

The Role of Monetary Policy in Activating the Bank Credit Channel: Iraq Case Study

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Abstract

The main objective of the research is to find out how monetary policy has influenced the support and promotion of bank credit to promote the economy by creating jobs and addressing unemployment, where the central bank after 2003 played a leading and active role in supporting commercial banks and promoting bank credit 'One of the central bank's important objectives is to stabilize the overall level of prices set out in law No 56 For the year (2004) Article (3) The Central Bank of Iraq has used the policy of stability in the exchange rate of the dinar as a key tool in stabilizing prices in Iraq through the window of selling foreign currency.

Key-words: Monetary Policy, Bank Credit, Macroeconomic Policy.

1. Introduction

Monetary policy is one of the most important parts of macroeconomic policy where it plays an important and active role in regulating the supply of money and controlling cash flow and credit and through this important role the monetary authorities represented by the Central Bank as the highest monetary authority achieve vital goals set according to the priorities determined by the economic problem experienced by the economy where the central bank can control commercial banks by influencing the channel of bank credit and through quantitative monetary policy instruments Open market operations, discount rate, legal reserve ratio (The quality of credit provided, such as industrial, residential or real estate, where credit in general and specialized development credit in particular

acquire undeniable importance in financing the process of economic development, and since achieving and establishing economic development is a central and strategic goal for most developing countries, financing is of necessary and exceptional importance in this regard because of its contribution to providing an important aspect of financial resources that are necessary to mobilize and direct resources towards the required and desirable investments in the sectors. In fact, the bank credit channel is one of the most important banking channels through which commercial banks grant loans to the public, economic units, companies and various state institutions.

2. Research Importance

The importance of the research is to find out the impact of monetary policy represented by its instruments (quantity and quality) in stimulating the bank credit channel in order to know the role of monetary policy in the economy and then determine its role in supporting or destabilizing the work of commercial banks.

3. Problem Statement

Despite the significant role monetary policy plays in supporting the economy, the relationship between monetary policy and the bank credit channel has not been reliably clear, and on this basis our research has shown that relationship.

4. Objective

The search aims to:

1. Reaching the impact of monetary policy on the bank credit channel in Iraq for a period of time. (2003 – 2019).
2. Determining the trends of the bank credit channel in Iraq for the period (2003-2019).

5. Hypothesis

The research is based on the hypothesis that monetary policy plays an influential role in activating the bank credit channel in Iraq.

6. Methodology

In order to reach a problem and goal of the study used measurement and economic analysis to verify the effects of monetary policy on the bank credit channel and reduce the profitability of commercial banks.

7. Limitations

1. Temporal boundaries: The temporal dimension of research is determined for the duration. (2003 – 2019).
2. Spatial boundaries: The research examines a sample of commercial banks.

8. Structure

The study included three investigations, the first research devoted to the conceptual framework of monetary policy and bank credit. The second topic dealt with the analysis of the reality of monetary policy and its role in activating the bank credit channel in post-Iraq (2003). While the third chapter dealt with the measurement and analysis of the relationship between monetary policy variables and the bank credit channel in Iraq for the duration (1996 – 2019).

9. Literature Review

A master's thesis for the student (Mustafa Mohammed Sabri), (2021) entitled "The role of monetary policy in determining bank credit trends in Iraq" this study is the closest to the current study where this study aimed to study the development of monetary policy and identify trends in bank credit in Iraq during the period of research and explore the nature of the relationship between monetary policy and bank credit in Iraq during the duration of the study.

The study found the emergence of the role of the Central Bank of Iraq by launching two initiatives:

- a. Launch of the initiative (1) trillion dinars dedicated to financing small and large projects.
- b. Launch of the initiative (5) trillion dinars dedicated to financing large projects and building and developing infrastructure.

These initiatives aim to reflect the central bank's active role in granting loans to various economic sectors by directing part of its financial resources to commercial and specialized banks to grant them loans at low interest rates in order to create jobs, address unemployment, increase bank credit and provide the market with goods and services instead of importing them to raise the level of economic development in the long term.

Conceptual Framework for Monetary Policy and Bank Credit Channel

First / The Concept of Monetary Policy

Most economic literature in all its directions and doctrines agreed that monetary policy in general is: -managing the expansion and contraction in the size of the money supply for the purpose of achieving certain objectives.

Referring to the above definition, all monetary and banking measures and regulations of any kind are manifestations of monetary policy as long as they are constantly affected by the amount of cash offered, i.e. cash available in the national economy altogether, in a more precise sense, monetary policy refers to a set set of objectives of monetary management and is being achieved through the means, mechanisms and measures adopted by the monetary authorities (Samarrai 2011, 9).

1- Monetary Policy Objectives

Monetary policy seeks to achieve a set of objectives to achieve effectiveness in achieving results that must be taken into account accurately in determining strategic objectives and which have a set of characteristics which are as follows:

(Clarity, Accuracy, Measurability and Evaluation, Flexibility, or Realism of Investigation).

Monetary policy makers should also take into account the balance and appropriateness between economic and social objectives in order to reduce the conflict between these objectives so that the policy drawn up does not produce undesirable results (**worship, 2011: 3**).

Monetary policy objectives are divided into three objectives (operational, intermediate, final) where the operational objectives are intended: - objectives controlled or controlled by the central bank to influence the intermediate objectives by controlling short-term interest rates, exchange rate and monetary reserves of banks, these objectives represent the beginning of the monetary policy strategy and these objectives are the following (**Hussein, 2010: 188**).

Short- term interest rates-1

Reserves at banks -2

Exchange rate -As for the intermediate objectives: The intermediate goal is through which a final goal can be achieved and is represented by long-term interest rates and the central bank's control over them is weaker than in the operational objectives and these objectives are as follows:

Long-term interest rates-1

Cash totals -2

The final objectives are to achieve the following (**Hussein, previous source: 189**):

- a. Achieving a high level of operation
- b. Raising economic growth rates
- c. Stabilization at the general level of prices
- d. Stabilizing interest rates
- e. Stabilizing financial markets
- f. Stabilizing exchange rates

2- Quantitative Monetary Policy Instruments

These instruments are called indirect tools as they seek to influence the size and quantity of payment methods by affecting the level of liquidity available to commercial banks as well as interest rates (**Youssef, 2014: 93**).

A- Open Market Operations

Open market operations aim to affect the cash balance and are defined as the intervention of the Central Bank to sell and buy securities in the monetary market in general, and government bonds in particular, and this tool is one of the most important instruments of monetary policy in most countries, especially developed countries (**League, 2013: 188**).

The central bank's goal of buying and selling is to influence the level of economic activity by affecting the reserves of commercial banks and affecting their ability to grant bank credit, which in a cycle affects the offer of cash, when the central bank decides to increase the offer of cash buy

securities from commercial banks i.e. inject liquidity to these banks, which leads to increased reserves and increased their ability to grant credit to customers, and vice versa in the case of the central bank's decision to reduce the offer of cash (**Haddad and Hathloul, 2010: 189**).

B-Discount Price

The rebate rate aims to affect the size of bank credit and is defined as the cost of borrowing commercial banks from the central bank, i.e. the interest rate charged by the central bank from commercial banks for the rebate of its securities or for the exchange rate provided by the central bank of loans and loans to commercial banks, and there is a close relationship between the discount rate and the interest rate when the monetary authorities resort to a deflationary monetary policy, they raise the discount rate and this will increase the cost of Commercial banks borrow from the central bank, which leads them to reduce borrowing from the central bank, which leads to a decrease in the size of their cash reserves, which leads to a rise in the interest rate on loans, which leads to a weak willingness of individuals to borrow, i.e. reduced bank credit volume, reduced cash supply and vice versa in the case of an expansionary monetary policy.

The Statutory Reserve Ratio

The legal reserve ratio aims to influence the size of the monetary multiplier and is defined as the percentage held by each commercial bank with the central bank, i.e. the percentage imposed by the central bank on each deposit entering the commercial bank and the offer of cash changes by changing this percentage through the change of the monetary multiplier when this percentage increases the value of the monetary multiplier decreases and the volume of deposits decreases and then the offer of cash decreases i.e. there is an inverse relationship between them (**Chandi, 2010: 164**), Where the policy of legal reserve is a relatively recent policy, the central bank can resort to influence the ability of commercial banks to grant bank credit and all modern legislation governing monetary and credit policy stipulates that commercial banks should keep credit balances with the central bank and these balances represent a certain percentage of the deposits they have, and this ratio represents the minimum of what should be kept with the central bank and changes increasing or decreasing according to the objectives of the policy Cash and credit (**Janabi, 2014: 271**).

Qualitative Monetary Policy Instruments

It is a set of measures used by monetary authorities to encourage certain types of investments and to guide the flow of credit optimally, and is used by the central bank in the event of a weak ability of indirect instruments to achieve the required monetary policy objectives and divided into:-

Interest Rate

The liberalization of interest rates is one of the most important pillars of the financial reform strategy, where the start of the complete and immediate liberalization of all interest rates imposed on (deposits, loans and securities) and any such action is a very important step to the birth of a good and efficient financial sector for borrowers and make their decisions in the right direction instead of restricting them to orders issued by the central bank, and this will encourage them and motivate them to liberalize business and thus increase their production and increase profits and then increase the productivity of the economy on a large scale and this is what drives them For the emergence of free competition for available financing and the direct liberalization of banks to get customers to borrow and deposit, the end result will be a more efficient allocation of capital efficiency in all aspects of the Iraqi economy and that lowering the interest rate will increase the borrowing of individuals from commercial banks and thus increase credit, leading to increased cash supply and the opposite occurs in the event of a rate hike **(The pasha, 1989: 197)**.

Bank Credit Ceilings

Where the monetary authority sets a maximum of the total credit granted to commercial banks according to specific ratios, and in the event that commercial banks exceed the permissible ratios, the central bank punishes them as it imposes on the commercial bank the violator to form special deposits in its books and for no charge can reach the size of the amount exceeded where in the absence of this penalty the commercial bank will be subject to significant losses and thus force the commercial bank to refinance from the central bank At an interest rate parallel to the prevailing price in the monetary market **(Abdul Azim, 2007: 76-77)**. The money held by commercial banks is the money of individual depositors, so we find that the management of commercial banks does not allow the disposal of this money in accordance with the diligence of any employee to make the decision to grant credit or rejection, where the management of the banks sets a written framework that the

administration is obliged to abide by when the customer applies for credit, which prevents any confusion or deviation in the credit decision. (Zubeidi, 2002: 205-206).

Control Over External Transfer

Within the monetary policy directives provided by the laws of central banks, the role of control over external transfer is activated, where it is used as a restrictive tool to influence the amount of cash supply from foreign currency under which the economic development plans are specified and in the event of the elimination of the role of this control on the movement of the currency to and from countries will increase the pressure on exchange rates and make it more balanced and close to the market price (Hassan, 2011: 10).

Second/ Conceptual Framework for Commercial Banking Credit

Credit is comprehensively defined as the trust that the bank gives to a particular person, which is to provide that person with an amount of money in exchange for specific guarantees that guarantee the bank a future refund. (Al-Shamaa, 1974-1975: 462).

1-Objectives of Bank Credit

There are several bank credit targets that can be divided as follows:-

- A- Consumer Credit:** - Is a credit granted to individuals and consumer institutions for the purpose of covering their expenses and aims to ensure that they have sufficient access to goods and services and the possibility of paying for the loan from their current income, where the price of the loan is allocated to the purchase of durable goods that help to stimulate and expand demand, and these loans are mostly allocated to consumer associations that seek to ease the burden on low-income earners. (Selected, 1993: 119).
- B- Investment credit:** - A credit granted with the aim of achieving purely investment purposes such as support loans to support production capacities such as the purchase of raw materials, machinery and equipment used in production processes, production projects and financing the purchase of fixed assets.
- C- Commercial credit:** - A credit granted with the aim of financing business activities such as import and export in addition to the credit granted to finance agricultural projects, where it is due to pay off these loans when exporting agricultural crops and receiving their revenues in

accordance with the criteria agreed between the borrower and the bank donor loan (**Janabi and Arslan, 2009: 132-133**).

2-Types of Commercial Credit

A-Cash Credit

Commercial banks provide various services to the commercial and industrial economic sectors so that these sectors can carry out their productive activities, whether they are represented by financing the purchase of fixed and traded assets, facilitating imports or financing short-term expansion needs, and therefore all banking services are involved under the concept of bank credit. (**Zoghbi, 2000: 80**).

B-Cash Pledge

The beneficiary of these credit facilities is from another non-bank customer and credit grant at his request, who has pledged to pay, i.e., not to provide the funds directly to the beneficiary, but to a written undertaking under which the bank guarantees its customers the direction of others with the obligation that is achieved or not achieved in accordance with the conditions of the undertaking (**Thursday, 2015: 62**).

10. Results and Discussion

Second Research / Analysis of the Reality of Monetary Policy and its Role in Activating the Bank Credit Channel in Iraq for the Period (2003-2019)

First/ Analysis of the reality of monetary policy in Iraq

The philosophy of monetary policy was launched after the year (2003) and within the framework of the transition towards a market economy and through Law No. 56 (2004) granting the Central Bank of Iraq full independence in order to achieve its objectives in the next phase to provide opportunities for stability and success for the Iraqi economy, namely to control inflation and maintain stability in exchange rates and seek to raise the rate of economic growth, first and foremost to achieve stability in the banking system, and that these goals if achieved will lead to economic stability and then Provide a suitable environment for desired investment (**Valid, 2012: 139**).

Table 1 - Some Monetary Indicators in Iraq for the Duration of (2019 - 2003) (Million Dinar)

Inflation rate%	Exchange rate	Interest rate%	The wide money supply	Year
4	3	2	1	
33.6	1896	6.00	6953420	2003
27.0	1453	6.00	12254000	2004
37.0	1469	7.00	14683617	2005
53.2	1467	16.00	21080249	2006
30.8	1255	20.00	26956076	2007
2.7	1193	16.75	34919675	2008
(2.8)	1170	8.83	45437918	2009
2.4	1170	6.25	60386086	2010
5.6	1170	6.00	72177951	2011
6.1	1166	6.00	75466360	2012
1.9	1166	6.00	87679504	2013
2.2	1188	6.00	90727801	2014
1.4	1190	6.00	82595493	2015
0.5	1190	4.33	90466370	2016
0.2	1190	4.00	92857047	2017
0.4	1190	4.00	95390725	2018
(0.2)	1190	4.00	103440475	2019

Source: Column (1) Ministry of Planning, Central Bureau of Statistics.

Column (2,3,4) Central Bank of Iraq, Directorate General of Statistics and Research, Annual Statistical Bulletin, Miscellaneous Bulletins.

The numbers inside the brackets reflect negative values.

A- Money Supply

Table 1 shows the central bank's weak ability to control the supply of cash despite the application of the necessary instruments, as the period (2003-2014) saw the growth rate of the cash supply increase and in the year (2003) (6953420) 1 million dinars and continued to increase until the year (2014) and reached (90727801) million dinars due to the link between the growth of the cash supply and government spending in the years leading up to the crisis years (2010-2014) there was an increase in government spending as a result of higher oil prices and an increase Oil revenues, but in the year (2015) the supply of cash decreased to record (82595493) million dinars due to the decline in oil prices where it saw a significant decline, which negatively affected government spending, forcing the Iraqi government to reduce investment spending, and also reduced expenditures Current but less than reducing investment expenditures and re-increasing for the period (2016-2019) where in the year

(2019) (103440475) million dinars, the highest rate recorded during the previous period due to High oil prices.

B- Interest Rate

Through table (1) we note the high interest rate for the period (2003-2007) where in 2007 (20%) to reduce the growth rate by raising the interest rate on loans and reducing bank credit and thus continuing to decline for years (2008-2) 010) in 2010 (6.25%) in order to achieve monetary stability and raise the growth rate by encouraging credit activity to finance investment projects and in the period (2011-2015) the interest rate stabilized at the rate (6%) and in the year (2016) decreased In the period (2017-2019), it also fell to 4 percent, and the reason, as we mentioned earlier, is to encourage credit activity, motivate people to borrow and increase economic growth.

C- Exchange Rate

Through table (1) we note that the period (2003-2013) recorded a clear decline in the exchange rate of the Iraqi dinar against the US dollar, reaching in 2003 (1896) and continuing to decline to 2013 and reaching (116) 6) Due to the decline in the central bank's purchases of foreign currency (dollar) from the Ministry of Finance and then the exchange rate increased in the year (2014) to (1188) due to the increase in oil prices as well as increased sales of foreign currency by the Ministry of Finance to the Central Bank and in the period (2015-2019) The exchange rate stabilized at (1190), at which time it improved due to the improvement in oil prices.

D- Inflation Rate

Through table (1) in the period (2003-2007), the inflation rate reached its highest level in 2007 (30.8%) due to the imbalance in the budget structure, which leads to an increase in the supply of cash and the rate of inflation has declined for the period (2008-2010) and in The two years (2011 and 2012) increased slightly to 5.6% and 6.1%, respectively, as the period (2014-2019) saw a significant decline in inflation until inflation reached negative (0.2%), and monetary policy achieved a decline In inflation rates through the central bank's currency sale window on a daily basis as part of the open market operations tool.

Second/Analysis of Commercial Bank Credit in Iraq

A- The Evolution of Bank Credit

Bank credit is an important and prominent element in the Iraqi economy, as the expansion of credit grants increases the volume of production capacity, on the imposition of a streamlined presence in the available resources, as the increase in the provision of loans to individuals and at appropriate interest rates will increase production by investing borrowed funds in useful production projects with high returns, as loans are considered one of the most important means for commercial banks to invest their financial resources and not keep them rigid, and the revenues of these loans are considered The bulk of the credit process is the increased growth of economic activity (Al-Zubaidi and others, 2014: 9).

Table 2 - The Reality of Bank Credit Granted by Government and Private Banks in Iraq for the Period (2003-2019) (Million Dinar)

Total cash credit	Relative importance % 3/5	Credit granted by private banks	Relative importance % 1/5	Credit granted by government banks	Year
5	4	3	2	1	
608438	63	383726	37	224712	2003
824673	75	620267	24	204406	2004
1717450	55	950287	44	767163	2005
2664898	70	1881014	29	783884	2006
3459020	69	2387433	30	1071587	2007
4587454	86	3978301	13	609153	2008
5690062	81	4646167	18	1043895	2009
11721535	24	2884330	75	8837205	2010
20344076	18	3776355	81	16567721	2011
28438688	17	5098281	82	23340407	2012
29952012	22	6565091	78	23386921	2013
34123067	21	7245187	79	26877880	2014
36752686	20	7675083	80	29077603	2015
37180123	19	7330305	81	29849818	2016
37952829	18	7118943	82	30833886	2017
38486947	19	7338695	81	31148252	2018
42052511	18	7800353	82	34252158	2019

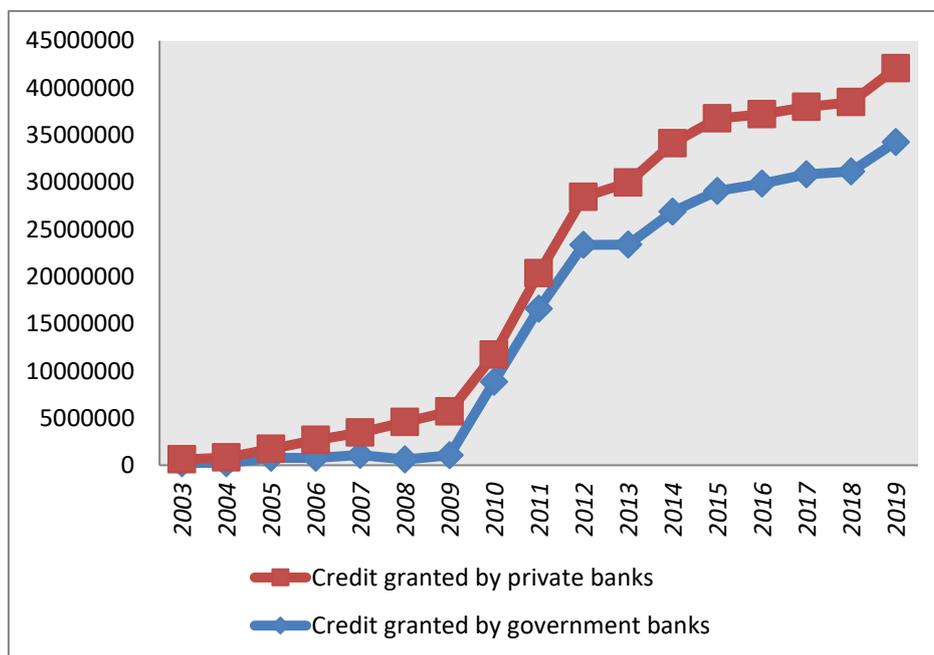
Source: Central Bank of Iraq, Directorate General of Statistics and Research, Annual Statistical Bulletin, Miscellaneous Bulletins.

Column (2, 4) from the numbers of the researcher.

B- Bank Credit Concentrations

Government banks constantly control the largest proportion of credit provided by the banking sector because of the great confidence enjoyed by these banks by individuals, as we note through

table (2) and given columns (1,3) compared to the credit granted by government banks and the credit granted by civil banks where we find that the period (2003-2009) indicates the acquisition of cash credit by civil banks as it reached in the year (4646167) million dinars Relatively important (81%) for non-governmental banks due to the financial liberalization that the Central Bank worked after a year (2003) and the freedom of civil banks to set interest rates while the cash credit granted by government banks for the same year (1043895) amounted to one million dinars and relative importance amounted to (18%), while the period (2010-2019) government banks accounted for the largest percentage of cash credit grants, reaching 1 million dinars (82%) in 2019 (34252158) and relative importance (82%) while the cash credit granted By civil banks (7800353) million dinars and relative importance (18%) for the same year, the control of banks is right... It is a natural result of its enjoyment of a network of branches spread throughout Iraq and easy access to its services in addition to its development role in increasing development and achieving an acceptable level of economic growth through increased credit granted by it in comparison with private sector banks, as well as bank awareness of government banks and enhanced public confidence in them through the means of audio and video communication, in addition to services provided by government banks such as advance grants to retirees.



Credit granted by private and government banks for duration (2003-2019)

Source: prepared by the researcher based on table data (2)

Third Research / Measuring and Analyzing the Relationship between Monetary Policy Variables and The Bank Credit Channel in Iraq for the Period (2003-2019)

First/ Model Building

For the purpose of measuring and analyzing the semantic relationship between monetary policy variables and the bank credit index in Iraq, the total credit index is the dependent variable, but monetary policy variables are independent variables, they are represented by (inflation rate, exchange rate, Money supply), and this can be explained as follows:-

$$\text{Total credit} = f(\text{Inflation rate, Exchange rate, Money supply})$$

Table 3 - Data Used in Standard Analysis

Total credit	Money supply	Exchange rate	inflation rate %	Year
4	3	2	1	
4222	1098083.6	1170	(15.4)	1996
10827	1248714.6	1471	23.0	1997
18859	165238.4	1620	14.7	1998
67008	1865366.3	1972	12.5	1999
170004	2223519	1930	4.9	2000
243821	2849598.1	1929	16.3	2001
312200	3672996.8	1957	19.3	2002
608438	6953420	1896	33.6	2003
824673	12254000	1453	27.0	2004
1717450	14683617	1469	37.0	2005
2664898	21080249	1467	53.2	2006
3459020	26956076	1255	30.8	2007
4587454	34919675	1193	2.7	2008
51761907	45437918	1170	(2.8)	2009
51512441	60386086	1170	2.4	2010
59376537	72177951	1170	5.6	2011
72612878	75466360	1166	6.1	2012
83619037	87679504	1166	1.9	2013
85031460	90727801	1188	2.2	2014
77285839	82595493	1190	1.4	2015
70461730	90466370	1190	0.5	2016
65604207	92857047	1190	0.2	2017
63823580	95390725	1190	0.4	2018
67349333	103440475	1190	(0.2)	2019

Source: Column (3) Ministry of Planning, Central Bureau of Statistics.

Column (1,2,4) Central Bank of Iraq, Directorate General of Statistics and Research, Annual Statistical Bulletin, Miscellaneous Bulletins.

The period (1996-2019) was adopted due to the inaccuracy of the results of the Avios duration program (2003-2019) due to the small duration.

Second/ Unit Root Test

The Phillips - Peron Unit Root Test

Phelps-Byron is one of the preliminary tests before the standard model estimate begins, where this test is based on correcting the self-association in the unit root equation condoms and takes into account the existence of self-association and reflects the dynamic nature of the time series and considers this test better and more accurate than the Dickie-Fuller test and through this test is determined by the stability of the variables prescribed for the study in terms of sleep and on the basis of which is considered the appropriate model of assessment and measurement, and we note through table (4) that the dependent variable Independent variables are inhabited by the first difference(1) | (total credit, inflation rate, exchange rate, money supply) This indicates that the model achieved results of stability less than (5%) and that its results are moral, and that the variables did not achieve the state of sleep at the level but achieved the state of stillness in the first difference (1)|, and through these results we must choose the model (ARDL) and the reason for this is that this model fits the variables that achieve their stillness at the level and the first difference excludes the static variables in the second teams..

Table 4- Phelps-Byron Unit Root Test Results

Variable	LEVEL			FIRST DIF.		
	Fixed limit only	Fixed limit and general direction	Without a fixed limit or a general trend	Fixed limit only	Fixed limit and general direction	Without a fixed limit or a general trend
	Prob*	Prob*	Prob*	Prob*	Prob*	Prob*
Total credit	0.8336	0.6768	0.7352	0.0043*	0.0223*	0.0004*
Inflation rate	0.4872	0.5339	0.1294	0.0086*	0.0434*	0.0005*
Exchange rate	0.5514	0.1417	0.5794	0.0067*	0.0411*	0.0003*
Money supply	0.9833	0.4993	0.9936	0.0360*	0.0984	0.0463*

Source: prepared by the researcher based on table data (3) and based on the Eviews10 program. *Moral at 5%.

Third/ The Relationship between Monetary Policy Variables and the Total Bank Credit Index in Iraq Using the ARDL Model

1- Cointegration Test

The joint integration test is one of the initial steps of the ARDL model with the aim of ensuring that there is a common integration of the model variables prepared for the study and this is verified by testing (F) the limits of joint integration and the results shown in table (5).

Table 5 - Test (F) Limits for Joint Integration

Calculated (F) value	F-statistic = 4.590848	
Critical values	minimum0	maximum1
10%	2.37	3.2
5%	2.79	3.67
2.5%	3.15	4.08
1%	3.65	4.66

Source/ Prepared by the researcher based on the Eviews10 program.

We note from table 5 that the value of F-statistic calculated was (4.59), which is greater than the upper limit (3.67) and the minimum (2.79) at a moral level (5%), which leads to the rejection of the hypothesis of nothingness that there is no A common integration between the variables of the model prepared for the study and the acceptance of the alternative hypothesis, which provides for a common integration of variables, and that the value (coint) is negative and moral at (%-0.60) and indicates an ideal balance relationship and that (60%) of short-term errors are automatically corrected even It reaches a long-term balance of the model variables prepared for the study, i.e. in the event of an imbalance in the previous period can correct the imbalance for the current period and quickly (60%) and this correction is going well in the model in the event of any imbalance.

2- Analysis of the Relationship between Economic Variables based on the (ARDL) Model

After verifying the existence of a common integration between the variables of the study and thus confirming the quality of the model statistically then the existence of the short- and long-term relationship between the total credit and the independent variable (inflation rate, exchange rate, Money supply) and through the results of the program (Eviews10) it is clear to us that there is no short-term relationship between model variables and the long-term relationship between variables and

as shown in table (6), shows the long-term assessment of parameters and the impact of independent variables on the variable Child as shown in table (6).

Table 6 - Measuring Long-term Relationships

Variables	Coefficient	Prob
Exchange rate	-3.409437	0.1723
Inflation rate	-8.983462	0.0279
Money supply	0.440814	0.0703

Source/ Prepared by the researcher based on the program Eviews10.

Through table 6, it is clear that the independent variable (Exchange rate) is not associated with a long-term relationship with the total credit because the value (0.17=Prob) is not moral.

Inflation rate shows a long-term inverse relationship, i.e. if (inflation rate) increases by one unit, it will lead to a reduction (Total credit) of (-8.98) and a moral level (0.02=Prob), i.e. if inflation rises, the monetary authorities will resort to raising interest rates, raising the discount rate and raising the legal reserve rate in order to withdraw the monetary mass from within the economy, leading to a decline in bank credit. For Money Supply, it shows that there is no long-term relationship between Money Supply and Total Credit and that 0.07=Prob is in other words unethical and has no long-term impact, confirming the economic or monetary theory that money is neutral in the long run.

11. Conclusions

- 1- Monetary policy manages the expansion and contraction in the volume of money supply in order to maintain price stability in order to achieve integration and harmony with other policies and monetary policy works to achieve the objectives (operational, intermediate, final) using its quantitative and qualitative instruments used by the Central Bank to control commercial banks and control their monetary liquidity.
- 2- Commercial banks have a leading and important role in providing bank credit and granting it to various economic sectors (industrial, agricultural, residential) to raise the level of investment movement and thus increase the level of economic growth, i.e. achieving consumer, investment and commercial objectives. It is necessary to point out the significant risks to commercial banks as a result of lending, non-payment of loans due to customers and

exposure to partial or total losses as a result of excessive loan grants and insufficient guarantees provided by customers to pay off loans. Amounts on time.

- 3- Monetary policy has an important role to play in controlling the supply of cash and reducing price fluctuations, and that role is reflected in its responsibility to control the volume of bank credit through the central bank's measures to stabilize the level of prices and seek to develop the productive capacity of the economy in achieving a high level of operation of productive resources, reducing unemployment and increasing investment and production to drive economic development.
- 4- Bank credit contributes effectively by providing the necessary financing for investment and deposits are one of the most important sources of financing for commercial banks and the resulting increased ability to grant credit of all kinds, and gaining public confidence in dealing with the banking sector ensures an increase in the volume of deposits and the process of collecting loans must be strengthened by providing the necessary guarantees.
- 5- The ARDL model was used on the standard side because the time series were shown to be at the level and the first difference according to the results of the Dickie-Fuller extended test and Phillips-Byron, and the quality of the model was then tested in terms of self-association problems, unstable contrast homogeneity, natural distribution problem and results showed that there were no such problems in the estimated model, as well as a common integration of the model variables estimated according to the F-bound test.

12. Recommendations

- 1- Monetary policy makers should develop specific administrative and regulatory measures to control all variables governing the management of expansion and deflation in the size of the money supply to stabilize prices using quantitative and qualitative monetary policy instruments and influencing economic activity through them to achieve total balance and eliminate balance-of-payments imbalances from a long-term strategic policy perspective.
- 2- To assign the effective role of commercial banks to promote economic realities through initiatives launched by the Central Bank to be stable and continuity and provide support and support from the competent bodies in the country.
- 3- The Central Bank should have an effective role in managing monetary and credit policy by using detailed measures to stabilize the price level, reduce inflationary effects and seek to raise production capacity to achieve a high level of resource operation and exploitation.

- 4- Addressing the effects and challenges faced by the Iraqi economy during the past period after (2003) and the resulting high level of operational spending, especially the resulting increase in salaries and wages as well as the effects of the Corona pandemic.

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