



RESEARCH ARTICLE

Measuring the Mutual Impact between the Iraqi Stock Exchange Indicators and the Economic Growth Rate for the Period (2007-2022)

Raad Obaid Nihaya^{1*}, Prof. Dr. Ahmed Khalil Al-Husseini²^{1,2}College of Administration and Economics, University of Babylon, Iraq**ARTICLE INFO**

Received: May 22, 2024

Accepted: Jul 8, 2024

Keywords

Mutual

Iraqi Stock

Exchange Indicators

Economic Growth Rate

ABSTRACT

Financial markets play an important role in providing liquidity And cash. For activities as for commercial war. For economical a for different and Working on Transferring saved money through consumer spending to For basic living goods and employing them in various investment channels And that by directing it to sectors with...Inability Markets play this role Through the financial operations that take place, starting with issuing securities and offering them to the public-You repent of it and then trade it By way Selling offers or buying orders, but the role of the financial markets in Iraq is weak in economic growth because of the weakness in the banking system and the weakness of the policy supporting the market and because Iraq's economy is...A rentier economy that relies heavily on oil revenues, and from here the message tried to find out Indicators of the Iraqi Stock Exchange and economic growth for the period between (2007 and 2022) through the data shown in the quarterly and annual reports on the movement Trading rate in the Iraqi Stock Exchange and considering it as a time series in order to know the extent of its change in the direction of rise and fall. The indicators of the market and its role are prepared in the effective growth of the importance of the importance of the importunateness It is to limit the negatives and the prestige of the chances of the monitoring and the comprehensive solution of the consultations of the market and the Balati, because this helps in defining the interventions that are appropriate It must be done.

***Corresponding Author:**bus575.radd.abeed@student.uoba
bylon.edu.iq.**INTRODUCTION**

Prepare Markets the money One of the most important foundations of the financial worldYLimitYThaGiven the importance of financial institutions in facilitating economic activity, financial markets are an effective tool in financing projects and investments that lead to economic growth.Like the Iraqi market for securities, the Iraqi money market is an area that needs comprehensive research, but it is worth noting that the role of the Iraqi market may diminish due to the decline in its contribution to the gross domestic product.And its reflectionOn growth, although the market has witnessed positive growth, the multiple crises and wars have affected, in one way or another, declines and an imbalance in the economic structure, so the state's sources of revenue must be diversified by supporting the right sector agricultural, agricultural and other sectors and diversifying the market economy by working on opennessThe economic impact on the private sector activates the private sector and grows through it, the growth of the financial marketthatThrough TMoney savings are mobilizedYThen direct it towardsInvestment,That's itExpress stability and strengthstability Economic for anynation

Important search

Highlights the importance of research to Knowing and measuring the extent of the impact of the Iraqi Stock Exchange indicators on economic growth in Iraq during the period of the study, as it is a rentier economy that relies on crude oil resources to finance its general budgets and rationing plans.

Problem search

The Iraqi Stock Exchange suffered from poor performance due to the crises, which succeeded in finding solutions by studying the indicators and comparing them with each other, coinciding with the circumstances it went through, which proved that growth Economic In Iraq, it is affected Directly With the development of the Iraqi stock market, through the best use of resources and raising productivity Investment

An imposition search

The research is based on the hypothesis that: - Is there a reciprocal effect between Iraqi stock market indicators and economic growth?? The following two sub-hypotheses emerge from it: -

- 1- (Alternative hypothesis H1): There is a significant impact of the Iraqi financial market indicators in the long and short terms in influencing the rate of economic growth.
- 2- (Null hypothesis (H0): There is no significant effect of long- and short-term indicators in influencing the economic growth rate

Research objectives

The research aims to measure the development of the growth of the Iraqi stock market from during. Studying its indicators for the period from 2007 to 2022 Data published on the Securities Commission's page to show the impact of the Iraqi Stock Exchange on economic activity and to measure the impact mutual between Iraqi Stock Exchange indicators. Economic growth and knowing the relationship between them

Research methodology

The researcher relied on the method Inductive On the theoretical side, books and letters And magazines. By reviewing the various concepts related to Iraq Financial Market Its origin and development, then the concept of growth and its theories and the relationship between them, then presenting the indicators and analyzing them, and thus measuring the mutual impact between the market indicators (the general stock price index, the A.S. index Number of shares, trading volume index, number of transactions index)The rate of economic growth through its indicators represented by (GDP growth rate, inflation, unemployment, balance of payments)

Research structure

It's been divided the Structured as following : the chapterthe first: the theoretical side: The research includedthe firstGeneral concepts aboutIraq Financial MarketThe second topic is understandableEconomic growthAnd the third topicThe relationship between the Iraqi Stock Exchange and growth. As for Chapthe secondThe first section is the indicators of the Iraqi Stock Exchange and the second section is an analysis of the annual trading indicators of the Iraqi Stock Exchange and growth. As for the chapterThird: the applied aspect of measurementAnd analysisThe mutual impact between Iraqi market indicators and economic growth

Researcher the first - the conceptual aspect of the Iraqi Stock Exchange ⁽¹⁾

⁽¹⁾ – Al-Najafi, Hassan, Baghdad Stock Exchange, Al-Najafi Press, Baghdad, 1992, p. 80.

Firstly- The emergence of the Iraqi Stock Exchange: The history of the emergence of the Iraqi Stock Exchange witnessed two separate stages:

The first stage: The Baghdad Stock Exchange was established pursuant to Law No. 24 of 1991 and enjoys legal personality and financial and administrative independence. so The market is considered an institution for public benefit and does not aim to achieve profits, but rather aims to regulate and monitor the trading and dealing in securities with the aim of ensuring the safety, validity, ease, speed and accuracy of this dealing. It also aims to protect the national economy and the interests of dealers, regulate the brokerage profession in dealing in securities, determine the rights and obligations of concerned parties, develop investment awareness, protect legitimate interests, promote savings and develop investment by encouraging investment in securities and directing savings to serve the national economy. The Baghdad Stock Exchange was officially opened on March 23, 1992. Since then, the market has been working to organize and develop the stock market in Iraq and provide a suitable investment environment for local and foreign investors.

The second stage: ⁽²⁾The Iraq Stock Exchange was established under Interim Law No. 74 on April 18, 2004, and its first trading session began on June 24, 2004. The Board of Governors was formed in 2004 in accordance with the Interim Securities Law, and its members were appointed by the Iraqi Governing Council. Details of the appointment were published in the Iraqi Gazette in the issue. No. 3983 issued in April 2004. The Board of Governors had a fundamental role in establishing and opening the market and continued to perform its duties after obtaining the approval of the Securities Commission for a license to practice the activity. Board members are appointed by secret ballot every year. The Board consists of nine members and their main mission is to Organizing the market, setting its general policy and supervising its activities. On June 28, 2004, the first trading session was held in the stock market. The number of companies registered in the first session was only 15, and by the end of 2004 it had reached 78 companies. Actual work in the market took place at the beginning of 2007 after the situation in the country stabilized. The number of companies registered in the market by the end of 2021 was approximately 105 companies, according to the annual report, and they were distributed among eight sectors. (Banking, communications, investment, services, tourism and hotels, industry, agriculture, insurance). It has relied on a written auction system and the stock market since Open I depend on Licenses issued by brokers in the market then allow them to carry out trading operations in it

Activities of the Iraq stock exchange: The activity of the Iraqi Stock Exchange has decreased In two stages³⁾

The first stage (manual trading): The first trading session was held on 6/24/2004 with a manual trading mechanism, which means registering sales orders and purchase orders on plastic plates. Company shares are traded when the selling price matches the purchase price according to demand and supply, and then the stock settlement process takes place the next day according to the transfer of ownership and a contract. Transferring manually in the deposit center and working to pay it according to the financial settlement and clearing report between the creditor and debtor. The buyer

(2) - Iraq Stock Exchange, Third Annual Report, Al-Kitab Press, Baghdad, 2006, p. 7.

(3) - Iraq Stock Exchange. Annual Report, 2012, p. 3. (*) WAN is an abbreviation for (Wide Area Network), a network located within a wide geographical area whose goal is to connect small networks to each other. It is a type of communication network. (*) EQUATOR is the deposit and settlement system used by the Securities Depository Center, to facilitate the tasks of clearing, settlement, preservation and registration.

(T+O) - (*) Abbreviation for the word On-line trading is the exchange of financial assets over the Internet, that is, the buying and selling of currency pairs, stocks, commodities and digital currencies through the trading platforms provided by brokerage companies for the purpose of profit.

did not have the ability to sell his shares until after receiving the share certificate from the company within six days Or work (the financial settlement precedes the stock settlement by six days).

The second stage (electronic trading): Trading in the Iraqi stock market became electronic on April 19, 2009, for the first time in the history of Iraq, as electronic trading stations replaced the plastic boards at the market headquarters and were also replaced at (47) sites for brokerage companies. Existing outside the market building, trading takes place via a network (WAN)* It handles the location Commission Securities monitor trading and the process of transfer of ownership is in accordance with the system (EQUATOR)* Immediately after the session, financial settlements take place (T+0* (meaning that the stock and financial settlement take place at the same time) and these orders were reflected in the change and development of trading indicators in a positive way since 2009.

The institutional structure of the Iraq Stock Exchange

The general authority for Iraqi securities: The Iraqi Securities Regulatory Authority, known as the Iraqi Securities Exchange, is an institution responsible for regulating and supervising the stock market in Iraq. It works to monitor the financial market, including monitoring, supervision, and regulation within the jurisdiction of the General Authority for Securities. They are charged with ensuring the stability and safety of the market, and the most important thing that this authority seeks is to contribute to raising and developing economic activity in Iraq through the formation and strengthening of the investment infrastructure in order to achieve these goals. The dissemination and delivery of information must be supervised and transparency must be enhanced for investors (4)

Iraqi deposit center (Iraqi depository center): It is the center specialized in registering and settling securities in the Iraq Stock Exchange. The center acts as an intermediary between investors, joint-stock companies, and financial intermediaries in securities trading operations. The Center undertakes several tasks, including registering and storing securities, conducting settlement and delivery of securities, and providing current account services to investors and brokers. The Center aims to enhance transparency and integrity in trading operations and guarantee investors' rights. In addition, the center provides other services such as dividend distribution, electronic delivery to investors, and the provision of reports and financial information related to securities listed on the market. The Iraqi Depository Center plays an important role in developing the stock market in Iraq and enhancing confidence and stability in the financial system.(5)

Ways to improve the performance of the Iraq Stock Exchange(6)

Improving legislation and regulations: Legislation regulating the work of financial companies and the stock market in Iraq must be updated and developed, and this legislation must be appropriate to the requirements of the market economy and enhance transparency and protection for investors..

Strengthening oversight and supervision: Oversight means and procedures must be strengthened to ensure transparency and integrity in the market. A strong and independent supervisory body

(4) - Iraqi Securities Commission, Annual Report on Trading Movement in the Iraq Stock Exchange, 2014, p. 3

(5)- Al-Tarfi, Fawzi Hussein Sahib Muhammad, The Impact of Monetary Policy on Common Stock Returns, An Applied Study in the Iraq Stock Exchange for the Period from (2004-2010), Master's Thesis, College of Administration and Economics, Al-Qadisiyah University, p. 18

(6) - Al-Rubaie, Faleh Khalaf, The Iraqi Stock Exchange: Reality and Future Prospects, Internet - Al-Hiwar Issue No. 2226, 3/20/2008.

must be provided to monitor and review the activities of financial companies and implement laws and regulations..

Enhancing confidence and transparency: Confidence among investors must be enhanced by providing transparent and accurate information about listed companies and traded securities. Regular and detailed financial reports must be provided in accordance with international accounting standards..

The second topic - the concept of economic growth

Definition of economic growth: The simplest definition of economic growth is the continuous increase in GDP growth, that is, the increase in per capita or population growth, as defined by Simon Kuznets: The labor component of production: Because an increase in production is often accompanied by an increase in quantity, emphasis must be placed on population and the true estimate of economic prosperity. The economic growth rate is calculated on the basis of the per capita output index, also known as the growth rate. This term is linked to the emergence of capitalism, its mechanical capabilities, industrial production, and what accompanied it. Continuous technological change and capital accumulation lead to fundamental transformations in society. Before the emergence of this system, primitive societies adopted means of living and survival and did not care about the amount or pace of their increase.⁽⁷⁾

The third section. (The relationship between the Iraqi stock market and growth) The Iraq Stock Exchange aims primarily to finance economic activities, work to develop small projects for individuals, push them to invest, and create a close relationship between economic growth and the development of the stock market. This prompted many applied and theoretical studies to pay attention to the relationship of the stock market to economic growth, as most of them focused on knowing The relationship between them, which we will examine in this study through the type of financing practiced by the Iraqi Stock Exchange and the extent of the importance of this financing, and then knowing the channels affecting economic growth ⁽⁸⁾

The relationship of financial markets to economic growth

In general, investing in financial assets can lead to increased investment effectiveness and increased production capacity by directing savings towards productive projects. When savings are directed towards investing in productive projects, this increase in investment can contribute to the ratio of capital formation to national product while increasing investment in projects. Productivity, thus enhancing economic activity and creating new job opportunities, which contributes to increasing production and national output. These financial activities also work through these channels to increase economic growth rates. However, it must be taken into account that this assumption holds other factors constant, and in reality there are many other factors. Which can affect investment effectiveness and economic growth, such as government policies, technology, economic stability, global developments, etc. Therefore, these factors must be taken into account and evaluated comprehensively to understand the impact of financial markets on economic growth.⁹⁾

(7) - Rob Morris, *Economic Growth and Underdeveloped Countries*, translated by Hisham Metwally, second edition, Al-Tali'ah Printing and Publishing House, Beirut, 1979, p. 9.

(8) - Abdel Hafeez Khazan, *activating the role of stock markets and their impact on economic growth, study of the Amman Stock Exchange from: 2002 to 2013*, College of Economic and Commercial Sciences and Management Sciences, Jordan, Amman, 2014, p. 102.

(9) - Al-Hasnawi, Ibrahim Rasul Hani, previously mentioned reference, p. 94.

Chapter II/ For the first topic. Iraqi Stock Exchange indicators

First: The concept of the stock market index. The value Digital used To measure performance market In a way general Complete formation indicator about road to gather group Specific from Papers Finance or Companies Contribution across For the market And it is done to set value Indicator in phase the beginning And from then Complete comparison Its value after that in points Temporal Specific move Indicator Up or Down Indicates to change direction market In a way general when Rises Indicator The that reflects more in value Papers Finance Component For the indicator And better in performance market and on The opposite when Decline Indicator The that Indicates to retreat Value Papers Finance And weak in performance market ⁽¹⁰⁾

Indicators for measuring the performance of securities

The general index of stock prices: It is a statistical measure of the overall performance of the market and is usually calculated by middle The price of a group of stocks selected from the financial market. Since each financial market contains many stocks and due to the difficulty of measuring general trends in the activity of stocks and financial markets, it is necessary to find a dedicated indicator for each stock to use. Financial market represents an average The daily stock price and the mechanism upon which daily trading operations are based. Therefore, we observe each financial market with its own indicator ⁽¹¹⁾

Volume indicator Trading (Index Trading Volume) ⁽¹²⁾

Indicates to the value Total For stocks And bonds that It was completed Trade it in market during a period Temporal Specific usually Be year And it reflects size Trading For value Total For papers Finance that It was completed Trade it in market during That Period and rate Trading measured on road portion Total Stocks Traded in stock market on The resulting the local Total

Turnover rate indicator Share Turnover Ratio)) ⁽¹³⁾

Measures The ratio Centenary To trade shares a company Certain or group from Companies in section specific during a period Temporal Certain maybe account an average Rotation on road portion Total Stocks Traded on Capitalization market (the value Logistics) during a period Time specified. the average The low To rotate Indicates to that market may be Be not Active on Although from Grow up its size (Capitalized Logistics The big one). This means that Stocks in market You trade slowly And it has He is there lack in size Trading Daily maybe that He is a reason that he non Existence interest big from Investors in the purchase And selling Active For stocks

Indicator of the number of contracts (number of trades) ⁽¹⁴⁾

A contract is a typical commitment to sell or To buy a specific asset at a specific price and on a specific future date, meaning that it will be executed in the future And The key element in this contract is the price The origin and quantity are agreed upon when signing the contract while the price is paid and

⁽¹⁰⁾ - Dr. Abdel Ghaffar Hanafi, Basics of Investing in the Stock Exchange (Shares - Bonds - Investment Documents - Options), University House, Alexandria, 2005, p. 292.

⁽¹¹⁾ - Rasmiya Ahmed Abu Musa, Financial and Monetary Markets, Dar Al-Moataz for Publishing and Distribution, Amman, 2005, p. 11.

⁽¹²⁾ - Ross Levine & Sara Zerous, Capital Control Liberalization, op.cit, p.

⁽¹³⁾ - Dr. Abdul Ghaffar Hanafi and this. Rasmiya Qaryaks, Financial Markets and Project Finance, University House, Alexandria, 2002, p. 313.

⁽¹⁴⁾ - Ziad Ramadan, Principles of Financial and Real Investment, Wael Publishing House, second edition, Amman, 2002, p. 124.

delivered The original agreed upon is in the future, and hence the expression “futuristic” came to describe the contractDr

Economic growth indicators

Gross domestic product: It is considered one of the most important indicators To measure Activity Economic for any Country where he represents Total the value Economic For goods And services that It was completed Its production in Country during a period Temporal Specific usually Be year.

It is considered growth The resulting the local Total from year For another An indicator on development Activity Economic in Country Subsequently maybe consideration Expectations Related With the output the local Total in the years Coming An indicator To put Economic Futurist Which Turn impact on a movement the prices in market financial)¹⁵⁾

Inflation: in spite of This term has spread and includes most of the world's economies at the present time, but until now it has not existed. Agreement between a For economists about the definition ClearAnd specificFor inflation, some of them believe that inflation is...About MeThe amount of money in circulation is greater than the supply of goodsthisIt leads to The general level of prices rises, while others believe that inflation may resultfrom themoreina For national spending without any accompanimentHa Increase in productiona¹⁶⁾

The unemployment: Unemployment is known as No A phenomenon Imbalance For equilibrium in the market to work so that part of the work force is in a Lamj Enjoy You can't Of getting a job Product on the despite from that it a willingHAnd capableHTo do the work¹⁷⁾

Balance of Payments: The balance of payments is defined as an organized accounting record in which all economic transactions that take place between (residents) in the country are included. A country And (residents) in the countries. The other over a period of time, usually a year¹⁸⁾

Chapter III/Measuring mutual impact-Researcher

The first – Characterization Standard form

Model description: We have four independent variables, namely: (GDP growth rate Total GGD, Inflation Inf, The unemployment Une, surplusOr the deficit in the balance of paymentsSop) It affects the dependent variables (sizeTrading,Tvo, Traded stocksTst,number Contracts,NocGeneral index of stock pricesIts)

In this case, we will have models through which the path of mutual relationships between the variables of the model and my agencies can be analyzed

First - model variables

Its type	His symbol	variable
Independent	GGD	GDP growth rate
Independent	Inf	Inflation

¹⁵⁾ - Dr. Muhammad Saleh Jaber, Investing in Stocks and Bonds, and Securities Analysis, first edition, Gulf Press, Kuwait, 1982, p. 153.

¹⁶⁾ - Al-Wadi, Mahmoud Hussein. Ahmed Al-Assaf, previously mentioned source, p. 179

¹⁷⁾ - Majeed Ali Hussein, Afaf Abdul Jabbar Saeed, Introduction to Macroeconomic Analysis, first edition, Al-Huda Publishing House, p. 327

¹⁸⁾ - International Monetary Fund/Balance of Payments Data Compilation Guide - Washington 1995

Independent	Un	The unemployment
Independent	Sop	Surplus or deficit in the balance of payments
Continued	Tvo	Trading volume
Continued	Tst	Traded stocks
Continued	Noc	Number of contracts
Continued	Its	The general index of traded stock prices

Estimate and analyze the standard model used

First - test Stationary time series of variables in the study sample: First, it is necessary to test whether the time series of variables is stationary or not, and to determine the degree of integration of the variables of the standard model and make sure. Whether the time series is stationary or not, this is done. A Test via application Developed Dickey-Fuller test (ADF) Which is one of the accurate tests in knowing whether time series are static or not, and also knowing the characteristics of statistical variables. The test results for the time series of variables in the study sample appeared. In table (12)

Time series stability results schedule (12)

UNIT ROOT TEST RESULTS TABLE (ADF)									
Null hypothesis: the variable has a unit root									
								<u>At Level</u>	
UN E	TV O	TST	SOP	NOC	ITS	INF	GGD		
- 1.95 42	- 2.1 629	-2.5634	- 3.5197	- 2.5846	-1.7642	-3.9368	- 3.7930	t- Statistic	With Constant
0.30 58	0.2 220	0.1072	0.0108	0.1018	0.3944	0.0033	0.0050	Prob.	
n0	n0	n0	**	n0	n0	***	***		
- 3.09 90	- 2.6 065	-1.8561	- 3.6223	- 2.6819	-3.0847	-3.8366	- 3.7807	t- Statistic	With Constant & Trend
0.11 68	0.2 793	0.6624	0.0364	0.2477	0.1195	0.0213	0.0246	Prob.	
n0	n0	n0	**	n0	n0	**	**		

-0.2579	-0.3041	-0.6459	-3.5475	0.0281	-0.4667	-3.0087	-3.3273	t-Statistic	Without Constant & Trend
0.5887	0.5713	0.4326	0.0006	0.6878	0.5090	0.0032	0.0012	Prob.	
n0	n0	n0	***	n0	n0	***	***		
							<u>At first difference</u>		
d(UNE)	d(TVO)	d(TST)	d(SOP)	d(NOC)	d(ITS)	d(INF)	d(GGD)		
-2.1973	-1.7538	-1.1340	-3.3380	-2.3277	-3.1251	-3.5555	-3.2163	t-Statistic	With Constant
0.2096	0.3987	0.6954	0.0175	0.1669	0.0300	0.0097	0.0239	Prob.	
n0	n0	n0	**	n0	**	***	**		
-2.2299	-1.6845	-2.1668	-3.3525	-2.3117	-3.1029	-3.2222	-3.1884	t-Statistic	With Constant & Trend
0.4640	0.7438	0.4972	0.0680	0.4211	0.1152	0.0901	0.0967	Prob.	
n0	n0	n0	*	n0	n0	*	*		
-2.2158	-1.7568	-1.2042	-3.3454	-2.1753	-3.0670	-3.7208	-3.2410	t-Statistic	Without Constant & Trend
0.0269	0.0750	0.2064	0.0012	0.0296	0.0027	0.0004	0.0016	Prob.	
**	*	n0	***	**	***	***	***		
							<u>At Second Difference</u>		
	d(TVO)	d(TST)							
	-6.006766	-9.551841							With Constant

	0.000	0.0004							
	***	***							
	-5.961874	-9.451293							With Constant & Trend
	0.0008	0.000							
	***	***							
	-6.069809	-9.654527							With out Constant & Trend
	0.000	0.000							
	***	***							
									<u>Notes</u>
a- (*) Significant at the 10% (**) Significant at the 5% (***) Significant at the 1% and (no) Not Significant									
b- Lag Length based on SIC									
c- Probability based on MacKinnon (1996) one-sided p-values.									

Source-Prepared by a researcher using b-Program To analyze only statistical (EViews 12)

Note from the table: Time series test by test(Dickie Fuller developer)ADF) For variables(SOP,INF,GGD)She hadIt stabilized at its levelI(0)Whether with a secant or with a secant and a trend, or without a secant and a trend, at significant levels reaching (1%, 5%, 10%), as for the time series of variables(UNE,NOC,ITS) It did not stabilize until the first differenceI(1)Whether with a secant, or with a secant and a direction, or without a secant and a direction, at significant levels reaching (1%, 5%, 10%), we can observe the time series of the variables.TVO,TST)) The second difference was settled, whether with a categorical, with a categorical and a direction, or without a categorical and a direction, at significant levels reaching (1%, 5%, 10%). AndAfter that, we can now use the autoregressive vectors to estimate the model. Viewed in this way, the economic interpretation will be:IntenseDifficult and illogical, but autoregressive vectors are usually usedAs an entry for a groupAmong other models and procedures, the most important is prediction, as autoregressive vectors allow all model variables to be endogenous variables(Endogenous)Therefore, using autoregressive vectors would be appropriate

1. **Testing the problem of non-stationarity of homogeneity of variance:** It is clear to us from the table (12) That the P-value reached (0.0535) which is greater than (5%), so we conclude that there is a problem of non-stationarity of homogeneity of variance.But it can be exceeded because time series data usually suffers at this distance

Table (12) test VAR Residual Heteroskedasticity Tests to detect heteroskedasticity

VAR Residual Heteroskedasticity Tests (Levels and Squares)					
		Date- 06/ 03/ 24 Time- 12-27			
		Sample: 2007Q1 2022Q4			
		Included observations - 55			
		Joint test-			
			Prob	D f	Chi - sq
			0.0535	1152	1285.518

Source: Prepared by the researcher using the statistical analysis program (EViews 12)

- Testing the stability of the model as a whole:** Be valuable(VAR) An estimate is stable if all roots have a coefficient less than one and lie within the unit circle. If the VAR is non-stability, there will be falling roots OutsideThe unit circle, and by testing (Inverse Roots Of AR Characteristic) shown in Figure (1).3(We note that all points are inside the circle, and this confirms that the model as a whole is stable)stability).

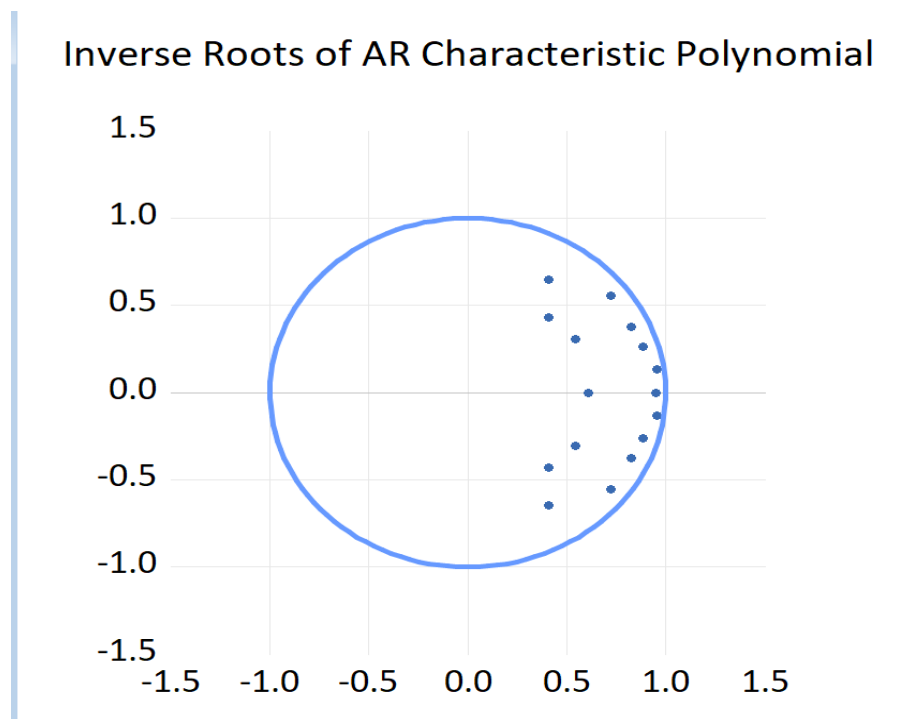


Figure 9: Stability of the model as a whole

Source: Prepared by the researcher using the statistical analysis program (EViews 12)

Fourthly. Causality Toda Yamamota: Causation is used Toda Yamamota Because it is causality related to the long run, when we have cointegration, that is, an equilibrium relationship in the long run, this causality is used. If there is no long-run equilibrium relationship, then Granger causality is used.(Grangar)For the short term.

- i. The results of the causality test showed that there is a causal relationship between the variable at The Independent Hand (The general index of traded stock prices (ITS) (Traded shares (TST)) And the dependent variable (GDP Growth rate (GDP)) in the long run because the probability value (Prob) equals (0.0719) (0.0222) It is less than the level of significance (0.05), so we reject the null hypothesis and accept the alternative hypothesis, which states that there is a causal relationship between the variable at The Independent Hand the dependent variable. It is consistent with the logic of economic theory and will therefore increase rate GDP growth Totally result of increase The ratio of the general index of stock prices and traded stocks
- ii. The results of the causality test showed that there is no causal relationship between the independent variables (Growth rate Gross domestic product and the general stock price index The number of contracts and the surplus or deficit in the balance of payments The index of traded stocks and trading volume) and the dependent variable (number of contracts) in the long run This is because there is no high rate of inflation in the Iraqi economy, which leads to its reflection on the nature of the causal relationship between the independent variables and the dependent variable, and with that, He should that We notice that This is amazing Relationship Not Fixed And it has Different from Economy to last. there Factors Other many may be effect on inflation, like Policies Banks Centrality And policies Governmental And expectations Consumers And merchants, And the changes in the offer And the request.
- iii. There is also a causal relationship between the variable at. The Independent (Inflation (INF)) (Trading volume (TV) (Traded shares (TST) The dependent variable is the general stock price index circulating) In the long run, this is because the probability value (Prob) equals (0.0020) (0.0942) (0.0085) It is less than the level of significance (0.05), so we reject the null hypothesis and accept the alternative hypothesis, which states that there is a causal relationship between the variable at The Independent Hand the dependent variable. It is consistent with the logic of economic theory, and therefore the general stock price index will increase as a result of an increase in Inflation, traded stocks, and trading volume
- iv. The results of the causality test showed that There causal relationship between independent variables (Inflation The general stock price index and the traded stock index) and the dependent variable (number of contracts) in the long run It is consistent with the logic of economic theory and will therefore increase number of decades result of increase Inflation And the general stock price index And traded shares
- v. The test results showed that there is a causal relationship between the independent variables (Gross domestic product growth rate and the general index of stock prices and traded shares) And the dependent variable (Surplus or deficit in the balance of payments) in the long run because the probability value (Prob.) is less than the level of significance (0.05), so we reject the null hypothesis and accept the alternative hypothesis.
- vi. There is no causal relationship between the independent variables (GDP growth rate, inflation, general stock price index, and number of contracts, surplus or deficit in the balance of payments, trading volume, unemployment) and the dependent variable (traded stocks) in the long term.
- vii. There is also no causal relationship between the independent variables (GDP growth rate, inflation, general stock price index, number of contracts, surplus or deficit in the balance of payments, traded stocks, unemployment) and the dependent variable (trading volume) in the long term. Where maybe that lead to rise Inflation to Shrink power the purchase And effect negative on Economy, Than maybe that Lead to drop number Stocks Traded.
- viii. Indicate the results of the test show that there is a causal relationship between the independent variables (the Inflation, traded stocks, trading volume) and the dependent variable (The unemployment) because the probability value (Prob.) is less than the level of significance (0.05), so we reject the null hypothesis and accept the alternative hypothesis.

Table 11: Causal results Toda Yamamota

VAR Tda Yamamota Causality/Tests			
Date: 06/03/24 Time: 12:30			
Sample: 2007Q1 2022Q4			
Included observations: 55			
Dependent variable: GGD			
Prob.	df	Chi-sq	Excluded
0.9703	2	0.060295	INF
0.0719	2	5.265322	ITS
0.1070	2	4.469016	NOC
0.1987	2	3.231476	SOP
0.0222	2	7.614479	TST
0.5038	2	1.371274	TVO
0.6354	2	0.906856	UNE
0.0358	14	24.87782	All
Dependent variable: INF			
Prob.	df	Chi-sq	Excluded
0.9590	2	0.083625	GGD
0.8277	2	0.378307	ITS
0.2041	2	3.178303	NOC
0.3916	2	1.874983	SOP
0.9025	2	0.205097	TST
0.9660	2	0.069121	TVO
0.5413	2	1.227515	UNE
0.6427	14	11.54589	All
Dependent variable – ITS			
Prob	D f	Chi-s q	Excluded.

0.8569	2	0.308947	GGD
0.0020	2	12.47457	INF
0.1650	2	3.603791	NOC
0.4176	2	1.746508	SOP
0.0942	2	4.724453	TST
0.0085	2	9.535011	TVO
0.2189	2	3.038332	UNE
0.0004	14	38.69937	All
Dependent variable – NOC			
Prob	D f	Chi-sq	Excluded.
0.7591	2	0.551264	GGD
0.0710	2	5.289101	INF
0.0312	2	6.935418	ITS
0.3589	2	2.049320	SOP
0.0752	2	5.176502	TST
0.3718	2	1.978906	TVO
0.1765	2	3.469291	UNE
0.0775	14	22.05355	All
Dependent variable: SOP			
Prob.	D f	Chi-sq	Excluded
0.0937	2	4.736207	GGD
0.7922	2	0.465894	INF
0.0943	2	4.722134	ITS
0.4737	2	1.494185	NOC
0.0226	2	7.577278	TST
0.6060	2	1.001783	TVO

0.2547	2	2.735710	UNE
0.0155	14	27.71824	All
Dependent variable – TST			
Prob	D f	Chi – sq	Excluded.
0.5410	2	1.228513	GGD
0.9573	2	0.087246	INF
0.8536	2	0.316595	ITS
0.1304	2	4.073988	NOC
0.4703	2	1.508591	SOP
0.3641	2	2.020745	TVO
0.3517	2	2.089953	UNE
0.0029	14	33.01500	All
Dependent variable: TVO			
Prob.	df	Chi-sq	Excluded
0.5788	2	1.093685	GGD
0.5714	2	1.119399	INF
0.4800	2	1.467762	ITS
0.2475	2	2.792295	NOC
0.5217	2	1.301229	SOP
0.6323	2	0.916762	TST
0.5450	2	1.213809	UNE
0.1537	14	19.30358	All
Dependent variable – UNE			
Prob	D f	Chi-sq	Excluded.
0.6447	2	0.877885	GGD
0.0240	2	7.455307	INF

0.7609	2	0.546383	ITS
0.2612	2	2.685258	NOC
0.3496	2	2.102062	SOP
0.0188	2	7.952823	TST
0.0907	2	4.800386	TVO
0.1355	14	19.83304	All

Source: Prepared by the researcher using the statistical analysis program (EViews 12)

CONCLUSION

The direct reciprocal relationship between the growth of the economy and the development of the Iraqi financial markets can be deduced according to the aforementioned expressions, and the main points can be summarized as follows:

1. The establishment of the Iraq Stock Exchange after 2004 is an extension of the closed Baghdad Stock Exchange that existed before it, and the Iraq Stock Exchange is the haven to which securities speculators in the various sectors belonging to the market go.
2. There is a reciprocal relationship between economic growth and the Iraqi financial market, with other factors remaining the same, as the increase in the degree of development of the stock market has led to an increase in economic growth rates, and the decrease in the degree of development of financial markets has been linked to a decrease in the growth rate, and growth also has a role. Great development of the stock market.
3. Financial markets affect economic growth by influencing real investments, as they reflect actual changes in investment, which leads to increased rates of economic growth.
4. The small size of Iraqi financial markets is considered an obstacle. As for taking advantage of the market's ability to attract more money that contributes to the establishment of new companies that enter the productive labor market for the first time
5. The Iraqi economy is characterized by rentierism, and therefore the role of financial markets will be weak in achieving economic growth during the research period.
6. The security and economic conditions that Iraq went through had a negative impact on the Iraqi financial markets.
7. Iraq is in dire need of financing many investment projects that contribute to achieving economic growth.
8. Reconsidering financial and monetary policy to ensure the effectiveness of banks and insurance companies in their role in stimulating financial markets
9. The economic and political environment plays a vital, effective and influential role in the Iraqi financial market, which requires taking all necessary factors to provide the appropriate environment for the success of the market's work.
10. Proving the hypothesis true: Is there a reciprocal effect between Iraqi stock market indicators and economic growth? Since the Iraqi economy is characterized by rentierism, the role of financial markets will be very weak in achieving economic growth during the research period, and this is proven by the results of measuring Iraqi financial market indicators (general index of market prices, trading volume, number of transactions, number of shares) compared to economic growth indicators (GDP, surplus and deficit in the balance of payments, inflation, unemployment) and the results showed the existence of a reciprocal relationship

RECOMMENDATIONS

1. Restructuring the oil sector by directing the revenues resulting from oil export operations, not for the purpose of operating state agencies or financing public spending, the majority of which goes for the purpose of consumption, but rather diverting oil resources in order to create and develop human development through investment in building human capital and diversifying the production base. And also modernization of the underlying structures.
2. Obligating those in charge of financial and monetary policies in Iraq to work on developing a modern financial market based on new and advanced scientific foundations and enjoying high technical capabilities that attract savers to invest in the financial instruments used in the market.
3. Working to raise the level of security and stability of the state due to the importance of it being an important element in attracting investors and leading companies in the field of financial trading at all commercial levels.
4. Developing real plans to confront the spread of administrative corruption, which did not stop at the borders of the Iraqi financial markets, but rather had a significant contribution to the delay in the level of the financial markets.
5. Working to establish special centers within the Iraq Stock Exchange until investors are informed of information related to the actions taken by the Central Bank of Iraq, as well as relevant information about the investing companies, which supports decisions regarding buying and selling within the market.
6. We recommend that the relevant financial authorities work to stimulate and encourage the public to cooperate within the Iraqi financial markets through investment funds and transform them into effective investors in economic activity.
7. The market is taking effective and serious steps to link the Iraqi financial market to global financial markets, which encourages many businessmen and citizens to invest their savings, despite the existence of the infrastructure to link the Iraqi stock market with global markets for years, but that link has not been achieved yet.
8. Working to open branches in the Iraq Stock Exchange in more than one governorate in order to facilitate the work of the market and also attract a larger number of investors and companies at the international and local levels.
9. Increasing investment awareness of the financial market among citizens through advertising and media.

REFERENCES

- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994.
- Hughes, R. T., Zhu, L., & Bednarz, T. (2021). Generative adversarial networks-enabled human-artificial intelligence collaborative applications for creative and design industries: A systematic review of current approaches and trends. *Frontiers in artificial intelligence*, 4, 604234.
- Ruiz-Rojas, L. I., Acosta-Vargas, P., De-Moreta-Llovet, J., & Gonzalez-Rodriguez, M. (2023). Empowering education with generative artificial intelligence tools: Approach with an instructional design matrix. *Sustainability*, 15(15), 11524.
- Al-Najafi, Hassan, Baghdad Stock Exchange, Al-Najafi Press, Baghdad, 1992, p. 80.
- Iraq Stock Exchange, third annual report, Al-Kitab Press, Baghdad, 2006, p. 7.
- Iraq Stock Exchange. Annual Report, 2012, p. 3.

- (*)WAN is an abbreviation for (Wide Area Network). It is a network that exists within a wide geographical area. Its goal is to connect small networks to each other. It is a type of communication network.
- (*)EQUATOR is the deposit and settlement system used by the Securities Depository Center, to facilitate the tasks of clearing, settlement, preservation and registration.
- (T+0) - (*) Abbreviation for the word On-line trading is the exchange of financial assets over the Internet, that is, the buying and selling of currency pairs, stocks, commodities and digital currencies through the trading platforms provided by brokerage companies for the purpose of profit.
- Iraqi Securities Commission, Annual Report on Trading Movement in the Iraq Stock Exchange, 2014, p. 3
- Al-Tarfi, Fawzi Hussein Sahib Muhammad, The Impact of Monetary Policy on Common Stock Returns, An Applied Study in the Iraq Stock Exchange for the Period from (2004-2010), Master's Thesis, College of Administration and Economics, Al-Qadisiyah University, p. 18
- Al-Rubaie, Faleh Khalaf, The Iraqi Stock Exchange Reality and Future Prospects, Internet Network - Al-Hiwar Issue No. 2226, 3/20/2008.
- Rob Morris, Economic Growth and Underdeveloped Countries, translated by Hisham Metwally, second edition, Al-Tali'ah Printing and Publishing House, Beirut, 1979, p. 9.
- Abdel Hafeez Khazan, activating the role of stock markets and their impact on economic growth, study of the Amman Stock Exchange from 2002 to 2013, College of Economic, Commercial and Management Sciences, Jordan, Amman, 2014, p. 102.
- Al-Hasnawi, Ibrahim Rasul Hani, previously mentioned reference, p. 94
- Dr. Abdel Ghaffar Hanafi, Basics of Investing in the Stock Exchange (Shares - Bonds - Investment Documents - Options), University House, Alexandria, 2005, p. 292.
- Rasmiya Ahmed Abu Musa, Financial and Monetary Markets, Dar Al-Moataz for Publishing and Distribution, Amman, 2005, p. 11.
- Ross Levine & Sara Zerous, Capital Control Liberalization, op.cit, p.4.
- Dr. Abdul Ghaffar Hanafi and this. Rasmiya Qaryaks, Financial Markets and Project Finance, University House, Alexandria, 2002, p. 313.
- Ziad Ramadan, Principles of Financial and Real Investment, Wael Publishing House, second edition, Amman, 2002, p. 124.
- Dr. Muhammad Saleh Jaber, Investing in Stocks and Bonds, and Securities Analysis, first edition, Gulf Press, Kuwait, 1982, p. 153.
- Al-Wadi, Mahmoud Hussein. Ahmed Al-Assaf, previously mentioned source, p. 179
- Majeed Ali Hussein, Afaf Abdul Jabbar Saeed, Introduction to Macroeconomic Analysis, first edition, Al-Huda Publishing House, p. 327.
- International Monetary Fund/Balance of Payments Data Compilation Guide - Washington 1995