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The Relationship between Financial Indicators and the Trading Volume of the Iraqi National Bank Listed on the Iraq Stock Exchange

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Abstract. The relationship between the financial indicators of the Iraqi National Bank and the trading volume of its shares is of great importance in supporting investment decisions and stimulating economic growth. Accordingly, the research problem is represented by the extent of the relationship between the financial indicators of the Iraqi National Bank in the Iraq Stock Exchange and the trading volume of its shares. Based on this, the research aims to analyze the quantitative relationship between the financial indicators and the trading volume of shares for the Iraqi National Bank listed on the Iraq Stock Exchange for the period (2005-2022). A hypothesis was formulated that there is a relationship between the financial indicators of the Iraqi National Bank and the trading volume of its shares. To achieve the study's objective, economic analysis and modern econometric methods were employed, including testing the stability of time series, testing the stability of the model as a whole, determining optimal lag periods, testing for cointegration, estimating the Vector Autoregression (VAR) model, the Vector Error Correction Model (VECM), and causality testing (Toda-Yamamoto). The results of the causality test for the Iraqi National Bank indicate that the relationship between the return on equity ratio and the earnings per share ratio is not significant with trading volume, while the relationship between the liquidity ratio, the debt-to-equity ratio, and the turnover of fixed assets is significant with trading volume.

Keywords: Financial indicators, Trading volume metrics, Trading volume, Types of financial indicators,

1. INTRODUCTION

Banks and financial institutions play an important role in the financial system and the national economy. They serve as a backbone for facilitating financial flows and funding various economic activities. However, understanding their performance and how they impact the economy requires a careful analysis of their financial indicators. Financial indicators are essential tools in financial analysis, representing the relationship between two elements of financial data that help specialists understand and analyze the financial conditions of enterprises. The primary goal of financial indicators is to establish mathematical relationships between components of financial data such as the balance sheet and income statement.

The Iraqi Stock Exchange has faced challenges and political and economic instability, which affects trading volume and investor confidence. The research problem is represented by the lack of interest from market participants. Based on this, the research problem can be formulated in the form of the following questions:

1. What is the relationship between the financial indicators of the Iraqi National Bank in the Iraqi Stock Exchange and the trading volume of its shares?
2. Does the rise or fall in the performance of the Iraqi National Bank influence the increase in trading volume of its shares?

This research assumes that there is a direct impact of the bank's financial indicators and the trading volume of its shares in the Iraq Stock Exchange. Therefore, the study hypotheses can be formulated as follows:

1. Null hypothesis (H0): There is no relationship between the bank's financial indicators and the trading volume in the Iraq Stock Exchange.
2. Alternative hypothesis (H1): There is a relationship between the bank's financial indicators and the trading volume of its shares in the Iraq Stock Exchange, as an increase in financial indicators will lead to an increase in trading volume.

The research addresses a set of objectives related to the relationship between the financial indicators of the Iraqi private bank and the trading volume of its shares in the Iraq Stock Exchange, including the following objectives:

1. Quantitative Relationship Analysis: The research aims to analyze the quantitative relationship between the financial indicators of the Iraqi National Bank and the volume of its stock trading in the Iraq Stock Exchange, which requires the research to determine the extent to which these indicators affect trading volume.
2. Understanding the Reasons for Changes: The research aims to understand the reasons for changes in trading volume in the financial market based on the performance of the Iraqi National Bank. Are there specific factors that have a greater impact on this trading?
3. Statement of the Most Influential Financial Indicators on Stock Trading Volume.

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2. PREVIOUS STUDIES

Mustafa Akram Hantoush (2021) estimated the impact of increased indebtedness on trading volume (an applied study on a sample of private banks listed on the Iraq Stock Exchange). The results showed a strong correlation with significant implications between the increase in the debt ratio and trading volume in the Iraq Stock Exchange, highlighting the importance of managing debt levels to enhance trading in company shares in the Iraqi financial market. Ali Abdullah Al-Zoubi et al. (2016) assessed the impact of market financial ratios disclosed monthly in the Amman Stock Exchange on stock trading volume (an applied study during the period 2009–2014). The main findings indicated an effect of the ratios of market value to cash flow and dividends to market value on trading volume. Prem Lal Adhikari (2020) titled "The dynamic relationship between stock returns and trading volumes in the Nepalese stock market." The results showed that the Nepalese stock market, in general, does not have a causal relationship between trading volume and stock returns, while in sectoral studies, there is a one-way causal relationship extending from trading volume to stock returns.

3. THE CONCEPTUAL FRAMEWORK FOR FINANCIAL INDICATORS AND THE TRADING VOLUME OF THEIR SHARES

3.1. Financial Indicators

3.1.1. The Concept of Financial Indicators

Financial indicators are considered essential tools in financial analysis, as they enable the analyst to examine and evaluate the financial conditions of enterprises. These indicators highlight the strengths and weaknesses of the enterprise, relying on ratios such as liquidity, profitability, efficiency, growth, and leverage. They also allow enterprises to make comparisons between themselves and other enterprises in the same sector or the economy as a whole, which helps in determining their competitive position within the industry in which they operate. (Samonas, 2015:34).

Financial indicators aim to identify mathematical relationships between components of financial data such as the balance sheet and income statement, by creating ratios between various items. These ratios provide more accurate information about the financial condition and performance efficiency in enterprises. The absolute figures found in financial data do not clearly reveal the financial situation and performance shape in a business entity; therefore, financial indicators are used to link these figures in a way that allows for better performance evaluation and assists in interpreting financial decisions made. These ratios are considered a fundamental tool for financial analysts and investors to understand the financial situation (Al-Zubaidi, 2011: 63).

3.1.2. Types of Financial Ratios

3.1.2.1. Current Ratio

The current ratio is one of the main financial ratios used to assess an entity's ability to meet its short-term obligations. This ratio shows how efficiently current assets cover current liabilities, providing an indicator of the financial security level that the entity enjoys. The ratio is calculated using the following formula:

Current Ratio = (Current Assets) / (Current Liabilities) × 100%

3.1.3. Return On Equity Ratio

It is an important indicator for measuring how well the organization performs in generating profits. Ordinary shareholders can use this indicator to assess the efficiency of the organization in utilizing their funds. The higher the return on equity, the more capable the organization is of generating profits from its own capital (KIJEWSKA, 2016: 285). The profit ratio for shareholders measures the effectiveness of banks in using investment funds to achieve profit growth through the following equation (Irshad, et al., 2011: 70).

Return on Equity Ratio = (Net Profit After Tax) / (Net Shareholders' Equity) × 100%

3.1.4. Debt to Equity Ratio

This ratio measures the amount of borrowed funds used by the entity relative to the funds contributed by the shareholders or owners of the entity. This ratio provides an idea of the extent to which the entity relies on debt financing versus self-financing and is calculated using the following formula (Rao, 2006:252)

Debt to Equity Ratio = (Total Debt) / (Net Shareholder Equity) × 100

3.1.5. Earnings Per Share (EPS)

It is a financial metric used to evaluate the financial performance of an entity by determining the profit available for each share of its common stock. The earnings per share ratio is an important indicator for investors as it shows the entity's ability to generate profits and distribute them to shareholders. This ratio is also used to compare financial performance between different entities and to assess whether the stock price is high or low relative to its earnings. When the earnings per share ratio increases, it is considered a positive indicator of improved financial performance and the entity's ability to distribute higher dividends to shareholders.

Consequently, investors tend to invest in entities with a high earnings per share ratio, leading to increased demand for its shares and a rise in its market value. It is calculated using the following formula (Siegel, Shim, 2007:30).

Earnings Per Share = (Preferred stockholders' equity - tax and interest after profit) / (Number of common shares) × 100%

3.1.6. Fixed Assets Turnover Ratio

This ratio reflects the management's efficiency in utilizing assets or investments in the project to achieve greater sales. Therefore, the higher this ratio, the more it indicates the management's efficiency in using assets and increasing the frequency of returns on assets throughout the year. This ratio is calculated using the following equation (Brigham, Houston,2009:91): (Fixed Assets Turnover Ratio = (Net Sales / Net Fixed Assets) × 100%

3.2. Trading Volume 2

3.2.1. Concept of Trading Volume

Trading volume is one of the most important factors on which investment decisions are based. It plays a significant role in technical analysis and provides good indicators regarding market behavior and stock trends. Every investor and trader in the stock market seeks to achieve the best results from their investments and to know the market information held by other investors in order to maximize profits. Investors can obtain the information possessed by market participants from financial reports of companies, and trading volume is one of the most important indicators used to predict stock price trends (Khalil, 2018:20).

3.3. Trading Volume Metrics

There are several measures to assess trading volume, which can be summarized a follows (Hantosh, 2021: 444):

- Number of traded shares: This measure represents the total number of shares traded in a specific market or entity over a defined period of time and is considered the most common measure in studies that addressed the relationship between trading volume and stock prices.
- Stock turnover rate: The stock turnover rate is a measure of the movement of shares in the market; the higher the turnover rate, the greater the market liquidity. Thus, the stock turnover rate is an indicator used to measure the degree of liquidity of a financial market or a specific stock. There are two methods to measure the stock turnover rate: the first method is the value of traded shares of an entity over a specific time period divided by the total market value of the shares of that entity during the same time period. The second method is the number of shares traded for a specific entity over a time period divided by the total number of subscribed and issued shares by that entity during the same time period.
- Value of traded shares: This measure can be expressed as the total number of shares traded for an entity in a specific market over a defined period of time multiplied by the price per share.
- The number of transactions or trades that occurred on shares in the stock market.
- Total trading days during the year: This is the total number of days in which the shares of the entity were traded in the stock market during one year.

4. THE RELATIONSHIP BETWEEN FINANCIAL INDICATORS AND TRADING VOLUME

The relationship between financial indicators and the trading volume of their shares can be clarified by referring to the economic theory that illustrates this relationship.

To clarify the relationship between the trading ratio on one hand and the trading volume of shares on the other hand, we find that the relationship between the trading ratio and trading volume is (direct). This means that as the trading ratio increases, the trading volume of shares also increases. An increase in this ratio indicates that the bank maintains high liquidity to meet potential obligations, and thus, an increase in this ratio reflects the economic strength of the bank. On the other hand, the relationship between the return on equity ratio and trading volume is also a (direct) relationship. As the return ratio increases, the trading volume of shares rises. A higher return indicates the bank's efficiency in using its capital to generate profits, good financial performance, and increased profits for shareholders, leading to an increase in the number of the bank's shares traded in the Iraq Stock Exchange, It is noted that the relationship between the debt-to-equity ratio and trading volume is also a (direct) relationship; as the debt ratio increases, trading volume increases. When this ratio rises, meaning the bank relies on debt to finance its banking operations, the bank's profits increase, which in turn raises trading volume. Additionally, the relationship between the earnings per share ratio and trading volume is a (direct) relationship; as the return ratio increases, trading volume increases. This means that when the bank's profitability increases through shareholder investments, it indicates the bank's efficiency in using profits, leading to increased demand for the stock and consequently a rise in its price. We also find a (direct) relationship between the fixed asset turnover ratio and trading volume; when the fixed asset turnover ratio increases, trading volume increases. A higher fixed asset turnover ratio indicates the bank's efficiency in using fixed assets to generate sales, thereby increasing the bank's trading volume due to the efficiency in using assets to generate revenues.

4.1. Second: Analysis of Financial Indicators and Trading Volume of Shares for the Iraqi National Bank.

The relationship between the trading ratio and the earnings per share ratio will be analyzed only with the trading volume for the Iraqi National Bank

4.2. Analysis of the Relationship Between the Trading Ratio and Trading Volume of the Iraqi National Bank

From the data in Table (1), we notice that the trading ratio in the year (2005) reached (159.5%) and the trading volume was approximately (19) billion dinars. In the year (2006), the ratio increased to (245.1%), while the trading volume decreased during the year to about (3) billion dinars due to a decline in deposit volumes as a result of the security conditions the country was experiencing during the year, which led to a decrease in the bank's obligations towards depositors (Iraqi National Bank, 2006: 4). During the period (2007-2008), the ratio decreased while the trading volume was high during this period. From (2009) to (2012), both the ratio and trading volume fluctuated between decreases and increases due to the fluctuations in oil prices during this period. In the year (2013), both the ratio and trading volume were low due to an increase in the bank's capital (Iraqi National Bank, 2013: 24). During the period from (2014) to (2016), the ratio increased The trading volume fluctuated between decline and increase due to security conditions surrounding the country during this period. During the period (2017-2019), the ratio fluctuated between decline and increase while the trading volume was high. During the period (2020-2021), the ratio decreased while the trading volume remained high. In the year (2022), the ratio witnessed a slight increase reaching (110.8%), while the trading volume decreased during the year to (22) billion dinars. It is generally observed that the relationship is inverse between the trading ratio and trading volume.

Table 1: Financial indicators and trading volume of the Iraqi National Bank.

Year	Trading Ratio %	Earnings per share percentage %	Trading volume for stocks/Dinar
2005	159.5	6.0	19,496,585,775
2006	245.1	-2.9	3,487,370,176
2007	216.6	-2.9	3,521,913,001
2008	173.0	11.9	4,333,503,756
2009	215.0	1.2	351,970,145
2010	190.0	2.3	3,304,124,891
2011	228.0	2.0	1,424,485,865
2012	182.0	15.0	1,202,321,868
2013	143.0	9.0	1,027,811,280
2014	170.0	3.0	25,719,974,810
2015	186.0	1.0	41,961,964,329
2016	193.0	9.4	94,053,883
2017	185.0	1.2	759,423,002
2018	196.8	-3.1	2,148,383,404
2019	160.2	3.6	522,277,532
2020	145.5	7.9	1,972,760,860
2021	108.4	10.4	37,995,183,142
2022	110.8	10.7	22,418,019,779

Source: Prepared by the researcher based on the annual reports published in the Iraq Stock Exchange.

Figure 1: Shows the percentage and volume of trading for the Iraqi National Bank.
Source: Prepared by the researcher based on the data in Table 1.

4.3. Analysis of the Relationship Between the Earnings Per Share Ratio and the Trading Volume of the Iraqi National Bank.

The earnings per share ratio for the year (2005) was (6.0%), and the trading volume was approximately (19) billion dinars. During the period from (2006) to (2012), both the ratio and the trading volume fluctuated between decrease and increase due to the sharp changes that occurred in oil prices during this period. However, during the period (2013-2015), the ratio decreased while the trading volume increased during this period due to a decline in profits; if the bank's profits decrease, this leads to a decrease in earnings per share despite the increase in trading volume (Iraqi National Bank, 2015, p. 21). In the year (2016), the ratio increased to (9.4%), while the trading volume decreased during the year to approximately (94) million dinars. During the period (2017-2018), both the ratio and the trading volume decreased. However, during the period (2019-2022), the ratio increased while the trading volume fluctuated between decrease and increase. It is generally observed that the relationship is direct between the earnings per share ratio and the trading volume, and this descriptive analysis will be confirmed in the standard analysis in Chapter Three.

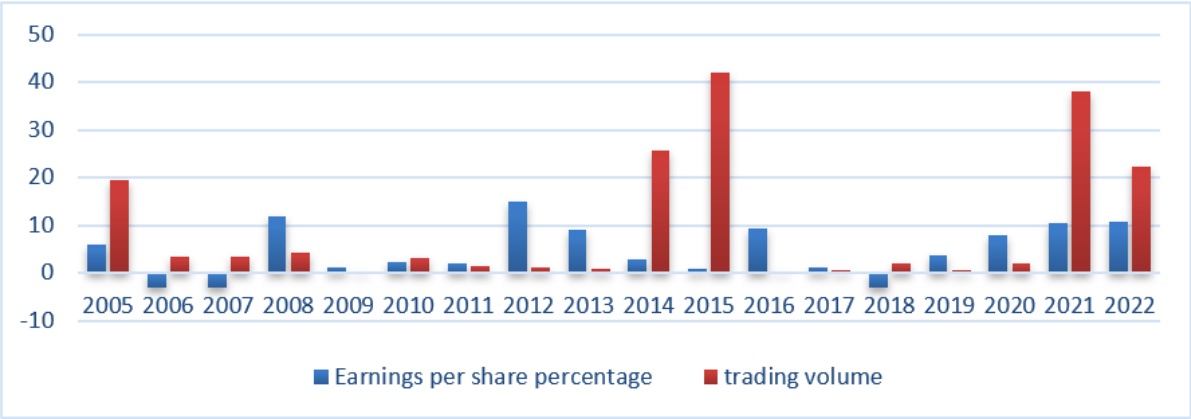

Figure 2: illustrates the return on equity and trading volume for the Iraqi National Bank.
Source: Prepared by the researcher based on the data from Table 1.

4.4. Third: Measurement and Analysis of Financial Indicators and the Trading Volume of its Shares for The Iraqi National Bank

4.4.1. Iraqi National Bank

4.4.1.1. Augmented Dickey-Fuller (ADF) Unit Root Test for the Data of the Iraqi National Bank

The Augmented Dickey-Fuller (ADF) test was conducted to determine the stationarity of the variables in the standard model of the Iraqi National Bank. The results from the statistical program (EViews 12) showed that the variables (Return on Equity and Trading Volume) (ROE, TV) were stationary at the level (with a constant term), while the variable (Asset Turnover Rate) (ATR) was stationary at the level (with a constant term and a trend). However, the variables (current ratio, debt to equity ratio, and earnings per share ratio) (CR, DER, EPSR) did not stabilize at the level. The variable (CR) stabilized after taking the first difference (with the constant term), while the variable (DER) stabilized after taking the first difference (without the constant term or general trend). As for the variable (EPSR), it stabilized after taking the second difference (with the constant term).

4.4.1.2. Testing The Stability of the Model as a Whole for the Data of the Iraqi National Bank

We observe from Figure (3) that the model is stable as a whole because all the roots lie within the boundaries of the circle

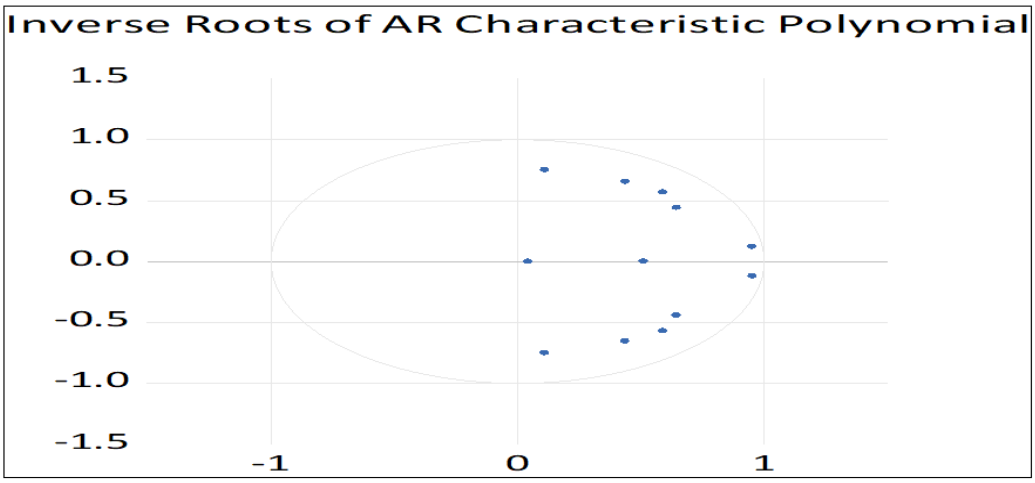

Figure 3: The dispersion shape for testing the stability of the overall model for the variables of the Iraqi National Bank.

4.4.1.3. Determining the Optimal Lag Duration for Data from the Iraqi National Bank

Based on the results of the EViews program, it is observed that the number of optimal lag durations for the standard model is two time periods, depending on the criteria (Hannan-Quinn, Akaike, Schwarz)

4.5. Cointegration Test for Iraqi National Bank Data

The cointegration test for the model variables was conducted using the Johansen methodology. It was observed that the methodology detected the presence of one cointegration vector according to the results of the Trace test and the Maximum Eigenvalue test. This indicates the existence of a long-term equilibrium relationship between the model variables.

4.6. Analysis of the Results of Estimating the Vector Autoregression (VAR) Model for the Data of The Iraqi National Bank

From The Results of Estimating the Autoregressive Model, We Observe the Following:

Results for the variable (LOGTV) for the current year:

From the results in the table, we note that the relationship between the variable (LOGTV) for the previous year and the variable (LOGTV) for the current year is a positive relationship, and a change of one unit for the previous year will lead to an increase of (0.934) units for the current year, with a calculated value of (t) (2.716). Then, the relationship became negative between the variable (LOGTV) for the second year and the variable (LOGTV) for the current year, with the estimated parameter being (- 0.515) and the calculated value of (t) being (-1.495).

It is noted that the relationship between the variable (Return on Equity Ratio) (ROER) for the previous year and the variable (LOGTV) for the current year is a direct relationship, and a change of one unit in the previous year's variable (ROER) will lead to an increase in the variable (LOGTV) for the current year by (15.918) and the calculated value of (t) is (0.797). Additionally, the relationship between the variable (ROER) for the second year and the variable (LOGTV) for the current year is also a direct relationship, with the estimated parameter being (13.931) and the calculated value of (T) being (0.535).

By observing the results of the table, we find that the relationship between the variable (Earnings Per Share Ratio) (EPSR) for the previous year and the variable (LOGTV) for the current year is an inverse relationship, and an increase of one unit in the previous year's variable (EPSR) will lead to a decrease in (LOGTV) for the current year by (10.531), and the calculated value of (t) is (-0.728). The relationship between the variable (EPSR) for the second year and the variable (LOGTV) for the current year is also an inverse relationship, with the estimated parameter being (-11.454) and the calculated value of (t) being (-0.611).

It is also noted that the relationship between the variable (Debt to Equity Ratio) (DER) for the previous year and the variable (LOGTV) for the current year is a direct relationship, and a change of one unit in the previous year's variable (DER) will lead to an increase in (LOGTV) for the current year by (0.167), and the calculated value of (t) reached (0.773). Additionally, the relationship between the variable (DER) for the second year and the variable (LOGTV) for the current year is also a direct relationship, with the estimated parameter being (0.074) and the calculated value of (t) being (0.286).

Meanwhile, it is observed that the relationship between the variable (Current Ratio) (CR) for the previous year and the variable (LOGTV) for the current year is a direct relationship, and a change of one unit in the previous year's variable (CR) will lead to an increase in the variable (LOGTV) for the current year by (0.486), and the calculated value of (t) reached (0.437). It is also noted that the relationship between the variable (CR) for the second year and the variable (LOGTV) for the current year is a direct relationship, with the estimated parameter

being (0.035) and the calculated value of (t) being (0.033).

The relationship between the variable (ATR for the previous year) and the variable (LOGTV) for the current year is an inverse relationship, and an increase of one unit in the previous year's variable (ATR) will lead to a decrease in (LOGTV) for the current year by (-0.195). The calculated value of (t) is (-0.687). Then, the relationship became direct between the variable (ATR) for the second year and the variable (LOGTV) for the current year, with the estimated coefficient being (0.200) and the calculated value of (t) being (0.699). The rest of the results in the table are interpreted in the same manner.

The value of the coefficient of determination reached approximately (R2 = 0.78), and the value of the adjusted coefficient of determination also reached about (Adj = R2 0.65), which is a moderate percentage. The total sum of squared errors was (2.950), which is a very small value indicating that the (VAR) model is very suitable for the nature of the studied data.

4.7. Error Correction Model (VECM) for the data of the Iraqi National Bank

4.7.1. Results of the variable (LOGTV) for the current year

It is noted that the estimated value of the adjustment coefficient for the error correction limit j)_etc) reached (-0.025) and it is significant because the value (Prob.= 0.035) is less than (0.05). The relationship between the variable (trading volume) ((LOGTV for the previous year and ((LOGTV for the current year is a direct relationship, and a one-unit change for the previous year will lead to an increase of (0.420) for the current year, and the calculated value of ((t) is (1.092). Meanwhile, the relationship between the variable (LOGTV) for the second year and ((LOGTV for the current year is an inverse relationship, with the parameter estimate being (-0.017) and the calculated value of (t) being (-0.044).

It is noted that the relationship between the variable (return on equity ratio) (ROER) for the previous year and ((LOGTV for the current year is a direct relationship, and a one-unit change for the previous year in the variable (ROER) will lead to an increase of (17.912) in the variable ((LOGTV for the current year, and the calculated value of (t) is (0.583). The relationship is also direct between the variable (ROER) for the second year and (LOGTV) for the current year, with the parameter estimate being (40.526) and the calculated value of (t) being (1.259).

Moreover, the relationship between the variable (earnings per share ratio) (EPSR) for the previous year and (LOGTV) for the current year is an inverse relationship, and an increase of one unit for the previous year in the variable (EPSR) will lead to a decrease of (-14.211) in the variable (LOGTV) for the current year, and the calculated value of (t) is (-0.647). The relationship is also inverse between the variable (EPSR) for the second year and (LOGTV) for the current year, with the parameter estimate being (-38.520) and the calculated value of (t) being (-1.637).

The relationship between the variable (debt-to-equity ratio) (DER) for the previous year and the variable (LOGTV) for the current year is a positive relationship, and a one-unit change in the previous year's variable (DER) will lead to an increase of (0.157) in the variable (LOGTV) for the current year, with a calculated (t) value of (0.555). The relationship is also positive between the variable (DER) for the second year and (LOGTV) for the current year, with the estimated parameter being approximately (0.119) and the calculated (t) value being (0.433).

As for the relationship between the variable (current ratio) (CR) for the previous year and the variable (LOGTV) for the current year, it is a positive relationship, and a one-unit change in the previous year's variable (CR) will lead to an increase of (0.422) in the variable ((LOGTV for the current year, with a calculated (t) value of (0.357). Then, the relationship became negative between the variable (CR) for the second year and (LOGTV) for the current year, with the estimated parameter being (-0.068) and the calculated (t) value being (-0.058).

It is also noted that the relationship between the variable (fixed assets turnover ratio) (ATR) for the previous year and the variable ((LOGTV for the current year is a negative relationship, and a one-unit increase in the previous year's variable (ATR) will lead to a decrease of ((-0.011) in the variable (LOGTV) for the current year, with a calculated (t) value of (-0.036). Then, the relationship became negative between the variable (ATR) for the second year and (LOGTV) for the current year as well, with the estimated parameter being (0.580) and the calculated ((t) value being (1.848). The remaining results are interpreted in the same manner.

The value of the coefficient of determination reached (R2 = 0.58), and the value of the adjusted coefficient of determination also reached (Adj=R2 0.25), which is a small ratio. The total sum of squares of errors was (3.066), which is a very small value indicating that the model is very suitable for the nature of the studied data.

4.8. Causality Test (Toda Yamamoto) for the Data of the Iraqi National Bank

Due to the presence of cointegration identified in section (six) using the (Johansen) methodology, the (Yamamoto-Toda) test will be applied to examine the causality between the dependent variable and the independent variables. It is noted that the test included (six) cases:

Case One: The dependent variable is (LOG TV) and the independent variables are (ROER, EPSR, DER, CR, ATR). It is observed that the values (Prob > 0.05) for the independent variables (ROER, EPSR) indicate that these variables do not have a significant effect on the changes occurring in the dependent variable (LOG TV).

This is inconsistent with economic theory due to the bank's greater focus on providing services to its clients and developing relationships with them, rather than concentrating on trading volume to attract more investors. As for the variables (CR, DER, ATR), it is noted that the values (Prob < 0.05) indicate that these variables have a significant effect on the changes occurring in the variable (LOG TV). (

Case Two: The dependent variable is (ROER) and the independent variables are (LOG TV, EPSR, DER, CR, ATR). It is observed that the values (Prob < 0.05) for all independent variables indicate that all independent variables have a significant effect on the changes occurring in the dependent variable (ROER).

Case Three: The dependent variable is (EPSR) and the independent variables are (LOG TV, ROER, DER, CR, ATR). It is noted that the values (Prob < 0.05) for all independent variables indicate that all independent variables have a significant effect, except for the variable (ROER), which has a value of (Prob > 0.05), meaning it does not have a significant effect on the changes occurring in the dependent variable EPSR). (Case four: The dependent variable is (DER) and the independent variables are (LOG TV, ROER, EPSR, CR, ATR). It is noted that the values (Prob > 0.05) for the independent variables (LOGTV, CR) indicate that these variables do not have a significant effect on the changes occurring in the dependent variable (CR). However, for the variables (ROER, EPSR, DER, ATR), it is observed that the values (Prob < 0.05) indicate that these variables have a significant effect on the changes occurring in the dependent variable (DER).

Case five: The dependent variable is (CR) and the independent variables are (LOG TV, ROER, EPSR, DER, ATR). It is noted that the values (Prob < 0.05) for all the independent variables indicate that all the independent variables have a significant effect on the changes occurring in the dependent variable (CR). .(Case six: The dependent variable is (ATR) and the independent variables are (LOG TV, ROER, EPSR, DER, CR). It is noted that the values (Prob > 0.05) for all the independent variables indicate that none of the independent variables have a significant effect on the changes occurring in the dependent variable (ATR).

Table 2: Shows the results of the Toda Yamamoto test for the variables of the Iraqi National Bank.

VAR Granger Causality/Block Exogeneity Wald Tests			
Date: 07/03/24 Time: 22:03			
Sample: 2005S1 2022S1			
Included observations: 31			
Dependent variable: LOG_TV			
Excluded	**Chi-sq**	**Df**	**Prob.**
ROER	1.046007	2	0.5927
EPSR	1.571782	2	0.4557
DER	14.17232	2	0.0008
CR	11.64162	2	0.0030
ATR	7.912097	2	0.0191
All	22.97544	10	0.0108
Dependent variable: ROER			
Excluded	Chi-sq	Df	Prob.
LOG_TV	40.24428	2	0.0000
EPSR	11.99713	2	0.0025
DER	19.80899	2	0.0000
CR	19.80190	2	0.0001
ATR	45.17371	2	0.0000
All	59.27202	10	0.0000
Dependent variable: EPSR			
Excluded	Chi-sq	df	Prob.
LOG_TV	41.38795	2	0.0000
ROER	5.600886	2	0.0608
DER	25.86311	2	0.0000
CR	28.22866	2	0.0000
ATR	44.14882	2	0.0000
All	65.36761	10	0.0000
Dependent variable: DER			
Excluded	Chi-sq	df	Prob.
LOG_TV	3.389456	2	0.1836
ROER	8.076325	2	0.0176
EPSR	7.526029	2	0.0232
CR	3.102348	2	0.2120
ATR	11.82159	2	0.0027
All	15.69898	10	0.1086
Dependent variable: CR			
Excluded	Chi-sq	df	Prob.
LOG_TV	33.91239	2	0.0000
ROER	119.2352	2	0.0000
EPSR	125.4987	2	0.0000
DER	101.3716	2	0.0000
ATR	150.0215	2	0.0000
All	229.3557	10	0.0000
Dependent variable: ATR			
Excluded	Chi-sq	df	Prob.
LOG_TV	2.154724	2	0.3405
ROER	0.879658	2	0.6441
EPSR	0.779238	2	0.6773
DER	2.152205	2	0.3409
CR	2.187991	2	0.3349
All	5.896162	10	0.8239

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

1.Through the analysis of the quantitative relationship between the financial indicators of the Iraqi National Bank and the trading volume of its shares in the Iraq Stock Exchange based on the results of the third quarter, the following was observed:

i. The relationship between the current ratio (CR) and the trading volume (TV) is significant (positive)

ii. The relationship between the return on equity ratio (ROER) and the trading volume (TV) is not significant. .

iii. The relationship between the debt-to-equity ratio (DER) and the trading volume (TV) is significant (positive).

iv. The relationship between the earnings per share ratio (EPSR) and the trading volume (TV) is not significan

2. The relationship between the asset turnover ratio (ATR) and the trading volume (TV) is significant (negative).

3. The causal results indicate that the most influential financial indicator on the trading volume of the Iraqi National Bank is the debt-to-equity ratio.

4. Among the main reasons for the changes affecting trading volume are the global financial crisis, in addition to the country's exposure to terrorist attacks and their control over some Iraqi provinces, as well as the repercussions of the global COVID-19 pandemic and the crisis of declining global oil prices.

5. The dual economic, security, and political conditions played a significant role in affecting the financial performance of the bank.

5.2. Recommendations

1.Study other financial indicators that may impact trading volume and compare results to determine which indicators have the most influence.

2.Conduct further research and studies related to identifying other factors affecting the trading volume of the bank, which is expected to contribute to forming new pathways for future studies related to the research topic.

3. The necessity of achieving security and political stability in Iraq

4.Adopting other statistical methods to analyze the relationship between financial indicators and trading volume and comparing the results with what has been reached.

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