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# Creating a cumulative index to measure development in Iraq for the period 2010-2022

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**Abstract**
Given the importance of the issue of financial development and the positive or negative effects it has on the economies of countries, the research dealt with the study of creating a cumulative index to measure financial development in Iraq, based on the methods followed by international financial organizations (the International Monetary Fund and the World Bank) in measuring the four dimensions of financial development, which are depth. Financial development, financial access, financial efficiency, and financial stability of financial markets and institutions, which is considered one of the most recent and most important topics as it is an important indicator of the ability of the financial system to provide the necessary funds to deficit units in the event of demand for them. Accordingly, the research sought to develop an indicator of financial development for a period of time that lasts (13) A year extending from the year (2010-2022), by relying on the data provided by the official authorities to come up with an indicator that gives a picture of the situation of financial institutions and markets in Iraq in terms of their ability to provide financing.
The research came out with a set of conclusions, the most prominent of which was the weak role played by the Iraqi Stock Exchange in the financing process compared to its other financial institutions. The study concluded with a set of recommendations, the most prominent of which is seeking to develop the Iraqi Stock Exchange because of its distinctive role in the financing process similar to neighboring countries and working to spread The culture of saving in Iraqi society, which contributes to the process of capital accumulation.

**Keywords:** Financial development, financial depth, financial efficiency, financial access, financial stability

## Introduction
## Methodology of Research
### Problem of Research
The problem of the study is to find an aggregate indicator to measure and know the extent of the ability of the Iraqi financial system (financial institutions or markets) to grant financing upon request, which gives a clear picture of the dimensions of financial development in Iraq, as the problem is summarized in answering the following question: (Is there an aggregate indicator in. Iraq gives an approximate picture of the dimensions of its financial development?)

### Importance of Research
The importance of the research stems from highlighting the clear impact that the development of financial institutions and financial markets has on the economy as a whole in terms of reducing poverty and combating unemployment by providing investment opportunities and achieving economic growth for countries. Therefore, creating a compilation index for the four dimensions of financial development in Iraq, It will contribute to reflecting a clear picture of the reality of the Iraqi financial system in terms of its ability to provide the necessary financing to most segments of society, as well as its ability to confront financial crises and emergency circumstances and achieve economic growth for the country, in order to come up with recommendations that would develop the financial system in Iraq by example. In neighboring countries.

**The aim of the research:** The research addresses several objectives, the most important of

which are.
Introducing the concept of financial development, its dimensions and determinants, and its impact on the economic growth of countries.
Creating a synthesis index for the four dimensions of financial development, reflecting the reality of the Iraqi financial system.

**Research hypothesis**
The research is based on the hypothesis that analyzing and constructing a cumulative index of financial development in Iraq will reflect the efficiency and stability of the Iraqi financial system and its ability to provide the necessary financing when needed and for most segments of society.

**The method used**
We relied on both the inductive approach and the descriptive analysis method in this research with regard to the theoretical part, and then used the quantitative analytical aspect to create an aggregate index of financial development in Iraq.

**Search limits**
**Spatial boundaries:** Iraq, temporal boundaries: 2010-2022.

**Theoretical review**
**Definition and concept of financial development**
Referring to the dictionaries of the Arabic language, we find that the word "development" is derived from the word "Outgrew" meaning increase or spread, and it is taken from the triple conjugation of the verb "It grows" meaning an increase in something, and it is said (the money has grown), meaning it has increased, despite the linguistic similarity between the words development and growth. There is a terminological difference between the two words that most of the literature has agreed upon, as the word development means a process of comprehensive or partial development that aims to improve the human condition and stability in a way that is consistent with human need in all fields. Therefore, it cannot be measured quantitatively because it is a qualitative increase, while growth is a term that indicates a quantitative increase. Over time, this word can indicate any quantitative increase in something, so we say population growth or economic growth, and it can be measured quantitatively. Researchers have used the word development in the English language (which means development) as a synonym for the word development, and the term (Financial Development) is used as a synonym for financial development. Abbas, 2013: 2) [1].
Financial development is considered the most important engine for driving economic growth for all countries, whether developed or developing, due to its direct connection to the development of the financial system. Financial development has received the attention of researchers and international financial organizations. The World Bank has defined it as a set of tools and legal and regulatory frameworks that help. In developing financial institutions and markets in a way that allows reducing the transaction costs of the financial system with regard to the process of granting credit (World Bank, 2023).
As for the International Monetary Fund, it has defined it as a multi-dimensional process concerned with the development of financial sectors and in a way that allows the development of financial systems in all parts of the world by developing institutions and markets in this sector and in a way that allows the provision of credit, which leads to the accumulation of capital. (Svirydzenka, 2016: 4) [31].
This financial development refers to the degree of growth and development of the financial sector through the main monetary and financial indicators, in a way that ensures the development and diversification of the forms of its institutions and markets. Accordingly, an efficient financial system is one that provides appropriate financing for various economic activities and also contributes to collecting savings and directing them towards the most developed and productive sectors, in addition to financing. Innovation and technological development, which leads to the accumulation of physical and human capital, which in turn leads to economic growth.

**The importance of financial development in the economy**
It is possible to summarize the importance of financial development in the following points:

- Financial development plays great importance in stimulating the development of the financial sector through the development of its institutions (financial markets and banks), as a result of the positive impact that the developed financial system has on financial development. (Chung, 2019, 20) [11].
- Financial development has a significant impact on economic growth, which has been confirmed by many old and modern studies as a result of its effect in stimulating investment, which in turn leads to an increase in real gross domestic product, which is reflected in the economy as a whole. (Faraj, 2021, 530) [14].
- Financial development is of great importance to the monetary stability of financial systems, as the global financial crisis (2008) and the events that followed proved that financial development cannot occur except in the shadow of an efficient financial system characterized by the presence of regulations and systems that govern the flow of money in it and in a way that allows for sound management. To the risks to which lenders and borrowers alike may be exposed. (Leven, 2011, 29) [21].
- In addition to the indirect relationship between financial development and poverty alleviation, which is represented by macroeconomic indicators, it has a direct impact through the role it plays in microfinance, which can be provided to individuals or small and medium enterprises, thus providing more job opportunities and reducing. The unemployment. (Muhammad, 2018: 52) [23].
- Financial development plays a major role in stimulating innovation in developing countries, given the joint role played by banking institutions and financial markets in supporting and financing innovative activities, in addition to the role of these institutions and markets in directing funds towards the most profitable and least risky sectors, which is reflected in the country's development.
- There is a positive effect that appears in the long term between financial development and trade openness, as a result of the impact that trade openness has on the growth rate of real income per capita in the long term,

but this effect is not clear in rentier economies, while it is very clear in the economies of producing countries that depend on To diversify its exports. (Blukarev, Raad, 2016: 171) [9].

**Economic policy tools to stimulate financial development**

Many studies have determined a set of tools that can contribute to stimulating financial development, which contributes to identifying weak points or defects in which financial intermediation may fall in order to correct them. It would also expand the provision of financial services, especially to excluded sectors of society, especially The poor, and we can mention the most important of these tools, which are:

- **Macroeconomic stability:** International and local financial organizations and policies always seek to achieve stability in their macroeconomics not only by developing the financial market, but also by facilitating procedures and regulations in a way that stimulates the development of the role of private sector companies in the process of economic growth, and this is what many have witnessed. One of the socialist countries in the eighties and nineties of the last century during its transition to market economies. (Prokopenk & Holden, 2001, 19) [27].
- **The scope of the country's intervention in financial institutions:** The International Monetary Fund directed in the late eighties of the last century the necessity of reducing government support for financial institutions, reducing the percentage of the number of state-owned financial institutions and abandoning the idea of complete state control over financial institutions (financial markets or banks), However, the 2008 global financial crisis led to re-highlighting the role of governments in the financial field, and new studies emerged that emphasize the importance of the role that public banks can play in confronting the risks surrounding the financing process (Arora, 2023, 2-3) [8].
- **Regulating and supervising financial institutions:** Financial organizations and bodies in the world have sought to emphasize the necessity of regulating the work of financial institutions according to regulations and instructions imposed by financial authorities in countries for the purpose of regulating and supervising the work of participants in the financial market in particular in order to ensure the institutions' compliance. Finance with these regulations and instructions (Levine, 2011, 19) [20].
- **The role of specialized financial institutions:** Specialized financial institutions contribute to the financing of small and medium enterprises, in addition to supporting specific types of activities and projects, especially in developing countries, by specifying the sector that they finance, which allows them to develop financial and investment plans that stimulate financial development in them, and in a way that contributes to In achieving economic growth and reducing poverty, because the role of the financial market in most developing countries is still primitive (Prokopenko & Holden, 2001, 24) [27].
- **Improving accounting records:** Paying more attention to the accuracy of accounting records and lists through which the company's financial performance can be evaluated, in a way that enhances the official authorities' confidence in its financial ability and facilitates the process of obtaining financing as a result of its commitment to regulations and procedures that reflect the validity and accuracy of accounting records (Al-Hayali, 2015, 86) [4].
- **Strengthening property rights:** This means any recorded information related to the ownership of any physical asset and what legally proves its ownership. The importance of property rights does not lie only in calculating the wealth of individuals, but also in using it to obtain financing from financial institutions, as it can be used as collateral in an application. Loans and advances, especially for companies and small and medium enterprises, as they are considered effective in reducing credit risks and therefore help in developing financial markets (Abdel Baqi, 2016, 26) [2].

**Hypotheses explaining financial development in schools of economic thought**

We previously touched on the most prominent economic opinions on the relationship between financial development and economic growth. Given the importance of this relationship, there were three schools or hypotheses that explained the nature of this relationship, which are as follows:

- **Financial Structuralist Hypothesis:** Theorists of the Structuralist Hypothesis build their hypothesis on the basis that the degree of development of the institutions of the existing financial system with the presence of a wide network of banks and financial markets in addition to a large and diverse assortment of financial instruments, not to mention the development of the operations and activities of these institutions, will have an impact. Positive on collecting savings and directing them towards the most profitable investment opportunities in a way that enhances economic growth (Lensink & Hermes, 2013, 116) [18].
- **Financial Repressionist Hypothesis:** This hypothesis is based on the call for financial liberalization, as those who advocate this hypothesis call for easing the restrictions and procedures imposed on the financial system, considering that the laws and controls imposed on financial instruments and intermediary institutions are what hinder the process of economic growth in Developing countries also call for liberalizing interest rates and letting them be determined by the forces of supply and demand in the market, in addition to liberalizing credit ceilings and mandatory reserve ratios as a result of the impact they have on national capital formation (Al-Jamil, 2017, 31) [5].
- **Internal Growth Models:** With the development of economic thought and the multiplicity of opinions and ideas that emphasized the importance of the relationship between financial development and economic growth, the internal growth hypothesis appeared, the view of which was built on the basis that internal financial growth does not occur due to external factors, but rather occurs due to internal factors. Such as technical development, changes in consumer preferences, income distribution, and institutional changes, as supporters of this relationship build their theory on the basis that continuous financial growth

depends on the growth of financial intermediation and financial institutions, and this is reflected in internal economic growth (Al-Salmouni, 2020, 47) [7].

**Explaining trends of financial development in schools of economic thought**

As a result of the multiplicity of schools and hypotheses that have studied the relationship between financial development and economic growth, these hypotheses have been divided into three directions, which are as follows:

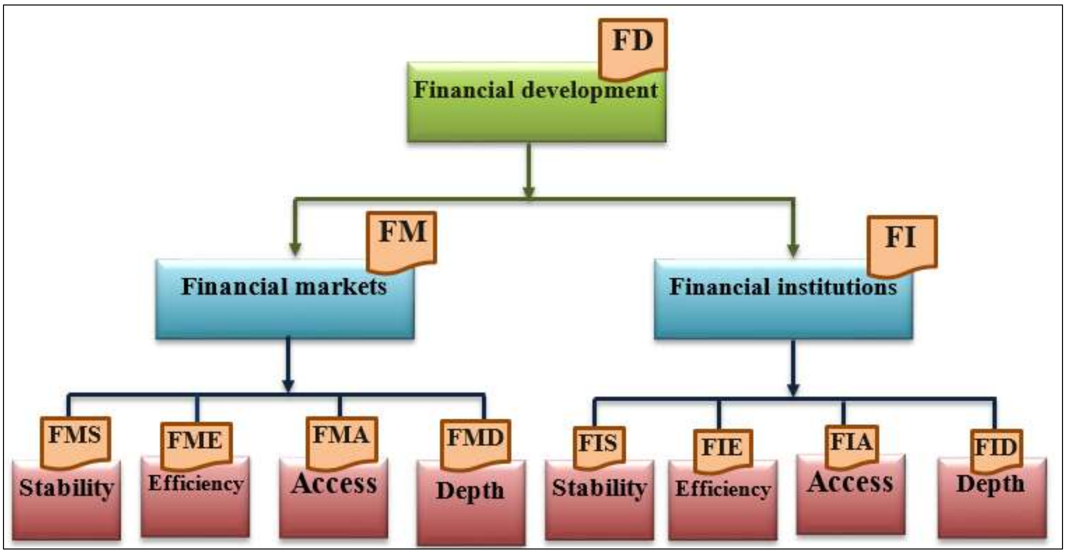
- **Supply-Leading**: This approach is based on the idea that countries seeking to achieve economic growth must develop their financial system first. The idea of this approach is based on the fact that financial development stimulates economic growth by increasing savings, which leads to. To the accumulation of capital, and the proponents of this approach are Schumpeter 1934, Gurley and Shaw 1955, and MacKnon 1973 (Menyah *et al*., 2014) [21].
- **Demand-Following:** The second approach is based on the assumption that economic growth will lead to financial development, and the idea of this approach is that economic prosperity and financial well-being that lead to an increase in the per capita share of gross domestic product will raise the savings rate and thus lead to an increase The demand for financial services, which contributes to increasing the intensity of competition between financial institutions that will seek to develop their services, which leads to the development of the entire financial system as a result of economic growth. One of the most prominent supporters of the dependent demand trend is the English economist Joan Robinson 1952 (Giri, 2016) [15].
- **Bi-directional causality:** The theorists of this approach are divided into two groups, as the supporters of this approach believe that there is a bilateral causal relationship between financial development and economic growth, as one affects the other in the same proportion and in the same direction due to the feedback that returns from one to the other. One of the most prominent supporters of this trend is the American economist. As for the second group, it believes that there is no relationship between the growth of the financial sector and economic growth, and this group takes a neutral position. (Nyasha & Odhiambo, 2017) [25].

Despite the different hypotheses, opinions and trends that attempted to explain the relationship between financial development and economic growth, the importance of the financial system in directing savings towards investment and leading to economic growth is still a reality that imposes itself.

**Financial development, its dimensions and Iraq's position within it**

**Dimensions of financial development**

The process of measuring financial development is considered very important in order to make progress in the development of the financial system and thus measure its impact on economic growth. However, it is considered a difficult process in practical terms as it involves several dimensions that are calculated in more than one way, and most of the studies that have been completed so far are based on To the quantitative indicators available to countries, such as the ratio of assets of financial institutions to GDP or the ratio of liquid liabilities to GDP, and since the financial sector in a country includes a variety of institutions, markets and financial products, these measures are nothing more than an approximate estimate and do not cover Completely cover all aspects of financial development. Accordingly, the study indicators were divided into four groups of alternative variables that characterize a sound financial system, which are financial depth, accessibility, financial efficiency, and stability of financial institutions, so that these four dimensions are grouped into two main components of the financial system, which are financial institutions and financial markets (Levine, 2004, 82) and as shown in the diagram below.




***Source*:** International Monetary Fund data published on the website https://data.imf.org

شكل (1) مخطط توضيحي لتقسيم ابعاد التنمية المالية

**Financial depth:** The early economists defined it as the ability of the financial system to provide financial services with the possibility of developing the services provided to all segments of society (Shaw, 1973) [30]. The World Bank defined it as the size of banks, other financial institutions, and financial markets combined in a country, measured As a ratio to the GDP of the same country, most studies measure it by calculating the ratio of credit granted to the private sector to the GDP, and therefore some may define it as the ratio of credit granted to the local private sector from bank deposits to the GDP and in the local currency. Excluding credit issued to governments, government agencies and public institutions. It also excludes credit granted by central banks.

**Financial access:** Financial access is defined as the ability of individuals or companies to obtain financial services, most notably credit, deposits, payments, insurance, and other services related to risk management. The issue of access to finance receives great attention all over the world, especially in economies. In developing countries, it is therefore concerned with the necessity of delivering financial services on a sufficiently large scale among different segments of society to avoid any negative effects on economic growth, as it affects the distribution of incomes, leading to high levels of unemployment and thus leading to poverty, in addition to the negative effects that occur when assets are concentrated. The financial system is in limited categories. (Demirgüç-Kunt & Honohan 2008) [23].

**Finance Efficiency:** Financial efficiency is defined as the institution's ability to perform its financial obligations, including providing financing in a timely and effective manner and at reasonable costs through means and processes that facilitate and accelerate the process of obtaining financing through followed procedures such as utilizing technology. It measures financial efficiency. The extent of the institution's success in converting expenses into revenues, that is, how it achieves profits that exceed the level of spending. If profits become higher than the rate of service provision, this indicates that the institution enjoys financial efficiency (PWS, 2012, 3)

**Stability of financial institutions:** Financial stability is defined as a state in which the three components of the financial system (financial institutions, financial markets, and financial infrastructure) are stable. It is also defined as a state in which the financial system is able to facilitate real economic activities smoothly and is able to Detecting financial imbalances arising from shocks. The 2008 global financial crisis highlighted the importance of containing financial risks and maintaining financial stability. At the same time, it promotes increased access to financial services for low-income groups of society and small businesses, thus enhancing economic and financial development.

**Financial development in Iraq**

Iraq is the third largest oil exporter in the world, as oil income represents more than 90% of the country's gross domestic product, which is more than other neighboring oil-exporting countries. Therefore, the Iraqi economy has been negatively affected in recent years due to the sharp decline that occurred in oil prices before The end of the year 2019, in addition to the worsening situation due to the Covid-19 epidemic and the global quarantine that followed it, not to mention the military conditions that Iraq was going through due to its war against terrorist gangs, which burdened the state budget, so Iraq's gross domestic product decreased by 11% in the year 2020. From what predicted a massive budget deficit, which led the government to resort to devaluing the Iraqi dinar against the US dollar in 2021, for the purpose of reducing its budget deficit.

The delay in approving the 2022 budget led to negative impacts on low-income groups due to high import costs and food security risks. Accordingly, the Iraqi government began issuing a law related to food security and development in emergency situations, which gave some space for urgent spending in light of the lack of An approved budget for the year 2022, not to mention the negative effects that affected investment projects in general, which negatively affected the Iraqi economy. However, the Iraqi government continued its tireless efforts towards reviving the economy, which contributed to the growth of Iraq's gross domestic product by 10.5% in the year 2022 as a result of the rise in oil prices and the recovery of non-profit sectors. Oil production, as well as the decline of the pandemic crisis, which contributed to the recovery of the Iraqi economy (World Bank, 2022).

Accordingly, Iraqi finances were able to live in their best condition as of the beginning of the year 2022 as a result of the increase in Iraqi oil prices by 46% over the year 2021, with the value of public expenditures remaining stable as stated in the 2019 budget, in addition to the allocations of the emergency law for food security, which was enacted at the beginning of 2022, thus achieving financial savings. It was estimated between 15-20 billion dinars, while the Iraqi government sought to establish a sovereign wealth fund managed by the Central Bank of Iraq to preserve these savings, allowing the use of these funds in useful investment areas, for example developing the oil sector through diversification of exported oil products. As it constitutes the largest part of the Iraqi economy, and then start planning major agricultural projects that provide agricultural sovereignty through the production of food security crops, similar to the experiences of developed agricultural countries, since the agricultural sector is no less important than the oil sector, in addition to moving towards financing small and medium enterprises through loans. The facilitation will contribute to providing job opportunities for young people (15-24 years old) in order to eliminate unemployment and reduce poverty.

**Challenges facing financial development in Iraq**

**Macroeconomic indicators:** The changes and fluctuations that occur in the Iraqi economy are considered a major challenge to the financial and monetary authorities, as they negatively affect financial development indicators in Iraq. The inflation that resulted from the state's devaluation of the local currency led to a decrease in the real rate of return on financial assets from This negatively affected the credit granting markets as a result of the decrease in demand for the credit granted, so the authorities must study the effects of their decisions on the country's development plans.

**Monetary authority policy:** The role that the Central Bank of Iraq can play in achieving monetary stability by following a sound monetary policy is considered a very important role in achieving financial development, by influencing the money supply and controlling the granting of credit in a way that reduces the severity of the effects of economic fluctuations. To which the Iraqi market is exposed and the resulting decline in investment as a result of the high level of uncertainty among investors. (ICB, 2020, 2).

**Cultural awareness of society**

The spread of financial awareness in society is considered one of the most prominent challenges that the authorities may face in stimulating savings and directing it towards areas of investment. In 2017, the Central Bank of Iraq launched a project to localize employee salaries in order to motivate citizens towards dealing. Banking, considering that the segment of employees and retirees is the largest segment of Iraqi society and motivating them to save through credit cards. (Abdulnabi, 2018, 9) [3].

**Stability of the political system**

The political situation in Iraq affects the country's economy as a whole and investment projects in particular as a result of the impact of state risks on the achievement of the country's development plans. For example, the delay in approving the state's general budget for the years 2021 and 2022 left negative impacts as a result of the lack of financial allocations for projects. investment, in addition to the state of uncertainty affecting society in general (World Bank, 2022).

**Legal legislation and institutional structure**

The policies, legislation and institutional structures that govern the flow of funds in the financial system are considered among the most important stimulants for the financial development of any country. Accordingly, the authorities must establish flexible legislation and laws that facilitate the process of transferring money therein, and in a way that enhances the stimulation of the investment process as it contributes to Raising confidence among investors and savers in the financial system, which contributes to stimulating investment and the resulting effects that enhance economic growth in Iraq (Muhammad, 2011, 22) [24].

**Results Research**

**Building the proposed aggregate index for financial development in Iraq for the period from 2010 to 2022**

The financial development of a country is one of the most important indicators of the strength of the financial system in that country, as it is an indicator of the ability to flow money within this system and move it easily between deficit and surplus units, which contributes to moving the wheel of the economy. It is also an indicator through which the strength and flexibility of the countries' financial system is measured. According to dimensions previously set by international financial bodies and institutions such as the International Monetary Fund and the World Bank, it was necessary to find an indicator that expresses the financial development situation in Iraq in a way that contributes to reflecting a clear picture for decision makers to contribute to building a sound financial system, and also reflects the reality of the flow of funds. In both the financial market and Iraqi financial institutions.

To more accurately determine the reality of financial development in Iraq, it was necessary to compile the four dimensions of financial development (depth, access, efficiency, and financial stability) into only one indicator that reflects the nature of the movement of funds within the financial market or financial institutions, as relying on sub-indices can It does not reflect an accurate and clear picture of the reality of the financial system. The aggregate index was built according to the following steps.

The results of the dimensions of financial development were converted into standard values using the following equation (Central Bank of Iraq, Monetary Stability Report, 2017: 46).

$$Z = \frac{A - Min}{S.D.}$$

Where (Z) is the standard value of the variable, (A) is the true values of the data, (Min) means the smallest value in the data, and (S.D.) is the standard deviation of the data, and the indicator value is between (0 and ∞) and the closer the indicator value is to (0) This indicates the weakness of financial development in the country and thus the weakness of the financial system and its inability to transfer funds, while the further the value is from (0) this indicates the strength of the financial system in the country and its ability to transfer funds smoothly between surplus units and deficit units. Determining equal weights for all sub-variables according to their importance in the aforementioned dimensions, as equal weights were relied upon to measure the aggregate index of financial development, which is what is followed in many countries of the world, and thus the weight of the sub-index composing the main index is (1).

Find the sum of the weighted standard values to obtain the indicator values.

Calculating the values of financial development indicators separately using the weighted average method as follows:

FDI= (D1*W1) + (D2*W2) + (D3*W3) + (Dn*Wn)/N

FDM= (D1*W1) + (D2*W2) + (D3*W3) + (Dn*Wn)/N

FD = FDI + FDM

Whereas (FDI) represents the development index for financial institutions, (FDM) is the development index for financial markets, while (FD) is the financial development index in general, while (D) is the standard value of the variable, (W) represents the weight of the index, and (N) is Number of variables.

**Calculating and analyzing the aggregate index of financial development in Iraq**

The aggregate index was calculated for the four dimensions of financial development and for each of the institutions and financial markets, as in the following table.

**Table 1:** Standard values of development indicators for financial institutions in Iraq for the period (2010-2022)

| year | Financial depth | weight | Aggregate indicator | weight | Average Liquidity Ratio % Financial Stability | weight | Rate of return on assets (financial efficiency) % | weight | Reach per 100,000 |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | 0.05 | 1 | 0.65 | 1 | 0.00 | 1 | 0.00 | 1 | 2.56 |
| 2011 | 0.00 | 1 | 1.33 | 1 | 1.93 | 1 | 1.03 | 1 | 2.35 |
| 2012 | 0.30 | 1 | 1.42 | 1 | 2.40 | 1 | 0.46 | 1 | 2.51 |
| 2013 | 0.49 | 1 | 1.92 | 1 | 3.25 | 1 | 1.41 | 1 | 2.54 |
| 2014 | 0.74 | 1 | 1.82 | 1 | 3.48 | 1 | 1.30 | 1 | 1.75 |
| 2015 | 2.02 | 1 | 1.75 | 1 | 3.48 | 1 | 0.81 | 1 | 0.68 |
| 2016 | 1.97 | 1 | 1.77 | 1 | 3.48 | 1 | 0.87 | 1 | 0.76 |
| 2017 | 1.78 | 1 | 1.74 | 1 | 3.33 | 1 | 1.41 | 1 | 0.45 |
| 2018 | 1.13 | 1 | 1.37 | 1 | 2.40 | 1 | 1.49 | 1 | 0.45 |
| 2019 | 1.18 | 1 | 1.25 | 1 | 1.80 | 1 | 1.52 | 1 | 0.48 |
| 2020 | 3.35 | 1 | 2.43 | 1 | 1.83 | 1 | 4.15 | 1 | 0.38 |
| 2021 | 2.27 | 1 | 1.55 | 1 | 1.89 | 1 | 1.74 | 1 | 0.31 |
| 2022 | 1.92 | 1 | 1.65 | 1 | 2.47 | 1 | 2.23 | 1 | 0.00 |

***Source*:** Central Bank of Iraq data https://cbiraq.org

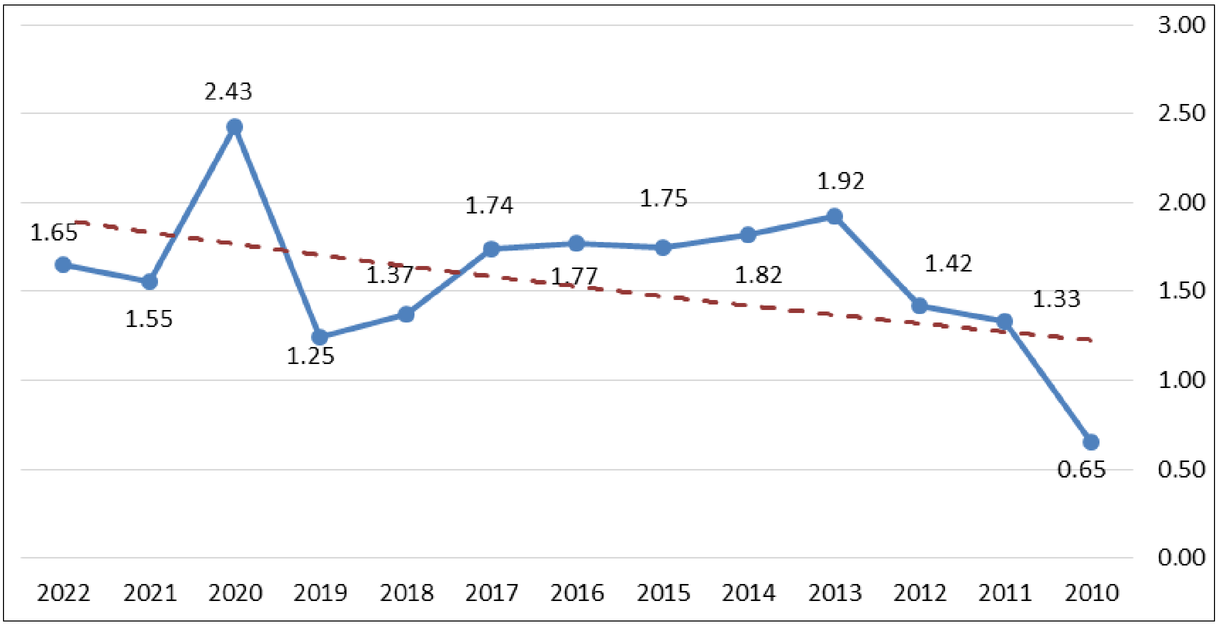



**Chart 1:** Aggregate index for the development of financial institutions in Iraq for the period 2010-2022

**Table 2:** Standard values of development indicators for financial markets in Iraq for the period (2010-2022)

| Year | Financial depth | weight | Financial access | weight | Financial efficiency | weight | Financial stability of the weight market | weight | Aggregate indicator |
|---|---|---|---|---|---|---|---|---|---|
| 2010 | 0.00 | 1 | 0.54 | 1 | 1.20 | 1 | 0.00 | 1 | 0.43 |
| 2011 | 0.12 | 1 | 0.80 | 1 | 2.27 | 1 | 0.27 | 1 | 0.87 |
| 2012 | 0.00 | 1 | 0.80 | 1 | 1.94 | 1 | 0.08 | 1 | 0.71 |
| 2013 | 1.25 | 1 | 0.80 | 1 | 3.09 | 1 | 0.07 | 1 | 1.30 |
| 2014 | 0.89 | 1 | 0.54 | 1 | 0.90 | 1 | 0.21 | 1 | 0.63 |
| 2015 | 2.56 | 1 | 0.27 | 1 | 0.07 | 1 | 3.35 | 1 | 1.56 |
| 2016 | 2.44 | 1 | 0.80 | 1 | 0.15 | 1 | 1.56 | 1 | 1.24 |
| 2017 | 2.62 | 1 | 2.95 | 1 | 0.44 | 1 | 2.09 | 1 | 2.02 |
| 2018 | 1.62 | 1 | 0.80 | 1 | 0.00 | 1 | 1.68 | 1 | 1.03 |
| 2019 | 1.85 | 1 | 1.34 | 1 | 0.10 | 1 | 0.45 | 1 | 0.93 |
| 2020 | 2.62 | 1 | 2.15 | 1 | 0.21 | 1 | 0.97 | 1 | 1.49 |
| 2021 | 1.90 | 1 | 3.22 | 1 | 0.94 | 1 | 1.02 | 1 | 1.77 |
| 2022 | 1.19 | 1 | 0.00 | 1 | 0.02 | 1 | 0.34 | 1 | 0.39 |

***Source*:** Reports of the Iraq Securities Commission

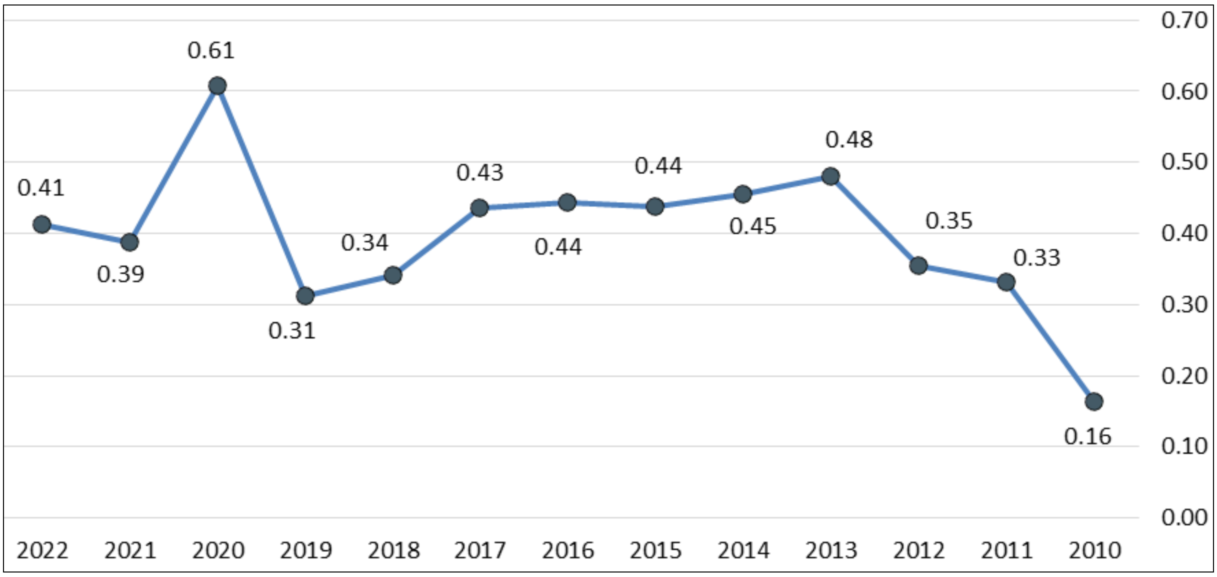



**Chart 2:** Aggregate index of financial market development in Iraq for the period 2010-2022

## Conclusion

- Poor access to financial institutions and markets compared to countries in the region, as we clearly notice the low access index per 100,000 adults for several reasons, the most important of which is the high population compared to the number of commercial bank branches.
- There is a noticeable development in the financial depth of the Iraqi financial institutions during the period of the study, which reflects the efforts of the Iraqi financial and monetary authorities in collecting savings to direct them towards investment. On the other hand, we notice a fluctuation in the financial depth of the financial markets, which limits its role in the financing process.
- An increase in the efficiency index of Iraqi financial institutions during the research period (measured by the rate of return on assets), which reflects the strength of these institutions. On the other hand, we notice a weakness in the aggregate index of financial efficiency of the Iraqi financial market.
- An increase in the stability index of Iraqi financial institutions (measured by the liquidity ratios of these institutions) compared to the stability index of the Iraqi financial market, which witnessed a noticeable fluctuation in the index and measured by the standard deviation of stock prices during the research period.

## Recommendations

- More attention is paid to increasing the number of commercial bank branches and the number of electronic ATMs compared to the growth of the population, in order to increase access to financial services.
- Paying more attention to the Iraqi financial market and improving its performance by developing its work systems, due to the role it plays in the financing and investment process.
- Pay more attention to and follow up on the financial ratios that reflect the efficiency of financial institutions, such as the return on assets ratio and the return on equity ratio, in order to maintain and improve the level of efficiency of these institutions because of the important role they play in the project financing process.
- Raising savings awareness among Iraqi society in a way that contributes to the process of accumulating capital that can be directed towards investment channels, and in a way that increases the financial depth of financial institutions.
- Paying more attention to financial stability indicators of Iraqi financial institutions and markets, in a way that gives these institutions the ability and potential to confront crises and abnormal circumstances.

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