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### THE RELATIONSHIP BETWEEN INDICATORS OF FINANCIAL DEPTH AND THE EFFECTIVENESS OF MONETARY POLICY IN IRAQ FOR THE PERIOD (2004-2018)

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**Keywords: (Financial Depth, Effectiveness Of Monetary Policy, Interest Rate, Exchange Rate)**

#### **ABSTRACT**

This research aims to know the role of financial depth indicators on the effectiveness of monetary policy in Iraq, by conducting an analytical study to demonstrate that effect, as well as how to take advantage of them to increase this effectiveness and address the problems faced by monetary policy during crises. The research included an introduction and two axes, the first of which dealt with the theoretical side and included both the concept of financial depth and its indicators and the reality of those indicators in Iraq, and then the concept of monetary policy and its effectiveness, while the second axis was devoted to analyzing the impact of financial depth indicators in Iraq on the effectiveness of monetary policy in it for the period of 2004- 2018 through its channels of interest rate, exchange rate and inflation. The research also contained a set of conclusions and recommendations related to the topic.

**Key words:** (financial depth, effectiveness of monetary policy, interest rate, exchange rate )

#### **INTRODUCTION**

Iraq is going through a Stage of transformation in its economic system from the planned system to the market system in light of the political transformation after 2003 and that this step undoubtedly raises many large and many economic challenges, the most important of which is the relationship between economic policies and the real economy, and among these changes are monetary policy changes and the Central Bank After the issuance of Law 56 of 2004 and Banking Law 26 of 2004. In order for monetary policy to be an effective tool for transformation in the financial and monetary system, this

requires a deeper understanding of the basic measures of the effectiveness of monetary policy and its efficiency in influencing economic activity. Therefore, this study focus on the impact of financial depth indicators on the effectiveness of monetary policy in Iraq for the period 2004-2018.

And the transmission of the impact of monetary policy on economic activity is through a set of channels such as interest rate, exchange rate, inflation, money supply and other tools, and a good financial system is a necessity and a prerequisite for the transmission of the impact of monetary policy on economic activity.

#### 1:1: Research Importance

The importance of research is determined by the role that the development of financial depth can play in achieving the efficiency and effectiveness of monetary policy in Iraq and then increasing the size of its impact on the level of economic activity.

#### 1:2: Research Problem

The decrease in financial depth in Iraq has led to a weakness in the performance of the financial sector, and this was reflected in the effectiveness of monetary policy and its transmission channels to the level of economic activity, so the research problem can be identified by the following question: What are the effects that result from indicators of financial depth on the effectiveness of monetary policy in Iraq and what is the role So in the improvement of the level of economic activity in Iraq?

#### 1:3: Research Hypothesis

The research hypothesis is (that the depth of the high financial sector has a great impact on improving the effectiveness of monetary policy and the impact of its transition to economic activity, and that there is a strong positive impact relationship that moves from indicators of financial depth to the effectiveness of monetary policy in Iraq for the period (2004-2018)

#### 1:4: Research Objectives

The research aims to examine the effect of financial depth indicators represented by (the money supply index to gross domestic product (M2 / GDP), the private sector credit index to gross domestic product (CPC / GDP), and the index of total deposits to gross domestic product (TBD / GDP)) on the effectiveness of monetary policy in Iraq through its channels of interest rate, exchange rate and inflation for the period (2004-2018)

The theoretical side of the research

The concept of financial depth and the factors affecting it

Economists have not agreed on a unified and accurate definition of the concept of financial depth, as the World Bank defined it as "including an increase in the stock of financial assets and from this perspective, financial depth means the ability of financial institutions in general to effectively mobilize financial resources for development," (Nzotta & Okereke: 2009: 56)

Financial depth also means “providing financial services and making them available for dealing or use by different sectors of society and enabling them to benefit from financial services and thus contribute to achieving economic and social development.” Financial deepening enables savers to invest in a wide variety of high-quality assets. It also allows borrowers to benefit from a wide range of financing services, including risk management tools. (Muhammad & Nabil :2016: 42)

Financial depth is also defined as an increase in the size of the financial system, its role and its spread in the economy from a monetary policy perspective. The diversification of corporate and household portfolios is of particular importance, as they are affected more and more by developments in the financial markets. That is why it can be said that financial depth means that the economy has a sufficient volume of funds, institutions and securities, which provides more favorable conditions for long-term economic growth, and reflects to the economy the degree of its vulnerability to financial instruments and relationships and the degree of its saturation with those financial instruments and institutions. Through the foregoing, financial depth can be defined as the ability of the financial sector to efficiently mobilize the savings and financial resources available in the economy with the aim of converting them into investments to support long-term economic growth through the development of financial institutions and the provision of financial financing tools and services to support long-term development economic (Abrihi : 2015:67).

There are many factors that lead to an increase in financial depth, including: the emergence of new investors in the financial market, the use of financial derivatives, futures and options and interest rate swaps, increasing the total financial assets very quickly, increasing the availability of bank credit and other factors (High Joint: 2007: 5).

## 2:2: Indicators of financial depth in Iraq for the period (2004-2018)

Many researches that dealt with the subject of financial depth indicate that it affects the performance of monetary policy and its ability to achieve the purpose of the monetary authority through the transmission channels through which it affects economic variables and that this effect varies according to the country's economic development, and the size of the financial sector, the development of banks and financial markets, as well as the state of The economic cycle. The great transformation that took place in Iraq after 2003 is considered the starting point in reformulating the economic philosophy on which the Iraqi economy is based, and the conditions of the Iraqi economy. The most important indicators related to measuring the financial depth of financial institutions according to the World Bank's determinants are:  
A: Index M2 / GDP

This indicator is one of the simplest indicators of financial depth (Al-Saadi: 2011: 220), and it is considered a measure of the degree of depth of the

banking system and has been used by researchers to measure the development or financial development during the development process this percentage tends to decrease and this indicates the existence of new tools not included in M2, And it becomes available more broadly, which indicates financial innovation, which gives greater flexibility and depth in the financial sector. The M2 / GDP indicator expresses the extent of financial flexibility and depth, as the low of this percentage indicates the existence of flexibility and depth in the financial sector in the economy. After 2003, changing the political system and economic philosophy, issuing new laws and legislations in line with the new orientation, including Central Bank Law No. 56 of 2004 and Banking Law No. 67 of

2004, setting objectives by the monetary authority, foremost among which are fighting inflation and achieving monetary stability in order to achieve economic growth and sustainable development. The Iraqi economy at this stage is witnessing monetary stability, and thus a significant economy. By measuring the financial depth index in Iraq for the period from 2004-2018 shown in Table (1), we notice the trend of growth rates of money supply to GDP towards an increase with the passage of time. We find that the (M2 / GDP) ratio, which expresses bank liquidity, increased from (20%) in 2005 to (40%) in 2017, and this growth is due in addition to the high growth of M1, which represents a part of M2, the increase in the volume of fixed, saving and time deposits due to the high number Private banks and the expansion of their geographical area, which number reached 864 banks, between governmental, private, local and foreign, as well as the relative stability in the value of the new Iraqi currency and its exchange rate against the \$ during this period has restored confidence in the IQ dinar by the public as well as that funding has become relatively done through banks , This increase in the index is attributed to the monetary authority's taking measures to curb inflation, raise the value of the local currency, maintain the stability of the exchange rate, and increase financial intermediation. We note from the foregoing that the index values are heading towards an increase, which reflects a decrease in the financial depth according to this indicator despite the monetary authority's attempt to enhance the financial depth, and that its trend towards decline is due to several reasons, including the poor performance of the banking sector in Iraq as well as the high percentage of currency in circulation. Because of the underdevelopment of banking habits and poor banking awareness among the public, as well as the decline in GDP growth rates, which ranged between positive and negative growth during the period 2004-2018, as it was (38%) in 2005, then it tended to decline in a fluctuating manner, where it became (- 17%) in 2009, and it reached (11%) in 2018. The financial depth index tends to rise, in addition to the commercial banks' maintenance of high and excessive levels of liquidity.

Table (1)

Gross domestic product, wide money supply, financial depth index represented by M2 \ GDP in Iraq for the period 2004-2018

	M2	GDP	GDP	M2\G DP	GDPR	M2\G DPR
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Year	( million Iraqi dinar	( million Iraqi dinar )	%	%	( million Iraqi dinar)	%
2004	11498148	53235358.7	-----	22	101845262.4	22
2005	14659350	73533598.6	38	20	103551403.4	20
2006	21050249	95587954.8	30	22	109389941.3	22
2007	26919996	111455813	17	24	111455813.4	24
2008	34861927	157026062	41	22	120626517.1	22
2009	45355289	130643200	-17	35	124702847.9	35
2010	60289168	162064566	24	37	132687028.6	36
2011	72067309	217327107	34	33	142700217	32
2012	75336128	254225491	17	30	162587533.1	30
2013	87526585	273587529	8	32	174990175	33
2014	90566930	266420385	-3	34	175335399.6	35
2015	82438712	199715700	-25	41	182331154.1	34
2016	87941853	203869832	2	43	199476600.2	34

-The Central Bank of Iraq, the Department of Statistics and Research, various annual reports

-Ministry of Planning, Central Bureau of Statistics, Annual Statistical Bulletin, Financial Statistics (2003-2019)

#### 2:2:B Credit Private Sector Index to Gross Domestic Product (CPC / GDP)

This indicator expresses the percentage of credit provided by banks and intermediary financial institutions divided by the gross domestic product, and this indicator measures the amount of money given to the private sector, the growth of the banking sector and the level of financial intermediation, and this ratio is directly related to investment and economic growth in the country, and that this percentage increases It means the increase in services, improvement in financial intermediation, and growth in total deposits, which are the main source of loans granted by banks, that the credit provided to the private sector is directed towards the most productive economic sectors, whether commodity or service production, in a way that enhances the capacity of these sectors and provides them with the necessary liquidity to carry out their activities. The rise in the ratio of credit directed to the private sector to the gross domestic product indicates the strength of the links between the banking sector and the real economy and raises the ratio of financial depth in the economy, so this indicator is one of the important financial depth indicators that express the development and efficiency of the banking system in any country, and that this indicator It illustrates the importance and contribution of the private sector in relation to the public sector in forming the gross domestic product It is directly related to investment and growth, and the increase in this percentage is explained by an increase in services, improvement in financial intermediation and a growth in total deposits.

Table (2) shows that the percentage of commercial banks 'contribution to total credit after 2003, as the ratio became (36.4%) in 2004 and continued to

fluctuate between high and low until 2018, where the lowest contribution rate was (13.8% ) in 2012 and the highest rate reached Its ( 42.1%) year 2017.

Table (2)

(Gross domestic product, percentage of commercial banks 'contribution to total credit, financial depth index represented by CPC / GDP in Iraq for the period 2004-2018 )

Year	CPC ( million Iraqi dinar)	GDP ( million Iraqi dinar)	CPC\ GDP %
2004	826699	53235358.7	2
2005	1717450	73533598.6	2
2006	2664899	95587954.8	3
2007	3462620	111455813	3
2008	4587454	157026062	3
2009	5689702	130643200	4
2010	11721536	162064566	7
2011	20344078	217327107	9
2012	28438688	254225491	11
2013	29957258	273587529	11
2014	34123067	266420385	13
2015	36752686	199715700	18
2016	37180123	203869832	18
2017	37952829	225995179	17
1722	27364385	254366709	11

Source:

-The Central Bank of Iraq, the Department of Statistics and Research, various annual reports

-Ministry of Planning, Central Bureau of Statistics, Annual Statistical Bulletin, Financial Statistics (2003-2019)

#### 2:2:C:TBD / GDP index

Deposits are the main source of credit with banks, which enhance the activity of the banking sector. This indicator measures total deposits divided by GDP, and it is an important indicator of financial depth, especially since current deposits are part of the money supply in addition to the currency in circulation. This indicator indicates an increase in the volume of deposits with the banking system and financial institutions, which enhances saving, investment and economic growth. (Azzam: 2017:

42), and this indicator is one of the important indicators of financial depth and banking performance, especially after it was found that the currency is outside the banking system. It represents the largest part of the money supply in Iraq, and deposits of all kinds are the main and most important source for the sources of bank financing that they use in providing credit, so the increase in this percentage explains an increase in the volume of deposits that can be used to increase the volume of credit provided and increase the ability of banks

Asset accumulation and thus increased financial depth. After 2003 and the vast changes that took place and the change of the political and economic system in Iraq, we find through the data of Table No. (3) that there is a growth that occurred in total deposits (TBD) and in gross domestic product (GDP) in terms of volume during the research period, as the volume of deposits increased. The total from (8619809) million IQ dinars in 2004 to (76893927) million IQ dinars in 2018, and the gross domestic product increased from (53235358.7) million IQ dinars in 2004 to reach (254366708.7) million IQ dinars in 2018, despite the compound growth rate of deposits was higher. Of the compound growth rate in output, but it did not constitute only a proportion less than a third of the size of the gross domestic product. Through Table (3), it is clear that the financial depth index represented by the size of deposits to GDP increased from (16%) in 2004 to (27%) in 2009, then it decreased to (22%) in 2012, then it rose again to The highest level during the study period was (32%) in 2015, then it decreased to (30%) in 2018, which means that there is a fluctuation in the growth rate of financial depth even if the general trend is towards an increase, which gives an indication that there is a positive trend towards Increasing the financial depth, however, the deposit-to-output ratio is still low and does not fulfill its ambition (Arab Development Portal: 2019: 2) Table (3)

Gross domestic product, total deposits, the financial depth index represented by  
 (TBD / GDP in Iraq for the period 2004-2018)

Year	TBD (million Iraqi dinar)	GDP (million Iraqi dinar)	TBD \ GDP %
2004	8619809	53235358.7	16
2005	10769995	73533598.6	15
2006	16928295	95587954.8	18
2007	26188926	111455813	23
2008	34524959	157026062	22
2009	35434189	130643200	27
2010	43373432	162064566	27
2011	50676959	217327107	23
2012	57024293	254225491	22
2013	63899530	273587529	23
2014	73873336	266420385	28
2015	64344061	199715700	32
2016	62398733	203869832	31
2017	67038631	225995179	30
1722	76893927	254366709	16

Source:

- The Central Bank of Iraq, the Department of Statistics and Research, various annual reports
- Ministry of Planning, Central Bureau of Statistics, Annual Statistical Bulletin, Financial Statistics (2003-2019)

In addition to these indicators, there are other indicators of the financial depth of the financial markets

Fit with the size and development of these markets, the most important of which are:

Capitalization index of financial stocks in relation to GDP

Index of total public debt bonds to GDP

Index of total private debt bonds to GDP

Index of international debt bonds to GDP

2:3:Effectiveness of Monetary Policy - A theoretical and conceptual aspect -

2:3:A:Monetary Policy Concept and Objectives:

Monetary policy was defined as (the set of rules, means, methods, procedures, and measures that the monetary authority takes to influence or control the money supply in line with economic activity to achieve certain economic objectives, within a certain period of time) (Abdul-Muttalib: 2007: 272). That monetary policy is seen as (managing the expansion and contraction in the volume of cash for the purpose of obtaining certain objectives,) and in this sense, all monetary and banking measures and regulations of any kind become a manifestation of monetary policy as long as they have an influence in determining the amount of money available in relation to the whole economy, meaning More precisely, monetary policy refers to specific goals that the wise monetary administration sets for itself and seeks to achieve them, and to the various means and measures through which that administration is carried out (Al-Saadi & Al-Issa: 2004: 351), and from this it can be said that monetary policy is related to everything related to liquidity The banking system, the non-banking sector, as well as the government sector.

The monetary authority works to achieve a set of economic objectives, through its monetary policy by using its mechanisms and tools in order to influence the variables of economic activity, and the most important objectives of monetary policy can be summarized as follows (Abrihi: 2018 : 132) .

- price stability
- Achieve a high level of usage
- Improving the balance of payments
- Encouraging economic growth
- Exchange rate stability
- Targeting the gross domestic product
- Low inflation

2:3:B: Effectiveness of Monetary Policy

The effectiveness of monetary policy is the degree of influence of monetary policy by the monetary authority represented by the (central bank) on economic activity for the purpose of reaching certain goals, and determining the degree of this effect, especially in the presence of the so-called monetary policy and time lags or periods of quantitative slowdown that may It limits the effectiveness of monetary policy, because it includes so-called monetary policy measures and is divided into three types:(Abdul-Muttalib: 2007: 273)

- Delay resulting from the report or slowdown between the time required for the monetary policy intervention to be necessary and the time the monetary authority deems appropriate for the decision.

□ Delay resulting from the time between the report to the need for decision-making and the actual decision, and it is called the internal slowdown period, which is a short period.

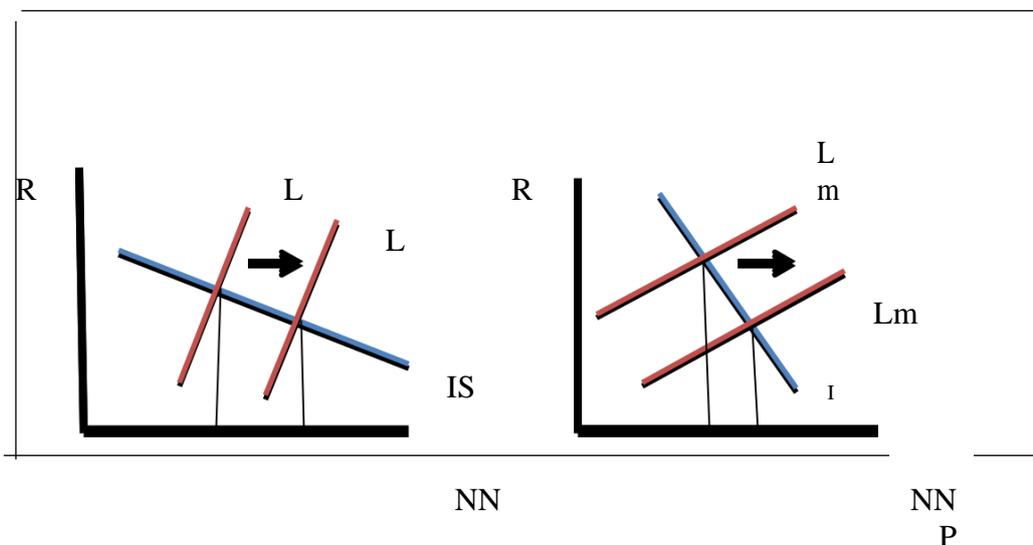
□ The resulting external slowdown between monetary policy taking its decision and its impact on the national economy or economic activity, and this type creates many problems.

Many economists assert that taking measures at a wrong time is worse than not taking any action. For example, if the central bank is quick to increase the amount of money supply based on a false belief that the national economy is heading into a state of recession, the result will be unjustified inflation during The following months or years, and the monetarists believe that the delay in the impact of monetary policy is a long and variable period, the periods of influence and slowdowns may reach between three or six months, and at other times between 12-18 months or longer than that at other times, and perhaps that Highlights the importance of timing the application of monetary policy to achieve its goals very effectively.

There is a debate among economists on the issue of the relative slopes of each of the (IS, LM) curves. Economists who believe that the (IS) curve is relatively flat and the (LM) curve is relatively steep, so they see monetary policy as an effective policy in influencing output The real national and the prices. As for the economists who believe that the (IS) curve is relatively steep and that the (LM) curve is relatively flat, they believe in the ineffectiveness of monetary policy (Khalil: 1982: 666)

,as shown in figure (1).

Figure (1)  
The effectiveness of monetary policy



Source: Sami Khalil, Monetary and Financial Theories and Policies, Kuwait 1982, p. 66

3: The analytical aspect of the research: Analyzing the impact of financial depth indicators on the effectiveness of monetary policy in Iraq for the period 2004-2018

To clarify the effect of financial depth indicators on the effectiveness of monetary policy in Iraq, one can focus on the monetary policy channels represented by the interest rate, exchange rate and inflation shown in Table (4) and Figure (2) through which the effect is transmitted to economic activity

Table (4)

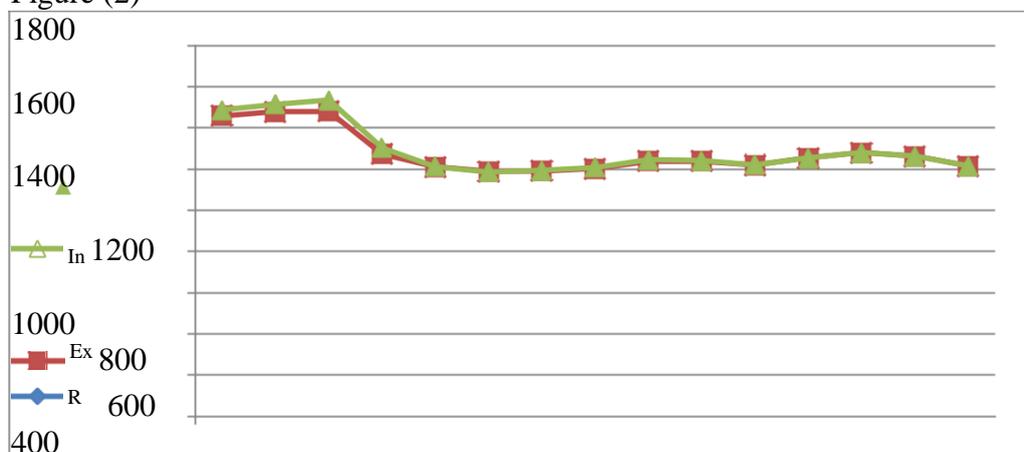
Interest rate, exchange rate, inflation in Iraq for the period( 2004-2018)

Year	R %	Ex IQ Dinar\ \$	In %
2004	6	1453	27
2005	6	1472	37
2006	6	1475	53.2
2007	6	1267	30.8
2008	7	1203	2.7
2009	7	1182	-2.8
2010	6.3	1185	2.5
2011	6	1196	5.6
2012	6	1233	6.1
2013	6	1232	1.9
2014	6	1214	2.2
2015	6	1247	1.4
2016	4.3	1275	0.5
2017	4	1258	0.2
1722	4	1209	0.4

-The Central Bank of Iraq, the Department of Statistics and Research, various annual reports

-Ministry of Planning, Central Bureau of Statistics, Annual Collection, Financial Statistics (2003-2019)

Figure (2)



200

0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Source from the researcher's work based on Table (4)

As these channels are considered one of the most important channels for the transmission of the impact of monetary policy to economic activity, especially in developed countries, but in developing countries, including Iraq, there are problems that need to be solved, including that financial markets suffer from lack of development and financial depth is low, lack of monetary awareness among the public ... Etc. of the problems and challenges that affect the degree of the impact of financial depth on the effectiveness of monetary policy.

3:1: The impact of financial depth indicators on the interest rate in Iraq

This channel is considered one of the most important channels for the transmission of the impact of monetary policy to economic activity, but in Iraq, its impact is minimal because the financial markets suffer from lack of development and low financial depth, and therefore interest rates cannot lead to the mediating variable through its effect on the money supply. It is well known that the financial and banking sector plays a major role in the money transfer channels such as the traditional interest rate channel or the newer credit channels where lending is a major component (Stefan Krause: 1996:2). In countries similar to Iraq, banks face various problems, including the regulatory backwardness of the private sector. , And from it the failure to document the guarantee assets in a way that is easily accessible when the debtor fails, and also there are administrative costs regarding the accurate estimation of the value of collateral, so that banks avoid expanding credit even if interest rates are appropriate, and at the same time the response of market interest rates to the interest rate of monetary policy is weakening down The reduction of the interest rate by the Central Bank of Iraq means that the opportunity cost of depositing with interest with the Central Bank has become less, and from this aspect the banks are preparing to accept a lower interest rate.

But it is noticeable that the lending interest rate has a weak relationship with the central bank's interest rate, as it matches it when it rises and separates from it on the decline. When the central bank's interest rate exceeded 20%, the lending interest rate exceeded it by a relatively low margin, and when it fell to 6%, the lending interest rate from banks remained 14% It is noticeable that other countries of the world do not decrease the lending interest rate below a certain limit even if the central bank interest rate reaches zero. However, the difference in Iraq of about eight percentage points is remarkable, which indicates a high margin of risk in the estimation of banks (Buraihi:2009 : 268) For the purpose of controlling the money supply, the Central Bank of Iraq raised the interest rate policy rate to (16%) in 2006 in order to withdraw the largest amount of cash from the public, but this measure led to negative effects

on the private sector as this measure led Due to the reluctance of investors to borrow due to the high interest rates, and in 2008 the Central Bank decided to reduce the interest rate to (15%) as a result of an improvement in the exchange rate of the IQ dinar as for the US dollar through the auction selling the US dollar.

The central bank also lowered the interest rate further in 2009 to (14%) based on the bank's information that the inflation rate had decreased and based on the central bank's keenness to contribute to stimulating economic growth by providing appropriate credit for private sector activities, it lowered the interest rate to ( 6%) in 2010 and then to (4%) in March of the same year (Central Bank, 2016), and the interest rate (policy rate) continued at the level of (4%) in 2018.

Through the index of the volume of loans provided to the sector relative to the gross domestic product (CPC / GDP) in Iraq, the results showed levels of financial depth remained low throughout the period (2004-2013), as their percentage ranged between 0% -4% as a maximum, note The rate of 5% is low at the level of international standards as a percentage of contribution to economic activity and has a limited impact on sustainable economic financing and continued at low levels if it did not exceed (17%) in 2018. In Iraq, there are no issues of government debt for a long time, and financial flows across borders are few Relative to the size of the national economy and the fixed exchange rate, and this must be related to the effectiveness of monetary policy and other policies. It has been evident how the work of monetary policy channels varies greatly between countries depending on a number of factors, including (financial intermediation, the level of development of capital markets, the degree of independence of the central bank, and the structural characteristics of each country separately) .It can be said that the size of the low financial depth according to the index of the volume of credit to the product has negatively affected the performance of the interest rate channel, as the measures taken by the Central Bank did not affect the volume of credit provided to the private sector and stimulate it for reasons previously mentioned in the research, in addition to the tight monetary and financial market in Iraq.

### 3:2: The impact of financial depth indicators on the exchange rate in Iraq

According to the literature that dealt with the exchange rate channel, its effect is through changes in interest rates and their effect on deposits and then on the value of the currency (the exchange rate), which in turn affects net exports and then this product in the case of the flexible exchange rate, but in the case of the fixed exchange rate, the price changes Interest is reflected in the balance of payments through the values of domestic assets and then the inflow of foreign cash into the interior, or vice versa, It is worth noting that the exchange rate of the IQ dinar is an apparent floating rate, and reality indicates that it is a fixed exchange rate administered by the central bank, due to the weak transmission channels of the influence of monetary policy in the Iraqi economy as passed above, and because of the rentier nature of the Iraqi economy represented by

reliance on export Crude oil as a major source of foreign currency and as a major and major component of the gross domestic product. The Central Bank of Iraq has relied heavily on this channel in managing the money supply as the most important tool of monetary policy in Iraq (open market operations) by targeting the exchange rate as a nominal stabilizer and followed by the general price level (inflation targeting as an indicator of monetary policy) through what is known as the (currency sale window) With the aim of sterilizing the surplus IQ dinar liquidity and feeding the financing needs of the balance of payments. (Mahwas: 2016: 21)

The Central Bank of Iraq began a policy of intervention in the exchange market since 2005 after Iraq followed the floating exchange rate system (ostensibly) by adopting a strict policy of offering the US dollar for sale in order to confront excessive inflation, which reached very high rates after 2003 as a result of the deterioration of the exchange rate of the IQ dinar as for other currencies. As a result of the open door policy that successive governments followed after the regime political change, the results of which were the erosion of the purchasing power of money of individuals and the government. The Central Bank of Iraq was able to improve the value of the IQ dinar exchange rate, as for the US dollar from (1500) IQ dinars to the US dollar in 2005 to about (1120) IQ dinars at the end of 2008 and then to (1209) IQ dinars for the US dollar in 2018, and it was for the availability of foreign exchange reserves. The Central Bank of Iraq has the greatest impact on the policy of intervention to maintain the official exchange rate of the IQ dinar and its proximity to the parallel exchange rate, despite the fact that these reserves were not the result of real economic operations as much as they are the result of increased oil export revenues due to the high oil prices in global markets that have reached More than 100\$ a barrel and an increase in oil exports. The aforementioned auction aims to achieve the following objectives: (Saleh: 2012: 183)

Being an intervention tool to stabilize the value of the IQ dinar by defending a balanced exchange rate, which is reflected positively on the general level of prices, especially the final imported goods and production inputs, and strengthens the export base.

A means of applying the indirect tools of monetary policies in managing the economy's liquidity and controlling its levels. It is considered a case of applying open market operations that are required on an ongoing basis in achieving balance and strengthening financial stability opportunities.

A major source in financing the private sector's trade in goods and services needed by the Iraqi market and a major financier for it.

The window works to achieve its objective through what is known as the exchange gap, which is the difference between the window price, which represents the price of selling the US dollar to banks and authorized transfer

companies, and the market price or the parallel price, which is the price at which banks and transfer companies sell the US dollar to traders and other dealers, the constructed price. On the laws of supply and demand, and through the window signal, the central tries to influence the market price, and the greater the gap, the negative impact of that on the value of the IQ dinar (Dagher& Bilal: 2017: 281)

According to the foregoing, sterilization operations are carried out through the buying and selling deals between the central bank and commercial banks, so the extent of the impact of the window's effectiveness depends mainly on the banking sector in addition to the transfer companies. Therefore, the banks' ability to provide the necessary liquidity for the process of buying the US dollar and then selling it in the market is affected in one way or another by the size of the deposits with these banks to provide the funds necessary for use in open market operations (buying and selling US dollars). The higher the banking depth index, the volume of deposits to GDP, is high, this indicates the high volume of deposits with banks and thus their ability to provide resources. Money and use in the currency window.

### 3:3:The impact of financial depth indicators on inflation in Iraq

When dealing with the relationship between financial depth and inflation, the use of financial depth as an alternative to financial development may affect economic activity and per capita gross domestic product, the degree of openness, and the volume of total consumption as a percentage of GDP as an indicator of financial repression and the impact of these factors on financial development clearly, A higher per capita gross domestic product and a greater degree of openness contribute to an increase in the financial depth of the market, while an increase in financial repression and a rise in inflation would be counterproductive, and an inflation rate of 2% is the lower rate of inflation, which contributes positively to financial development (World Bank 2015 ), And thus be a target of the monetary authority. Despite the decrease in the inflation rate in Iraq to low rates, its impact on economic activity was weak in terms of raising investment rates and lowering interest rates, and the reason is due to the inappropriate conditions for investment in the economy, and the high concerns and uncertainty and their reflection on the interest rates of loans despite The unconventional policy pursued by the Central Bank through the initiatives it launched to stimulate investment in various economic sectors, such as the

(5) trillion IQ dinars initiative presented by the Central Bank to banks at low interest rates for the purpose of offering them as loans to individuals that did not bear the expected fruits.

## CONCLUSIONS

1-The financial depth in Iraq was not at the required level, which is compatible with the trends towards a market economy, as the results of the analysis of the indicators used in the research showed that the depth of the banking sector is still in its infancy.

2-The value of the M2 / GDP index tended to rise after 2003 and the monetary authority curbed inflation and maintained the stability of the exchange rate, which reflected the decrease in the financial depth according to this indicator over time.

3-The values of the index of the volume of credit granted to the private sector to the gross domestic product showed a decrease in the financial depth due to the structural imbalance and the dominance of the public sector, as well as determining the size of credit and a decrease in demand by investors due to the turmoil of security conditions and political instability, and also the tendency of banks to invest in bills Treasury and reluctance to extend credit to the private sector due to high risks

4-There is a slight improvement in the index of the size of deposits to the gross domestic product and the trend of the financial depth to rise according to this indicator due to the changes that took place in the financial sector and the localization of salaries, but it is still low compared to other countries.

5-The monetary policy in Iraq was not effective and effective due to the dominance of the fiscal policy and its limitation to financing the budget deficit due to the cheap monetary policy and the lack of control over the money supply, the lack of real independence of the Central Bank and the weakness of other monetary policy transmission channels.

6-The decrease in financial depth and the increase in the money supply, in which the currency occupies the largest part of it, weakened the ability of the monetary authority to control the monetary mass through the legal reserve tool

7-The Central Bank's reliance on the exchange rate channel (as a nominal stabilizer) as the most important monetary policy tool in Iraq (open market operations) through the currency window and targeting inflation as an indicator of monetary policy, contributed to preserving the value of the IQ dinar and reducing the level of inflation to the target level

8-The decrease in the financial depth represented by the volume of credit provided to the private sector to the GDP was negatively reflected on the credit channel, and led to a decrease in the effectiveness of monetary policy through this important channel, as despite the volume of initiatives provided by the Central Bank and the liberalization of interest rates, monetary policy did not affect On economic activity due to the high liquidity of banks and the reluctance of investors to borrow as a result of high interest rates on loans, high ceiling of required collateral, and high risks.

### ***Recommendations***

1- The necessity of working to raise the rate or value of the financial depth in the banking sector because it is the main sector in collecting savings and responsible for providing money to investors to advance the Iraqi

economy and expand the activity of the Iraq Stock Exchange as an important source of funds and investment in the shadow of the market economy

2- The monetary authority should develop a good strategy for targeted financial depth and work to achieve it in a way that leads to improved performance of monetary policy tools and channels of transmission of their effects to the level of economic activity in Iraq.

3- The necessity of restructuring the banking sector in line with the shift towards a market economy by striking a balance between the government banking sector and the private banking sector in the credit market and providing greater guarantees by the monetary authority to encourage the public to deal with the private banking sector

4- Working to reduce the difference between the credit and debit interest rates and exploiting the decline in the level of inflation and stabilizing the value of the IQ dinar to motivate banks to provide credit, encourage deposits, and then increase the financial depth.

5- Working to provide sources of foreign currency other than oil by supporting the agricultural, industrial and service sectors, with the need to provide other sources of foreign currency by supporting exports, reducing imports, fighting corruption and not relying on the currency sale window as the only tool for monetary policy.

6- The necessity of helping private banks to expand the volume of their activities, increase the number of their branches, spread services and keep pace with modern innovations in this field to attract deposits, reduce currency in circulation, and spread banking culture and awareness.

**Source:**

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