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Portfolio investment and its role in activating the Iraqi stock market

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Abstract
Portfolio investment has received great attention from developing countries due to its positive role in financing the development process and accelerating its acceleration. After the year (2003), the Iraqi government established the Iraq Stock Exchange with the aim of attracting this type of investment. The research aimed to explain the role of portfolio investment and its importance in revitalizing the Iraqi market of securities by analyzing and measuring the total trading volume of non-Iraqis in some indicators of the Iraqi Stock Exchange (market value index). The study revealed a sustained exponential correlation between the aggregate trading volume of non-Iraqis and the market value index. Specifically, a one-diar increase in the total trading volume results in a seven-diar increase in the market value. This finding aligns with economic theory. It also recommends creating an attractive investment climate for foreign investors, in addition to developing the Iraqi stock market by benefiting from the steps of other countries in developing their markets.

Keywords: Stock market, portfolio investment, development process

Introduction
The importance of foreign investments in financing local development projects cannot be denied, especially in light of the insufficient and limited local resources available. No two parties disagree on the importance of financial markets in attracting international investment portfolios and then creating local savings, especially since a large portion of international capital movements has become it is done either by purchasing ownership shares or debt securities. It is an important means of mobilizing individuals' savings and directing them from surplus units to deficit units, which prompted many developing countries, including Arab countries, to establish securities markets and then develop them and increase their efficiency through legislation. Laws, in addition to setting rules regulating its work, using the best means of publishing and communication, and adopting a policy of financial liberalization by linking the local market to global markets and allowing foreign investors to enter in an attempt to increase its ability to accumulate savings and attract more foreign investments, which have become insufficient to meet the increasing demand for them.
Therefore, after 2003, the Iraqi government sought, in an attempt to revive the Iraqi stock market and revitalize it so that it could perform its developmental role. It worked to adopt economic and financial reform programs in order to improve the regulating environment for the operation of that market and remove most of the restrictions on foreign exchange transactions for the foreign investor in the Iraqi Stock Exchange. It provided guarantees. Legislative and legal, in addition to administrative guarantees to protect foreign capital and encourage it to enter the Iraqi Stock Exchange.

Research problem
Although Iraq has adopted economic policies and legal legislation with the aim of increasing portfolio investment flows, there are still risks and obstacles that hinder it, thus limiting the amount of foreign capital that can be benefited from. Therefore, the research addressed the relationship of portfolio investment in revitalizing the Iraqi stock market.

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Research importance
Portfolio investment has a major role in revitalizing and developing financial markets, which prompted Iraq to pay attention to attracting foreign capital and using it to revitalize the Iraqi stock market and advance economic development.

Research hypothesis
The research is based on the hypothesis that portfolio investment carried out by foreign companies contributing to the market has an important role in increasing the activity of the Iraqi Stock Exchange.

Search goal
The research aims to identify the nature of portfolio investment and study its relationship in activating the stock market in Iraq.

The temporal and spatial dimension
The research focused on the period after (2003), which is the period of establishing the stock market in Iraq, and the policies of reform and openness to the outside world that characterized that period, and the accompanying direct and indirect inflows.

Research structure: The research included four sections.

The first section: The nature of portfolio investment and its risks.

The second section: The theoretical framework of financial markets.

The third section: Study of Iraqi stock market indicators.

The fourth section: Measuring the effect of trading volume on the market value index.

The first section: The nature of portfolio investment and its risk.

First: The nature of portfolio investment
Portfolio investment, which is derived from foreign investment in a portfolio of securities, includes the movement of short- and medium-term capital between various countries of the world and is based on the purchase of stocks and bonds from national institutions of one country through residents of another country. This type of investment gives the investor the right to a share of the profits of companies that It issued shares, but this does not entail any right to control or participate in the management of those companies, unlike foreign direct investment (Mohamed, Ahmed, 105, 2013) [7]. In other words, it is owning securities (stocks or bonds) for the purpose of speculation and then benefiting from the price difference. Or reap profits generated by those stocks or bonds, and the percentage of foreign capital is less than (10%) of the project's capital in this type of investment, which does not give him the opportunity to manage the project and he does not have the right to vote in administrative decisions. In other words, it includes buying companies or People acquire financial assets that generate certain returns in a certain period of time (Al-Amri, 2010, 708).
Some economists define it as loans provided by foreign companies or individuals and are in the form of subscription to shares or bonds issued by the country hosting the capital on the condition that the foreign investor does not own shares that would enable him to acquire or manage the company, thus enabling developing countries to obtain the necessary external financing. The process of economic development by issuing bonds of specific amounts and at a specific interest rate in the financial markets in developed countries. Most developing countries have followed this method because their financial markets lack development in addition to the lack of incentives that encourage foreign investors to subscribe in the markets of those countries, with a commitment The countries issuing these bonds pay their values within the specified period while giving annual interest that the bond holder receives throughout the period (Hussein, Kazem, 105, 2012) [3].
It is also known that all financial investments in stocks and bonds owned by foreigners are for the purpose of obtaining profits and investing their capital. We can say that this type of investment is of a financial nature and is not matched by the transfer of financial assets or the transfer of administrative or technological expertise. The investor's goal is to obtain profit and reduce risks from During the diversification of securities, as this form of investment is through the financial markets and their participants (companies, individuals, investment funds, retirement funds and insurance companies) (Maqash, Al-Aqoun, 590, 2018-591), and portfolio investment is characterized by ease of movement, entry and exit to The host country and the target markets, where investors in investment portfolios always work to change their investment positions, and then enter and exit the financial markets in the host country, according to the degree of development of the markets of those countries, and the corresponding repercussions on the stability of the stock markets in these countries (Abu Amsha, 75, 2013) [5].

From the above, it is clear that portfolio investment includes the following
- Foreigners invest in all forms of securities issued by national companies, whether private or public.
- The investment is considered a conservative foreign investment when the foreign investor's ownership does not exceed 10% of the national company's shares, which does not enable him to supervise and monitor.

Second: Portfolio investment risks
There are many and varied risks that can face this type of foreign investment, including those related to the political risks facing the foreign investor, including those related to exchange rates, and many other risks facing these investments. We explain in the following the most important of these risks:

1. Political risks
Political risk is considered a type of non-systematic risk for a foreign investor, as these risks are linked to a specific country and the investor can overcome these risks by investing in a variety of countries in other countries of the world. The reason for these risks is due to changes in political and security conditions, which are affected by the prices of companies' shares and bonds. (Salman, Abdel Hamza, 172, 2020) [6], and there is agreement among those interested in investing in financial markets that political

risks are often the result of the following: (Anani, Khamari, 67, 2014) [8].

- Suppression of public freedoms and violation of human rights.
- The instability of governments, which is reflected in the instability of their policies.
- The government issued legislation that does not allow foreign investors to own shares in local companies.
- The government issues legislation that does not permit a foreign investor to transfer the interests and profits of investing in securities abroad.
- Threat of nationalization and confiscation.
- Coups and political assassinations.
- Frequent protests against government policy.

All of these things make the investor appear pessimistic and uncertain in order to move forward to establish new projects or expand existing projects, as these things push investors to pay attention to short-term investment and refrain from long-term investments.

Exchange rate risk
The return on investment in securities in a foreign country is affected by the change in the value of the securities, in addition to the change in the value of the currency in which the securities are priced. If there is an expectation that the currency of the original country will decline, the foreign investor can buy securities in other countries because the return on investment In foreign capital markets, it includes the return obtained by the investor as a result of the change in the price of the foreign currency, as the capital gains obtained by the investor are affected by changes in the price of the currency (Muhammad, 14, 2010) [1].

Risks of fluctuation in interest rates
A discrepancy between the anticipated rate of return and the actual rate of return gives rise to these risks. This is due to the change that occurs in the market interest rate during the investment period, because a rise or fall in the interest rate has an opposite effect on securities prices. An increase in the interest rate is offset by a decrease in the prices of stocks and bonds. Because the investor prefers to sell the securities in his possession and deposit their price as a deposit in the bank (Anani, Khamari, 64, 2014) [8] (Aishawi, 73, 2018) [10].

Inflation risks
Inflation reduces the purchasing power of money and thus the value of investment, as it would hinder the establishment of new projects, which leads to lenders reluctance to buy stocks and bonds, which affects project financing, as high inflation rates push individuals to withdraw from buying securities and move toward... Buying real estate and land, the price of which rises in such cases, directly (Ihsan, 24, 2007) [9].

Tax risks
Investors want to invest in countries where taxes on revenues from returns or profits from investments are very low, after evaluating the expected profits from investing in foreign securities after tax (Salman, Abdel Hamza, 173, 2020) [6].

The second section: The theoretical framework of financial markets.

First: The nature of financial markets
Financial markets are the place where economic units that have surplus financial liquidity and are willing to lend it (lenders) and economic units that have financial deficits (borrowers) converge and are then created and traded within this regulatory framework for financial assets (Mubarak, El-Shenawy, 17, 2002) [13].

Financial markets also mean (the field through which certain instruments are issued with the aim of obtaining the amounts necessary to carry out productive projects and others, and these instruments are traded) (Al-Fawaz, 5, 2010), or it is a semi-liquid savings and long-term credit market designated for investment financing. Banking and non-banking financial intermediation agencies contribute effectively to the formation of these markets (Al-Zubaidi, 2000, 50) [15].

It is defined as the framework through which sellers of securities meet with those who wish to buy those securities, regardless of the means through which this combination is achieved or the place where it occurs, but on the condition that effective means of communication are available between market participants such that the prevailing price at any specific time is the same. For any security that is traded in it (Matar, Tim, 2005-60-61) [14].

Financial markets refer to the mechanism that guarantees the accumulation of savings and the provision of funds to various economic activities through the financial institutions listed in these markets. Financial markets include the capital market. The market that deals with long-term securities such as stocks and bonds, while the other market (the money market) deals in short-term securities (Al-Hanawi, Al-Abd, 21, 2005).

It is clear from the above that financial markets play a prominent role in intertwining sectors of the national economy by linking sectors with financial surpluses to sectors with deficits, as they are considered one of the important means of providing investment opportunities for sectors with surplus financial resources and, in return, a vital source of financing the deficit sectors.

Second: Functions of financial markets
There are many functions performed by financial markets to serve economic activities, including the following: (Anani, Khamari, 7, 2014-8) [8].

1. **Facilitating obtaining credit:** Financial markets provide multiple tools for credit and grant them to those who request them and who meet the conditions for obtaining them.
2. **Preparing payments:** This is done through the relevant financial instruments (bills of exchange, credit cards, acceptances), and the like, which are used to pay off debts resulting from various commercial and economic transactions
3. **Developing and preserving wealth:** Securities (stocks and bonds) and other securities that are traded in the markets are important tools for preserving value (or purchasing power). Securities do not consume or corrode over time, but on the contrary, they generate value. It makes a profit, which means that it contributes to the growth of the wealth of those who acquire it.
4. **Encouraging saving:** Encouraging people and institutions to save through the possibility of converting their savings into investments in stocks, bonds, and other instruments traded in financial markets to obtain a

return commensurate with the level of risk.

5. **Providing liquidity and facilitating its granting:** Financial markets are a suitable means of converting securities such as stocks, bonds and other financial instruments into cash when needed.

6. **Contributing to reducing investment risks:** Financial markets contribute to reducing some risks through one of the following methods:

Insurance: In exchange for the consequences of some risks if they occur (such as fires, thefts, and car insurance, especially in the field of real investment)

Diversification: This means diversifying the forms of investment, i.e. do not invest all the money in one project or one company, as the financial markets greatly help in diversification.

The third section: Study of Iraqi stock market indicators.
First: The Iraq Stock Exchange was established
He established the Iraq Stock Exchange and officially carried out its work on June 24, 2004, which became an alternative to the Baghdad Stock Exchange. The Iraq Stock Exchange is a public benefit, non-profit, self-financing institution managed by the Board of Governors, which represents the various economic segments of the investment sector in the country. One of the most important goals of the Iraqi Stock Exchange is: (Al Touma, 39, 2014)

1. Regulating companies listed on the market in a manner consistent with the goal of protection and increasing investor confidence in the market.
2. Organizing and facilitating securities transactions in a fair, effective and regular manner.
3. Collect data, then analyze it and publish the statistics and information necessary to achieve the goals.
4. Communicating with financial markets in the Arab world and global markets in order to develop the market.
5. Regulating members' transactions in everything related to the purchase and sale of securities and then determining the rights and obligations of the parties and the means of protecting their legitimate interests.
6. Motivating investors to invest in the market.
7. Helping listed companies increase the capital necessary for investment to serve the national economy.

Second: The reality of indirect foreign investment in the Iraqi Stock Exchange for the period (2009-2021)
After 2003, the Iraqi government established the Iraq Stock Exchange, and the motive behind this establishment was for the purpose of attracting foreign investment and creating an investment climate for Iraqi and foreign investors by buying and selling shares in the market. Table (1) shows the total trading volume of non-Iraqis in the market, as shown by: Following up on reports and information, non-Iraqi investors have been the starting point for their trading in Iraqi securities, increasingly since the year (2009), especially after the issuance of instructions for trading non-Iraqis in the Iraqi Stock Exchange. As is clear from Table (1), net foreign investment (purchasing shares from. Before foreigners - the sale of shares by foreigners amounted to (23,449) million dinars during the year 2009. This came as a result of non-Iraqi investors purchasing Iraqi shares in the amount of (105,710) million dinars. In contrast, their sales of shares were limited to (82,261) million dinars, and the

percentage The total purchase by non-Iraqis was (25.66%), while in the year (2011) the net foreign investment amounted to about (127,651) million dinars, and the reason for this was due to foreigners buying Iraqi shares with about (176,499) million dinars, in return, their sales were limited to an amount of (48,847). (million dinars), and when comparing this to the previous year, it is clear that there has been an increase in the demand of foreign investors for the Iraqi market, as foreign purchases focused on companies (Middle East Bank, Baghdad Bank, United Bank, Credit Bank, Baghdad Soft Drinks Company), as the amount of foreign purchases of these shares amounted to Its value is (105,141) million dinars, which is (11.7%) of the total trading volume (Annual Report on Trading Movement in the Iraq Stock Exchange, 5, 2011). As for the year (2012), the net foreign investment reached a negative value amounting to about (-2037) million dinars, which means that foreigners' purchase of shares was less than their selling of them, as the purchase amounted to approximately (54,047) million dinars, while the sale amounted to (56,085) million dinars, and in the year (2013) the net foreign investment increased again to record a positive value amounting to (980,153) million dinars, which indicates that the percentage of non-Iraqis purchasing shares has exceeded their purchasing rate, as the percentage of their buying to the total amounted to (40.48%) while the percentage of their selling to the total amounted to (5.97%). The reason for this is due to the increase in foreigners' purchases of shares as well. About listing the shares of Asia Cell Trading Company and increasing the capital of five companies (JSOM, 140, 2021), but this increase in the desire of non-Iraqi investors to buy shares did not continue and it decreased again to record in the year (2014) a value of (112548) million. Dinars, so the net foreign investment in that year amounted to (30,065) million dinars. The explanation for this is due to the instability of the Iraqi financial market as a result of the instability of the security situation, which leads to a decline in market resources to finance economic activities and projects (Reda, 168, 2020) [21], and this continued. The decline in foreign investment for three years in a row, recording in the year (2017) a value of (41,479) million dinars, and the net foreign investment recorded a value of (5,089). The reason for this decline is due to the security conditions that were not suitable for investment in that period and the military actions in some Iraqi governorates. As a result of the control of ISIS terrorist gangs over those governorates, investment flows continued to fluctuate, as non-Iraqis' purchases in the year (2019) amounted to (20,979) million dinars, recording a net investment of (14,037) million dinars, and this is due to foreign investors selling a percentage that exceeded the average. Their purchase this year, in addition to delisting the shares of three companies from trading in the market, which are (Al-Rabita for Financial Transfer, Al-Harir for Financial Transfer, and Al-Nour for Financial Transfer) (Annual Report of the Iraq Stock Exchange, 57, 2019), when comparing the trading volume in the year (2021). With the year (2020), we notice an increase in the volume of their sales amounting to about (78.1%), reaching about (49,244.5) million dollars at the end of the year (2021), compared to (27,650) million dinars, during the year (2020), in return, an increase in the volume of their purchases. It amounted to about (49,668) million dinars during the year (2021), compared to (33,201) million dinars during the year (2020), recording an increase rate of (49.6%) (The annual report of the Securities Commission for the year 2021, 36)

Table 1: The total trading volume for non-Iraqis (buying and selling) in the Iraqi Stock Exchange for the period (2009-2021) is one million dinars

Net trading volume for non-Iraqis	Percentage of non-Iraqis to total sales (%)	Total trading volume for non-Iraqis selling (million dinars)	Percentage of non-Iraqis to total purchases (%)	Total trading volume for non-Iraqis buying (million dinars)	The year
23449	19.97	82261	25.66	105710	2009
54568	2.08	8319	15.71	62888	2010
127651	5.19	48847	18.75	176499	2011
-2037	6.27	56085	6.05	54047	2012
980153	5.97	169654	40.48	1149808	2013
30065	9.18	82483	12.53	112548	2014
40301	24.88	113501	16.05	73200	2015
15708	8.93	38126	12.61	53834	2016
5089	12.04	46569	10.72	41479	2017
18174	7.39	34457	11.28	52631	2018
14037	12.29	53016	7.36	20979	2019
5551	8.37	27650	10.05	33201	2020
424	6.0	49244.5	6.1	49668	2021

Source: Annual reports of the Iraqi Stock Exchange for different years

Third: Some indicators of the Iraqi Stock Exchange
Stock price index: This indicator is a percentage index that measures the movement of change in the share prices of a sample of joint-stock companies whose shares are traded on a regular basis. The measurement method is either on a fixed basis to measure its value, or on a moving basis based on comparing its value in the current session with its value in The previous session, on the third of the ninth month of the year (2009), the Iraq Stock Exchange adopted this index, as the general index recorded (117) points in that session, so that the index closed by the end of the year at (100.86)

points, recording a decrease of about (-11.41). It is clear from Table (2) that the price index index continued to achieve values exceeding (100) points in a row until it recorded a decline in the year (2014) amounting to (-18.69) to close at the end of the year at (92) points. However, it It has risen again at very high rates since the year (2015), recording a value of about (730.56) points. This rise continues at slightly varying rates, so that the index closes at the end of the year (2021) with a value of (569.20) points, and this is what Table (2) shows.

Table 2: Some indicators of the Iraqi stock exchange

Market value one billion dinars	Number of traded companies (selling to non-Iraqis)	Number of traded companies (buying non-Iraqis)	Number of executed contracts (selling to non-Iraqis)	Number of executed contracts (purchasing non-Iraqis)	Price index Market index (point)	The year
3125	44	67	300	5072	100.86	2009
3446	60	73	792	6121	100.98	2010
4930	73	79	3985	22549	136.03	2011
5597	66	69	6780	10658	125.02	2012
11476	60	66	7981	16580	113.15	2013
9546	63	67	9027	10229	92	2014
9265	56	57	9274	8185	730.56	2015
9355	43	41	11000	7910	649.48	2016
9373	44	49	6651	7835	580.54	2017
11350	40	44	7940	10202	510.12	2018
11662	53	52	6621	6769	493.76	2019
330	41	37	6082	6624	508.03	2020
812	42	44	8141	8285	569.20	2021

Source: Annual reports of the Iraqi Stock Exchange for different years.

Number of contracts executed
It is clear from Table (2) that the number of contracts executed by foreign companies in the Iraqi Stock Exchange in the year (2009) recorded (5072) thousand purchase contracts, corresponding to (300) thousand sales contracts, as the increase in the number of contracts executed by foreign companies continued. The year (2011) witnessed the execution of (22,549) thousand purchase contracts, compared to (3,985) thousand sales contracts for the same year. The reason for this increase in executed contracts and purchases by foreigners is the improvement in the activity of the Iraq Stock Exchange, and the year (2013) recorded the execution of (16,850) thousand. A purchase contract for (7981) thousand sales contracts by foreigners. The reason for this increase is due to the desire of foreign investors to

buy Asia Cell shares after listing its shares in trading, in addition to an increase in the capital of five companies (Jasoom, 140, 2021), and it declined after that, but in proportions. Few, but purchase contracts continued to be dominated by sale contracts, recording in the year (2021) about (8285) thousand buy/sell contracts, corresponding to (8141) thousand sell contracts.

Number of traded companies
It is clear from the table above that companies traded by non-Iraqis (foreigners) in the Iraqi Stock Exchange took an upward trend compared to the previous years (2007-2008), where (67) buying companies were recorded, compared to (44) selling companies, and this increase continued for the next three years in a row. The reason for this is the improvement in the security and economic conditions in the

country, as well as the disclosure of information and transparency in transactions. However, in the year (2012) the companies traded to foreigners (buying companies) began to gradually decline successively, reaching in the year (2016) (41) buying companies. This is offset by (44) selling companies, so that the companies traded to foreigners recorded a net negative value of (-3) companies (purchasing companies - selling companies), due to the deteriorating security conditions and the control of criminal gangs over part of the governorates, in addition to the cancellation and removal of the shares of many weak companies in trading. Then, companies buying versus selling increased again, reaching (49) in the year (2017), continuing to increase and decrease, respectively, to reach (44) buying companies and (42) selling companies in the year (2021).

Market value index

The market value index is one of the important indicators in the market and is expressed by multiplying the value of stocks listed in the market by their average prices at the end of the period. It also expresses the total value of securities listed in the market. This index is used to identify the extent of the development of market activity. The higher the value the market value is high. This indicates that economic activity is increasing, corresponding to an increase in market activity. It is clear from Table (2) that the market value

index for the Iraqi Stock Exchange took an upward trend during the study period, as it reached in the year (2009) about (3125) billion dinars. This increase continued until it was recorded in the year (2013) approximately (11,476) billion dinars, but it declined in the year (2014) and reached approximately (9,546) billion dinars. The reason for this is due to the deterioration in the security conditions that Iraq witnessed and its repercussions and the war on terrorism at that time. The increase in the market value index continued in a relatively stable manner until it reached approximately (11,350) and (11,662) billion in the year (2018) and (11,662) billion, respectively. In general, it was observed that there was stability in the market value index during the study period, with an increase in On a regular basis in most years, this was the result of several factors, Encompassing an enhancement in the security conditions and the emancipation of certain regions under terrorist control in the year 2018, in addition to the entry of new companies in that period (2017-2019), as well as an increase in capital invested in listed companies. In the market.

The fourth section
Measuring the effect of trading volume on market value
First: Study variables.

Table 1: Study variables

His description	Variable name	Variable symbol
Independent change	Total trading volume for non-Iraqis	X
Dependent variable	Market value	Y

Source: Table based on the model description.

Second: Standard form tests (unit root test)

Prior to conducting the model testing, we will present a table illustrating the stationarity test of the time series for the study variables based on the outcomes of the Phelps-

Perron (P.P.) statistical test. The Phelps-Perron test was included in the evaluation of all models due to its superior accuracy.

Table 2: Phillips-Perron test statistic

Variables	Level			1st Difference		
	PP	Sig.	Result	PP	Sig.	Result
Y	-2.87654	0.0035	Stationary	-2.6776	0.0038	Stationary
X	-4.98754	0.0350	Stationary	-2.0989	0.0387	Stationary

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

Third: Estimating the total trading volume of non-Iraqis based on the market value.
First: Initial estimation of the ARDL model.

After the stability tests that were conducted on the variable showed the total trading volume of non-Iraqis as

independent variables and the market value index as a dependent variable, it was found that it was stable at the level and at the first difference (1)1, and with this condition being met, we were able to apply the ARDL model test, and the table below shows us the results. Test for this model**.**

Table 3: Results of the initial estimation of the ARDL model

Dependent Variable: Y, Method: ARDL			
7582.531	Mean dependent var	0.999142	R-squared
3812.728	S.D. dependent var	0.999032	Adjusted R-squared
2.076866	Durbin-Watson stat	9083.943	F-statistic
		0.000000	Prob (F-statistic)

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

Table (3) presents the results of the Adjusted-squared test, which indicates that the total trading volume, when considered as an independent variable (X), accounts for 99% of the variations in the dependent variable, market

value (Y). The remaining 1% is attributed to other causes. Excluded from the model. Concerning the F-statistic test, it provides a statistical measure of the overall significance of the model at a probability level of around 0.000000, which

is less than 5%.

Second: Results of the bounds test for cointegration
An essential step to assess the presence of a long-term

equilibrium connection (cointegration) between the total trading volume (X) as an independent variable and the market value (Y) as a dependent variable is to perform a Bound Test, as shown in the table below:

Table 4: Bound test results

Null hypothesis: No levels relationship						
Number of cointegrating variables: 1						
Trend type: Rest. constant (Case 2)						
Sample size: 45						
Value				Test Statistic		
4.139005				F-statistic		
1%		5%		10%		
I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	Sample Size
6.333	5.593	4.523	3.937	3.730	3.210	40
6.193	5.607	4.460	3.877	3.730	3.190	45
5.580	4.940	4.160	3.620	3.510	3.020	Asymptotic

* I(0) and I(1) are respectively the stationary and non-stationary bounds.
Figure: Prepared by the researcher based on the statistical program (13.Eviews)

Analysis of Table (4) reveals that the computed F-statistic value (4.139005) exceeds the tabulated value at a significance level (5%). Consequently, we reject the null hypothesis and accept the alternative hypothesis. This indicates the presence of an integration relationship between the sizes of Total trading (X) as an independent variable and market value (Y) as a dependent variable.

Third: Testing the estimated parameters (short-term)
This test quantifies the estimate of short-run parameters to determine the extent of impact of the independent variable on the dependent variable. This test also generates the error correction factor, which quantifies the rate at which the model returns to equilibrium in the long term. The table below displays this information.

Table 5: Estimation results of the error correction model and the short-run relationship

Dependent Variable: D(Y)				
Method: ARDL				
Prob.	t-Statistic	Std. Error	Coefficient	Variable
0.0051	-2.968206	0.010580	-0.031403	COINTEQ*
0.0080	1.695452	0.132538	0.224712	X
0.0131	2.599019	59.97498	155.8761	C

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

The results of the table above showed a set of results as follows:
1. There is a direct relationship between the total trading volume.
2. The estimated relationship also showed that the error correction factor reached a negative and significant value of (0.031403) with a probability of (0.0051=Prob). This indicates the existence of an equilibrium relationship in the short term between trading volume and market value and towards an equilibrium relationship in the long term.

Fourth - Testing the estimated parameters (long-term)
This test demonstrates the estimation of parameters in the long term in order to reveal the degree of influence of the independent variable on the dependent variable, as well as to determine the type of long-term relationship, as in the

following table:

Table 6: Results of estimating long-term parameters

Prob.	t-Statistic	Std. Error	Coefficient	Variable *
0.0193	2.430479	2.944178	7.155762	X
0.0002	4.012047	1237.210	4963.746	C

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

There is a direct relationship between the total trading volume.

Fifth: Post-tests (confirmatory)
For the purpose of verifying the validity and accuracy of the results obtained in the previous tests, we will conduct some important diagnostic tests to prove this, as follows:

The problem of autocorrelation
The results according to the LM test and the F-Test statistic showed that they were not significant, and therefore we reject the hypothesis of the existence of an autocorrelation problem. See Table (7) below.

Table 7: Self-correlation

Breusch-Godfrey Serial Correlation LM Test:			
Null hypothesis: No serial correlation at up to 2 lags			
0.8573	Prob. F(2,37)	0.154560	F-statistic
0.8299	Prob. Chi-Square (2)	0.372841	Obs*R-squared

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

The heterogeneity of variance test revealed that the findings obtained from the ARCH test and the F-Test statistic were not statistically significant. Consequently, we reject the premise that there is an issue of homogeneity of error variance.

Table 8: Contrast heterogeneity

Heteroskedasticity Test: ARCH			
0.0574	Prob. F(1,42)	3.816496	F-statistic
0.0556	Prob. Chi-Square(1)	3.665183	Obs*R-squared

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

The problem of normal distribution: The results showed that the estimated model is free of the problem of normal distribution of residuals, as follows:
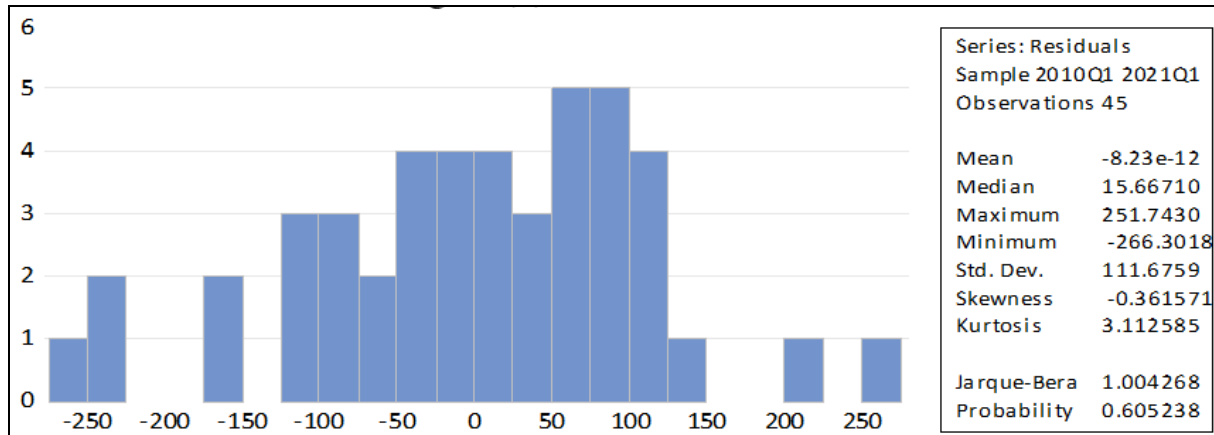

Figure: Prepared by the researcher based on the statistical program (13.Eviews)

Fig 1: Normal distribution

Conclusions

1. Portfolio investment is one of the important economic variables in any economy, as it achieves many benefits, including its role in activating the financial market and the transfer of capital to the country, which leads to increased market liquidity, as well as increased demand for the local currency and many other benefits.

2. The adoption of the electronic trading system in the Iraqi Stock Exchange after 2008 has contributed significantly to increasing foreign flows into the market, as the transition from manual to electronic trading facilitated the process of foreign investors entering the market and trading in it remotely while they were outside the market, and this in turn leads to... To encourage investors to trade and thus increase trading volume.

3. The net trading volume for non-Iraqis witnessed unstable years between increases and decreases. It recorded a negative value amounting to about (-2037) in 2012 due to the security and political instability that increases the fears of foreign investors, which makes the process of selling shares more than buying, but it is It got better after a couple of years.

4. The market value index witnessed a continuous increase in varying proportions, as it reached its highest levels for the years (2019, 2018, 2013), recording values that amounted to approximately (11662, 11350, 11476) billion dinars. The general market index (stock price index) also witnessed a continuous increase throughout the period. The study period, which means improved performance of the Iraqi Stock Exchange.

5. Although Iraq has followed economic policies and legal amendments with the aim of encouraging the entry of indirect foreign investment into developing countries, there are still risks and obstacles that stand in the way of this type of investment, which limits foreign capital entering them.

6. The results of the econometric analysis demonstrated the existence of a positive long-term relationship between the total trading volume of non-Iraqis and the market value index. This is consistent with economic theory, meaning that when the total trading volume increases by (1) dinar, this leads to an increase in the market value by (7) dinars.

Recommendations

1. Giving incentives and benefits to foreign investors for the purpose of attracting them to invest in the Iraqi stock market, because when the investor wants to determine the country he wants to invest in, he chooses the countries that give him more incentives and benefits, especially with regard to profit transfer, tax exemptions, etc.

2. Always working to amend the laws and legislation regulating investment in order to attract more foreign investors. In addition, working to improve disclosure and transparency regarding information and revealing the reality of their performance in companies listed on the stock exchange with the aim of attracting foreign investors.

3. Creating an attractive investment climate for foreign investors, as stability in the economic, political and security situation is one of the most prominent factors that affect investors' decisions when determining the country in which to invest their money.

4. Giving the private sector a major role in economic activity. This is done by activating privatization programs in Iraq. In return, there must be transparency in the programs with regard to prices and timing of sales. 5- Working to develop the Iraqi stock market by benefiting from the steps of other countries in developing their markets, and linking the Iraqi market to global and Arab markets through the process of financial integration between the markets, which increases the attraction of foreign investors.

5. Increasing investment awareness among individuals. This is done by establishing specialized companies in this regard that undertake the provision of investment advice and advice, in addition to advertising in the media so that individuals understand what investing in the stock market is.

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