

The Impact of Financial Development on Activating the Banking Sector in Iraq (Econometrics Study)

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The research aims to investigate the impact of financial development on the activation of the banking sector in Iraq for the period from 1996 to 2015. The research was based on a standard multivariate model, as the Philips-Perrion Test and the Johansen test were used. For the sake of testing the time series of research variables and analysing joint integration among them, a basic hypothesis has been put forward for research that financial development positively affects the activation of the Iraqi banking sector in a manner that is commensurate with the rapid and successive changes and developments accompanying the modern business environment, and has been applied in a sample of Iraqi banks, as the focus was on Rafidain and Rashid and other banks in the country. For the sake of testing the research hypothesis, a standard multivariate model based on the self-regression model was used during the specified slowdown period. After analysing the impact between the search variables, a group was reached. One of the results was the most important which was the availability of the basic ingredients to achieve financial development in Iraqi banks in a manner that is appropriate for the modern business environment and the rapid and successive changes accompanying them, as the financial development helps in activating the Iraqi banking sector as well as improving the quality. Banking is offered to customers a way that helps to meet the needs and requirements of customers.

Key words: financial development, modern business environment, Iraqi Banks

Introduction

The durability of the banking structure has become a necessity to build a prosperous economy that adopts modernity systems and sound sustainable development. The development of banking habits and awareness of the importance of developing and activating the banking sector in a way that secures building the national savings base and developing the financial resources necessary to build the economy has become a priority for the decision-maker, and the integrity of the banking system. The mobilisation of sound decisions in the field of economic policies towards the development and modernisation of banking systems secures momentum in the world of financial investment, which revives the financial markets, which leads to attracting foreign capital looking for profit, which is worth the decision to take the necessary measures to fortify and strengthen the local banking systems in a way that enables them to face the challenges of transferring capital to and from abroad without causing money laundering operations or foreign currency smuggling. This will then increase the profitability of the banking institutions and strengthening the structure of GDP.

The Iraqi economy suffered after 2003 from a significant deterioration in the structure of the output and the underdevelopment of the national economy sectors, and its declining ability to contribute to supplying and diversifying the sources of the output, made the Iraqi economy lean on the oil resource to run the wheel of the economy and financial affairs in the country. It makes the structure of the Iraqi economy fragile and vulnerable to internal and external shocks. The importance of the subject current research has addressed the concept of development in general and the concept of financial development and resources, requirements and methods, in addition to addressing the concept of activating the banking sector and procedures. It also provides the statement of the impact of financial development in the activation of the Iraqi banking sector.

Research Problem

The poor performance and banking activity and the lack of modernisation of banking systems and lack of interest in the issue of financial development in Iraqi banks contributed to the establishment of weak banking awareness and the decline in banking use by individuals. These factors led to a weak level of banking services which constitute an important part of the services sector and the resulting structure in Iraq, and thus the research problem can be expressed through the following questions:

1. Are the essential ingredients for financial development available in Iraqi banks?
2. Does financial development help activate the Iraqi banking sector in a way that is appropriate to the rapid and successive changes and developments accompanying the modern business environment?



Research Objectives

The research aims to investigate the impact of financial development on activating the banking sector in Iraq for the period from 1996 to 2015. This is done through the use of a standard multivariate model based on the self-regression model during the specified slowdown period, as well as an analysis of the common complementarity between research variables. Weaknesses in the banking system are also diagnosed, as are determining the basic elements for achieving financial development and trying to give a perception to the policy maker that reforming the banking system will secure new sources for both income and output. This means making many attempts to address the imbalance in the output structure, in addition to helping to enhance the strength and address weaknesses in performance, in a way that will generally improve the system.

The Importance of Research

The importance of the research comes from the importance of its variables represented in financial development and the activation of the banking sector, as increasing the effectiveness of the banking system is capable of generating new sources of savings and financing the necessary capital for the investment process. Addressing the imbalances in the production sectors and improving the structure of the national product, as well as developing the ability of banks to keep pace with developments. The new environmental and work to provide the best banking services to customers in a manner that is consistent with the vision and strategy of the bank and work to achieve goals effectively and efficiently.

Research Hypotheses

The research is based on a basic hypothesis that: Financial development positively affects the activation of the Iraqi banking sector in a manner that is commensurate with the changes and developments accompanying the modern business environment.

Research Sample

The research sample is the Iraqi banking system, which is the central bank and commercial banks, the most important of which is the Rafidain Bank and the rational government-owned property. This also includes specialised banks such as industrial, agricultural and real estate banks, in order to demonstrate the impact of financial development on activating the Iraqi banking sector and improving its performance.

The second topic: the theoretical framework for the research

The Concept of Financial Development, its Sources, Requirements and Methods

There are multiple definitions that financial development can be defined as finding permanent financial resources for the corporation while working on its good management and investment to finance its business and activities in a manner that achieves its goals. This can be either from the sources of financial resource development, so the various sectors of society, which are the government sector, the private sector and individuals, constitute fertile sources for financing and developing institutional resources banking work. Most of these sectors have different roles in supporting banking and financing its programs, activities and projects, and they can be clarified as follows: (Bailliu, 2000: 16)

1. The government sector: This support is at the present time the most important source of financing, as this support constitutes a good proportion of the funding sources for the banking sector.
2. The private sector: A distinction must be made here between family businesses owned by a person, his family and joint stock companies, as joint stock companies have a very excellent role in supporting banking.
3. Individuals: They are considered one of the sources of financing, including their deposits, savings accounts and loans, as they are an important source for developing resources in banking institutions, and this includes family or individual companies, as they are considered one of the most important financial tributaries of banking work.

With regard to the basic requirements for developing financial resources, the current stage requires that the banking sector upgrade its regulations and mechanisms of work in developing its financial resources. Among those requirements that it must be fulfilled in order to achieve the following are: (Bencivenga & Smith, 2009: 203-204)

1. Preparing an integrated fund development plan. Planning helps guide the efforts that will be made in developing the funds and in formulating a clear process for identifying financial resources and costs.
2. Building trust relationships with the beneficiaries, as this is extremely important in attracting financial resources.
3. Training those involved in developing financial resources in communication and persuasion skills.
4. Involve the specialists to express opinion, advice and inform their proposals.
5. Utilising modern technology to develop financial resources in the banking sector.
6. Activating cooperation between banks and media institutions, developing media work mechanisms in banks and developing means of communication with those with technical and academic expertise.

With regard to the methods of developing financial resources, society will witness a tangible shift in the structure of banking work, as its circle has expanded in quantity and quality, which necessitates the availability of stable financial resources to ensure its survival and continuity in the performance of its mission. The development methods vary from traditional stereotypes, to innovative financing methods that keep pace with modern lifestyles. The need requires their behaviour to reinforce each other, and some of the methods that can be followed to reach the development of financial resources in the banking sector include the following: (King & Levine, 2003: 36-37)

1. Personal communication, which occurs face to face and it is one of the most effective means, as there are many questions that the customer may ask.
2. Personal speeches, which take a personal quality and must be prepared with great precision.
3. Telephone communications, which transmit the message of the institution simply and easily, and take an informal character with the entity, and provide support and assistance and banking facilities.
4. Postal campaigns through which messages are sent containing coupons that are filled in, and the support provided by the bank to the customer is attached in the event he wants to deal with that bank.
5. Issuing attractive media bulletins, including a request for financial contribution.
6. Submit proposals related to facilitating the mechanism of dealing between the bank and the customer.
7. A number of institutions participated in issuing a press supplement in a local newspaper.
8. Preparing a database with the names of clients dealing with the bank.

The Concept of Activating the Banking Sector

The activation of the banking sector is the basic step for economic reform so that the banking system within the financial structure of the economy occupies a vital position in mobilising savings and financing development through its ability to flow funds between the categories of the national economy. From this many economists indicate that without the many services provided by the banking system in developed countries, these countries were able to reach their economic progress and growth (Kapur, 2001: 782).

The activation of the banking sector can be defined as the process that leads to a fundamental change in the laws, legislations and policies related to all types of banking work. Its forms improves performance and adapts to the changes taking place in the global arena and conducts an evaluation of the overall procedures so that they are judged and given a true description (Greenwood & Jovanovic, 2010: 1078) in determining interest rates, allocating credit, and determining the general direction of financial intermediation with the aim of

improving the efficiency and stability of the banking system. While some define it as a set of comprehensive and ongoing processes that include restructuring and the development of systems, laws, and legislation so that they contribute to increasing the size of approval and to improve banking services, which reflected positively on the sectors (Jacklin, 2004: National Economy 14). The activation of the banking sector aims to achieve a number of goals, which are as follows: (Allen, 2015: 533)

1. Mobilisation of local savings and deepening the role of financial intermediation between savers and investors.
2. Improve the efficiency of the use and distribution of capital resources in the national economy.
3. Documenting and enhancing regional and international trade, production and investment partnerships in a manner that is compatible with modern environmental changes.
4. Raising the efficiency and effectiveness of financial markets to be able to compete internationally and enabling them to open foreign borrowing and financing sources and create new investment opportunities.
5. Create new relationships in the domestic and foreign capital markets in order to bring in funds to finance investments.
6. Restructuring of banks, cancelling the banking specialiaation, and moving from the specialised bank to the comprehensive bank that does most of the banking business, and can distribute loans by sectors and regions so as to reduce the risks of banking investment and to ensure the wide spread of its branches.
7. Qualification and training of employees with the requirements of the modern environment so that they become more efficient and productive.
8. Developing operations systems to include new mechanisms and scientific foundations for granting loans and entering all banking services in which international banks operate.

Procedures and Stages of Activating the Banking Sector

The procedures for activating the banking sector require clear reform in the financial and monetary policies as an introduction to the start of banking reform. Economic reform cannot be straightened without financial and monetary reform, as both the World Bank and the International Monetary Fund focus on the need to define a timetable, economic indicators and targets for banking reform through the use of all financial and monetary tools in order to achieve a balance between supply and demand. Activating the banking sector in this framework means determining the true cost of lending and providing banking services similar to banking services provided in developed countries with adequate and return. In addition to that, it is not permissible to expand lending except within the limits of the reform program determined by the International Fund. The most important measures used to activate the

banking sector can be outlined in accordance with the program adopted by the International Monetary Fund in a recipe for economic reform, as follows: Aghion & Mayer, 2012: 177)

1. A policy of reducing the state's budget deficit, which leads to a reduction in the volume of public spending.
2. Editing interest rates to match inflation, the rate of growth, profitability, and the rate of output growth.
3. The policy of liberalising prices, liberalising costs, and reducing the volume of subsidies provided to some sectors in order for local prices to converge with international prices.
4. Liberalisation of wages so that they approach the levels of social costs and pay government institutions in order to set wages commensurate with the competencies and experiences, and reduce the role of the state in the ownership of public companies and the trend towards selling or offering some institutions for investment.

Either with regard to the stages of activation of the banking sector, the banking reform program has been divided in terms of priority in implementation into five stages in order for the banking reform program to acquire coordination and regulation in procedures, and not to cause significant losses to the transforming economy and to avoid that economy falling into the fallacies and confusion of banking institutions. There are also concerns in financing the implementation of the desired reform program, at a time when the transitional economy needs to preserve the largest amount of financial resources that can be supported, thus support the economic reform process as a whole, and those stages according to their order of priority are as follows:

The First Stage: Restructuring in public banks

The reality of banks in developing countries requires a large-scale restructuring of the entire banking system. Whether public banks can continue with the current structure represented by the traditional bank, or is there a need to restructure it to suit the developments in the global banking sector and to create a comprehensive bank that brings together different banking operations and financial and investment services. This is because it is included in the restructuring of banks, the subject of the infrastructure of the banking system, from reference, regulation, control, credit policy and mapping of relationships between banks and relevant government agencies (Gibson, 2014: 22).

The Second Stage: The independence of the Central Bank

The independence of the Central Bank is one of the most important strategic factors driving monetary stability and economic growth. Therefore, the independence of the Central Bank is the most important link in the success of the new formulation of the campaign for structural

reform of the banking system, in order to have the possibility to activate its credit activity in a correct and stable environment. The concept of the independence of the central bank means freedom. The central bank in setting its goals and using the tools it deems appropriate to achieve these goals away from political interference by the government (Beck, 2006: 109).

Third Stage: Eliminating the policy of financial restraint

Financial repression means the state interfering with tax means or other financial and monetary tools. This could be through setting ceilings on interest rates and interfering in the use of credit in financial activity, in a way that distorts market mechanisms and departs them from work according to considerations of supply and demand for the available funds for lending and investment and deviates in the financial sector and away from the requirements of economic efficiency (Aivazian, 2008: 12).

Fourth Stage: Banking mergers and acquisitions

The banking merger expresses a union between two or more institutions under one administration. Therefore the banking merger may happen by mixing where a new bank is established to replace the two merging banks or it may happen by the merger, where a bank joins another bank and announces its legal dissolution. Alternatively the merger may happen during the acquisition of influential shares of ownership shares for banks, the merger and banking acquisition aims to achieve a set of goals under the banking reform program, the most important of which can be summarized as follows: (King, & Levine, 2003: 35)

1. Dealing with the conditions of troubled banks.
2. Creating strong and effective banking units in developing the banking system and improving its productivity.
3. Motivate banks to face developments and improve their competitiveness internally and at the regional and international levels by diversifying the rules of shareholders, depositors and the ability to bear the costs of modernisation and marketing.
4. The possibility of reducing the risk through the modern management that characterises the banking units.
5. Strengthening the bank's capital base.
6. Achieving high and continuous returns in the medium and long term in light of the economies of scale, reducing the costs of mediation, and creating specialised departments in all branches of the banking industry.
7. Take advantage of the incentives provided by government legislation, such as soft loans.
8. Ensuring a certain level of confidence in the banking system.

Fifth Stage: Privatisation

It means transferring ownership or management of public banking institutions in part or in whole to the private sector. This is in the context of minimising the state's role in economic activity and the banking system in particular and expanding and revitalizing the role of the private sector in the process of economic and social development. The process of privatising banks aims to achieve the following objectives: (Modigliani, 2015: 170)

1. Increasing the efficiency of public banks, improving the quality of services, and raising the level of productivity.
2. Providing an atmosphere of competition in the banking sector in general.
3. Increasing the efficiency and technology of the banking administration, developing its services, and introducing the element of creativity, innovation and development into the banking business.
4. Providing new job opportunities, rebalancing the labour market, improving worker productivity in the banking field, and working to increase customer confidence.
5. Reducing the public expenditures of the state and limiting the financing of troubled public banks, which is consumption of public money in an economically ineffective direction, which will consequently affect the efficiency of public administration and direct resources towards an imperfect use of these resources.

The Third Topic: The applied side of the research

The Reality of the Iraqi Banking Sector for the Period from 1996 to 2015

The Iraqi banking system consists of the central bank and commercial banks. The most prominent of which is the Rafidain bank and the rational government-owned property, the specialized banks and the most prominent industrial, agricultural and real estate banks, as well as non-banking financial institutions and the most prominent insurance companies, pension fund and some investment funds. Therefore the Iraqi banking system consists of a broad spectrum of institutions that engage in banking business, as intermediary channels between savers and investors, which places great responsibility on the monetary decision-maker in order to control liquidity levels and achieve monetary stability. Banking and financial institutions are generally characterised as institutions that mediate between the two sides of savings and investment, as investment financing is generally the responsibility of banking and financial institutions who stimulate investment and savings together through the interest rate, which is largely determined directly or indirectly by the authority. Bank deposits and gross domestic product can be explained at constant prices through the following table:

Table 1: Bank deposits and gross domestic product at constant prices for the period (1996-2015) (trillion dinars)

Central government deposits / GDP%	Public sector deposits / GDP%	Private sector deposits / GDP%	Total deposits / GDP%	Average gross domestic product	Average central government deposits	Average public sector deposits	Average private sector deposits	Average total deposits	Time period
32.88	11.22	22.44	66.73	51.7	17	5.8	11.6	34.5	- 1996 2000
19.86	72.60	9.25	82.02	58.4	11.6	42.4	5.4	47.9	- 2001 2005
17.92	78.30	9.91	88.21	63.6	11.4	49.8	6.3	56.1	- 2006 2010
20.87	79.67	13.41	93.22	73.8	15.4	58.8	9.9	68.8	- 2011 2015

Source: Annual report on financial stability in Iraq.

It is clear from Table (1) that the total deposits in Iraq during the study period took a positive upward path. This indicates a growing rise in the awareness of individuals and institutions of the importance of banking institutions. However since we moved to the private sector's share of deposits compared to the share of the public sector and the central government, we find it very modest, and this can be justified by the fact that the Iraqi economy is dominated by the public sector due to the political and security conditions that Iraq has lived in for a while. The indicator of the ratio of total deposits to GDP shows that there is an increase in the path of that indicator and it seemed modest, and as is the case that prevailing in that The Index settled for the public sector. The above indicator also confirms the growth of banking and financial services in Iraq and seemed somewhat modest, due to the impact of economic and political conditions in which Iraq lives during the study period. This is in relation to the index of total deposits to GDP, which gives a picture of weakness in banking and financial services at the level of the private sector, whose developmental role in the Iraqi economy has declined, as public sector deposits dominated the above index. This indicates the expansion of the size of the public sector at the expense of the private sector and that the banking activity of the government sector was greater than the banking activity of the private sector at this indicator.

Credit is considered one of the most important sources of investment financing, and hence output and income, in a way that achieves financial development and development of economic facilities. Financing and investment are inversely proportional to the interest rate (the opportunity cost), in accordance with the expectations of investors in the climate and the economic environment of their future business. Credit and local output can be clarified. Total at constant prices through the following table:

Table 2: Credit and GDP at constant prices for the period (1996-2015) (trillion dinars)

Central government credit / GDP	Public sector credit / GDP	Private sector credit / GDP	Gross credit / GDP	Average gross domestic product	Average central government credit	Average public sector credit	Average private sector credit	Average total credit	Time period
0.58	0.97	7.54	8.70	51.7	0.3	0.5	3.9	4.5	- 1996 2000
3.94	15.07	4.79	20.03	58.4	2.3	8.8	2.8	11.7	- 2001 2005
11.48	25.94	5.82	31.92	63.6	7.3	16.5	3.7	20.3	- 2006 2010
8.54	31.57	8.81	40.38	73.8	6.3	23.3	6.5	29.8	- 2011 2015

Source: Annual report on financial stability and the annual report on monetary policy in Iraq.

It is clear from Table (2) that there is a significant weakness in the structure of the banking system, while credit reached 40.38% of the output during the period from 2011 to 2015. This indicates a slow growth in the improvement of the banking environment, although it was modest according to this indicator. This was the same for the largest share according to this indicator for the period from 2011 to 2015 in favour of the public sector versus the private sector and the central government, where its share reached 31.57% of the output compared to 8.81% and 8.54% for other sectors respectively.

The monetary depth is also an important indicator of the access of banking and financial services in the economy, and it means the ratio of monetary totals to output. It measures the extent of the deepening of the monetary decision issued by the monetary authority in monetary and financial institutions. The following table: -

Table 3: Money supply and GDP at constant prices for the period (1996-2015) (trillion dinars)

Cash depth%	Gross domestic product	Wide money supply (M2)	Time period
65.76	51.7	34	2000 - 1996
102.74	58.4	60	2005 - 2001
113.21	63.6	72	2010 - 2006
117.89	73.8	87	2015 - 2011

Source: Annual report on financial stability and the annual report on monetary policy in Iraq.

Table (3) shows that the wide money supply (M2) reached 34 trillion dinars during the period (1996-2000), while it reached 87 trillion dinars during the period 2011-2015 increasingly. While the gross domestic product has reached 51.7 trillion dinars during the period (1996-2000) and 73.8 trillion dinars during the period 2011-2015, which is likewise in the case of an increase during the research period, which makes the monetary depth in the case of an

increase during the study period based on the increase in the wide and wide money supply. This indicator explains that monetary policy enables and influences banking institutions during the research period.

It is worth noting that there are a number of challenges facing the Iraqi banking sector, as these challenges can be overcome through financial development and work to activate the Iraqi banking sector as required, and these are the following:

1. Successive technological developments in the field of the banking industry that have eliminated the spatial dimension and facilitated communication and interconnection between banking institutions around the world through modern means of communication.
2. The institutions of the new global economy rely on information and a high speed in communication and interconnection between domestic and foreign institutions, while the traditional economy relied on production. This means in order to raise the competitiveness of the Iraqi banking institutions, information must be processed quickly and the best opportunities to be used for banking investment in global markets.
3. Provides innovative financial and banking tools that lead to new types of banking services by working on a global market, and through the exploitation of new information and communications technology, as well as the entry of many non-banking institutions in the field of banking services that have become competitive with traditional banks in providing banking services.
4. The urgent need to raise the capabilities and efficiency of human resources in banks operating in the economy to ensure the exploitation of modern technologies and information systems in the banking sector.

From the foregoing that the defect in the output structure will be partially addressed by raising the efficiency of the banking system, in order to address the imbalance in the structure of the service sector. To address the imbalance in the output structure will help to diversify the sources of the output and get away from dependence on the source of the output. The only one in Iraq is the oil sector with the aim of diversifying public revenue and reducing the deficit in the public budget.

Analysing the Effect of Financial Development on Activating the Banking Sector in Iraq for the Period from 1996 to 2015 using a Standard Multivariate Model

Time series analysis has a prominent and important role in providing information about the basic elements that characterise a particular phenomenon during certain time periods. By following the general development of time series, it is possible to predict how it will develop in the future. Therefore, standard economic models came in order to study time series and predict changes and factors. That can affect various economic areas. In order to explain the

impact of financial development on the activation of the banking sector, research variables must be defined. The variables includes the ratio of liquidity, the proportion of credit granted to the private sector, the ratio of bank assets, the net profit margin to the interest rate, the turnover rate of shares and the remittances of workers from abroad, knowing that the other variable is the activation of the sector banking in Iraq. Dependent and independent research variables can be clarified through the following:

First: The dependent variable: The activation of the banking sector in Iraq is measured by the average growth in the size of banking investments, the variable that is dependent on the research, which can be affected by the variable of financial development.

Second: The independent variable: Financial development is the independent variable for research that can affect the activation of the banking sector in Iraq. This variable includes a set of sub-variables, which are as follows:

1. Liquidity Ratio: It represents the ratio of money supply in the broadest sense to gross domestic product, and this ratio refers to money in circulation that is at the bank's disposal, whether it is current accounts, current cash, demand deposits or savings accounts.
2. The ratio of credit granted to the private sector: It represents the ratio of credit granted to the private sector from individuals or institutions to GDP, taking into account the exclusion of credit granted to the government sector.
3. The ratio of banking assets: It represents the ratio of the total assets of commercial banks to the total assets of other commercial banks and the assets of the central bank.
4. Net profit margin to the interest rate: It represents the difference between the interest rate obtained by the bank as a result of granting loans and the interest rate granted by the financial sector to holders of deposits, whether they are demand deposits or deposits of a certain time.
5. The share turnover rate: represents the number of shares traded divided by the number of shares issued during a specific period of time, as the increase in the demand for the stock will increase its turnover.
6. Workers 'remittances abroad: Workers' remittances are represented according to the Balance of Payments Manual of the International Monetary Fund on the basis that they are special current transfers, as they include the financial assets of migrants or workers residing outside the country to their families or families residing in their country of origin.

After defining the dependent and independent research variables, the following standard form can be adopted to perform the standard analysis in a manner that is appropriate to the research requirements:

$$y = a_0 + a_1x_1 + a_2x_2 + a_3x_3 + a_4x_4 + a_5x_5 + a_6x_6 + e$$

Whereas:

y: dependent variable of activating the banking sector in Iraq.

x1: independent variable of the liquidity ratio.

x2: independent variable of the proportion of credit granted to the private sector.

x3: independent variable of the proportion of bank assets.

x4: independent variable of the net profit margin to the interest rate.

x5: independent variable with the stock rotation rate.

x6: independent variable for workers' remittances abroad.

A0: The fixed section.

a1,2,, n: estimated parameters.

e: random error limit.

Thus, financial development has been represented as an independent variable for research with a set of sub-variables, namely the ratio of liquidity and the proportion of credit granted to the private sector, the ratio of bank assets and the net profit margin to the interest rate and the rate of turnover of shares and transfers of workers from abroad. The activation of the Iraqi banking sector as a dependent variable for research has been approved with an average size. Growth in the volume of investments during the search period, and the search variables (independent and dependent) can be expressed in logarithmic form, with the need to ensure that there are no negative values in the search variables, and thus the model used will be semi-logarithmic, as follows:

$$\log y = a_0 + a_1 \log x_1 + a_2 \log x_2 + a_3 \log x_3 + a_4 \log x_4 + a_5 \log x_5 + a_6 \log x_6 + e$$

For the purpose of conducting the standard analysis, some preliminary diagnostic tests must be performed that can help in testing the appropriate standard model. Among the most important of these tests are unit root testing, temporal deceleration test, and joint integration testing. During this research, focus will be on unit root testing for chain silence. Time and its degree of integration, and many studies have shown that most of the time series of economic variables are marked by dormancy because they contain the unit root, which indicates the presence of a unit root in any time series and that the average variance of the time series is not constant and it means extent of time difference, assuming that the time series that already contain the unit root in the standard model is static high values for both the (T) test and (F) and the regression coefficient (R²), which leads to a false (false) correlation between variables. .Therefore, it is necessary to test the silence of the time series in order to make sure that the link between the search variables is a real link, and one of the most important tests that can be used to get rid of this problem is the Philips-Perrion Test, where this test tests the hypothesis of nothingness (H₀) involved the presence of the unit root and hence the arrival of the time series silence. The unit root test (Philips-Peron test) can be used for the purpose of

showing the results of the standard analysis of the current research variables. The results of the unit root test (Philips-Peron test) are illustrated in the following table:

Table 4: Unit Root Test Results (Philips-Byron Test)

The Variables	Value of T Calculated	Table Value at the Level of Significance			The Result
		1%	5%	10%	
<i>Logy</i>	1.905	2.245	3.545	3.908	The Level
	5.009	4.253	3.549	3.822	The First Difference
<i>Logx₁</i>	1.785	2.245	3.545	3.908	The Level
	5.067	4.253	3.549	3.822	The First Difference
<i>Logx₂</i>	2.232	2.245	3.545	3.908	The Level
	6.971	4.253	3.549	3.822	The First Difference
<i>Logx₃</i>	2.177	2.245	3.545	3.908	The Level
	4.902	4.253	3.549	3.822	The First Difference
<i>Logx₄</i>	2.427	2.245	3.545	3.908	The Level
	7.491	4.253	3.549	3.822	The First Difference
<i>Logx₅</i>	2.556	2.245	3.545	3.908	The Level
	7.289	4.253	3.549	3.822	The First Difference
<i>Logx₆</i>	2.569	2.245	3.545	3.908	The Level
	3.782	4.253	3.549	3.822	The First Difference

Source: Preparing the researcher based on the results of the Eview-9 methodology.

It is noted through Table (4) that all time series of search variables are not static at the level, while they became static after taking the first difference at the level of significance of 1%, and thus the results of the standard model can be estimated after the integration test. What is common between research variables, to ensure that there is a balanced relationship that can be long-term between research variables, so it is necessary to conduct a joint integration test between research variables, where the joint integration refers to a method of obtaining a balance or long-term relationship between unstable variables, i.e. meaning. The presence of an adjustment method prevents the increase in error in the relationship between changes in search over the long term.

There is a set of tests to measure the complementarity between research variables. The most important of these is the Johansen-Juselius Test. In order to do this test, two important tests must be carried out, namely the impact test and the maximum value test. These two tests can be illustrated as follows:

First: Track test: This test is used to show the effect between research variables, where the null hypothesis (n) of the number of unique common integral vectors is less than or equal to

the number (q) of the alternative hypothesis ($r = q$), and is calculated according to the following formula:

$$\text{Trace}(r) = T \sum_{i=r+1}^p \ln(1 - \lambda_i)$$

whereas:

T: represents the sample size, r: the number of joint integration vectors, and is the smallest value of the vector vectors ($p-r$).

Second: Maximum Eigen: This test is calculated according to the following formula:

$$\text{Max}(r, r+1) = T \sum_{i=r+1}^p \ln(1 - \lambda_{r-1})$$

The null hypothesis that states the presence of (r) of the common integration vectors is tested against the alternative hypothesis that states the presence of (r + 1) of the common integration vectors. Which indicates that there is no vector for joint integration and if it is less then we cannot reject the existing null hypothesis that there is at least one vector for joint integration.

The results of the joint integration test between the two variables of financial development and the activation of the Iraqi banking sector in terms of impact and maximum value tests can be clarified through the following table:

Table 5: The results of the joint integration test between the two variables of financial development and the activation of the Iraqi banking sector

Johansen-Juselius Test

Hypothesized	Trace Test		Max Test	
No. of CE(s) Eigenvalue	0.05 Critical Value	Trace	0.05 Critical Vale	Eigenvalue
$r = 0$ * None 0.675	69.819	84.429	33.877	41.583
At most 1r = 1 0.547	47.857		27.585	
At most 2r = 2 0.245	42.847		29.292	
At most 3r = 3 0.056	29.798		21.132	
At most 4r = 4 0.048	13.556		10.389	
At most 5r = 5	15.495		14.265	
	4.167		2.085	
	3.842		3.943	
	1.084		1.082	
	3.942		3.842	

0.032	1.087	1.064
At most $6r = 6$	3.742	3.842
0.029	1.064	1.052

Source: Preparing the researcher based on the results of the Eview-9 methodology.

* Means rejecting the null hypothesis at the 5% level.

Table (5) shows the results of the Johansen co-integration test using the greatest possible function, and the results are estimated by the presence of the constant and the specified linear trend, and from the above results it is clear that the calculated value of both the Trace Effect Test and the Max Eigenvalue value were greater than the value. The critical level has a significant level (5%), which indicates the presence of one common integration equation, since the null hypothesis assumes that $r = 0$, has been rejected. Therefore there is a single long-term balance relationship between the studied variables, as there is one common integration equation its parameters can be interpreted as capabilities of a long-term relationship of joint integration with the studied variables represented by financial development and activation of the Iraqi banking sector, i.e. in the sense that these variables do not deviate from their value from each other. Therefore we can reject the hypothesis of the lack of a vector of lack of a common complementarity between the research variables, which indicates a positive impact between these variables. It can be said that financial development positively affects the activation of the Iraqi banking sector in a manner that is commensurate with the changes and developments accompanying the modern business environment.

After conducting a joint integration test between the research variables, the elasticity can be estimated in the long term, using the self-regression model for the distributed slowdowns, as shown in the following table:

Table 6: Resilience results in the long run for research variables

The Variables	Co. Efficient	Std. Error	T. Statistic	Prob.
$Logx_1$	1.062	0.135	7.894	0.014
$Logx_2$	0.084	0.028	3.342	0.029
$Logx_3$	1.193	0.272	4.534	0.011
$Logx_4$	0.634	0.344	1.433	0.051
$Logx_5$	0.766	0.076	2.158	0.032
$Logx_6$	0.325	0.89	1.049	0.039
C	0.677	0.158	3.402	0.29
R. Squared	0.998	Mean Dependent Var.		0.368
Adjusted R. Squared	0.995	S.D. Dependent Var.		0.374
S.E. of Regression	0.007	Information Criterion		7.118
Log Likelihood	1.905	Henner Criterion		4.823

F. Statistics	-	-	2680.125
Prob. (F. Statistics)	-	-	0.000

Source: Preparing the researcher based on the results of the Eview-9 methodology.

It is noted through Table (6) that the estimated transactions for the research variables indicate a relationship linking these variables, i.e. meaning that financial development can help in activating the Iraqi banking sector by increasing the volume of investments and thus the expansion and growth of these banks in a manner that is consistent with environmental variables. The equilibrium relationship between research variables can be clarified by using the following equation:

$$\text{logy} = 0.667 + 1.062\log + 0.084\log + 1.193\log + 0.634\log + 0.766\log + 0.325\log + 0$$

The results shown in Table (5) indicate that the regression coefficient (R2) has reached (0.998), which means that the independent variables can be explained with a rate (99.8%) of the share changes in the dependent variable. This command indicates a relationship between financial development and sector activation. The more the financial development increases, the more effective and efficient the activation of the Iraqi banking sector, and it is noted that all independent variables are acceptable at the level of moral (1%).

Therefore, an increase in the liquidity ratio by 1% will lead to the activation of the banking sector by 1.062%, and an increase in the percentage of credit granted to the private sector by 1% will lead to the activation of the banking sector by 0.084%. An increase in the percentage of bank assets with a rate of 1% will lead to the activation of the banking sector by 1.193%, in addition to the increase in the net profit margin to the interest rate by 1% will lead to the activation of the banking sector by 0.634%, and the increase in the stock turnover rate by 1% will lead to the activation of the banking sector by 0.766%. Finally, the increase in transfers of workers from abroad by 1% will lead to the activation of the banking sector by 0.325%. It can be said that financial development can have a positive impact on the activation of the Iraqi banking sector.

The fourth topic: conclusions and recommendations

Conclusions

During this research, a set of conclusions were reached, as follows:

1. Financial development means finding permanent financial resources for the institution while working on its good management and investment to finance its business and activities in a manner that achieves its goals, and the government sector, the private sector and

individuals are fertile sources for financing and developing the resources of banking institutions.

2. It is intended to activate the banking sector as the process that leads to a fundamental amendments in the laws, legislations and policies related to banking work of various types and forms so that it leads to improving performance and adapting to the changes taking place in the global arena.

3. The activation of the banking sector requires clear reform in the financial and monetary policies as an introduction to the start of banking reform. Economic reform cannot be straightened without financial and monetary reform, as a timetable, economic indicators and targets for banking reform are defined.

4. Provides the fundamentals for achieving financial development in Iraqi banks in a manner that is appropriate for the modern business environment and the rapid and successive changes accompanying them in a way that ensures the enhancement of the bank's competitive ability as well as facing new changes and challenges.

5. Financial development helps in activating the Iraqi banking sector in a manner that is appropriate to the rapid and successive changes and developments accompanying the modern business environment, as well as improving the quality of banking services provided to customers in a manner that helps in meeting customers' needs and requirements.

Recommendations

Depending on the conclusions presented in the previous paragraph, the following recommendations can be made:

1. The need for banks to pay attention to the issue of financial development in order to finance their activities and forms and work to counter different environmental changes and developments.

2. There is a need to activate the banking sector, so it is necessary to define a timetable, economic indicators and targets for banking reform through the use of all financial and monetary tools in order to achieve a balance between supply and demand and work to gain new competitive advantages.

3. Banking institutions should take advantage of financial development to activate the banking sector, work to expand, use modern technology and provide the best services to customers.

4. Banks should cooperate with media institutions with the aim of promoting banking services in order to attract new customers in addition to maintaining existing customers, in addition to searching for global in marketing banking services to customers.

5. Banks should reduce the risks they face by exploiting available resources, strengthening current advantages and addressing weaknesses in performance in order to provide the best banking services.



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