in the Iraq Stock Exchange. Which imposed a capital increase by the Central Bank of Iraq to increase the capital efficiency of those banks. The research attempts to shed light on the concepts associated with the research variables. Theoretically, by reviewing the concepts and topics related to capital increase and the market value of stocks. Applied by measuring the correlation and regression with statistical significance between the two research variables, which contributes to verify the research hypotheses. Data were collected from the Iraq Stock Exchange and the Iraq Securities Commission. The research community is represented by the listed bank sector, whose stocks were traded on the Iraq Stock Exchange, and they amounted to (41) banks. The research sample identified (7) listed banks that did not record any missing data during the research period, with a number of (48) observations from the beginning of 2007 to the end of 2018 quarterly, with four observations per year. SPSS program was used in statistical analysis and Microsoft Excel program to collect data, format it and represent it in graphical forms. The most important results of the research concluded on the effect of the increase in capital on the market value of the stocks of the research sample in a positive direction. However, this does not agree with the research hypothesis that the increase in capital leads to a decrease in the market value. The most important recommendations concluded that it is necessary to use more effective measures and models for financial research because of the inaccuracy of the traditional results in measuring the large fluctuations that occur in the financial data.

**Keywords:** capital increase restrictions, capital market, market value of stocks.

## **INTRODUCTION**

There are many researches and studies that are concerned with the effects of the market value of business companies and financial and banking institutions, depending on the areas of interest and specialization that lead researchers towards conducting research and scientific studies. Financial and banking researches have been very interested in researching the factors affecting the market value because of impact on evaluating their the performance of companies, banks, and business companies in general. The market value of stocks reflects the assessments of

the financial markets and investors of the traded stocks. Undoubtedly, the market value was affected by choosing a financing structure mix that would greatly affect the market value of the stocks that are the subject of the research.

The effect of increasing equity financing on the market value of a sample of Iraqi banks that were forced to increase their capital by the Central Bank as of 2010 was selected for the purposes of increasing the efficiency of bank capital and the ability to face financial crises. The research is concerned with testing a specific phenomenon that occurred on the banks

listed on the Iraq Stock Exchange. Thus, the research attempts to test the correlation and regression of Equity financing for Iraqi banks listed on the Iraq Stock Exchange on their market value. Hence, the importance of the research emerges in a single test of the impact of the capital increase restrictions that were imposed on Iraqi banks to contribute in a specific period of time on the market value of the stocks of those banks.

The research includes several parts, the first part presents the introduction of the research. The second part contains a review of previous literature. The third part contains the theoretical framework for the research, including the restrictions of increasing the capital of Iraqi banks, The value of stocks market and their fundamentals. While the third part of the research includes the methodology and the results of the applied side by measuring and testing the research variables with statistical analysis, in addition to the financial analysis of the research data series. The last part contains the conclusions and recommendations of the research.

## **PREVIOUS LITERATURE**

Modigliani and Miller provided as guidance that capital structure correlates with and influences firm value (Sinaga et.al,2016:125). Theories related to capital structure explain the effect of capital increase on the cumulative cost of capital. study(Buigut et.al,2013) Focused In testing the relationship between capital structure and stock prices on the Nairobi Stock Exchange. The study evaluated the effect of debt, equity, and the indebtedness ratio on the stock price. The results indicated that the variables of debt, equity and indebtedness ratio are important determinants of stock prices. The ratio of indebtedness and debt positively affected stock prices, while property rights negatively affected stock prices.

Study endeavored (Sinaga et.al,2016) to test and analyze the impact of the capital structure, the company's growth, and the dividend policy on the company's value. The results of the study showed that the capital structure negatively and significantly affects the profitability and value of the company.

A study aimed (Altahtamouni, 2018) to test the determinants of market value (the case of Jordanian banks). The study tried to find the best model for predicting the market value of Jordanian banks. The study found no effect of both financing and dividend decisions on market value.

The study (Abubakar, 2020) examined the effect of market risks on the market value. The results indicated that the degree of financial leverage has a significant and positive impact on the market value.

Various financial research and studies interested in measuring and testing the factors, influences and determinants of the market value and the value of the company. This study was distinguished from previous studies by examining the impact of equity financing specifically on the market value of the research sample represented by a number of Iraqi banks listed on the Iraq Stock Exchange.

The research attempt to shed light on the restrictions imposed on Iraqi banks with regard to increasing capital and its reflection on the market value of the stocks of banks listed on the Iraq Stock Exchange.

# THEORETICAL FRAMING OF THE RESEARCH

Restrictions On Increasing Bank Capital

Banking systems were considered inefficient and caused the origin of the financial crisis of 2007-2009. Thus, the Basel III agreement was reached. Which confirmed that the capital requirements in terms of credit are no longer sufficient on their own without the need for additional capital reserves (Majcher,2015:250). This imposed restrictions to provide an increase in capital levels to enhance the flexibility of banking systems and reduce the severity of financial crises (Schanz et.al,2011:76). The decisions of the Basel III Committee came to enhance financial stability by increasing the capital of banks for the purposes of: (1) Reducing the possibility of financial distress for banks. And (ii) minimizing bank losses in the event of default (Martynova,2015:3).

The general principles of capital requirements are outlined in Basel III: a global regulatory framework for banks towards more flexible banking systems (Majcher, 2015:250). Basel III raised the minimum bank capital requirement from to as much as 15.5%. It also 8% introduced leverage ratio requirements and raised the quality of capital by emphasizing the basic requirements for financing means in implementing regular ratios, including limitation a larger portion of the capital structure than common stock (Dagher, 2020:250).

In line with global trends after the global crisis, the Iraqi Central Bank sought to support Iraqi banking stability. For the purpose of facing development projects, by the decision of the Central Bank, which stipulated an increase in the capital of joint-stock banks to (250) billion dinars

within three years. As of (30/6/2010) after the capital for some of those limits did not exceed (60) billion dinars (Central Bank of Iraq, 2013: 6).

# The capital market and its characteristics

The capital market represents a network of specialized financial institutions and a series of mechanisms, processes and infrastructure. That facilitates in various ways, bringing together stockholders and banks that need capital. For the purposes of in social and investing economic development projects. The capital market is divided into the primary and secondary market. The primary market is a market for new securities. Through it, the already listed companies can obtain additional funds to the capital to expand their investments (Ekpung & Uchenna, 2013:45).

The importance of the capital market stems from many aspects. The financial market has the following characteristics (Andrieş, 2009:70) (Ekpung & Uchenna,2013:46) ((Biosca et.al:35):

 Capital markets facilitate the raising of equity financing from non-company investors and give them the ability to buy and sell their ownership stakes in the financial market.

- 2. The capital market provides companies and banks to issue additional stocks at later stages through secondary offerings.
- The capital market is public, available, and transparent, meaning that anyone can be a participant in this market.
- 4. The deal is done through brokers who play a basically role in completing deals between the securities issuers and the investors.
- 5. It provides a means of marketing stocks and other securities in order to raise new funds to expand operations leading to increased production.
- 6. The capital market also encourages the inflow of foreign capital when it facilitates the entry of foreign investors into the local financial markets.

## **Bank Financing Methods**

The research focuses on the method of financing by ownership, according to which the investment institutions in the capital finance companies and participating banks by purchasing stocks of the issued stocks. At the same time, individual investors buy these stocks from these investment institutions, which

contributes to financing these companies or banks (Gompers & Lerner, 2003:1).

To clarify the most important methods of bank financing. There are three basic methods of financing, the most important of which is (Majcher,2015:254) (Fama & French ,2005:560):

- 1. Borrowing and financing with debt: Such financing would result in excessive leverage.
- 2. **Retained earnings:** Instead of distributing them to stockholders, banks resort to financing with retained earnings due to higher financing and transaction costs and asymmetric information problems.
- 3. Issuing new stocks: To obtain additional capital, property rights (common stocks) are issued when necessary or when the investment exceeds the realized profits. This type of financing was used by Iraqi banks in light of the Central Bank's restrictions. Thus, the research studies and sheds light on the increase of capital by financing with new stocks and its impact on the market value.

## Equity financing (Issuing new stocks)

Stocks are issued to finance companies in the primary market and are trading at prices agreed upon in the market, or in negotiations outside the financial market. Many market participants such as small retail investors and individuals to large institutions. So are mutual funds, banks, hedge funds, and insurance companies, as well as companies whose stocks are traded (Biosca et.al:35).

> The primary market or the market for new issues provides the way through which the joint-stock companies collect new funds by issuing stocks in two ways (Ekpung & Uchenna, 2013:45) (Biosca et.al:35):

- 1. **Public Offering**: Companies enter the stock markets with an initial public offering (IPO), which generally allows investors to take ownership of a company's stock.
- 2. **Private Offering**: Limited to a select group of investors.

## The Market Value Of Stocks

The concepts of market value come at different levels, often referring to price as the rationale for the valuation (Gaca, 2019:68). The term market capitalization is an expression of the growth of the financial wealth of companies and joint stock banks, according to the definition (Fracarolli & Lee, 2021:229).

The two researchers (Erasmus & Akani) indicated that the company's market value

indicator investors' is a good of perceptions of its business prospects (Erasmus & Akani, 2021:20). While the researchers (Bernard & Nicolau) focused on the use of stock performance as a measure of market value. Because the stock price reflects the true value of the company by presenting the present value of future earnings and immediately adjusts to external factors that can affect the market (Bernard & Nicolau, 2022:7).

In another definition, (Deventer & Mesler) indicated that the market value of the company's stocks is the total value related to the company's ownership rights, represented by the stock price multiplied by the total number of issued stocks (Deventer & Mesler, 2013:446).

The previous definitions dealt with various concepts of the market value according to the researchers' visions and their view to define a specific definition of the market value. Some of them believe that the market value of the company reflects the investors' perceptions regarding the company's future, and the investors' attitudes towards its directions. Other researchers focused on the growth of the company's financial wealth as an expression of the market value.

On the other hand, the researchers (Bernard & Nicolau) and the authors

(Deventer & Mesler) agreed to include the stock price as an expression of the measurement of the market value of stocks in the stock market. These two concepts agree with what the research focuses on in measuring the market value of the issued stocks.

#### **Types of stock value**

There are many concepts in determining the type of stock value according to the evaluation perspective. The most important of these types of stock evaluation can be identified as follows (Besley & Brigham, 2008:41) (Fabozzi et.al, 2017:1) (Häcker & Ernst, 2017:576):

- Book Value of Stocks: Book value per stock is simply the amount per stock of common stock that would be received if all of the company's assets were sold at their accounting value.
- 2. The real value of stocks: The value on which the current price is evaluated to determine whether the investment is of overvalued, undervalued or fair value.
- 3. The market value of stocks: The value of ownership rights for operating business activities is used when calculating the percentage of ownership rights based on stock prices in the financial market.

## Estimating the market value of stocks

The value of a company or bank represents the investor's perception of the level of success, which is often expressed in stock prices in the financial market. The high price of the stocks leads to an increase in the market value of the company (Hamam et.al. 2020:17). When determining the market value of equity, one should consider the following (Gaca, 2019:70):

- 1. The principle of supply and demand.
- 2. The principle of competition.
- 3. The expectation principle related to market value forecasting, based on the assumption that property value is formed on the basis of expected future benefits.

The market value of equity is the same as the capitalization value and both are calculated by multiplying the total issued stocks by the market stock price (Bernard & Nicolau, 2022:3). This is the scale used in this research (Ross et.al, 2013:56):

 $MV = S \times P \dots \dots \dots \dots (1)$ 

## MV: Market value

S: stocks total

P: stock price

## 1. Methodology

The research depends on the data available on the Iraq Stock Exchange, as well as the date of the Iraq Securities Commission. The data was selected on a quarterly basis, starting from the first quarter of 2007 to the fourth quarter of 2018, with four observations for each year. With a total of (48) observations for each of the research variables (capital, market value) for the banks, the research sample expressed the time period of the study. The selection of this period and quarterly data came with the aim of overcoming the difficulty of the normal distribution of the financial data and trying to reach the best

possible result of the statistical analysis

The research community was represented by the sector of listed banks. Whose stocks were traded in the Iraq Stock Exchange since the beginning of 2007 to the end of 2018. It amounted to (41) banks. The reason for choosing the research community is due to the decision of the Central Bank of Iraq in the year 2010. Which imposed on banks to increase the owned capital from 50 billion stocks to 250 billion stocks. Which provides privacy that requires research and analysis of the consequences of the banking sector in the Iraqi market for securities. As a result of imposing a capital increase from the financial and monetary authority

represented by the Central Bank of Iraq to increase the investment capacity of banks.

The determination of the community followed the selection of a sample of banks by the intentional method, according to the completeness of the data required for the research period. For various reasons, including the interruption of trading or the suspension of the listing of some banks, or the emergence of new banks that were not listed before the year 2007, and thus their data does not cover the period of research. The research sample identified (7) listed banks that did not record any missing data during the research period and were chosen for the purpose of moving away from processing the missing data, which is reflected in the adoption of (100%) of the real data that was actually recorded. The research sample included the following banks:

NO	THE RESEARCH SAMPLE
1	Commercial Bank of Iraq
2	Investment Bank of Iraq
3	National Bank of Iraq
4	Sumer Commercial Bank
5	Babylon Bank
6	Gulf Commercial Bank
7	Mosul Bank 🧰 📻

The program (Microsoft Excel) was used for the purpose of collecting data, arranging and tabulating them in a manner appropriate to the needs of the research, While the (SPSS) program was used for the purpose of completing the statistical analysis and testing the correlation and regression between the two research variables to reach the statistical results that achieve the desired goal of the research. The test included correlation and linear regression between the independent variable represented by capital increase (X) and the dependent variable represented by the market value (Y).

The research was based on two main hypotheses that apply to all banks in the research sample:

- 1. "There is a significant correlation between the capital and the market value of the research sample banks"
- 2. "The increase in the capital owned by the research sample banks leads to a decrease in their market value."

Table (1) presents the research data, which was used for statistical analysis, and includes capital and market value for a period of time that extended from the first quarter of 2007 to the fourth quarter of 2018.

# Table (1) Capital and market value data of the research sample banks for the period (2007-<br/>2018) (Amounts in millions)

Commercial Bank of Iraq		Investment Bank Natio of Iraq Iraq			ational Bank of		Sumer Commercial Bank		Babylon Bank		Gulf Commercial Bank		
Capital	Market Value	Capital	Market Value	Capital	Market Value	Capital	Market Value	Capital	Market Value	Capital	Market Value	Capital	Market Value
60000	111000	29750	43138	25000	32500	16809	24373	30000	36000	22344	31282	20000	40000
60000	84000	29750	37188	25000	27500	21180	20121	30000	30000	22344	25696	20000	40000
60000	99000	29750	37188	25000	93750	21180	28593	30000	90000	22344	35750	25000	30000
60000	81000	29750	38675	25000	26250	21180	19062	30000	37500	22344	33516	25000	26250
60000	90000	29750	38675	25000	32500	25125	21180	30000	37500	25000	27930	25000	28750
60000	81000	37500	41650	25000	27500	25125	22613	30000	34500	25000	31250	25000	28750
60000	84000	37500	43125	25000	25000	25125	22613	30000	33000	25000	36250	25000	28750
60000	69000	37 <mark>500</mark>	39375	25000	22500	25125	22612.5	30000	34500	25000	36250	25000	26250
60000	87000	37500	61875	25000	22500	4 <u>5000</u>	40500	30000	48000	25000	65625	35000	59500
60000	109800	37500	60000	25000	22500	45000	40500	30000	53500	37500	67500	35000	54250
60000	105600	50400	68544	50000	4 <mark>50</mark> 00	50000	45000	50000	67500	50000	68500	50000	77500
60000	9300 <mark>0</mark>	50400	61992	50000	<mark>435</mark> 00	50000	49500	50000	65000	50000	60000	50000	55500
60000	792 <mark>00</mark>	50400	59472	50000	<mark>395</mark> 00	50000	45000	50000	50000	50000	51500	50000	51000
60000	85 <mark>200</mark>	50400	62496	50000	<mark>415</mark> 00	50000	45000	50000	50500	50000	51000	50000	50500
60000	8 <mark>3400</mark>	50400	62496	50000	<b>4100</b> 0	50000	45000	50000	45000	50000	<mark>5</mark> 0000	50000	46000
60000	8 <mark>3400</mark>	50400	62496	50000	40500	70000	56700	<u>500</u> 00	43500	56990	51291	50000	45500
60000	8 <mark>3400</mark>	75020	88523.6	50000	45500	<u>850</u> 00	72250	<u>50</u> 000	49000	56990	62689	50000	74000
100000	132 <mark>000</mark>	75020	84022.4	50000	45500	85000	72250	50000	50000	56990	57559.9	50000	67500
100000	127000	100000	107000	100000	101000	100000	82000	100000	90000	56990	57559.9	50000	67500
100000	127000	100000	95000	100000	85000	100000	82000	100000	81000	56990	57560	50000	67500
100000	128000	100000	93000	100000	77000	100000	78750	100000	87000	56990	94595	50000	67500
100000	122000	100000	99000	100000	75000	100000	78750	100000	76000	56990	104990	50000	67500
100000	127000	100000	107000	100000	101000	1000 <mark>00</mark>	82000	100000	90000	56990	57559.9	50000	67500
100000	127000	100000	101000	100000	84000	116000	118320	100000	78000	103950	113305. 5	202000	171700
100000	102000	155000	155000	100000	81000	151000	154020	100000	72000	125000	160000	202000	163620
150000	138000	155000	173600	138905	129182	151000	154020	150000	108000	125000	132500	202000	163620
150000	132000	155000	156550	152000	118560	187300	187300	150000	102000	250000	252500	202000	155540
150000	138000	155000	150350	152000	124640	187300	187300	150000	105000	250000	287500	202000	175740
150000	135000	250000	252500	250000	225000	250000	225000	150000	91500	250000	272500	202000	149480
250000	167500	250000	237500	250000	192500	250000	197500	150000	69000	250000	272500	202000	147460
250000	180000	250000	227500	250 <mark>00</mark> 0	200000	250000	250000	150000	69000	250000	242500	202000	147460
250000	165000	250000	250000	250000	225000	250000	250000	178859. 3	69755.1 2	300000	270000	202000	147460
250000	167500	250000	225000	250000	212500	250000	237500	178859. 3	57235	300000	261000	252500	88375
250000	187500	250000	237500	250000	200000	250000	237500	178859. 3	91218	300000	285000	252500	116150
250000	160000	250000	180000	250000	157500	250000	237500	178859. 3	71544	300000	201000	252500	95950
250000	102500	250000	170000	250000	137500	250000	237500	250000	72500	300000	153000	252500	63125
250000	95000	250000	132500	250000	105000	250000	225000	250000	57500	300000	123000	252500	45450
250000	105000	250000	125000	250000	77500	250000	225000	250000	50000	300000	117000	252500	47975

-													
250000	110000	250000	135000	250000	80000	250000	225000	250000	57500	300000	117000	252500	75750
250000	120000	250000	150000	250000	102500	250000	225000	250000	82500	300000	135000	252500	141400
250000	137500	250000	150000	250000	135000	250000	225000	250000	97500	300000	135000	252500	106050
250000	105000	250000	135000	250000	140000	250000	225000	250000	80000	300000	108000	252500	83325
250000	100000	250000	115000	250000	125000	250000	225000	250000	72500	300000	102000	252500	78275
250000	122500	250000	105000	250000	117500	250000	225000	250000	75000	300000	117000	252500	80800
250000	110000	250000	117500	250000	145000	250000	225000	250000	62500	300000	93000	252500	63125
250000	110000	250000	97500	250000	107500	250000	225000	250000	47500	300000	63000	252500	50500
250000	110000	250000	75000	250000	65000	250000	225000	250000	47500	300000	57000	252500	42925
250000	117500	250000	70000	250000	85000	250000	225000	250000	47500	300000	57000	252500	40400

#### Source: Preparing the researcher based on Iraq stock exchange & Iraq securities commission

Table (2) presents the results of the statistical analysis to test the two main hypotheses, the first is related to the correlation test between the two research variables, and the second is related to the linear regression test. In addition to calculating the arithmetic mean of the dependent variable (y), represented by the market value of the banks in the research sample. The results showed the correlation of the research variables represented by capital and market value with significant significance at different levels ranging from (medium correlation, good correlation, very good correlation) for all the research sample banks.

This seems clear through the column (R) in the table below, and the strongest correlation between capital and market value was recorded in a data test for Sumer Commercial Bank. The correlation strength was (.994\*\*), with a very good rating. While the results of the Babylon Bank data test indicated a log (.359 \*) with an average rating, and this correlation recorded the lowest level of the test within the research sample.

The results of the statistical analysis of the second research hypothesis, which is related to the linear regression test between the two research variables, are presented. It includes the analysis and interpretation of the results of the financial and statistical analysis of the research variables, and those results are shown successively for each bank of the research sample.

no	Sample of banks	(R)	Average(y)	Std. Deviation (y)	( <b>R</b> <sup>2</sup> )	B	F calculate d	F Table	Sig. (2-
1	Commercial Bank of Iraq	.568**	114927.1	28429.92	.323	.188	21.919	7.22	.000
2	Investment Bank of Iraq	.759**	112831.9	62757.77	.576	.503	62.458	7.22	.000
3	National Bank of Iraq	.794**	93455.88	58737.41	.631	.477	78.574	7.22	.000
4	Sumer Commercial Bank	.994**	134788.1	88909.53	.988	.921	3834.559	7.22	.000
5	Babylon Bank	.359*	64859.42	<b>21162.9</b> 5	.129	.087	6.797	7.22	.012
6	Gulf Commercial Bank	.645**	111315.8	80945.38	.416	.426	32.768	7.22	.000
7	Mosul Bank	.512**	79357.4	44844.70	.262	.229	16.325	7.22	.000

## Table No. (2) Statistical Analysis Results

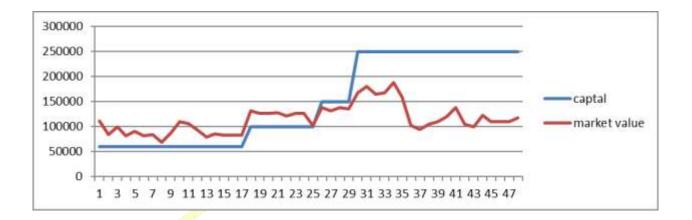
Source: Preparing the researcher based on the results of the statistical analysis of the SPSS program

## Results analysis of Commercial Bank of Iraq

The results of Table (2) present the linear regression analysis between the increase in the capital of the Commercial Bank of Iraq data and the market value of the same bank. It is clear from it that the coefficient of determination (R2) recorded an amount of (. 323). Which refers to the amount of impact of the capital increase on the market value of the bank stocks. In addition, the coefficient (B) is (. 188), and the direction of the regression is positive and not reversed, with a significant effect at the level of significance (. 000). And the calculated F value of (21.919) is greater than the tabular F of (7.22). According to these results of statistical analyzes, the increase in capital leads to an increase in

the market value of Commercial Bank of Iraq stocks. This means that the hypothesis that says "the increase in capital leads to a decrease in the market value of stocks" is not accepted.

Figure (1) shows the graph of the trend of numerical values during the research period for the two variables, represented by capital and the market value of the Commercial Bank of Iraq stock. Which confirms that the increase in the capital from (60,000) million stocks at the beginning of the period (250,000) million stocks in recent years did not lead to a decrease in the market value. Because the stock price, even if it decreased a lot, the size of the capital is large compared to the past.



# Figure (1) Graph of capital increase and market value changes for the period (2007-2018)

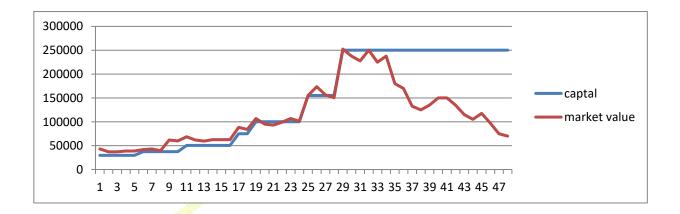
# Results analysis of Investment Bank of

The results of Table (2) indicate that the determination coefficient ( $R^2$ ) was (.576) and the value of the (B) coefficient was (.503) to calculate the inverse regression coefficient for the regression hypothesis. Which indicates a direct and not inverse positive impact coefficient, which rejects the hypothesis that the increase in capital leads to a decrease in the market value of stock. The value of (F) calculated (62.458) was greater than the tabulated value of (7.22), which means that there is a

regression between the two search variables, but it is direct and not in verse, and at a significant level (. 000).

It is clear from figure (2) that the changes in the market value were affected by the increase in the capital in a positive direction. However, the arrival of the capital of the Investment Bank of Iraq to the amount of (250,000) billion stocks. This led to a decline in the market value to levels close to the previous market values, to increase the capital to less than (100,000) billion dinars for the market value.





## Figure (2) Graph of capital increase and market value changes for the period (2007-2018)

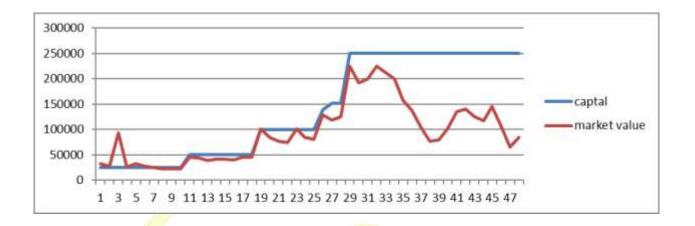
# Results analysis of National Bank of

The results of the previous table (2) showed that the value of the coefficient of determination ( $\mathbb{R}^2$ ) amounted to (.631). The value of the coefficient (B) for the reverse regression was (.477), with a positive sign. Which indicates direct regression between the two research variables, not the reverse. The increase in the capital of National Bank of Iraq stocks did not lead to a decrease in the market value. Rather, it led to an increase in the market value, The value of (F) calculated

was (78.574) greater than the tabulated value of (7.22) and at a significant level (. 000) to indicate the existence of a regression indication. However, it is a positive direction that does not correspond to the research hypothesis.

Figure (3) shows that the increase in the capital of the National Bank of Iraq stocks was accompanied by an increase in the market value by the amount of the capital exceeded (200,000) billion stocks. After that, the market value of the stocks of the same bank decreased.

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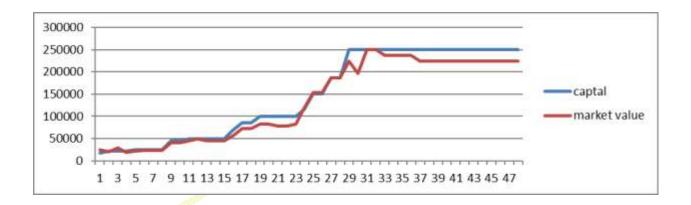


# Figure (3) Graph of capital increase and market value changes for the period (2007-2018)

# Results analysis of Sumer Commercial Bank

It is clear from the results of the previous table (2) that the value of the determination coefficient (R<sup>2</sup>) for linear regression analysis between the two search variables for Sumer Commercial Bank amounted to (.988). Which means a great impact force of the increase in capital in changing the market value, and the (B) coefficient for determining the direction of decline has reached (.921) also in a positive direction and with a high impact force. Which confirms the existence of a statistical significance of the effect of the increase in the capital in changing the market value, and this appears clear from the increase in the value of (F) calculated (3834.559) to its tabular value of (7.22). At the level of significance (.000). However, the direction of the regression analysis is positive and not negative. Which denies the hypothesis that the increase in the capital leads to a decrease in the market value.

Figure (4) shows that the increase in the capital of Sumer Commercial Bank is related to the increase in the market value of the same bank. Every increase in the capital stocks of the bank was offset by an increase in the market value. The market value did not decrease as a result of the increase in the capital, which supports the results of the statistical analysis above.



# Figure (4) Graph of capital increase and market value changes for the period (2007-

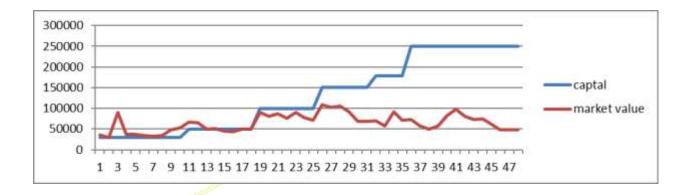
## 2018)

#### **Results analysis of Babylon Bank**

The results of the previous table (2) of the regression analysis between the two search variables for Babylon Bank showed a statistically weak effect between the two search variable. The value of the coefficient of determination ( $\mathbb{R}^2$ ) was (.129), with a very weak degree of influence. In addition, the (B) coefficient for determining the direction of decline amounted to (.087), with a positive sign and a very weak amount, reflecting that the market value was not affected by the increase in capital. This is proved by the calculated (F) value of (6.797) less than the tabulated (F) (7.22) at a significant level (. 012). This means that the hypothesis that the increase in capital leads to a decrease in the market value is not accepted. According to the same results, there is no positive or negative statistical effect.

It is clear from figure (5) that the increase in the capital of Babylon Bank stocks does not lead to an increase in the market value. The market value ranged between (40,000) billion dinars and (100,000) billion dinars for the various increases that occurred in the capital throughout the research period.

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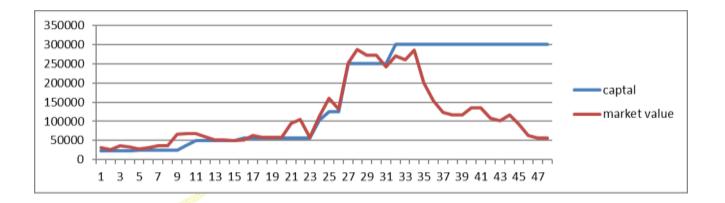
## Figure (5) Graph of capital increase and market value changes for the period (2007-

2018)

# Results analysis of Gulf Commercial Bank

The results of the statistical analysis in Table (2) between the two search variables for Gulf Commercial Bank are explained by the fact that the value of the determination coefficient ( $\mathbb{R}^2$ ) amounted to (. 416). The increase in the capital affects the market value (. 416). The results of the coefficient (B), which amounted to (. 426), indicate a direct positive trend of the change in the market value as a result of the increase in the capital. The statistical evidence proves that there is an effect of the capital increase on the market value, in order to exceed the calculated (F) value, which amounted to (32.768) for its tabulated value of (7.22) and at a significant level (.000). However, the positive trend of the regression coefficient does not agree with the research hypothesis that "the increase in the capital leads to a decrease in the market value."

It is clear from figure (6) that the increase in the capital of Gulf Commercial Bank is accompanied by an increase in the market value. The highest market value of the bank stocks was when the capital increase reached (250,000) billion stocks. But when the capital reached (300,000) billion stocks, the market value of the bank stocks began to decline until it reached nearly (50,000) billion dinars.



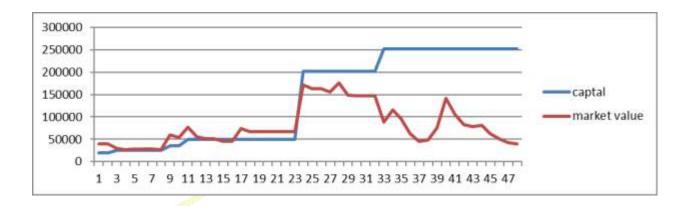
## Figure (6) Graph of capital increase and market value changes for the period (2007-

## 2018)

#### **Results analysis of Mosul Bank**

It is clear from the results of table (2) of the statistical analysis between the two research variables that the value of the coefficient of determination ( $\mathbb{R}^2$ ) has reached (. 262), which explains the extent of the market value affected by the increase in the capital of the bank stocks. The value of (B) has reached (.229) in a positive direction reflecting that the increase in the capital leads to an increase in the market value. The value of (F) calculated by (16.325) confirms the significance of the regression because it exceeds the tabular value of (F) of (7.22) and at the level of significance (.000). Which means a significant indication of the positive impact and that it is not compatible with the research hypothesis that the increase in the capital of the bank stocks leads to a decrease in the market value.

Figure (7) shows an increase in the market value compared to the increase in the capital of the bank stocks. Before the increase in the capital reached (250,000) billion stocks, the market value began to decline to its levels prior to the change in the capital and to less than (50,000) billion dinars.



## Figure (7) Graph of capital increase and market value changes for the period (2007-2018)

# Compare research results with previous studies

Given the results of the current research in the invalidity of the hypothesis of the negative impact of capital increase in the market value according to the above results, It did not agree with the study (Buigut et.al, 2013) that focused on testing the effect between capital structure and stock prices on the Nairobi Stock Exchange. It was clear from the results of the negative impact of property rights on stock prices. In addition to the inconsistency of the results of the current study with the study of (Sinaga et.al, 2016) in testing and analyzing the impact of capital structure, company growth, and dividend policy on the company's value. Which showed that the capital structure negatively and significantly affects the profitability and the value of the company.

It seems that the specificity of the current study in the nature of its data and the behavior of change in the decline in stock prices after the decision of the Central Bank of Iraq to increase the capital of banks. It was not reflected in the expected degree on the market value of the banks' stocks in the research sample. Because of a significant increase in the number of additional issued stocks. Which was reflected in the increase in the market value at the beginning of the capital increase. When the stock prices fell to their lowest level, the market value was close to its state before the decision to increase bank capital.

## **CONCLUSIONS**

The increase in the capital leads to the increase in the market value according to the results of the financial and statistical analysis. But the arrival of this increase to certain limits is reflected in the decrease in the market value of most of the banks'

stocks, the research sample. This means that the financial market obtains a sufficient supply of the quantity of stocks that exceeds the demand for them in the market, which is reflected in the decrease in the market value as a result of the decrease in the stock prices of the same Which included sample. the implementation of the decision of the Central Bank of Iraq in the year (2010) to impose an increase in capital to (250,000) billion stocks to increase the efficiency of capital and increase the solvency of banks.

The hypothesis that there is а relationship between the increase in bank capital and the market value of stocks is accepted. While rejecting the hypothesis that the increase in capital leads to a decrease in the market value. Because there are significant indications of the level of the positive regression coefficient, not the negative, when analyzing and testing the data statistically. This is not consistent with the main research hypotheses. Which means the need to use multiple variables that affect the market value and not be satisfied with the increase in capital.

To measure the effect between the two research variables, it is recommended to adopt the time series that follows the recent capital increase. As well as adopting regression analysis methods that are compatible with the nature of the financial data, which are characterized by great change and volatility, often not distributed normally.

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