



**Central Bank of Iraq  
Department of Statistics  
and Research  
Monetary and Financial  
Stability Section**



# **Early Warning Report for Iraq`s Banking Sector**

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**Early Warning Section**

**Early Warning Report for Iraq`s Banking Sector  
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**Early warning:** It is an index that gives a clear picture of the reality and magnitude of the potential risks that may occur to the financial sector and economy in general. Thus, it enables decision-makers to take necessary measures and formulate policies in a timely manner to avoid financial crisis.

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## Introduction:

The Early Warning Report is one of the most important direct means of monitoring the financial sector, through the indices it contains that can predict the occurrence of imminent and potential crises in general, even if they are not realized, as well as measuring potential deviations that may affect the banking sector and the variables affecting it.

The report includes three chapters covering most of the indices that affect the work of monetary authority, the first chapter included an analysis of currency value stability indices through several indices, most notably the ratio of foreign reserves to the broad money supply (M2), which increased to reach (82.8%) in Q3 of 2023 compared to the same quarter of the previous year, in which it reached (79.3%), which is greater than the standard ratio (20%), due to the significant increase in the volume of foreign reserves at the Central Bank.

As for the second chapter, it includes the analysis of banks' performance indices, the ratio of total cash credit to total deposits reached (53.2%) in the Q3 of 2023, which did not exceed the standard ratio set by the Central Bank (75%). The ratio of money multiplier in Q3 of 2023 witnessed a decrease to reach (1.12%) from (1.26%) for the same quarter of 2022, as for the indices of return on assets and return on property rights it is found that there is an increase in the rate of return on Assets and in return on property rights, as the return on assets increased in Q3 of 2023 to (1.6%) from (1.5%) for the same quarter of 2022, while the return on property rights ratio increased from (11.1%) in Q3 of 2022 to (12.3%) for the same quarter of 2023.

In the third chapter, the analysis of some macroeconomic indices that have an impact on the Iraqi banking system was discussed, and upon returning to the monthly inflation rate, it decreased from (5%) in the Q3 of 2022 to (3.6%) during the same quarter of 2023, while with regard to treasury bills with operating banks to the total public debt, it decreased from (8.5%) during Q3 of 2022 to (7.6%) during the same quarter of 2023, meaning a decrease in the intensity of the public sector's competition with the private sector in obtaining credit, and GDP at current prices in Iraq achieved a decrease during Q3 of 2023 amounting to (14.6%) as the amount of GDP at current prices reached (84) trillion IQD during the same period.



### Chapter One: Currency Stability Indices

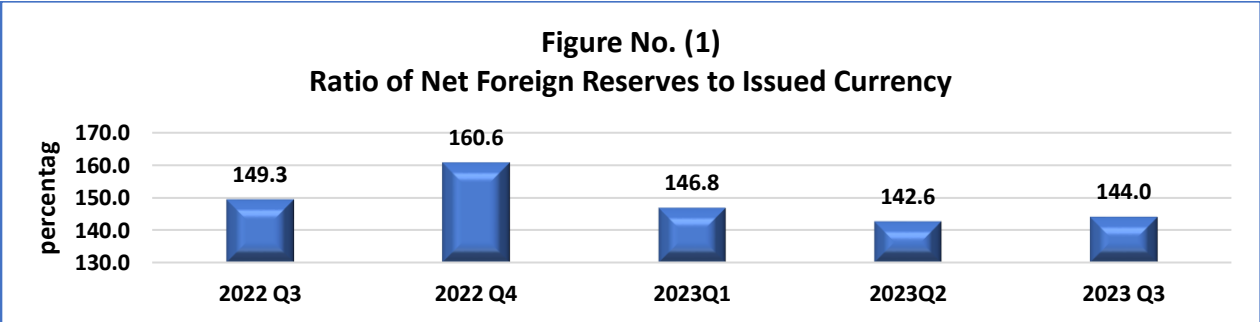
Preserving the value of national currency is one of the most important objectives of Central Bank of Iraq that it seeks to achieve, so this chapter explains how the monetary authority maintains the value of currency through several indices, most notably the index of adequacy of foreign reserves relative to M2 and the ratio of coverage of foreign reserves to the issued currency, as well as measuring average of change in interest rates, and these indices were chosen to suit the nature of the Iraqi economy.

#### First: Adequacy of foreign reserves

Foreign reserves are considered one of the most important buffers that keep the country's currency in a safe and sound position that protects it against emergency shocks, which maintains its stability within the local market, as sufficient foreign reserves are means to support confidence in the domestic currency value and reduce the risk of capital flight. There are several indices to measure the adequacy of foreign reserves, including:

#### 1. Index of adequacy of foreign reserves to the issued currency

This index measures the ratio of foreign reserves to the issued currency, and the extent to which it can be covered, considering that the value of the domestic currency derives its value from the volume of foreign reserves held by CBI, and Figure No. (1) shows the decrease of coverage of foreign reserves ratio to the issued currency to reach (144.0%) for Q3 in 2023 compared to Q3 of the previous year, in which it reached (149.3%), and this is due to the increase in the issued currency by (22.5%), which exceeds the growth in foreign reserves, but it is still considered a positive index as it exceeds the standard ratio of (100%), excluding the return on cash issuance.



Source: Central Bank of Iraq, Statistical Website.

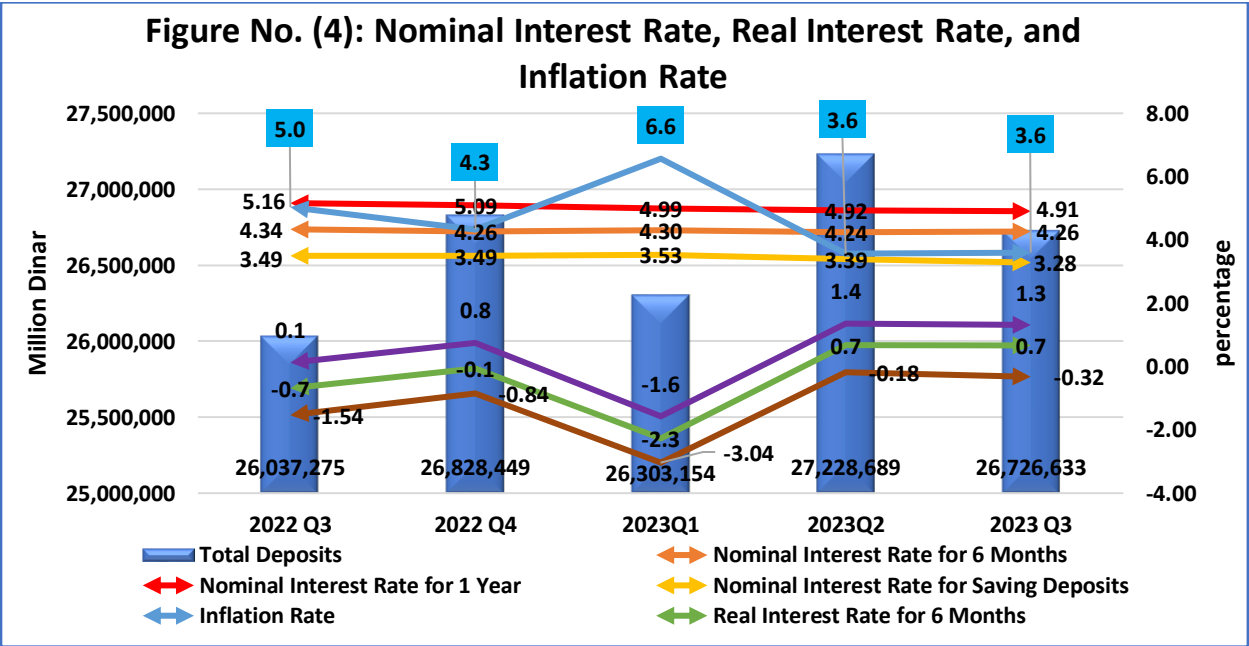






**2. Real Interest Rate**

The real interest rate is an important index that considers inflationary pressures and their impact on nominal interest rates. Figure No. (4) shows an increase of real interest rate for 6 months from (-0.8%) for Q3 of 2022 to (0.7%) for the same quarter of 2023 with a of monthly inflation rate in Iraq from (5%) to (3.6%) during the same period. Also, the real interest rate on saving deposits rose for Q3 of 2023, as it reached (-0.32%) up from (-1.54%) during the same quarter of 2022. The same is true for real interest rate for 1 year, as it rose from (0.1%) to (1.3%) over the same period, due to lower inflation rates.



Source: Central Bank of Iraq, Statistical Website.

**Table No. (4): Inflation Rate and Real Interest Rates**

Year	Inflation Rate	Real Interest Rate for 6 Months	Real Interest Rate for 1 Year	Real Interest Rate for Saving Deposits
Q3 2022	5.5	-0.8	0.1	-1.54
Q4 2022	4.3	-0.1	0.8	-0.84
Q1 2023	6.6	-2.3	-1.6	-3.04
Q2 2023	3.6	0.7	1.4	-0.18
Q3 2023	3.6	0.7	1.3	-0.32



## Chapter Two: Analysis of Bank`s Performance Indices

This chapter analyzes and measures indices related to banking sector performance through several indices to identify risks that this sector might be exposed to in the future by analyzing the tracks of those indices.

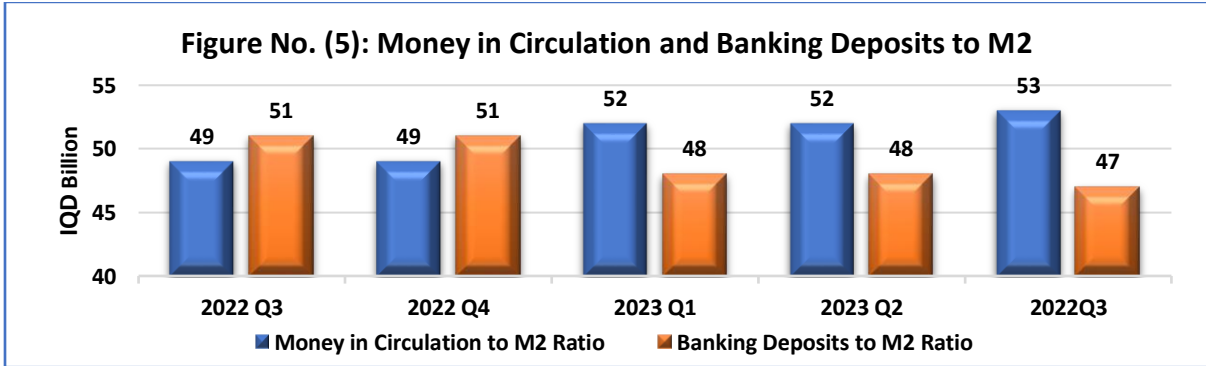
The most important indices related to bank`s performance:

### 1. Standing Lending Facilities to Total Bank`s Liabilities

Central Bank of Iraq Law No. 56 of 2004, in accordance with article (30), allows for lending banks that suffer from financial deficit under exceptional circumstances in accordance with legal requirements. These include CBI's view that a bank is solvent, its guarantees are appropriate, and that assistance demand is based on its need to improve liquidity, or if this support is necessary to maintain stability of the financial system. As it expresses a liquidity crisis that reflects the degree of distress experienced by the banking sector, it is noted that CBI did not provide loans to operating banks during Q3 of 2023.

### 2. Banking Deposits to Broad Money Supply (M2)

Deposits reflect the amount of solvency a bank enjoys, which can be obtained by diversifying the services provided to the public to attract a greater number of depositors to the bank. Thus, this index represents the public`s desire to turn to banks because of their need or for the purpose of obtaining special offers that attract the public to them on one hand. On the other hand, deposits` volume with a bank represents an index of its activity and spread as it is measured by dividing banking deposits on broad money supply (M2). Figure No. (5) shows that the ratio of banking deposits to M2 decreased during Q3 of 2023 to (47%) up from (51%) for the same quarter of 2022. The index of money in circulation to M2 ratio rose from (49%) in Q3 of 2022 to (53%) for the same quarter of 2023, which indicates that most of the issued currency by CBI goes to money in circulation and not as banking deposits. The matter that reflects the monetary use of transactions in Iraq despite the gradual improvement in using electronic payment tools.



Source: Central Bank of Iraq, Statistical Website.



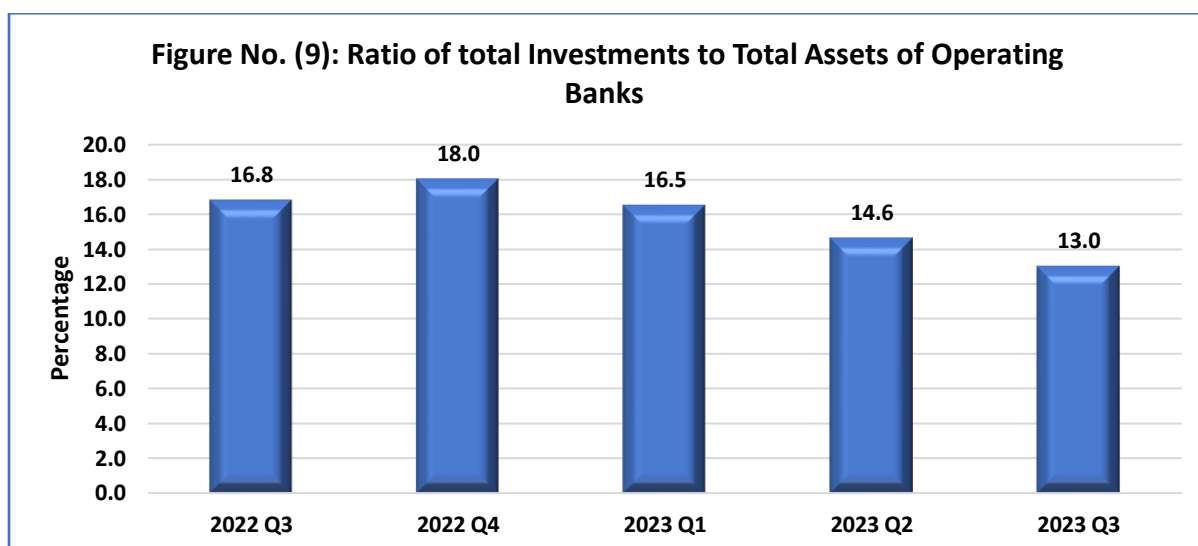






#### 4. Investments of Banks to Total Assets:

This index is considered an important index as it shows the size of actual investments within balance sheets of banks and highlights the importance of investments' contribution in achieved bank's returns and increased profits, particularly if these investments boost economic sectors and are reflected in a positive way on real sector. The bank's capital and its available deposits within assets side of the bank's balance figure No. (9) shows the decrease of investments size to total assets with operating banks from (16.8%) during Q3 2022 to (13%) during the same quarter of 2023. This decrease is due to the decline in investments in State- owned banks as will be rightly reported.



Source: Central Bank of Iraq, Statistics & Research Department, Monetary and Financial Statistics Division

**Table No. (10):  
Total Investments and Total Assets with Operating Banks**  
Million Dinar

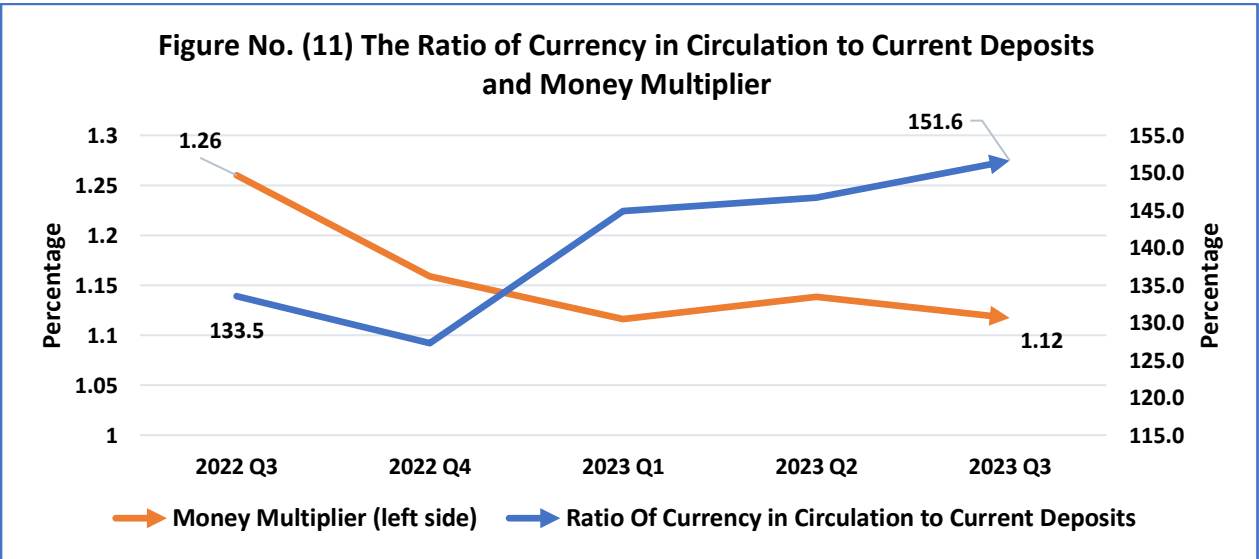
Year	Total Cash Credit with Operating Banks	Total Deposits with Operating Banks	The Ratio of Total Cash Credit to Deposits
Q3 2022	29,612,694	176,109,025	16.8
Q4 2022	35,780,971	198,661,832	18.0
Q1 2023	31,347,403	189,821,920	16.5
Q2 2023	28,219,392	192,690,459	14.6
Q3 2023	24,909,073	191,415,257	13.0



**5. Money Multiplier:**

The money multiplier is defined as the banks' desire and capacity to convert deposits into credit; it thus represents banking activity within the real sector. On one hand, it represents public's desire to go towards banks because of the services they provide to win public's confidence. On the other hand, it represents banks' willingness to extend credit to the public and reap the benefits.

Money multiplier recorded a decrease from (1.12%) in Q3 2023 to (1.26%) for the same quarter of 2022 owing to an increase of currency in circulation from (75.9) trillion dinars during the Q3 2023 by an increase (20.9%), which reflects the low banking culture of individuals on the one hand, and on the other hand an increase in the surplus reserves of operating banks with Central Bank of Iraq from (31.1) trillion dinars to (41.6) trillion dinars during the same period with a growth rate of (33.8%), which reflects the desire of low banks to expand it's banking activity, and as a result, the ratio of total cash credit to total deposits decreased by (53.2%) during Q3 2023 after it was (53.4%) during the same quarter in 2022.



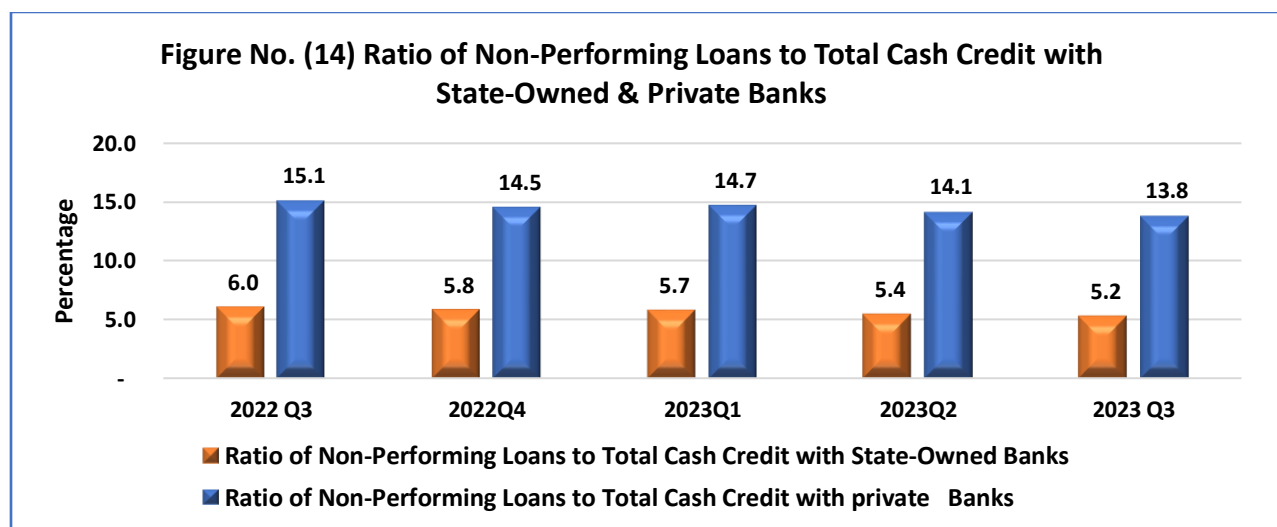
Source: Central Bank of Iraq, Statistics & Research Department., Estimates of Monetary and Financial Stability Division.

Year	Currency in Circulation and Money Multiplier			Million Dinar
	Currency In Circulation	Current Deposits as in M1	Ratio of Currency in Circulation to Current Deposits	Money Multiplier
Q3 2022	75,915,830	56,852,753	133.5	1.26
Q4 2022	82,031,742	64,456,183	127.3	1.16
Q1 2023	88,368,862	61,004,319	144.9	1.12
Q2 2023	92,615,600	63,154,122	146.7	1.14
Q3 2023	91,845,382	60,572,723	151.6	1.12





Returning to the classification of banks in terms of their ownership, we find that the ratio of non-performing loans to the total cash credit with Private banks are more than their counterparts in State-owned banks. Figure No. (14) shows that the ratio of non-performing loans to total cash credit with Private banks decreased to reach (13.8%) in Q3 2023 after it was (15.1%) for the same quarter of 2022. The ratio of allocation non-performing loans to private banks was (77%) to total bad debts it has from (6%) in Q3 2022 to (5.2%) during the same quarter of 2023. As well as the percentage of the allocation amounted non-performing loans of state-owned banks (118%) to their total non-performing debts, as a result of the increase in the percentage of cash credit granted by state-owned banks to the total credit amounted to (83.7%) during Q3 2023.

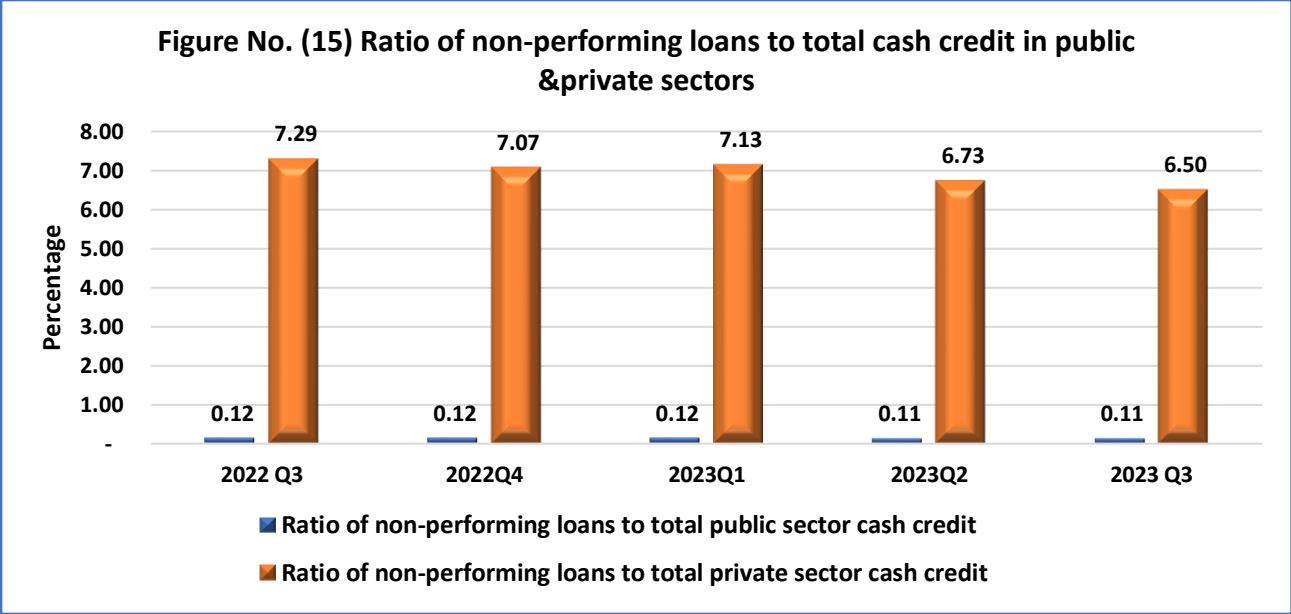


Source: Central Bank of Iraq, Statistics and Research Department.

Table No. (15): Non-Performing Loans to Total Cash Credit with State-Owned & Private Banks							Million Dinars	
Year	Total Cash Credit with State-Owned Banks	Total Cash Credit with Private Banks	Non-Performing Loans with State-Owned Banks	Non-Performing Loans with Private Banks	Ratio of non-performing loans to total cash credit with State-Owned Banks	Ratio of non-performing loans to total cash credit with State-Owned Banks		
Q3 2022	48,942,187	9,113,512	2,929,862	1,374,004	6.0	15.1		
Q4 2022	50,722,624	9,853,390	2,924,708	1,430,879	5.8	14.5		
Q1 2023	49,337,666	10,027,038	2,833,445	1,473,529	5.7	14.7		
Q2 2023	52,903,562	10,536,727	2,853,181	1,487,008	5.4	14.1		
Q3 2023	54,536,997	10,589,783	2,845,720	1,458,664	5.2	13.8		



As for ratio of non-performing loans with private and public sectors. The private sector has a larger ratio than its counterpart in the public sector, with a ratio of non-performing loans to total cash credit with private sector (6.50%) during Q3 2023, while this percentage with the public sector reach (0.11%) during the same period, and Figure No. (15) shows this.



Source: Central Bank of Iraq, Statistics and Research Dept.

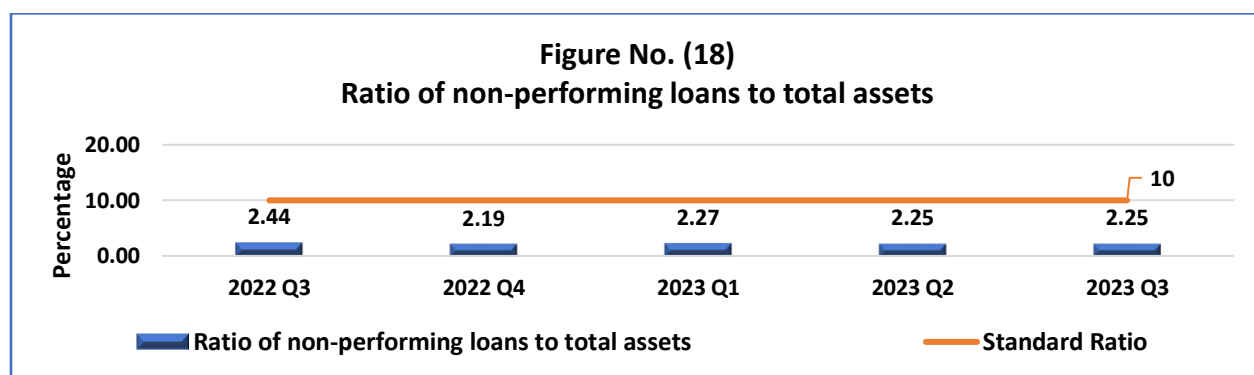
Year	Total cash credit with banks	Non-performing loans with the public sector	Non-performing loans with the private sector	Ratio of non-performing loans to total credit Cash with the public sector	Non-performing loan ratio To the total credit cash with the private sector
Q3 2022	58,055,699	71,375	4,232,491	0.12	7.29
Q4 2022	60,576,014	71,270	4,284,317	0.12	7.07
Q1 2023	59,364,704	71,478	4,235,496	0.12	7.13
Q2 2023	63,440,289	71,526	4,268,663	0.11	6.73
Q3 2023	65,126,780	71,076	4,233,308	0.11	6.50





## 9. Non-Performing Loans to Total Assets

This index is measured through dividing non-performing loans by the total assets of banks. The standard value for this ratio is (10%) \*. The figure No. (18) shows the ratio of non-performing loans to the total assets of banks operating in Iraq. It could be noted that this decrease of ratio in Q3 in 2023 reached (2.25%) compared to (2.44%) for the same quarter in 2022. It is worth noting that the ratio of non-performing loans to total assets did not exceed the standard ratio if it measured to the total of banks.



Source: Central Bank of Iraq, Statistics and Research Department, Monetary and Financial Statistics Division.

**Table No. (19)**  
**Non-performing loans and total assets with operating banks (Million Dinars)**

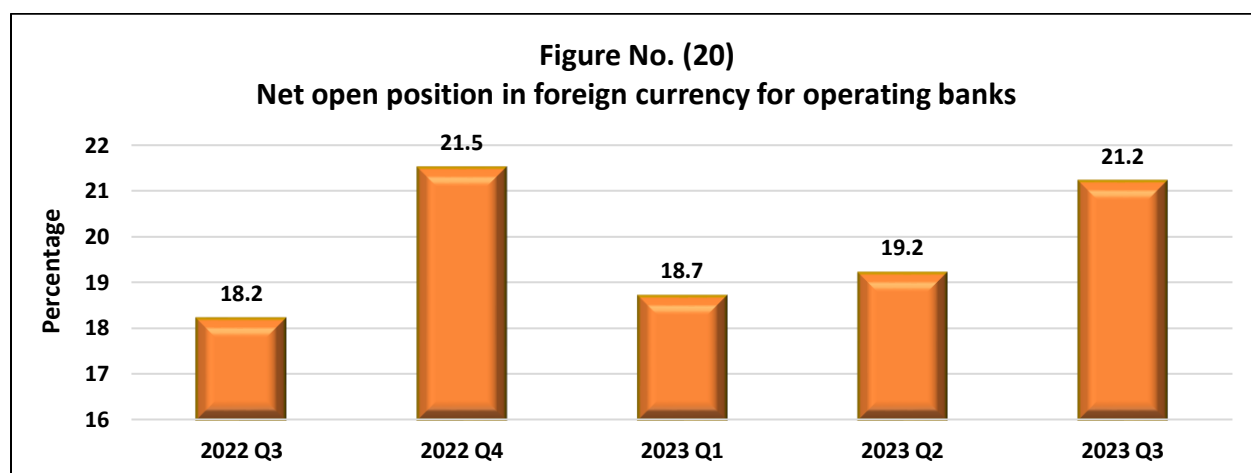
Year	Total assets of operating banks	Non-performing loans with operating banks	Ratio of non-performing loans to total assets
Q3 2022	176,109,025	4,303,866	2.44
Q4 2022	198,661,832	4,355,587	2.19
Q1 2023	189,821,920	4,306,974	2.27
Q2 2023	192,690,459	4,340,189	2.25
Q3 2023	191,415,257	4,304,384	2.25

\*For more see, Central Bank of Iraq 2020 Early Warning Report of Financial Sector, Issue No. 3, Page 18.



## 10. Net Open Position in Foreign Currency of Operating Banks

This index measures the net foreign assets of operating banks by calculating the difference between their foreign assets and their foreign liabilities divided by the capital. Consequently, an increase in this ratio means an increase in the volume of foreign assets with operating banks, and vice versa. The figure No. (20) shows that this ratio with operating banks has increased from (18.2%) in Q3 of 2022 to (21.3%) during the same quarter of 2023, and that means there is an increase in the volume of foreign assets with banks operating in the Iraqi banking sector.



Source: Central Bank of Iraq, Statistics and Research Department, Monetary and Financial Statistics Division.

**Table No. (21)**  
**Net open position in foreign currency with operating banks**

Year	Net open position in foreign exchange (million dinars)	Capital (million dinars)	Net open position ratio in foreign currency with operating banks to capital
Q3 2022	4,187,880	23,057,259	18.2%
Q4 2022	4,957,653	23,048,651	21.5%
Q1 2023	4,342,694	23,252,396	18.7%
Q2 2023	4,458,209	23,217,865	19.2%
Q3 2023	5,234,861	24,643,625	21.2%

Table No. (22)

## Indices for analyzing banks performance

Index name:	Q3 2022	Q3 2023	Growth Rate%
Bank deposits to M2 (%)	51	47	-7.8
Currency in circulation to M2 (%)	49	53	8.2
Total cash credit to total deposits (%)	53.4	53.2	-0.4
Total investment to total assets (%)	16.8	13.0	-22.6
Money multiplier	1.26	1.12	-11.1
Currency in circulation to current deposits (%)	133.5	151.6	13.6
Return on equity (%)	11.1	12.3	10.8
Return on assets (%)	1.5	1.6	6.7
Non-performing loans to total cash credit (%)	7.4	6.6	-10.8
Non-performing loans to total deposits	4.0	3.5	-12.5
Non-performing loans to total assets (%)	2.44	2.25	-7.8
Net open financial position in foreign currency of operating banks (%)	18.2	21.2	16.5

Sources: Central Bank of Iraq, Statistics and Research Department, Monetary and Financial Statistics Division. Central Bank of Iraq, Statistics and Research Department, Balance of Payments and Foreign Trade Statistics Division.

**Summary:**

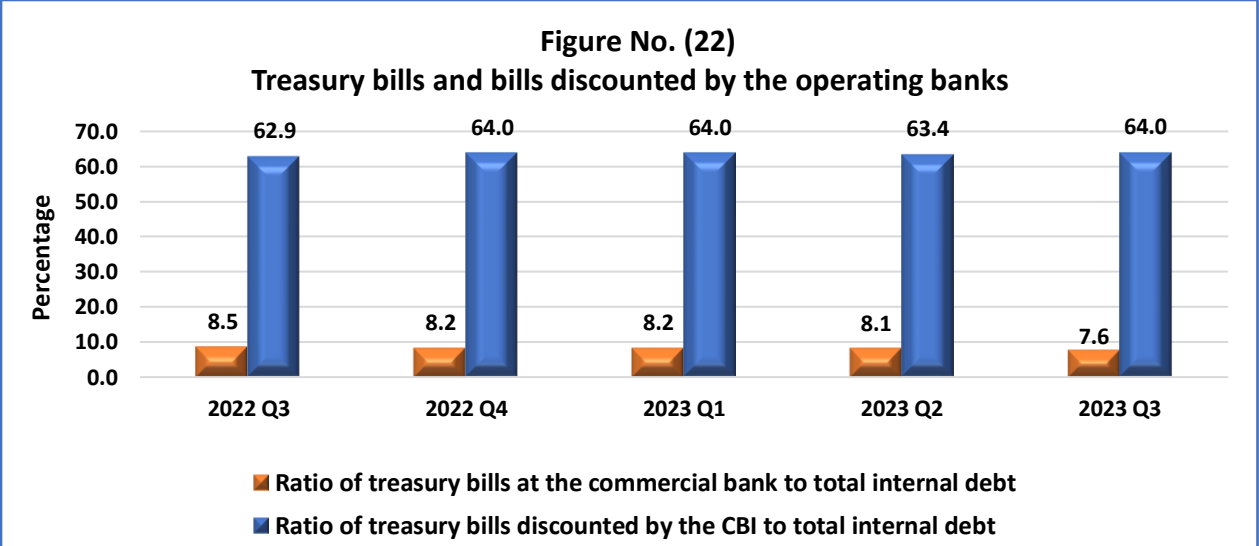
- Banks still possess liquidity that prevents them from resorting to the central bank to obtain existing facilities.
- A decrease in the ratio of bank deposits to the local liquidity, as opposed to an increase in the ratio of currency in circulation to local liquidity.
- The banks maintained the ratio of total credit to total deposits below the standard ratio identified by the Central Bank, which indicates that banks are compliant with the application of this ratio to reduce risks. Regarding this ratio at the level of private and state-owned banks, it is noted that there is a decline of this ratio in private banks during this quarter.
- The decrease in the money multiplier during this quarter compared to the same quarter in 2022, which reflects the increase in excess reserves of banks at the Central Bank.
- A decrease in the ratio of non-performing loans in both state-owned and private banks to the total credit granted. On the other hand, it is noted that the ratio of non-performing loans to credit is higher in private banks than in state-owned banks.
- The ratio of non-performing loans to total assets did not exceed the standard ratio of (10%) in both private and state-owned banks, although it was higher in private banks than in state-owned banks.





2. Internal Debt Growth Rate

This index shows the percentage of change that occurs in the internal public debt by calculating the debt owed to government within the operating banks and the CBI. Figure No. (22) shows that treasury bills with the operating banks to the total internal public debt decreased from (8.5%) for Q3 2022 to (7.6%) in the same quarter of 2023, meaning that the intensity of the public sector’s competition with the private sector in obtaining credit has decreased. As for discounted bills from the central bank to the internal public debt, they rose to (64%) in the Q3 of 2023 compared to the Q3 of the previous year, the rate reached (62.9%) due to the government recovering the money it paid in 2022 to the CBI.



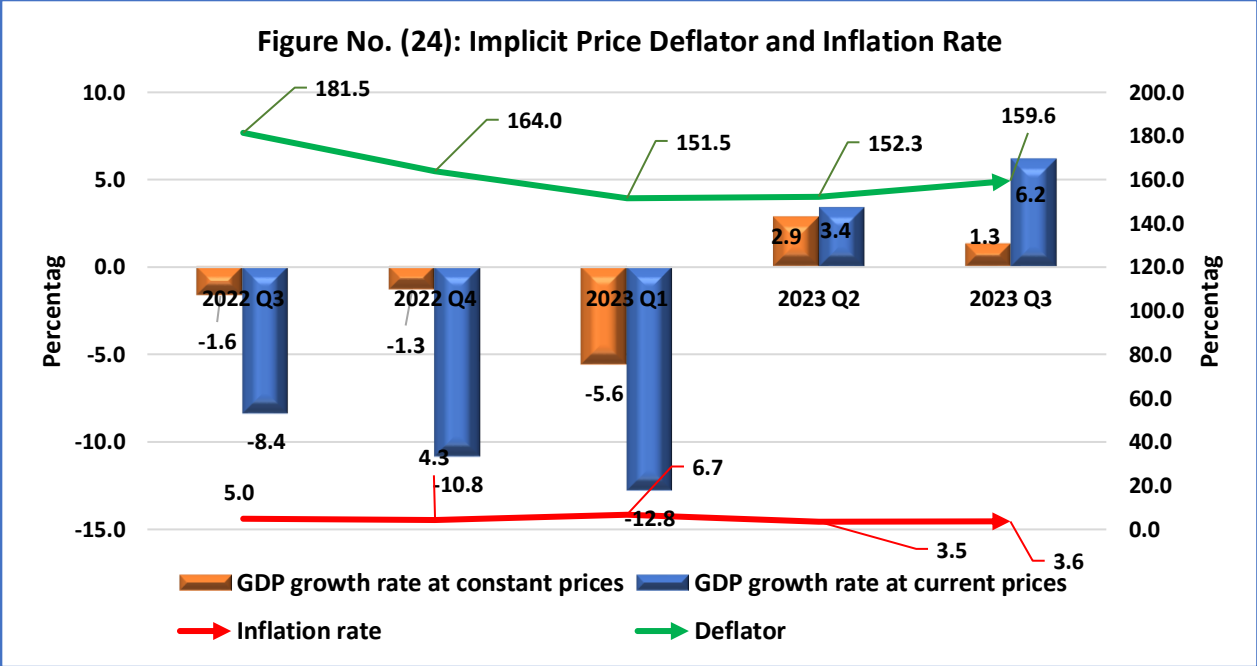
Source: Central Bank of Iraq, Research and Statistics Department.

Year	Treasury Bills at Operating Banks	Treasury Bills at CBI	Total Internal Debt	Ratio of Treasury Bills at operating banks to total internal debt %	Ratio of Treasury bills discounted at the central bank to the total internal debt %
2022 Q3	5,646,734	41,878,142	66,573,959	8.5	62.9
2022 Q4	5,677,734	44,452,392	69,495,737	8.2	64.0
2023 Q1	5,677,734	44,452,392	69,492,940	8.2	64.0
2023 Q2	5,677,734	44,202,392	69,678,298	8.1	63.4
2023 Q3	5,206,551	43,602,392	68,081,110	7.6	64.0



### 4. Implicit Price Deflator

The implicit deflator can be measured by dividing the nominal GDP by the real GDP\*. The higher the value of the deflator means that there is an increase in the general level of prices, and Figure No. (24) shows a decrease in the value of the implicit deflator from (181.5%) for Q3 in 2022 to (159.6%) for the same quarter of the current year, and this coincides with a decrease in the inflation rate from (5%) for Q3 of 2022 to (3.6%) for the same quarter of 2023.



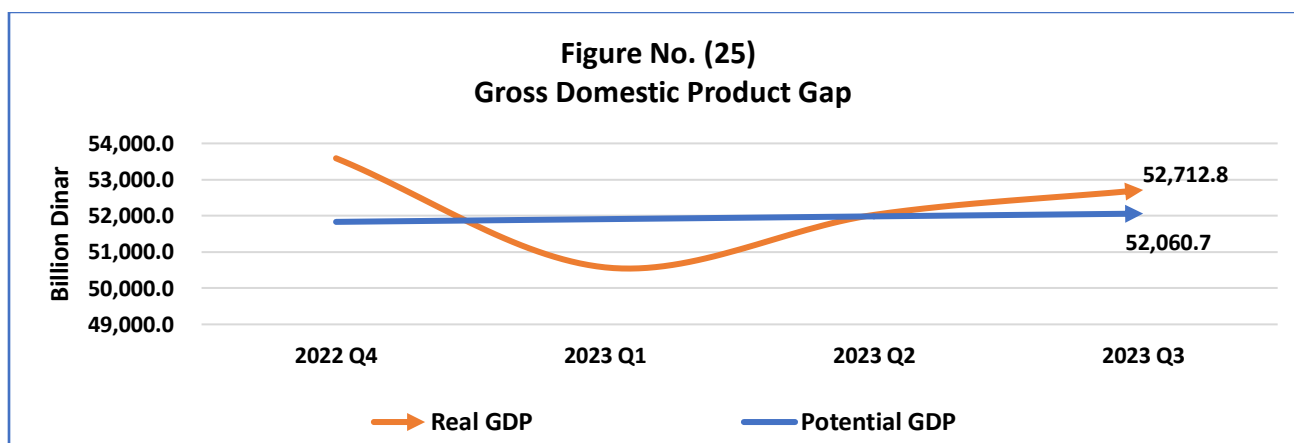
\*For more see, CBI Early Warning Report, Issue No. 19, Page 27.

**Table No. (25)**  
**GDP in constant and deflator**

Year	GDP in constant prices	GDP in current prices	Deflator
<b>2022 Q3</b>	54,309,140.80	98,556,870.8	181.5
<b>2022 Q4</b>	53,588,384.70	87,886,775.0	164.0
<b>2023 Q1</b>	50,575,299.10	76,641,671.9	151.5
<b>2023 Q2</b>	52,026,200.80	79,240,693.0	152.3
<b>2023 Q3</b>	52,712,877.60	84,127,797.6	159.6

## 5. GDP Gap<sup>1</sup>

The gap expresses the difference between the level of actual GDP and potential GDP<sup>2</sup>. When the output gap is positive, the actual GDP is higher than the potential GDP, that is, the economy is working beyond its capacity, and inflation is likely to be generated if the increase in actual output is due to increased demand. However, if the actual GDP is less than the potential GDP, the output gap will be negative, meaning there may be a contraction, and thus there will not be sufficient job opportunities for all those wishing to work. Figure No. (25) shows the value of the potential GDP at IQD (52,060.7) billion for the Q3 of 2023. The real GDP also recorded an increase to reach IQD (52,712.8) billion during the same period compared to IQD (54,309.1) billion for the same quarter in 2022, meaning production within the economy is greater than the available capabilities, which may generate inflationary pressures in the future.



Source: Central Bank of Iraq, Monetary and Financial Stability Division estimates according to data from the Ministry of Planning, Central Statistical Organization for 2022,2023.

**Table No. (26)  
Potential and Real GDP  
(IQD Billion)**

Year	Real GDP	Potential GDP	Output Gap
2022 Q3	51,757.0	54,309.1	-2,552.1
2022 Q4	51,832.1	53,588.4	-1,756.3
2023 Q1	51,907.6	50,575.3	1,332.3
2023 Q2	51,984.0	52,026.2	-42.2
2023 Q3	52,060.7	52,712.8	-652.1

<sup>1</sup> The difference between real GDP and potential GDP measured as percentage.

<sup>2</sup> For more about GDP gap see, CBI 2021, Early Warning Report, Issue No. 18, Page 30.



