

THE EFFECT OF SOME INDICATORS OF THE IRAQ STOCK EXCHANGE ON DETERMINING THE SHARE PRICE OF A SAMPLE OF IRAQI COMMERCIAL BANKS

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Abstract

Since the fundamental metric for assessing these banks is based on how well the indicators work, it is important to comprehend how the Iraqi Stock Exchange's indicators affect the stock price of commercial banks. To establish a strategy for growth that would raise the stock price of the banks themselves and boost shareholder earnings, it is also essential to comprehend the most notable indications. In order to respond to the query, the core research challenge emerged: How do the indicators of the Iraqi Stock Exchange influence the determination of the stock price? And this demonstrates the more noticeable effect. Quantifying the impact of several Iraqi Stock Exchange indicators, including trading volume, number of contracts, and number of shares, on the stock prices of a sample of Iraqi commercial banks is the primary objective of the study. The following primary hypothesis was applied in order to achieve the study's objective: The number of shares will have an inverse relationship with the stock price, whereas the two indicators—trading volume and contract count—will have a direct impact. The statistical program Eviews was used to analyze quarterly data for the 2018–2023 timeframe using the Panel ARDL model. The findings demonstrated the long-term significance of both indicators, trading volume and share count. However, the variable of the number of contracts did not significantly impact the stock price.

Keywords: Iraqi Stock Exchange, trading volume, number of contracts, number of shares, stock price, Panel ARDL model.

1. INTRODUCTION

The stock markets are considered essential elements in the modern economy, playing a vital role in promoting economic growth and directing investments. Consequently, most countries strive to develop these financial markets in terms of infrastructure, laws, and regulations that govern the operation of these financial markets, which in turn reflect on the development of all economic sectors in that country. The Iraq Stock Exchange offers a venue for the trading of stocks and other financial instruments, which contribute to the increased transparency and efficiency of the market. The Iraq Stock Exchange was launched in 2004, to create a stronger investment environment and increase investor trust. The market provides various financial indicators that serve as proxies for depicting the overall market performance. In studying the case of commercial banks in the Iraq Stock Exchange, we look directly at a specific set of indicators: (trading volume, no. of shares, no. of contracts). These indicators help us evaluate the banks in Iraq Stock Exchange and their extent to objectives pursued. These indicators are important measures that investors should pay attention to in order to get a sense of how banks' stock price movements in financial markets, as well as to forecast whether the stock price will rise or fall as a result of the indicators. One of the most crucial aspects of business and investing is the stock price, which indicates the market value of the securities issued by joint-stock corporations. An essential measure of the state of the financial market is the stock price, which represents investors' expectations of the company's performance and potential for future profit-making. Stock prices are affected by many factors, from performance measures and quarterly reports of companies to general economic conditions and government policy. Psychological and behavioral components also enter into price determination, which makes them vulnerable to differences and sudden changes. Indicators from the Iraq Stock Exchange have been

explored and analyzed, from several researchers. In 2017, (Othman and Jasp) conducted an analytical study about the arising indicators of the Iraq Stock Exchange which highlighted the importance of the role of Financial Institutions, such as Iraq Stock Exchange, in economic activity and the significance of these institutions on defining the nature and direction of market growth and its effect upon economic activity. Also, (Al-Murshidi, 2018) studied the impact on the foreign direct investment in Iraq of some indicators in the Iraq stock exchange: an analytical viewpoint, which also demonstrated that the standard test results showed a statistically significant positive relationship between foreign investment and a few Iraq Stock Exchange indicators, including the number of companies traded, market capitalization, price index, trading volume, and number of shares traded. Due to Iraq's uncertain political climate, financial issues, and inadequate or unfavorable security conditions, the other models had little impact. Furthermore, Al-Adhari and Al-Jubouri (2023) examined the connection between a few Iraq Stock Exchange indices and the country's economic expansion from 2010 to 2020, and the study's findings showed that the indicators—market capitalization, trading volume, and share count—had little bearing on Iraq's economic expansion, indicating that the country's stock exchange still has little influence over its economic development. (Imran, 2023) used independent variables (number of shares, trading volume, and number of contracts) and the ARCH model to forecast stock values for a sample of industrial commercial enterprises registered on the Iraq stock market..

- Importance of the Research

The importance of this study lies in identifying and evaluating the role of Iraq Stock Exchange indicators in determining the stock prices of a selected sample of commercial banks. Based on these indicators, the prices of stocks can be predicted, and factors affecting increases or decreases can be determined. Of course, it is also important to know which indicator(s) matter most in order to develop a strategy for improvement, leading to an increase in the stock price resulting in a potential increase in profits to the stockholders.

- Research Problem

The research problem is associated with answering the following questions :

- i. Is there an effect of the indicators of the Iraq Stock Exchange on the banks' share price in the sample study ?
- ii. Is it positive or negative?
- iii. Which variables have the most significant impact

-Research Objective

The goal of this study is to determine if some indicators have a greater impact on stock prices than others and to evaluate the impact of Iraq Exchange circumstances (number of contracts, trading volume, and number of shares) on bank stock prices in the research sample.

- Research Hypothesis

The central hypothesis of this research states that the indicators of the Iraqi Stock Exchange exert a statistically significant influence on the stock prices of the banks included in the study sample. From this main hypothesis, three sub-hypotheses are formulated as follows:

- i. The stock price is directly and significantly impacted by trading volume.
- ii. The amount of contracts has a direct and substantial impact on the stock price.
- iii. The number of shares has a large and unfavorable impact on the stock price.

- Research Boundaries:

1- Spatial Boundaries: The sample consisted of four Iraqi commercial banks (Baghdad, Iraqi National Bank, Sumer, Islamic Iraqi Bank, and Iraqi Commercial Bank), purposefully selected based on stock prices, which are ensured to be relatively close together to provide the best results from an econometrics perspective .

-2Temporal Boundaries: Represented by quarterly data covering the period(2023-2018) .

2. Iraq Stock Exchange

The exchange is a primary market created to make it easier to trade assets, including stocks and bonds, improve financial process transparency, and draw in capital for investments. The Iraq Stock Exchange is an independent financial and administrative market that isn't associated with any particular company. It is a market where investors come together, securities are purchased and sold within a fiscal environment, and is one of the ways in which money flows among investors, companies, and sectors, and it serves to mobilize and grow savings for the benefit of larger investing and for the development of all investment types (Abdul Ilah, 2018: 3). The market is defined as regulated, incorporates every economic characteristic of a market, and its functions can be said to organize and regulate the trading of securities between buyers and sellers according to established systematic rules and procedures designed to attract unused national and foreign investment and thereby increasing capital formation in the national economy. It also aims to use private sector funding to finance companies formed as joint-stock companies while ensuring the financial settlement takes place on an ongoing and periodic basis (Al-Maamouri, 2023: 62).

Located in Baghdad, the Iraq Stock Exchange is granted the legitimacy to establish branches in other governorates of Iraq. The exchange was established for the purpose of organizing, executing, and settling transactions in securities and for performing the clearing, custody, and depositing of securities and for other services; it may also communicate and interact with other associations of Arab and international capital markets industry to develop its market and activities to best serve its participants. (Hamza and Abdul Hamid, 2012: 266).

3- Indicators of the Iraq Stock Exchange

A range of indicators illustrates the status of the market and its evolution, which can be reviewed to assess the performance of the Iraq Stock Exchange and the extent to which its objectives are performed. The most important indicators are:

i. Trading Volume Indicator

The trading volume, which is determined by multiplying the number of shares by the average price of a share over a specified time period, indicates the value of shares traded in the market. The entire value of securities sold in the market during a certain time period is represented by trading volume, which is considered a crucial measure of financial liquidity in the stock market. Trading volume gives market value at the chosen decimation level and a measurement at a certain time, indicating the size of the market. (Murad, Mahfouz, 2024: 550).

ii. Market Capitalization Indicator

The market value of local shares divided by the gross domestic product is the indicator used to calculate the overall market size. At the macroeconomic level, this indicator is a suitable way to gauge the market's ability to raise capital and diversify risks. On the one hand, a growth in the market value of shares indicates the effectiveness of businesses; on the other hand, an increase in the number of businesses, the volume of transactions, and the efficiency of the financial market (Siwan, 2016: 402)..

iii. Number of Shares Traded Indicator

Traded shares are identified as characterizing the market value of banking and non-banking institutions which take required funds from developing their investment projects and advance their operational performance. Traded shares are that portion of the publicly-listed shares that are traded by buyers and sellers in the market. Thus, this indicator indicates the extent of market activity, and hence, implies that the traded shares represent the primary component of the contributing organization. Shares may also have values at issuance and may be classified as either ordinary shares or preferred shares (Al-Adhari, Al-Jubouri, 2023: 788-789)..

iv. Indicator of the Number of Listed Companies

This refers to the number of joint-stock companies that have met the listing requirements and have been registered in the Iraq Stock Exchange. It indicates the attractiveness of the market to new investors. Although this indicator is used to indicate the size of the market, it loses that indication if it is not accompanied by the use of the market capitalization indicator to determine the company's share of the market capital. The number of listed companies may be very large, indicating that the market capitalization of those companies is weak, and vice versa (Shendi, 2013: 167).

v. Indicator of the Number of Contracts

This is an indicator that measures the total volume of trading contracts that had occurred in the year. This indicator is very important because it helps us determine the amount of the sectors' contributions in the market. Thus implies the financial movement of the market and its expansion, so an increase in this indicator implies the market was rather efficient and effective (Hashim, 2018).

vi. Price Index

This index is a percentage that measures the price behavior of the shares from a sample of listed companies in continuous trading, and assesses the efficiency of the financial market and available investment opportunities. Investors make their investment decisions based on price fluctuations of shares, and therefore the index reflects the overall direction of the market. When the index rises, it means the market has risen as a whole, and when it decreases, it means the market has decreased as a whole. Its importance is underscored by the fact that all parties involved in the market use the index (Al-Murshidi, 2018: 189)..

vii. Financial Depth Index

It refers to the comparative significance of the financial sector to the economy of the region in the sense that it indicates the capacity of the financial market to contribute to the economic growth process by partitioning market capitalization of listed equities by the gross domestic product for the same time period. It is a measure of interest to researchers under the premise that increases in the measure is evidence of higher growth occurring in the medium and long term. Moreover, it is an indicator of the financing activity of the financial market in the context of the national economy (Hamza and Abdul Hamid, 2012: 27)..

4- METHODOLOGY

i. Stationary Test

The stationary test is a statistical method for determining whether a time series has maintained consistent properties over time. In other words, if the data is stationary, the autocorrelation will eventually disappear on its own. This is because the practice of transforming the data to make it stationary is the same practice used to remove autocorrelation. Unit root tests are particularly useful for understanding the stability of integrated data. This process is also extremely important for determining the degree of integration, in order to yield valid results and to avoid spurious regression. To test the null hypothesis that the time series has a unit root, a number of techniques have been devised. In our analysis, we'll employ three of those tests: ADF-Fisher Chi-square Levin, Lin and Chu, Im, Pesaran and Shin.

ii. Collinearity Test

Multicollinearity refers to the linear association of some or all of the independent variables in a linear regression model (Gujarati and Porter, 2009: 321). When two (or more) independent factors exhibit a strong linear association, the predictor variables exhibit a high level of complex correlation which influences the efficiency of the least squares estimation (Kyriazos and Poga, 2023: 405)..

iii. Cointegration Test

It is a significant statistical test in econometrics that examines long-run relationships between two or more time-series variables that are non-stationary. The cointegration test shows that if two or more variables share a long-term equilibrium state, they can be regarded as cointegrated (Shipo, 2019: 21). As Granger suggests, "the cointegration test can be regarded as a preliminary test in the sense that it can help avoid the possibility of spurious regression" (Gujarati and Porter, 2009: 762).

iv. Panel ARDL Model

Using lag periods for both the independent and dependent variables as regressors, this statistical model examines if there is a long-term link between time series or economic variables in a single equation. It is a model that has an infinite lag period with flexibility and efficiency (Harcourt, 2022: 60). This is the distributed lag autoregressive model developed by Pesaran in 1997, as a compromise between an autoregressive model and a distributed lag model. The key feature of the model is that variables do not have to be the same order of integration which is a necessity to utilise other models due to the instability of the series at the same degree. Integration tests can be conducted whether series are stationary at level, $I(0)$ or stationary after first differencing $I(1)$ or both at the same time (Al-Saadawi, 2024: 104)..

v. Hausman Test

Hausman (1978) offered a statistical test used mainly in econometric applications, aimed at determining the consistency and efficiency of two statistical estimators, through testing a hypothesis based on estimating the difference of the two estimates where one is consistent under the null and the alternative hypothesis (Tsionas, 2019: 124).

5- RESULTS

The ADF-Fisher Chi-Square test, the IPS test of Im, Pesaran, and Shin, and the LLC test of Levin, Lin, and Chu were the three stationarity tests that were employed. The findings from the stationarity tests for the study variables are shown in Table (1). It was found that the testing results of each of the three tests validated stationarity of both the Number of Shares (SN), Trading Volume (TV), and Number of Contracts (CN) at level, with a constant term, with a constant term and a trend, and without a constant term and a trend at 1 % and 5 % significance levels. The Variable, Stock Price (SP), was not at level stationarity in any of the tests and all cases (constant term, constant term with a trend, and without a constant term and a trend). For that reason, the test of stationarity for (SP) was repeated after taking its first difference..

Table (1) Results of the stability test for the variables at level I (0)

According to the results of the three stability tests shown in Table (2), the variable (SP) was stable after

test type	Levin, Lin and Chu (LLC)								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result
SN	-7.44825	0.0000	Stable	-7.00919	0.0000	Stable	-6.80238	0.0000	Stable
TV	-5.88989	0.0000	Stable	-6.08932	0.0000	Stable	-5.53751	0.0000	Stable
CN	-0.21955	0.4131	Unstable	-1.69884	0.0447	Stable	-0.02656	0.0000	Stable
SP	2.07149	0.9808	Unstable	1.20233	0.8854	Unstable	-0.52676	0.2992	Unstable
test type	Im,Pesaran and Shin(IPS)								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result
SN	-6.0554	0.0000	Stable	-5.21169	0.0000	Stable	-	-	-
TV	-4.89029	0.0000	Stable	-4.24517	0.0000	Stable	-	-	-
CN	-1.27993	0.1003	Unstable	-2.38221	0.0086	Stable	-	-	-
SP	2.19674	0.9860	Unstable	-0.85540	0.1962	Unstable	-	-	-
test type	ADF - Fisher Chi-Square								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result
SN	51.9514	0.0000	Stable	42.0434	0.0000	Stable	60.8543	0.0000	Stable
TV	41.6674	0.0000	Stable	34.3509	0.0000	Stable	48.3397	0.0000	Stable
CN	25.21	0.0050	Stable	22.6435	0.0121	Stable	7.54293	0.6734	Unstable
SP	5.66175	0.8428	Unstable	18.1727	0.0521	Unstable	10.5111	0.3969	Unstable

first difference at significant levels of (1% and 5%) both with the constant term and with the constant term and the overall trend and without the constant trend and the overall trend.

Table (2) Results of the stability test after taking the first difference I (1)

test type	Levin, Lin and Chu(LLC)								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result

SP	-7.31692	0.0000	Stable	-6.88042	0.0000	Stable	-7.78385	0.0000	Stable
test type	Im,Pesaran and Shin(IPS)								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result
SP	-7.2278	0.0000	Stable	-6.62174	0.0000	Stable	-	-	-
test type	ADF- Fisher Chi-Square								
Variable	Individual intercept			Individual intercept and trend			None		
	Statistic	Prob.	Result	Statistic	Prob.	Result	Statistic	Prob.	Result
SP	62.6182	0.0000	Stable	52.9217	0.0000	Stable	87.2992	0.0000	Stable

Based on the results presented in Table (3), it can be noticed that the VIF and Tolerance values are low and below (10) for all variables. This indicates that the model does not have multicollinearity problems..

Table (3)Results of the Multicollinearity Problem Test

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	.466	.053		8.868	.000		
	SN	-3.163E-5	.000	-.815-	-5.492-	.000	.221	4.532
	TV	3.179E-5	.000	.929	6.290	.000	.223	4.492
	CN	.000	.000	.482	6.691	.000	.937	1.067

a. Dependent Variable: SP

The results of the Pedroni Residual Cointegration Test, which is used to confirm that the variables in the panel data model are cointegrated, are shown in Table (4). The findings demonstrate that most probability values are higher than the 0.05 cutoff, pointing to the lack of cointegration and implying that there is no long-term equilibrium link between the variables in the model..

Table (4) Results of the Cointegration Test

Pedroni Residual Cointegration Test				
Series: STOCK_PRICE STOCKS_NUMBER TRADING_VOLUME				
CONTRACTS_NUMBER				
Date: 03/25/25 Time: 13:37				
Sample: 2018Q1 2023Q4				
Included observations: 120				
Cross-sections included: 5				
Null Hypothesis: No cointegration				
Trend assumption: No deterministic trend				
Automatic lag length selection based on SIC with a max lag of 4				
Newey-West automatic bandwidth selection and Bartlett kernel				
Alternative hypothesis: common AR coeffs. (within-dimension)				
	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	1.491115	0.0680	-0.129996	0.5517
Panel rho-Statistic	-1.180116	0.1190	0.130390	0.5519
Panel PP-Statistic	-2.748870	0.0030	-0.949568	0.1712
Panel ADF-Statistic	-2.996411	0.0014	-1.902234	0.0286
Alternative hypothesis: individual AR coeffs. (between-dimension)				
	Statistic	Prob.		
Group rho-Statistic	0.282233	0.6111		
Group PP-Statistic	-1.371488	0.0851		
Group ADF-Statistic	-2.010960	0.0222		

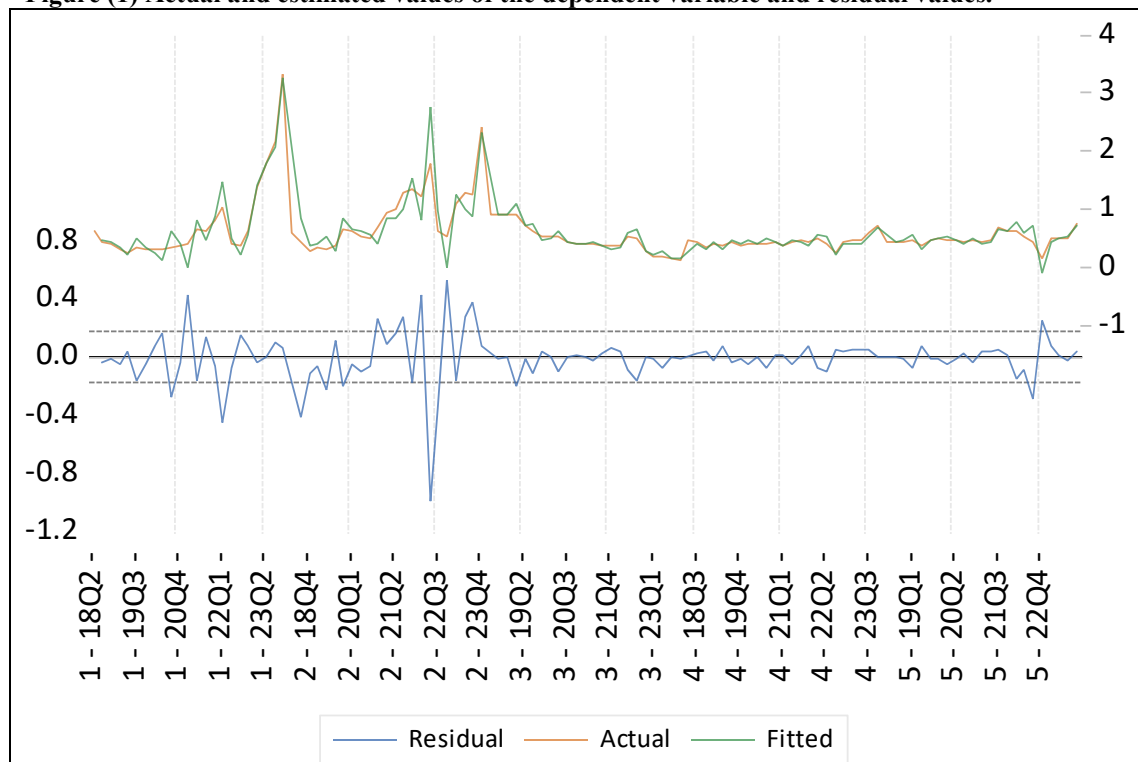
Given that the stability test results showed all variables to be stationary at level $[I(0)]$, except for Stock Price which became stationary at the first difference $[I(1)]$, the Panel ARDL model was employed to assess the impact of the independent variables (number of shares, trading volume, and number of contracts) on the dependent variable (stock price). The findings in Table (5) demonstrate that, in the long-run equation, all independent variables exert a statistically significant influence on stock price, as their p-values are less than 0.05. In addition, the variable Stocks Number has a negative effect on the Stock Price, given that coefficient is negative sign at the value of $(-9.20e-05)$, which can be considered logical based on economic theory, as the larger the number of shares will bring about an increase in the supply of shares, thus making the price of the stock decrease, signifying an inverse relationship. When examining the Trading Volume and Contracts Number variables, we see a positive effect, as shown by their positive signs to their coefficients which are $(7.69e-05)$ and (0.00029) , respectively. Analyzed in the short run (Short Run Equation), it is noted that the value of the correction speed coefficient (COINTEQ) was equal to (-0.2404) meaning that each period, about 24 percent of the deviations from equilibrium in the long term are corrected, and the test gave a significant (since its value is lower than 0.05) p-value of 0.0383. With respect to the independent variables, it was noted that their effects in the short run were not significant, either at the current time or the first lag, as the values were $(Prob>0.05)$. Therefore, in general, it is observed that the both the Stocks Number, Trading Volume, and Contracts Number have a significant effect on the Stock Price only in the long run, while in the short run, the test showed that they do not have a significant effect..

Table (5) .Results of Estimation and Testing of the Panel ARDL Model

Dependent Variable: D(STOCK_PRICE)				
Method: ARDL				
Date: 03/11/25 Time: 13:33				
Sample: 2018Q3 2023Q4				
Included observations: 110				
Number of cross-sections: 5				
Dependent lags: 2 (Automatic)				
Automatic-lag linear regressors (2 max. lags): STOCKS_NUMBER				
TRADING_VOLUME CONTRACTS_NUMBER				
Deterministics: Restricted constant and no trend (Case 2)				
Model selection method: Akaike info criterion (AIC)				
Number of models evaluated: 54				
Selected model: PMG(2,1,1,2)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long-run (Pooled) Coefficients				
STOCKS_NUMBER	-9.20e-05	1.65e-05	-5.567386	0.0000
TRADING_VOLUME	7.69e-05	1.37e-05	5.606896	0.0000
CONTRACTS_NUMBER	0.000291	5.93e-05	4.915064	0.0000
C	0.682061	0.096249	7.086446	0.0000
Short-run (Mean-Group) Coefficients				
COINTEQ	-0.240396	0.114588	-2.097918	0.0383
D(STOCK_PRICE(-1))	0.228112	0.223864	1.018977	0.3106
D(STOCKS_NUMBER)	-2.64e-05	3.63e-05	-0.728588	0.4679
D(TRADING_VOLUME)	6.09e-05	6.28e-05	0.969824	0.3344
D(CONTRACTS_NUMBER)	0.000119	0.000111	1.071056	0.2866
D(CONTRACTS_NUMBER(-1))	9.15e-05	0.000116	0.791061	0.4307
Log-Likelihood:	83.72519			

Figure (1) outlines the real and expected values of the dependent variable (stock price) and the estimated residual values calculated for the Panel ARDL model. It can be noted that the actual values were relatively close to the expected values, confirming that the model selected was effective along with the method used to estimate the parameters..

Figure (1) Actual and estimated values of the dependent variable and residual values.



As outlined earlier, the ARDL Panel approach can be estimated through three models: DEF, MG, and PMG. To identify the most appropriate model for the variables under study, the Hausman test was applied. The results in Table (6) reveal that the p-value of the DEF model ($0.9851 > 0.05$) indicates no significant difference between PMG and DEF. Conversely, the MG model recorded a p-value of $0.0153 (< 0.05)$, suggesting that MG provides the best fit and will therefore be relied upon for estimating the ARDL Panel parameters. According to the MG estimation, both the number of shares and trading volume significantly influence stock prices in the long run, as their p-values are below 0.05. The coefficient of the number of shares is negative (-0.00013), reflecting an inverse relationship with stock prices, which is consistent with economic theory, as a larger supply of shares tends to drive prices downward. On the other hand, trading volume demonstrates a positive effect with a coefficient of (0.000231), aligning with the theoretical perspective that greater trading activity signals stronger market confidence and participation. The variable representing the number of contracts, however, appears statistically insignificant since its probability exceeds 0.05. Regarding the short-run dynamics, the error correction coefficient (COINTEQ) was estimated at (-0.623244), implying that around 62% of disequilibria are corrected in each period. Its associated p-value ($0.0001 < 0.05$) confirms the significance of this adjustment speed.'

Table (6) Results of the optimal model test for Panel ARDL

PMG Hausman Specification Test			
Null hypothesis: Estimator is statistically similar to the PMG estimator			
Estimator	Stat.	DOF	p-Value
Mean Group	10.418248	3	0.0153
Dynamic Fixed Effects	0.150586	3	0.9851

Differences: Mean Group

Coefficient Difference Overview: Mean Group				
Variable	MG	PMG	Var(Diff.)	p-Value
STOCKS_NUMBER	-0.00012	-0.000076		0.000000.170

TRADING_VOLUME	0.000233	0.000069	0.000000	0.0014
CONTRACTS_NUMBER	0.000335	0.000345	0.000000	0.9869

Differences: Dynamic Fixed Effects

Coefficient Difference Overview: Dynamic Fixed Effects				
Variable	DFE	PMG	Var(Diff.)	p-Value
STOCKS_NUMBER	-0.000228	-0.000076	0.000000	0.7909
TRADING_VOLUME	0.000275	0.000069	0.000000	0.7693
CONTRACTS_NUMBER	0.001579	0.000345	0.000014	0.7426

Estimation: Mean Group

Dependent Variable: D(STOCK_PRICE)				
Method: ARDL				
Date: 03/15/25 Time: 20:31				
Sample: 2018Q3 2023Q4				
Included observations: 110				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long-Run Coefficients				
STOCKS_NUMBER	-0.000127	4.15e-05	-3.054560	0.0029
TRADING_VOLUME	0.000233	5.35e-05	4.365189	0.0000
CONTRACTS_NUMBER	0.000335	0.000614	0.545233	0.5868
Short-Run Coefficients				
COINTEQ	-0.623244	0.157604	-3.954493	0.0001
D(STOCK_PRICE(-1))	0.312101	0.208820	1.494596	0.1383
D(STOCKS_NUMBER)	3.92e-05	2.12e-05	1.849868	0.0674
D(TRADING_VOLUME)	-4.80e-05	1.83e-05	-2.610080	0.0105
D(CONTRACTS_NUMBER)	1.49e-05	0.000128	0.116430	0.9076
C	0.277903	0.099563	2.791234	0.0063

Estimation: Dynamic Fixed Effects

Dependent Variable: D(STOCK_PRICE)				
Method: ARDL				
Date: 03/15/25 Time: 20:31				
Sample: 2018Q3 2023Q4				
Included observations: 110				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long-Run Coefficients				
STOCKS_NUMBER	-0.000228	0.000573	-0.397807	0.6916
TRADING_VOLUME	0.000275	0.000700	0.392295	0.6957
CONTRACTS_NUMBER	0.001579	0.003759	0.420042	0.6754
Short-Run Coefficients				
COINTEQ	-0.037726	0.103953	-0.362912	0.7175
D(STOCK_PRICE(-1))	-0.054809	0.143154	-0.382869	0.7027
D(STOCKS_NUMBER)	4.06e-06	4.11e-06	0.987485	0.3259

D(TRADING_VOLUME)	-4.35e-06	3.736e-06	-1.165786	0.2466
D(CONTRACTS_NUMBER)	-1.41e-06	4.36e-05	-0.032343	0.974
C	0.024265	0.059832	0.405548	0.6860

6- CONCLUSIONS

The MG model estimation indicates a significant long-run inverse relationship between the number of shares and stock prices, suggesting that an expansion in supply exerts downward pressure on prices. The results also indicated that trading volume was significantly positive for the stock price, emphasizing the correlation of activity in the market. The number of contracts was insignificant in determining the stock price. This suggests that structural indicators, particularly the number of shares and trading volume, are key determinants of stock prices in the long run, whereas short-term fluctuations are mainly driven by factors such as political disturbances or speculative behavior. The error correction coefficient (COINTEQ) also carried a negative sign, indicating that the market restores equilibrium after shocks at an adjustment speed of about 62%. The lack of significance in a majority of the short-run indicators, save for the trading volume, implies that the market does not react expeditiously to changes occurring in the market indicators..

Conclusions

1- The results of the Panel ARDL model showed that the effect of the number of shares was negative, and the effect of trading volume was positive in the long term, which aligns with economic theory, while the number of contracts had no significant effect. In the short term, it is observed that trading volume is the only variable that had a significant (negative) effect on the stock price.

2- Trading volume is the most influential variable in determining the stock price because its accompanying parameter value is the largest among the model parameters, with a significance level lower than the other parameters in both the long and short terms. This indicates that trading volume is a more effective indicator for predicting stock prices than the other indicators.

3- The absence of a significant effect of variables in the short term indicates that the market does not respond immediately to changes in supply or liquidity, which requires reconsideration and planning by decision-makers.

Recommendations

1- Improve market efficiency and transparency by enhancing disclosure and transparency requirements for listed companies, especially banks, by providing accurate and periodic data, which helps investors make decisions based on correct information and increases market efficiency.

2- Since trading volume and the number of shares have proven to have a significant effect in the long term, market management and banks should develop mechanisms that reflect changes in these indicators more quickly in stock prices, reducing the gap between indicators and prices.

3- Address the weak response to short-term changes by investing in electronic trading systems and activating the role of market makers to reduce the information gap and improve the market's response speed to changes.

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