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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**

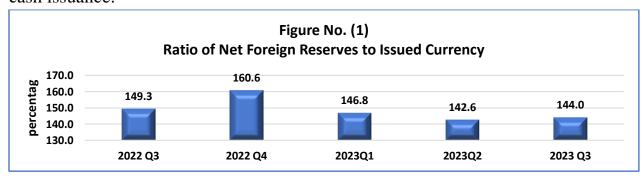
Preserving the value of national currency is one of the most important objectives of Central Bank of Iraq that it seeks to achieve, so this chapter explains how the monetary authority maintains the value of currency through several indices, most notably the index of adequacy of foreign reserves relative 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.



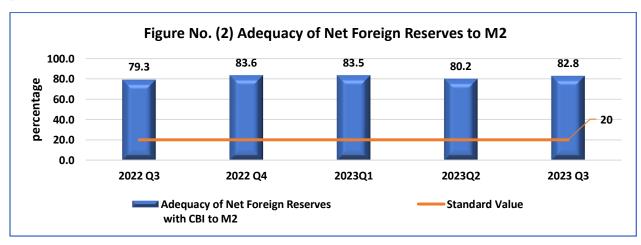
Source: Central Bank of Iraq, Statistical Website.

Table No. (1) Ratio of Net Foreign Reserves to Issued Currency IQD billion					
Year	Net Foreign Reserves	Issued Currency	Ratio of Foreign Reserves to Issued Currency %		
Q3 2022	121,897	81,671	149.3		
Q4 2022	140,637	87,561	160.6		
Q1 2023	142,346	96,964	146.8		
Q2 2023	142,603	99,998	142.6		
Q3 2023	144,103	100,060	144.0		

### 2. Index of Net Foreign Reserves Adequacy to the broad money supply (M2)

This index reflects the policy of the Central Bank of Iraq in maintaining foreign reserves in addition to its ability to maintain stability of the value of domestic currency and face speculation that may occur in foreign currency and maintain the general price level stability, it also measures potential demand for foreign assets from domestic sources then the degree of pressure on the financial situation and on the value of national currency. It is noted in Figure (2) that the ratio of net foreign reserves to the broad money supply (M2) increased to (82.8%) for the Q3 of 2023 compared to the same quarter of the previous year, which amounted to (79.3%), which is greater than the standard ratio (20%).

This is due to the high growth rate of net foreign reserves at CBI by (18.2%) compared with growth rate of M2 of (13.2%) for the same period. This means that the volume of foreign reserves at CBI is within the limits to face emergency pressures to maintain monetary stability and achieve stability at the general level of prices.



Source: Central Bank of Iraq, Statistical Website.

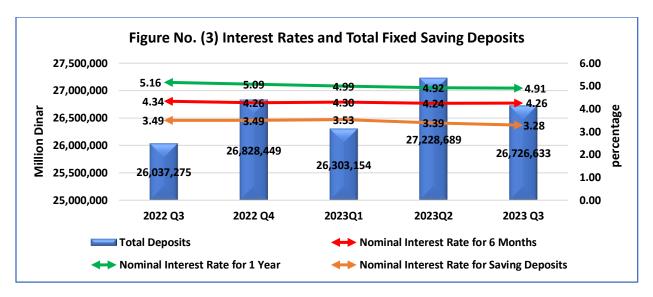
Table No. (2)  Adequacy of Net Foreign Reserves to M2  IQD billion				
Year	Net Foreign Reserves	M2	Adequacy of Net Foreign Reserves to M2 %	
Q3 2022	121,897	153,728	79.3	
Q4 2022	140,637	168,291	83.6	
Q1 2023	142,346	170,464	83.5	
Q2 2023	142,603	177,772	80.2	
Q3 2023	144,103	173,950	82.8	

### **Second: Change of Interest Rate Averages**

This index measures changes of interest rates and their impact on financial activity, stability, total long-term deposits, and inflation rate. It is also considered one of the variables that has a significant impact on the value of domestic currency. However, the nature of the financial system and the circumstances it has experienced have made this performance of a weak impact on the value of domestic currency because of individual's preference for hoarding over depositing with banks, as well as weak indices of financial depth in attracting foreign depositors.

## 1. Short-Term Interest Rates on Deposits

This index shows the impact of short-term interest rates on the volume of deposits, which represents a bank's financial activity. It is noted from figure No. (3) that there is generally a decrease of interest rates, as interest rates for 6 months decreased from (4.34) % for Q3 of 2022 to (4.26%) for Q3 of 2023. In addition, interest rate for 1 year decreased from (5.16%) to (4.91%) over the same period, and interest rate on saving deposits decreased from (3.49%) to (3.28%) during the same period. It is noted that there was a change in the volume of banks' saving and fixed deposits over the period from Q3 of 2022 to Q3 of 2023 as a decrease and increase aside from changes that occur in interest rate. In other words, the effect of interest rate, which is the instrument used by banks to influence their deposit volume, is weak. Meaning that changes which occur to interest rate do not affect financial activity, the matter that loses the monetary authority one of its most important tools to maintain financial stability.

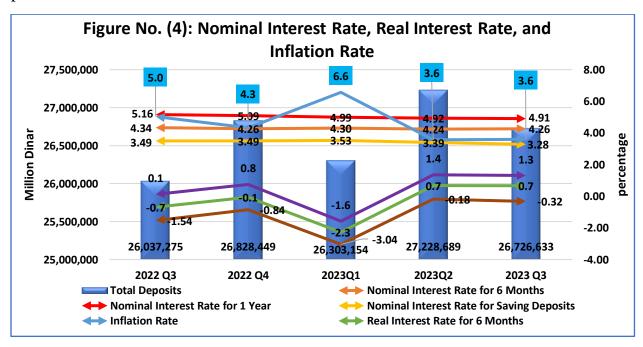


Source: Central Bank of Iraq, Statistical Website.

Table No. (3): Interest Rates and Total Fixed Saving Deposits				
Year	Total Fixed & Saving Deposits (IQD million)	Nominal Interest Rate for 6 Months	Nominal Interest Rate for 1 Year	Nominal Interest Rate for Saving Deposits
Q3 2022	26,037,275	4.34	5.16	3.49
Q4 2022	26,828,449	4.26	5.09	3.49
Q1 2023	26,303,154	4.30	4.99	3.53
Q2 2023	27,228,689	4.24	4.92	3.39
Q3 2023	26,726,633	4.26	4.91	3.28

#### 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	
02 2022	5.5				
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	

Table No. (5) Indices Related to the Stability of Currency Value					
Index Name Q3 of 2022 Q3 of 2023 Change Rate %					
Net Foreign Reserves with CBI to Issued	121,897	144,103	18.2		
Currency (IQD billion)					
Adequacy of Net Foreign Reserves to M2	79.3	82.8	4.6		
(%)					
Issued Currency (IQD billion)	81,671	100,060	22.5		
<b>Total Saving &amp; Fixed Deposits (IQD billion)</b>	26,037	26,726	2.6		
Nominal Interest Rate for 1 Year (%)	5.16	4.91	-4.84		
<b>Nominal Interest Rate for 6 Months (%)</b>	4.34	4.26	- 1.84		
Interest Rate on Saving Deposits (%)	3.49	3.28	-6		
Real Interest Rate for 6 Months (%)	-0.8	0.7	187.5		
Real Interest Rate for 1 Year (%)	0.1	1.3	1200		
Real Interest Rate on Saving Deposits (%)	-1.54	-0.32	79.2		

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

### **Summary**:

- An increase of foreign reserves to issued currency ratio during this quarter compared to Q2 of 2023. Despite its decrease compared to the same quarter of the previous year, it still exceeds the standard value of (100%).
- An increase of foreign reserves to M2 ratio during Q3 compared to the previous quarter of the same year. Also compared to Q3 of 2022.
- Nominal interest rates on fixed & saving deposits recorded a decrease during this quarter compared to the same quarter of the previous year.
- Real interest rate recorded an increase for interest on deposits for 6 months and 1 year to record a positive percentage, except for interest rate on saving as it recorded an increase too, but with a negative value.

# 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.

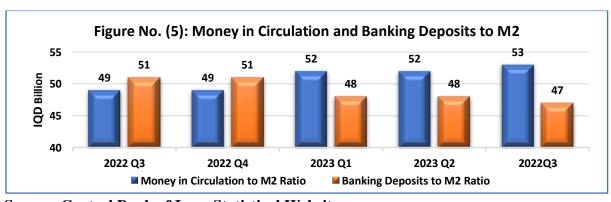
The most important indices related to bank's performance:

## 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)

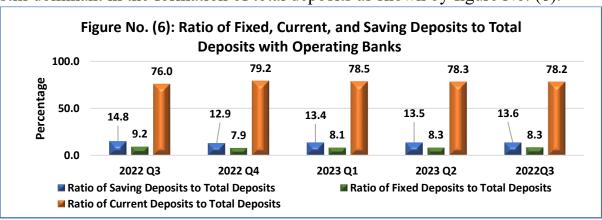
Deposits reflect the amount of solvency a bank enjoys, which can be obtained by diversifying the services provided to the public to attract a greater number of depositors to the bank. Thus, this index represents the public's desire to turn to banks because of their need or for the purpose of obtaining 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.

Table No. (6):  Money in Circulation and Banking Deposits					
Year	Money in Circulation	Banking Deposits	M2	Money in Circulation to M2 Ratio	Banking Deposits to M2 Ratio
Q3 2022	75,916	77,813	153,728	49	51
Q4 2022	82,031	86,260	168,291	49	51
Q1 2023	88,369	82,095	170,464	52	48
Q2 2023	92,615	85,157	177,772	52	48
Q3 2023	91,845	82,105	173,950	53	47

By reference to types of deposits with operating banks, it is noted that current deposits accounted for the large proportion of banks' total deposits, as it increased to (78.2%) during Q3 of 2023 up from (76%) during the same quarter of 2022. While fixed deposit ratio fell to (8.3%) in Q3 of 2023 up from (9.2%) for the same quarter of 2022. As regarding saving deposits, they have also decreased from (14.8%) during Q3 of 2022 to (13.6%) for the same quarter of 2023. This decrease is due to the monetary nature of the economy, as current deposits are still dominant in the formation of total deposits as shown by figure No. (6).

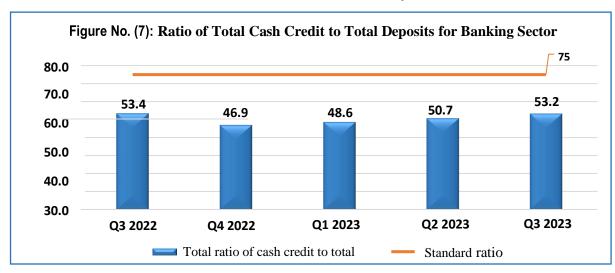


Source: Central Bank of Iraq, Statistical Website.

	Table No. (7): Fixed, Current, and Saving Deposits and Total Deposits				
Year	Saving Deposits with Operating Banks	-		IQD billion Total Deposits	
Q3 2022	16,065,081	9,972,194	82,640,898	108,678,173	
Q4 2022	16,666,017	10,162,432	102,254,873	129,083,322	
Q1 2023	16,409,312	9,893,842	95,853,928	122,157,082	
Q2 2023	16,874,765	10,353,924	98,005,565	125,234,254	
Q3 2023	16,602,976	10,123,657	95,644,006	122,370,639	

# 3. Total Cash Credit to Total Deposits

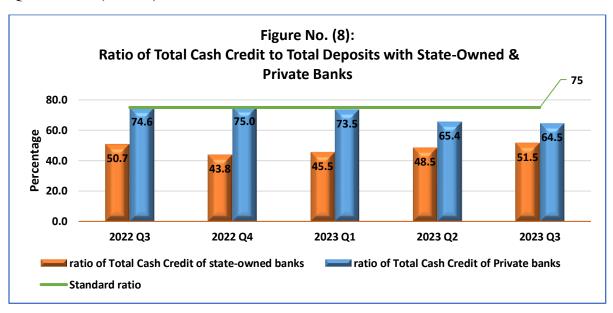
The Central Bank has set this ratio at (75%) to maintain sufficient liquidity with banks to meet customer withdrawals and implement other financial activities of the bank; it is measured by dividing total cash credit to total deposits with operating banks. It reflects the liquidity situation on the long term of the banking sector. Figure No. (7) indicates that the ratio of total cash credit to total deposits decreased slightly from (53.4%) for Q3 of 2022 to (53.2%) for the same quarter of 2023, which has not exceeded the standard ratio set by CBI.



Source: Central Bank of Iraq, Statistical Website

Table No. (8): Ratio of Total Cash Credit to Total Deposits					
Year	Total Cash Credit with Operating Banks	Total Deposits with Operating Banks	The Ratio of Total Cash Credit To Deposits		
Q3 2022	58,055,699	108,678,173	53.4		
Q4 2022	60,576,014	129,083,322	46.9		
Q1 2023	59,364,704	122,157,082	48.6		
Q2 2023	63,440,289	125,234,254	50.7		
Q3 2023	65,126,780	122,370,639	53.2		

However, when we go back to private and state-owned banks it turns out that the ratio is high with private banks more than state owned banks, but within the limits approved by the Central Bank, and figure (8) state that this ratio was (64.5%) in the Q3 of 2023 for private banks (74.6%) for the same quarter for 2022. The stated-owned banks did not exceed the also limited ratio that it has reached in the Q3 of 2023 (51.5%).

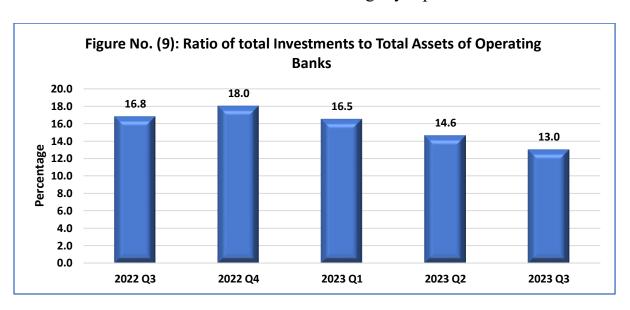


Source: Central Bank of Iraq, Monetary and Financial Statistics Division.

Table No. (9): Total of Cash Credit and total Deposits for Each State-Owned & Private Banks							
Year	Total Cash Credit with State- Owned Banks	Total Cash Credit with Private Banks	Total Deposits with State- Owned Banks	Total Deposits with Private Banks	Ratio of Total Cash Credit to Total Deposits with State- Owned Banks %	Ratio of Total Cash Credit to Total Deposits with Private Banks %	
Q3 2022	48,942,187	9,113,512	96,461,219	12,216,954	50.7	74.6	
Q4 2022	50,722,624	9,853,390	115,856,240	13,227,082	43.8	74.5	
Q1 2023	49,337,666	10,027,038	108,513,536	13,643,546	45.5	73.5	
Q2 2023	52,903,562	10,536,727	109,133,323	16,100,931	48.5	65.4	
Q3 2023	54,536,997	10,589,783	105,954,740	16,415,899	51.5	64.5	

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

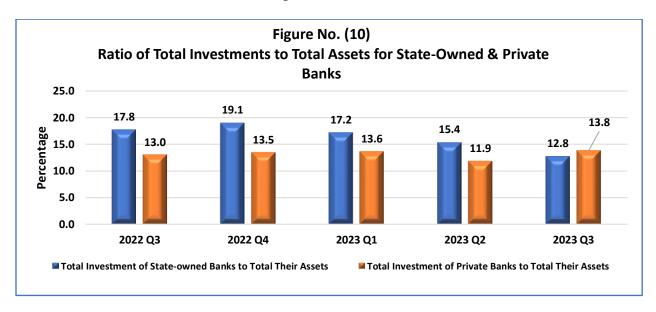
This index is considered an important index as it shows the size of actual investments within balance sheets of banks and highlights the importance of investments' contribution in achieved bank's returns and increased profits, particularly if these investments boost economic sectors and are reflected 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	<b>Total Cash Credit with</b>	<b>Total Deposits with</b>	The Ratio of Total Cash				
	Operating Banks	Operating Banks	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				

Return to the classification of banks in terms of ownership, we find that the ratio of investments to the size of assets in private banks is greater than its counterpart in state-owned banks, and Figure No. (10) shows that the size of investments to assets in state-owned banks decreased from (17.8%) during Q3 2022 to (12.8%) in the same quarter of 2023, while investments in Private banks to total assets increased from (13%) during Q3 2022 to (13.8%) in the same quarter of 2023, but it is worth noting that the volume of investments in state-owned banks constitutes (76.9%) of the total investments in banks during the Q3 2023.



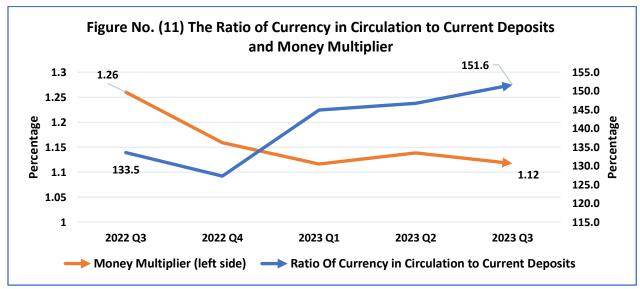
Source: Central Bank of Iraq, Monetary and Financial Statistics Division.

Table No. (11) Investments and Assets with State-Owned & Private Banks Million Dinar							
Year	Investments with State- Owned Banks	Investments with Private Banks	Total Deposits with State- Owned Banks	Total assets with Private Banks	Total investment with State- Owned Banks to total their assets	Total Investment with private Banks to total their assets	
Q3 2022	24,998,247	4,614,448	140,666,385	35,442,640	17.8	13.0	
Q4 2022	30,794,526	4,986,445	161,523,751	37,138,081	19.1	13.4	
Q1 2023	26,128,107	5,219,296	151,495,982	38,325,938	17.2	13.6	
Q2 2023	23,378,853	4,840,539	151,875,952	40,814,507	15.4	11.9	
Q3 2023	19,165,587	5,743,486	149,859,207	41,556,050	12.8	13.8	

# 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.

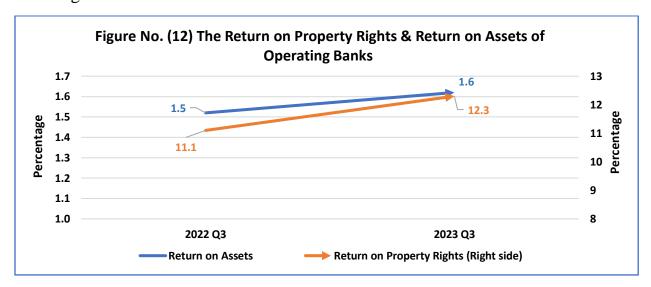


Source: Central Bank of Iraq, Statistics & Research Department., Estimates of Monetary and Financial Stability Division.

Table No. (12):  Currency in Circulation and Money Multiplier Million Dinar							
Year	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			

## 6. Profitability of Banks:

This index shows the profits or losses that banks may experience. Figure No. (12) shows the return on property rights and return on assets for operating banks within the banking system, as we find that the percentage of return on assets and return on property rights increased, as the return on assets increased in Q3 2023 to (1.6%) after it was (1.5%) for the same quarter of 2022. The return on property rights witnessed an increase from (11.1%) in Q3 2022 to (12.3%) for the same quarter of 2023. This shows that banks are exploiting the surplus part of their resources to achieve profits on a large scale.

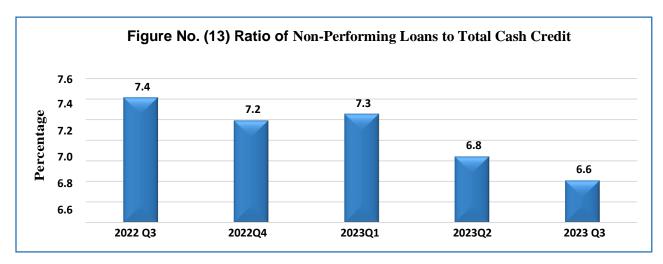


Source: Central Bank of Iraq, Statistics & Research Department, Monetary and Financial Stability Division.

Table No. (13):							
The Return on Property Rights & Return on Assets for Operating Banks							
	Million Dinar						
Year	Return on Property Rights	Return on Assets					
Q3 2022	11.1	1.5					
Q4 2022	10.3	1.3					
Q1 2023	15.5	1.9					
Q2 2023	10.7	1.4					
Q3 2023	12.3	1.6					

# 7. Non-Performing Loans to Total Cash Credit

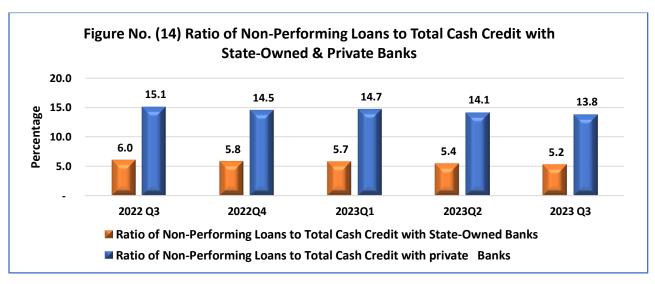
This index is measured by dividing non-performing loans to total cash credit; Figure No. (13) shows low ratio of non-performing loans to total cash credit in Q3 2023 from (7.4%) to (6.6%) of the same quarter of 2022. This is the decrease caused by the increase in credit granted.



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

Table No. (14): Non-Performing Loans/ Total Cash Credit with Operating Banks								
	Million Dinar							
Year	Non-Performing Loans with Operating Banks Million Dinar	Cash Credit with Operating Banks Million Dinar	Ratio of Non-Performing Loans/ Total Cash Credit					
Q3 2022	4,303,866	58,055,699	7.4					
Q4 2022	4,355,587	60,576,014	7.2					
Q1 2023	4,306,974	59,364,704	7.3					
Q2 2023	4,340,189	63,440,289	6.8					
Q3 2023	4,304,384	65,126,780	6.6					

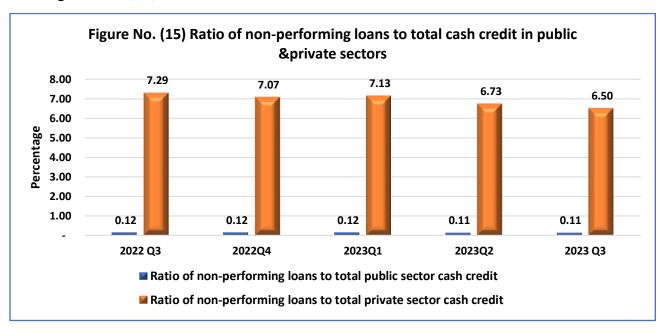
Returning to the classification of banks in terms of their ownership, we find that the ratio of non-performing loans to the total cash credit with Private banks are more than their counterparts in State-owned banks. Figure No. (14) shows that the ratio of non-performing loans to total cash credit with 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):							
]	<b>Million Dinars</b>							
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-	Ratio of non- performing loans to total cash credit with State-		
					O 1D 1	0 ID I		
					Owned Banks	Owned Banks		
Q3 2022	48,942,187	9,113,512	2,929,862	1,374,004	Owned Banks 6.0	Owned Banks 15.1		
Q3 2022 Q4 2022	48,942,187 50,722,624	9,113,512 9,853,390	2,929,862 2,924,708	1,374,004 1,430,879				
		, ,	, ,		6.0	15.1		
Q4 2022	50,722,624	9,853,390	2,924,708	1,430,879	6.0 5.8	15.1 14.5		

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.

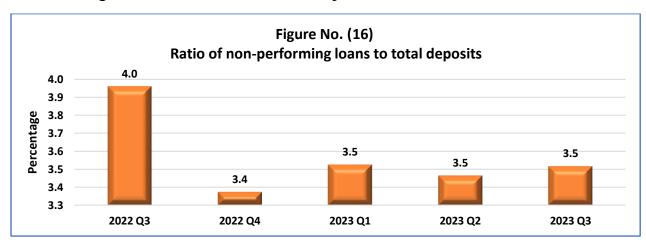


Source: Central Bank of Iraq, Statistics and Research Dept.

Cash cre	Million Dinars				
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

## 8. Non-Performing Loans to Total Deposits

This index is measured through dividing non-performing loans by the total deposits with banks. The figure No. (16) shows that the ratio of non-performing loans to total deposits decreased from (4%) in Q3 of 2022 to (3.5%) for the same quarter of 2023. This issue is considered as a positive position for the banking system, which might enable it to grant more credit and attract deposits.

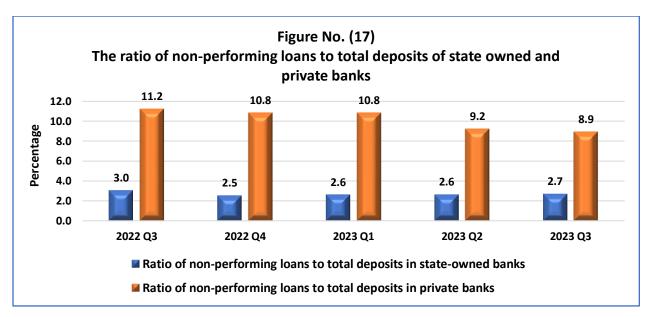


Source: Central Bank of Iraq, Statistics and Research Department.

Table No. (17)  Total non-performing loans to total deposits with operating banks (Million Dinars)							
Year	Total deposits with operating banks	Non-performing loans at operating banks	Non-performing loan ratio to total deposits				
Q3 2022	108,678,173	4,303,866	4.0				
Q4 2022	129,083,322	4,355,587	3.4				
Q1 2023	122,157,082	4,306,974	3.5				
Q2 2023	125,234,254	4,340,189	3.5				
Q3 2023	122,370,639	4,304,384	3.5				

Returning to the classification of banks in terms of ownership, it could be found that there is a decrease in this ratio for state owned and private banks. The figure No. (17) shows that the ratio of non-performing loans to total deposits with private banks decreased in the Q3 of 2023 to (8.9%) after it was (11.2%) for the same quarter in 2022. While this ratio of the state-owned banks reached (2.7%) in the Q3 of 2023 after it was (3%) for the same quarter in 2022. The difference of ratio for the state owned and private banks is due to the increase in deposits with the state-owned

banks, because of those banks contained deposits of the central government and public institutions with a much greater ratio than private banks.

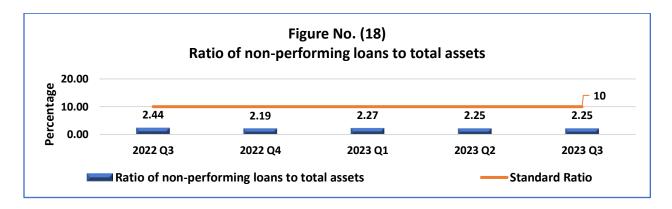


Source: Central Bank of Iraq, Statistics and Research Department.

Table No. (18) Non-performing loans and total deposits with state-owned and private banks (Million Dinars)							
year	Total deposits with state- owned banks	Total deposits with private banks	Non- performing loans with state-owned banks	Non- performing loans with private banks	Ratio of non- performing loans to total deposits in state-owned banks	Ratio of non- performing loans to total deposits in private banks	
Q3 2022	96,461,219	12,216,954	2,929,862	1,374,615	3.0	11.2	
Q4 2022	115,856,240	13,227,082	2,924,708	1,430,879	2.5	10.8	
Q1 2023	108,513,536	13,643,546	2,833,445	1,473,529	2.6	10.8	
Q2 2023	109,133,323	16,100,931	2,853,181	1,487,008	2.6	9.2	
Q3 2023	105,954,740	16,415,899	2,845,720	1,458,664	2.7	8.9	

### 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.

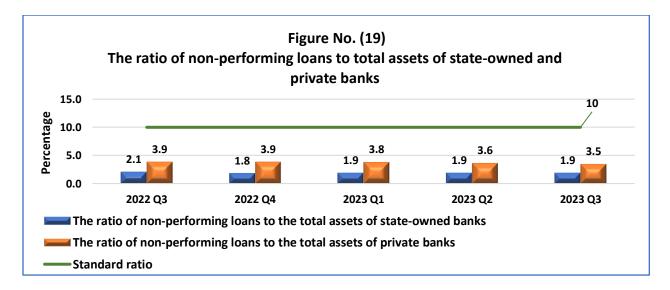


Source: Central Bank of Iraq, Statistics and Research Department, Monetary and Financial Statistics Division.

<b>Table No. (19)</b>							
Non-performing loans and total assets with operating banks (Million Dinars)							
Year	Total assets of operating	Total assets of operating Non-performing loans					
	banks	with operating banks	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				

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

Returning to details of banks by ownership, it could be found that both private and state-owned banks did not exceed the standard ratio. The figure No. (19) shows this situation, but this ratio is higher for private banks than their state-owned counterparts, as this ratio reached (3.5%) in Q3 of 2023. While the ratio of state-owned banks for the same period recorded (1.9%). This ratio does not raise the concern regarding the financial stability, since state-owned banks embrace the large ratio of the banking sector.

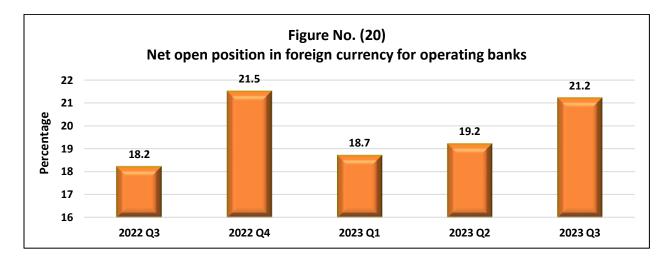


Source: Central Bank of Iraq, Statistics and Research Department, Monetary and Financial Statistics Division.

	<b>Table No. (20)</b>							
Non-	Non-performing loans and total assets with state-owned and private banks (million dinars)							
Year	Total assets with state- owned banks (Million dinars)	Total assets with private banks (million dinars)	Non- performing loans at state-owned banks (million dinars)	Non- performing loans with private banks (million dinars)	Ratio of non- performing loans to total assets of state- owned banks	Ratio of non- performing loans to total assets of private banks		
Q3 2022	140,666,385	35,442,640	2,929,862	1,374,615	2.1	3.9		
Q4 2022	161,523,751	37,138,081	2,924,708	1,430,879	1.9	3.9		
Q1 2023	151,495,982	38,325,938	2,833,445	1,473,529	1.9	3.8		
Q2 2023	151,875,952	40,814,507	2,853,181	1,487,008	1.9	3.6		
Q3 2023	149,859,207	41,556,050	2,845,720	1,458,664	1.9	3.5		

# 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:**

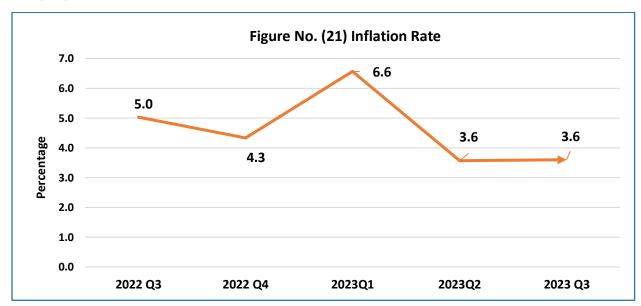
- Banks still possess liquidity that prevents them from resorting to the central bank to obtain existing facilities.
- A decrease in the ratio of bank deposits to the local liquidity, as opposed to an increase in the ratio of currency in circulation to local liquidity.
- The banks maintained the ratio 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.

### **Chapter Three: Macroeconomic performance indices**

Macroeconomic variables are considered as one of the most important variables in the economy. The early warning report worked on analyzing the most important indices for the macroeconomy, including Inflation rate index, real interest rate, and the public debt index, as well as calculating the implicit deflator for GDP, which shows the limits of production possibilities within the Iraqi economy, in addition to measuring the gross domestic product gap (GDP Gap), the following are the most important macroeconomic indices:

#### 1. Inflation Rate:

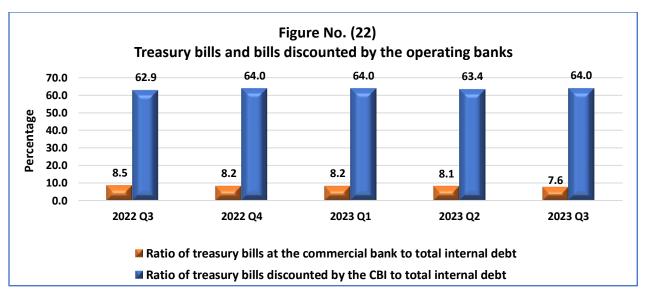
The inflation rate in Iraq recorded a decline during Q3 2023, reaching (3.6%) compared to the same quarter of the previous year in which it reached (5%). This is due to the decline in the prices of goods included in calculating the consumer price index (the rate of change in it represents the percentage of the inflation rate), the decrease in the inflation rate positively affects the real interest rate granted on deposits, in addition, the decrease in the inflation rate indicates a decrease in the general level of prices, and thus reduces the pressure on the demand for money for the purposes of exchanges.



Source: Central Bank of Iraq, Key Financial Indicators.

#### 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.

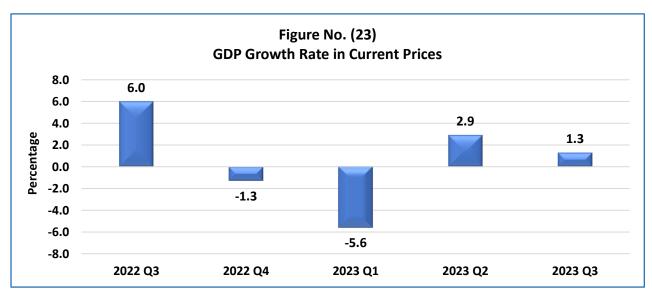


Source: Central Bank of Iraq, Research and Statistics Department.

Table No. (23) Treasury Bills at the CBI and Operating Banks					
Year	Treasury Bills at Operating Banks	Treasury Bills at CBI	Total Internal Debt	Ratio of Treasury Bills at operating banks to total internal debt	(Million Dinar)  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

## 3. GDP growth

The gross domestic product at current prices in Iraq recorded a decline during Q3 of 2023 at a rate of (14.6%) to reach (84.1) trillion dinars compared to the same quarter of the previous year, which amounted to (98.6) trillion dinars. This is due to the decline in crude oil prices and exported quantities. The GDP in constant prices also recorded a decrease during this quarter by (2.9%) to reach (52.7) trillion dinars as a result of the commitment to reduce production in accordance with OPEC Plus decisions, as shown in Figure No. (23).

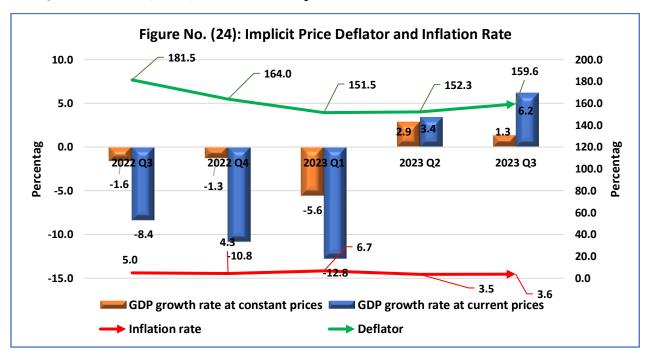


Source: Ministry of Planning, Central Statistical Organization, GDP data for Q1 of 2023.

Table No. (24) GDP in constant prices (Million Dinar)				
Year	<b>Gross Internal Product</b>	Quarterly Rate of Change in GDP		
Q3 2022	54,309,140.8	6.0		
Q4 2022	53,588,384.7	-1.3		
Q1 2023	50,575,299.1	- 2.6		
Q2 2023	52,026,200.8	- 5.8		
Q3 2023	52,712,877.6	- 2.9		

# 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.

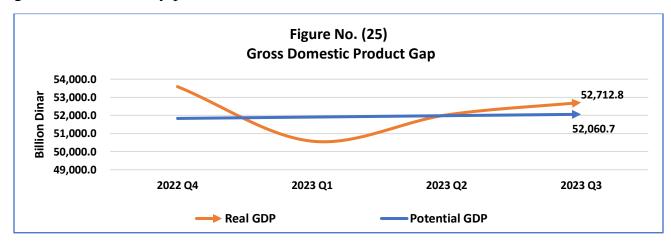


\*For more see, CBI Early Warning Report, Issue No. 19, Page 27.

Table No. (25) GDP in constant and deflator				
Year	GDP in constant prices	GDP in current prices	Deflator	
2022 Q3	54,309,140.80	98,556,870.8	181.5	
2022 Q4	53,588,384.70	87,886,775.0	164.0	
2023 Q1	50,575,299.10	76,641,671.9	151.5	
2023 Q2	52,026,200.80	79,240,693.0	152.3	
2023 Q3	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	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	

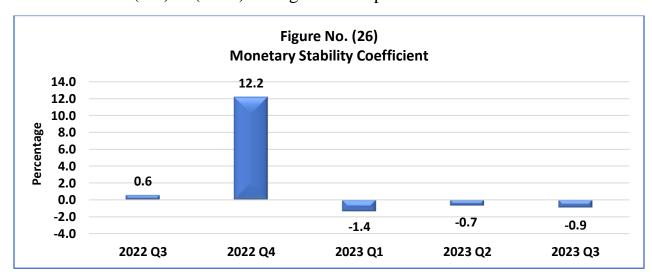
<sup>&</sup>lt;sup>1</sup> The difference between real GDP and potential GPD measured as percentage.

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

# 6. Monetary Stability Coefficient

The monetary stability coefficient explains the inflationary pressures to which the economy is exposed. It is the result of dividing the growth in the money supply in the broad sense by the growth in the GDP at current prices. Therefore, the closer this value is to the correct one, this indicates a good state of monetary stability within the economy, while an increase in the value of this index above one indicates that the economy is suffering from inflationary pressures and a rise in the general level of prices, while a decrease in the value of this index below one indicates the presence of a state of stagnation within the economy, Figure No. (26) shows that the value of the index has decreased from (0.6) during Q3 of 2022 to (0.9) for the same quarter in 2023, meaning that the inflationary pressures that the economy is suffering from have decreased significantly and this is confirmed by the inflation rate, which decreased from (5%) to (3.6%) during the same period.



Source: Central Bank of Iraq, Monetary and Financial Stability Division estimates.

Table No. (27)  Monetary Stability Coefficient (Billion Dinar)					
Year	M2	GDP in current prices	Annual growth rate (M2)	Annual GDP growth rate	Monetary stability coefficient
Q3 2022	153,728	98,557	13.8	25.0	0.6
Q4 2022	168,291	87,887	20.3	1.7	12.2
Q1 2023	170,464	76,642	19.1	-13.9	-1.4
Q2 2023	177,772	79,241	18.5	- 26.3	- 0.7
Q3 2023	173,950	84,128	13.2	- 14.6	- 0.9

Table No. (28)  Macroeconomic Performance Indices							
Index	Q3 2022 Q3 2023 Change Rate						
Annual Inflation Rate (%)	5.0	3.6	-1.4				
Ratio of Treasury bills at the banks to the total internal debt (%)	8.5	7.6	-10.5				
Ratio of Treasury bills discounted by CBI to total internal debt (%)	62.9	64.0	1.7				
Change rate in GDP (%)	6.0	-2.9	-8.90				
Implicit deflator for the GDP (%)	181.5	159.6	-21.90				
Real GDP (IQD Billion)	54,309.1	52,712.9	-1596.2				
GDP gap (IQD Billion)	- 2,552.1	655.1-	156.8				
Monetary Stability Coefficient	0.6	-0.9	-1.5				

Sources: Central Bank of Iraq of Statistics and Research Department, Monetary and Financial Statistics Division and Data from Ministry of Planning, Central Statistical Organization for 2022 and 2023.

### **Conclusion**

- The inflation rate decreased during this quarter compared to Q3 of 2022.
- The increase in internal public debt during this quarter of 2023 compared to the same quarter of 2022, and this is due to the increase in the treasury bills discounted by the Central Bank as a result of the Ministry of Finance recovering its debts after it had repaid them.
- The real GDP recorded an increase much higher than the potential GDP, which indicates the possibility of the economy being exposed to inflationary pressures in the future.
- The monetary stability coefficient recorded a decrease, reaching (-0.9%) in Q3 of 2023, which reflects the decrease in inflationary pressures during this quarter.