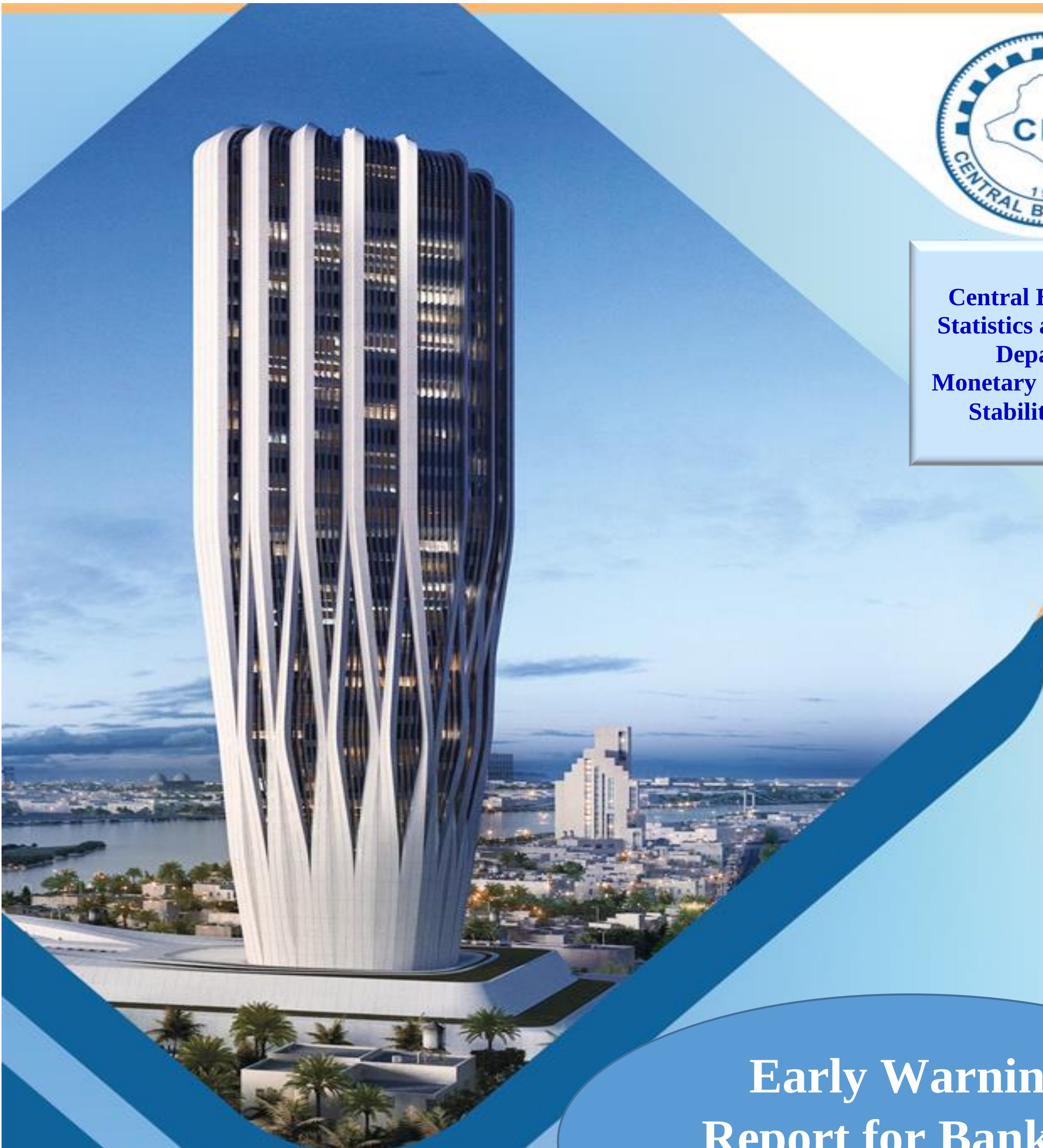

Central Bank of Iraq
Statistics and Research Department
Monetary and Financial Stability Division

Early Warning Report for Banking Sector

Number
Twenty- Three

Q1 2023

Statistics and Research Department
Monetary and Financial Stability Division
Early Warning Section

Early Warning Report for the Banking Sector
(The First Quarter – 2023)

Central Bank of Iraq
2023

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Introduction:

The Early Warning Indices Report is one of the most important reports that help in understanding the most significant risks that the banking sector may face. They provide crucial information about its performance and offer solutions to relevant parties to address any potential future disruptions. This is achieved by evaluating the key performance indicators of the banking sector, identifying areas that require continuous improvement, assessing the impact of government policies and legislation on the banking sector.

In the first quarter of 2023, the foreign exchange market pressure index demonstrated stability within the lower and upper standard limits. Meanwhile, the ratio of foreign reserves to broad money supply (M2) increased to (83.3%), surpassing the specified minimum of (50%), Furthermore, the duration of foreign reserves covering total imports extended to (36) months in the first quarter of 2023, primarily due to the increase in foreign reserves and the decline in total imports resulting from the implementation of the electronic platform.

Regarding banks performance, the ratio of total cash credit to total deposits reached (48.6%) in the first quarter of 2023, falling below the central bank 's standard limit of (75%). The cash multiplier ratio decreased to (1.12%), while the return on assets index rose to (1.9%), and the return on equity ratio increased to (15.5%).

As for macroeconomic indicators, Iraq's Consumer Price Index (CPI) recorded a decrease of (0.7-%) in March 2023 compared to February of the same year, representing the monthly inflation rate. On an annual comparison, the inflation rate for March 2023 stood at (5.3%), with the CPI reaching (122.1) points compared to (116.0) points in the same month of 2022.

The general budget of the state achieved a surplus of more than IQD (4.6) trillion dinars in the first quarter of 2023, and its ratio to the gross domestic product reached (5.96%). Treasury transfers to commercial banks increased by (8.2%) of the public total debt in the first quarter of 2023. The gross domestic product of the Iraqi economy recorded a decline of (12.4-%) in the same quarter of 2023, reaching IQD (76.6) trillion dinars.

Chapter One: Currency Value Stability Indices

Currency stability is considered a crucial indicator of a country's financial and economic stability. Numerous factors influence currency stability, including domestic supply and demand for currency in the local market, the country's cash reserves, inflation rates, the general level of economic activity, the monetary and fiscal policies followed, and the rate of imports. If these factors remain relatively stable and do not undergo significant fluctuations, the currency's value is likely to be stable as well.

Among the most prominent indicators used to measure fluctuations in the value of local currency are the foreign exchange market pressure index, foreign reserve adequacy indicators, and measures of change in interest rates. These indicators were selected because they align with the specific characteristics of the Iraqi economy.

First: Foreign Exchange Market Pressure Index*[1]

The exchange rate is one of the most significant variables directly impacting the Iraqi economy. substantial fluctuations in the exchange rate have negative consequences for the value of the Iraqi dinar and many other economic variables. These fluctuations are often caused by factors such as speculation and variations in demand for the supply of US dollars.

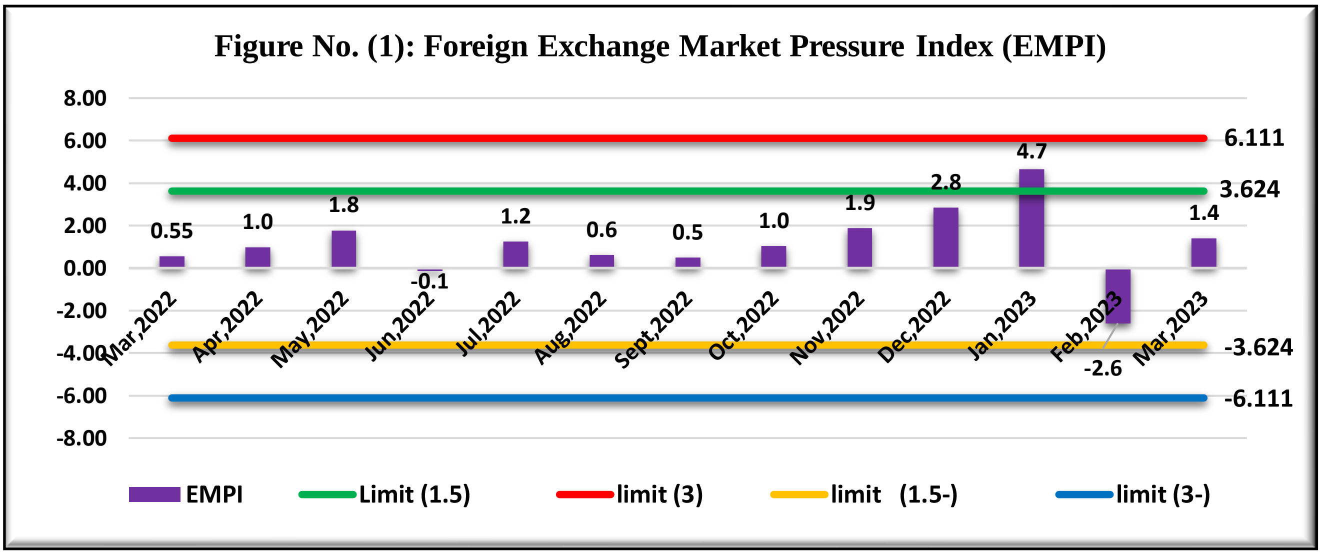
The **Exchange Market Pressure Index (EMPI)** reflects the level of pressure on the local currency in the foreign exchange market. It is calculated by comparing the actual value to a benchmark, with net foreign reserves serving as a key determinant.

The Central Bank of Iraq can directly intervene in the foreign exchange market through its foreign currency sales window. This allows the bank to control the supply and demand of the local currency and consequently, manage the black-market exchange rate. In early 2023, the Central Bank of Iraq devaluated the official exchange rate from IQD (1450) to IQD (1300) dinars per US dollar.

This was followed by measures to regulate foreign transfers, aimed at influencing the supply and demand of the local currency, to narrow the gap between the official and black-market rates.

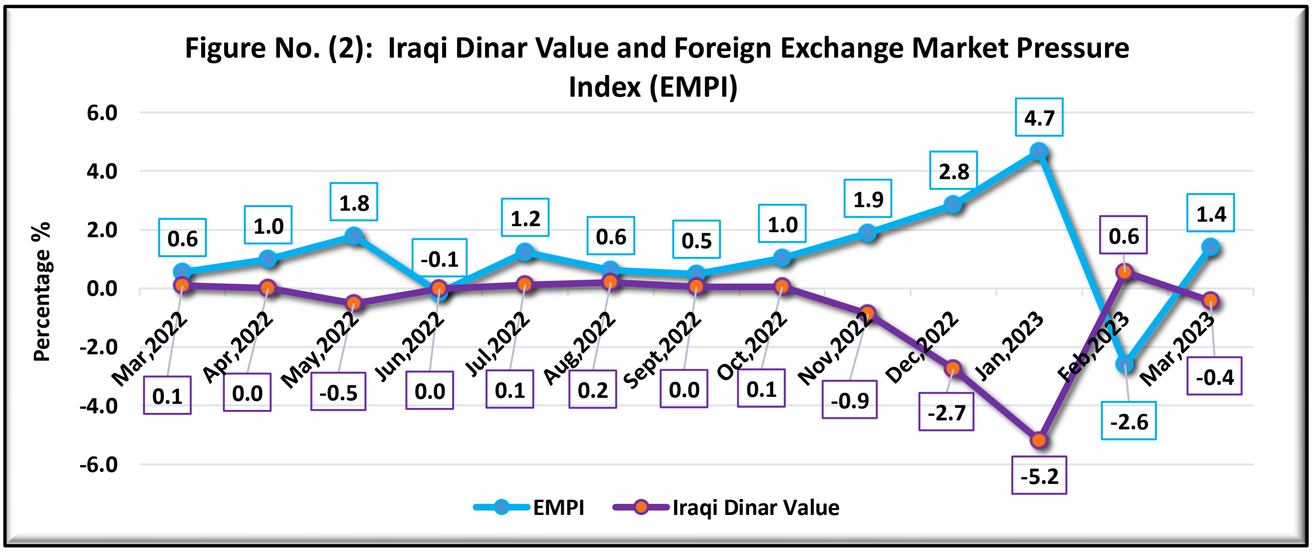
These mechanisms were employed to maintain exchange rate stability and prevent a significant decline in the value of the national currency. As a result, the EMPI remained within the lower and upper benchmarks, indicating that the Central Bank of Iraq was able to defend the value of the local currency, as illustrated in Figure No. (1).

*[1] Central Bank of Iraq, Early Warning Report 2020, Issue 14.



Source: Central Bank of Iraq, Department of Statistics and Research, Estimates of the Monetary and Financial Stability Division 2023.

Figure No. (2) illustrate an inverse relationship between the foreign exchange market pressure index and the value of the local currency, as it is noted that the value of the Iraqi dinar decreased in March 2023 to (-0.4%) compared to February, when it reached (0.6%), conversely , the foreign exchange market pressure index increased to (1.4%) from (-2.6%) during the same period. This was due to a decrease in the Central Bank of Iraq's sales of foreign currency and the increase in demand for it, which negatively impacted the value of the Iraqi dinar.



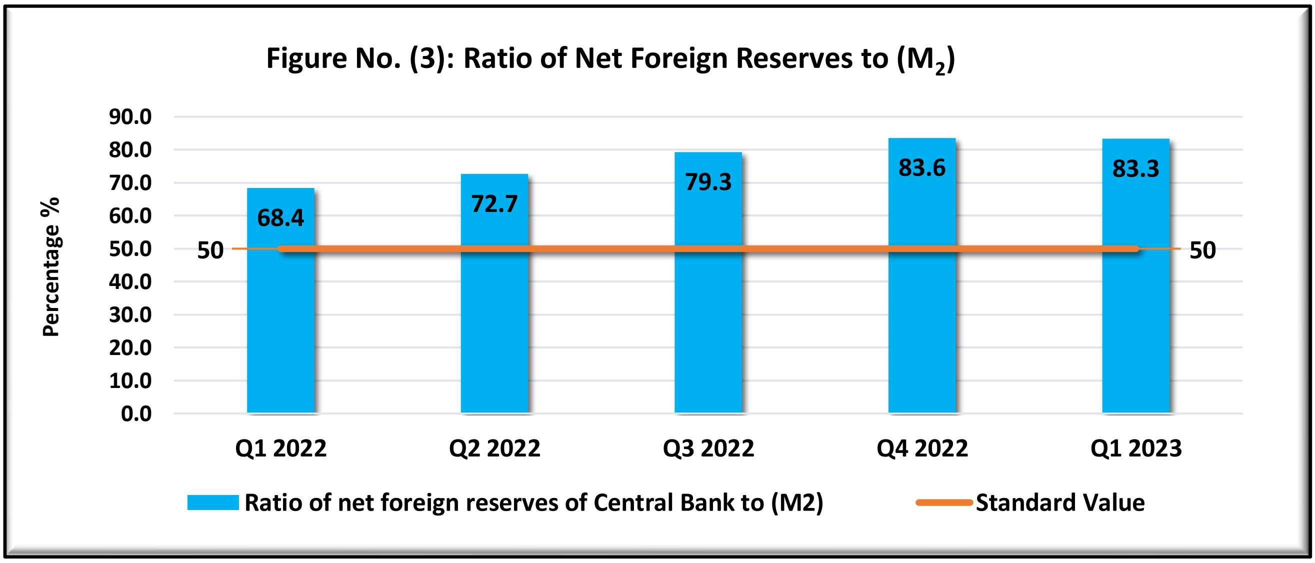
Source: Central Bank of Iraq, Department of Statistics and Research, Estimates of the Monetary and Financial Stability Division 2023

Second: Indices of the Adequacy of Foreign Reserves

Central banks strive to achieve an optimal and adequate level of foreign reserves to ensure a safe and sound position that can withstand unexpected external shocks to the balance of payments. These indicators are used to measure the country's ability to meet its foreign currency needs, finance budget deficit, and achieve financial stability. Therefore, adequate foreign reserves are a means of boosting confidence in the value of the domestic currency and reducing the risks of capital flight. There are several indicators for measuring foreign reserves, including:

1. The Ratio of Net Foreign Reserves to The Broad Money Supply (M_2)

The ratio of foreign reserves to broad money supply recorded an increase of (83.3%) in the first quarter of 2023 ,compared to (68.4%) in the same quarter of the previous year, this is higher than the benchmark ratio of (50%) as shown in Figure No. (3), which indicates the country's creditworthiness and its ability to better withstand economic risks, and that the net foreign reserves of the Central Bank of Iraq are within safe limits.

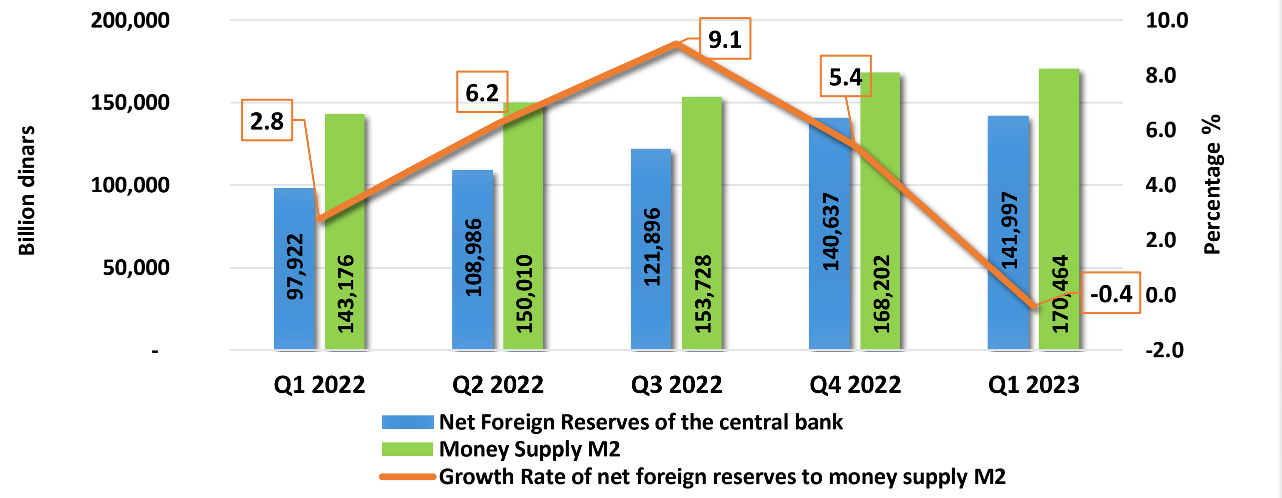


Source: Central Bank of Iraq, Statistical Website

2. Growth Rate of Net Foreign Reserves to Growth of Broad Money Supply (M_2)

The growth rate of net foreign reserves relative to broad money supply (M_2) declined in the first quarter of 2023 reaching (-0.37%) compared to (2.77%) in the first quarter of the previous year. Despite a (0.97%) increase in net foreign reserves during the first quarter of 2023, the growth rate of broad money supply (M_2) was higher at (1.3%). This means that the growth rate of the ratio of net reserves to broad money supply (M_2) was decreasing, despite an increase in the level of net reserves to money supply (M_2). This is an indicator that strengthen confidence in the Iraqi dinar as a store of value and helps maintain the value of the domestic currency by ensuring exchange rate stability as a nominal anchor for inflation, as shown in Figure No. (4).

Figure No. (4):
Growth Rate of Net Foreign Reserves to Growth of (M_2)



Source: Central Bank of Iraq, Statistical Website.

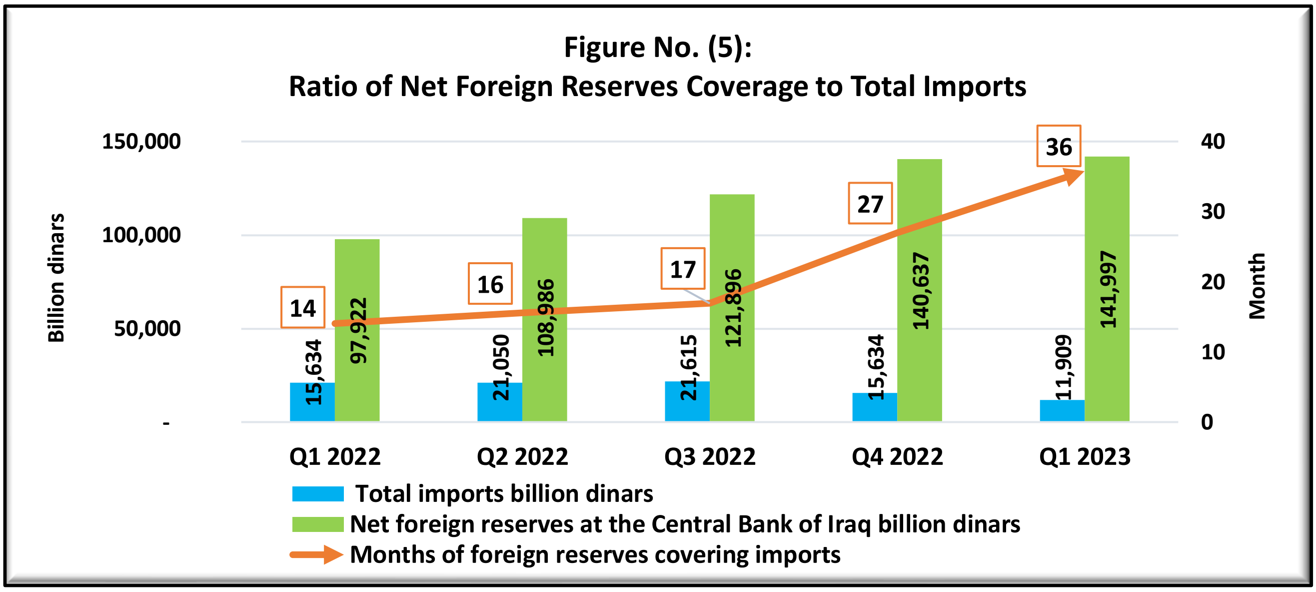
3. Foreign Reserves Coverage Index to Total Imports

The foreign reserves coverage ratio to total imports ratio is an indicator used to assess the country's ability to finance and cover its import needs using its foreign reserves, assuming that there are no foreign currency inflows or revenues during the same period.

Typically, a minimum threshold for this ratio is set between (4 - 5) months in some countries. However, this ratio varies from one country to another based on its economic conditions. In the case of Iraq, the acceptable minimum threshold is (6) months.

Figure No. (5) shows that the foreign reserves coverage ratio to total imports in Iraq reached a coverage period of (36) months in the first quarter of 2023, up from (14) months in the same quarter of the previous year.

This increase is attributed to a rise in net foreign reserves and a decrease in the volume of imports, which fell from IQD (15.6) trillion in the first quarter of 2022 to IQD (11.9) trillion in the first quarter of 2023. The decline in import is due to stricter scrutiny of import transactions through an electronic platform and the financing of personal needs of citizens such as travelling, studying and medical treatment abroad, all dollar exchange transactions are subject to high standards of international financial compliance to ensure the integrity of Iraq’s financial system.



Source: Central Bank of Iraq, Statistical Website.

Third: Change in Interest Rates

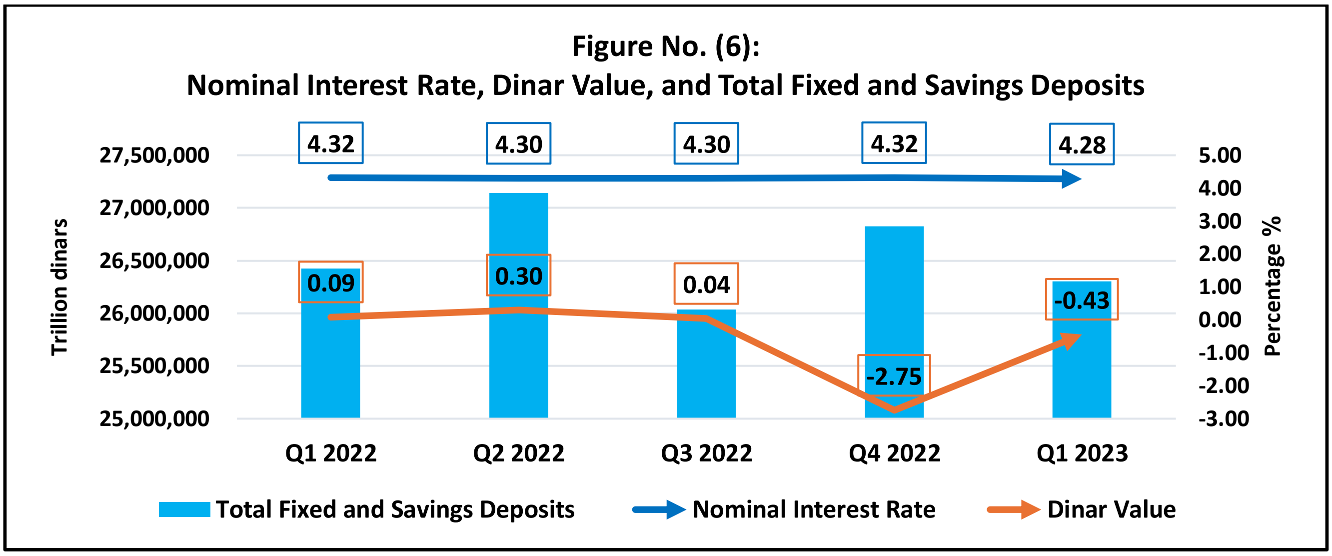
The change in interest rates is a crucial component of the monetary policy employed by the central banks. These rates are determined by a multitude of economic, financial, and political factors. They serve as a tool for monetary authorities to implement desired policy directions based on a country's economic condition. Interest rates significantly influence the overall economy of individuals and businesses.

1. Short-term Interest Rates on Deposits *[1]

This indicator provides insights into trends in the nominal interest rate, the value of the dinar, and the total amount of fixed -term and savings deposits. As shown in figure no. (6) there has been a decrease in the nominal interest rate from (4.32%) in the first quarter of 2022 to (4.28%) in the same quarter of 2023. Additionally, there has been a slight decline in total fixed-term and savings deposits to IQD (26.3) trillion dinars in the first quarter of 2023 compared to IQD (26.4) trillion dinars in the same quarter of 2022.

The figure also indicates a decrease in the value of the Iraqi dinar, which is primarily attributed to the increase in the market exchange rate of the domestic currency during the same period. This suggests that the nominal interest rate has a relatively weak influence on the value of the domestic currency.

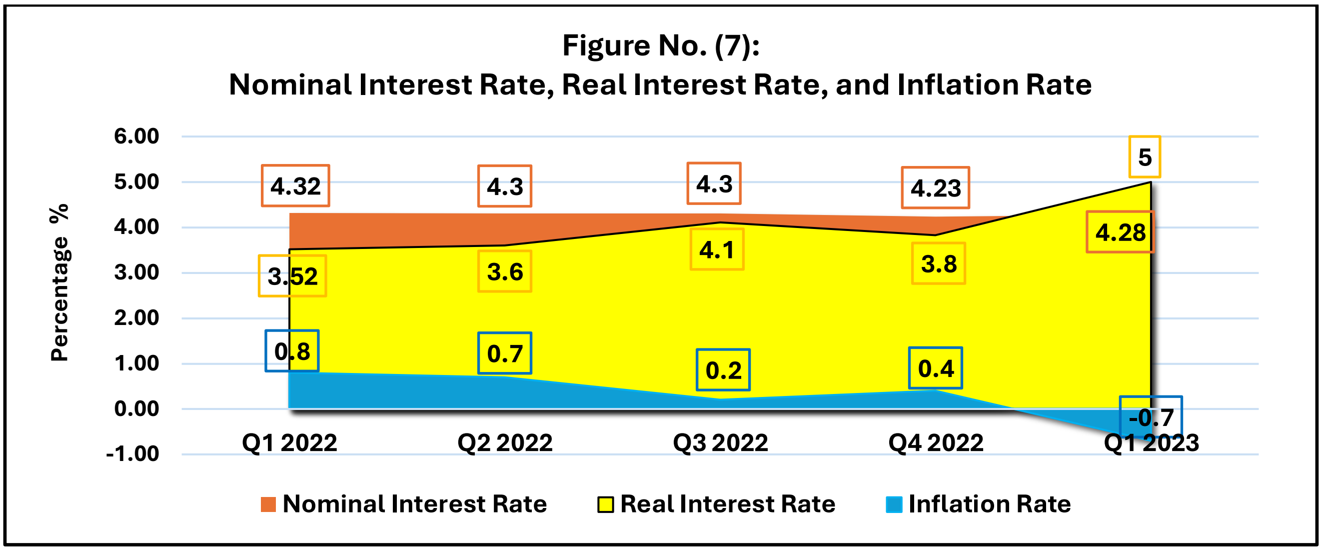
*[1] Interest rates deposits include six-month, one-year, deposits and savings deposits.



Source: Central Bank of Iraq, Statistical Website.

2. Real Interest Rate

The real interest rate represents the difference between the nominal interest rate and the inflation rate. Figure No. 7 shows an increase in the real interest rate to 4.98% in the first quarter of 2023, compared to 3.52% in the same quarter of 2022. This increase is due to a decrease in the inflation rate during the same period.



Source: Central Bank of Iraq, Statistical Website.

Table No. (1): Currency Value Stability Indices					
Index Name	**Index Value during Q1 2022**	**Index value during Q1 2023**	**Change Rate %**	**Impact on Financial Stability**	**Index Direction**
Official Exchange Rate (in dinar)	1,460	1,373	-6%	**Positive**	↑
Foreign Exchange Market Pressure Index (%)	0.55	1.4	154.5	**Acceptable**	↑
Domestic Currency Value (%)	0.09	-0.4	-544.4	**Acceptable**	↓
Gap Between Black Market Exchange Rate and Official Exchange Rate	16	302	1787.5	**Acceptable**	↑
Net Foreign Reserves of the Central Bank (in IQD Billion)	97,922	141,997	45	**Positive**	↑
Ratio of Foreign Reserves to Broad Money Supply (M2) (%)	68.4	83.3	21.6	**Positive**	↑
Growth Rate of Foreign Reserves to Broad Money Supply (M2) (%)	2.77	0.50	-81.9	**Acceptable**	↓
Foreign Reserves Coverage of Imports (in months)	14	36	157.1	**Positive**	↑
Nominal Interest Rate on Deposits (%)	4.32	4.28	-0.9	**Acceptable**	↓
Total of Fixed Deposits and Savings Deposits (in IQD billion)	26,4	26,3	-0.37	**Acceptable**	↓
Real Interest Rate (%)	3.52	4.98	41.5	**Positive**	↑

This table was prepared by adopting data from:

- Statistics and Research Department, Monetary and Financial Statistics Division.
- Statistics and Research Department, Balance of Payments & Foreign Trade Statistics Division

Chapter Two: Banks’ Performance Indices Working in Iraq

This chapter presents an analysis and measurement of several indicators related to the performance of the banking sector, aiming to provide a comprehensive overview of the banking sector's ability to meet its financial obligations. This is achieved through monitoring various key indicators, including: the ratio of the central bank's total loans to the total liabilities of the banking sector, the ratio of bank deposits to broad money supply (M2), the ratio of credit to total deposits, as well as the money multiplier. Additionally, the chapter measures the investment and profitability index of banks operating in Iraq and compares the ratio of total non-performing loans to total credit, total deposits, and total assets. Furthermore, it reviews the sectoral distribution of credit and non-performing loans, as well as other indicators.

1. Central Bank’s Loans / Total Banks’ Liabilities

Based on Article 30 of the Central Bank of Iraq Law No. 56 of 2004, Iraqi banks can turn to the Central Bank in case of financial distress or liquidity shortage, as it is the lender of last resort. The following legal conditions are required for this process:

Sufficient Liquidity: The bank must have sufficient liquidity to meet depositor withdrawals in order to maintain the stability of the banking system and prevent its collapse. In case of a liquidity shortage, the bank can turn to the Central Bank to bolster its liquidity under strict conditions.

Compliance with Law: The law stipulates that the liquidity enhancement must comply with the conditions specified in the Central Bank of Iraq Law, which include adherence to banking laws and regulations, and providing sufficient collateral to obtain the financing. Therefore, liquidity enhancement from the Central Bank is crucial for maintaining financial system stability and ensuring the continuity of banking services in the country.

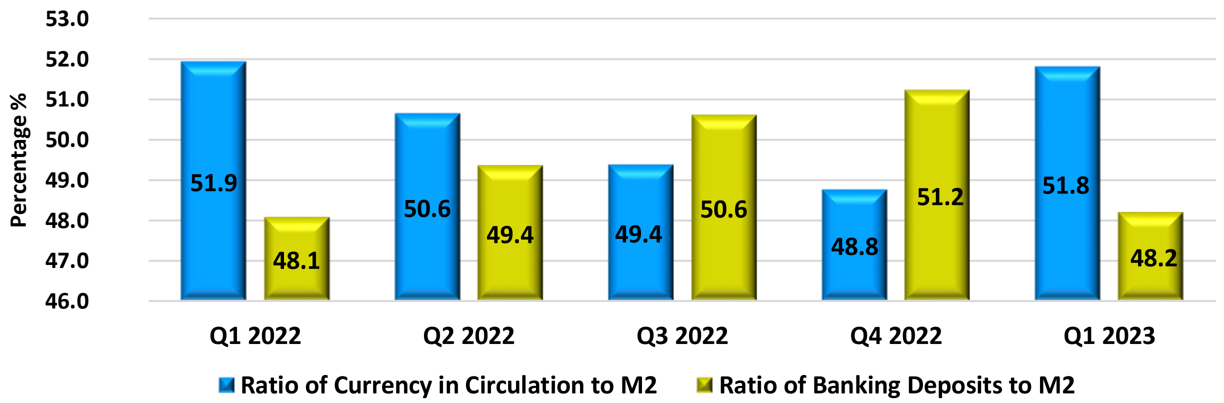
A high Banking Sector Fragility Index indicates increased risks and challenges faced by the banking sector, damaging its reputation. This increase suggests the potential for a liquidity crisis within the banking sector and reveals the extent of its distress, thereby amplifying the risks associated with the overall economy and banking system. It is noteworthy that the Central Bank of Iraq did not provide loans to operating banks during the first quarter of 2023. This reflects the fact that none of the operating banks required emergency liquidity or had to deal with exceptional withdrawals during that period. This development is a positive sign, as it demonstrates the stability of the banking sector and its ability to effectively manage its liquidity under the current economic conditions.

2. Bank Deposits and Currency in Circulation to Broad Money Supply (M2)

The ratio of bank deposits to broad money supply (M2) is a significant indicator of bank liquidity and public confidence in these institutions. When this ratio is high, it suggests that banks are performing well and enjoy depositor trust, as they are able to attract deposits and maintain a stable deposit base. Consequently, they are not exposed to a liquidity crisis. This ratio is calculated by dividing bank deposits by the broad money supply (M2). Figure No. 8 illustrates the stability of the ratio of bank deposits to broad money supply (M2) in the first quarter of 2023 at 48.2%, while the ratio of currency in circulation to broad money supply (M2) remained stable at 51.8% for the same quarter of 2023.

This development is a positive sign, indicating depositor confidence in banks and the stability of the banking sector. Based on this, it can be concluded that banks are performing at an acceptable or good level within certain limits. They are attractive to depositors and enjoy depositor trust, indicating that they are not exposed to a liquidity crisis. It is important for the banking sector and the central bank to continue monitoring these indicators carefully to ensure the stability of the banking system, depositor confidence, and the continuity of banking services.

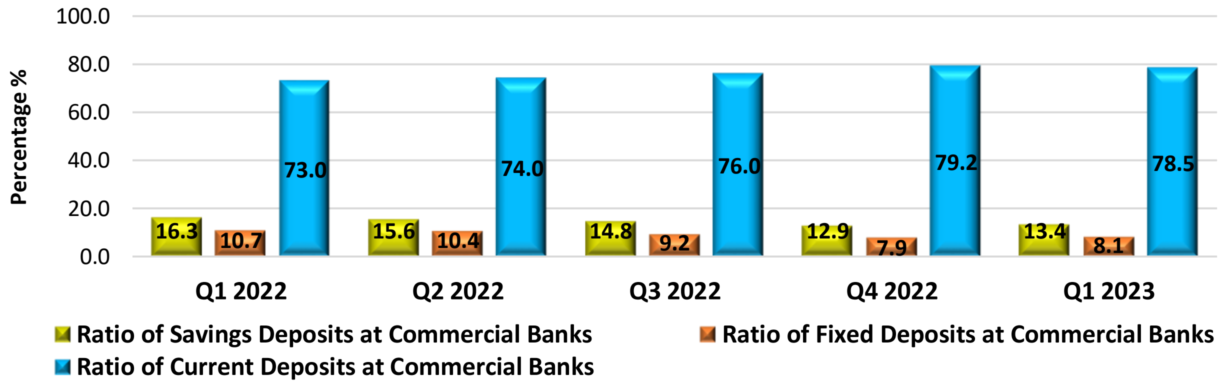
Figure No. (8):
Ratio of Deposits in Broad Money Supply and Currency in Circulation to M2



Source: Central Bank of Iraq, Statistical Website.

Figure No. 9 illustrates the distribution of deposits in commercial banks, specifically current, fixed, and savings deposits, as a proportion of total deposits. The ratio of current deposits to total deposits in commercial banks increased from 73.0% in the first quarter of 2022 to 78.5% in the same quarter of 2023, representing a growth rate of 7.5%. Conversely, the ratio of fixed deposits decreased to 8.1% from 10.7%, with a negative growth rate of 24.3%. Similarly, the ratio of savings deposits declined from 16.3% to 13.4%, with a negative growth rate of 17.8%. Despite an overall increase of 26.2% in total deposits in commercial banks during the same period, this growth is primarily attributed to the increase in current deposits, which constitute the largest proportion of deposits in commercial banks. This increase in current deposits reflects increased trust and reliance on banks to meet the ongoing financial needs of individuals and companies. However, the diversity and distribution of deposits among different types should be monitored to achieve a balanced deposit structure and ensure the sustainability of the bank.

Figure No. (9):
Ratio of Fixed, Current, and Savings Deposits to Total Deposits at Commercial Banks

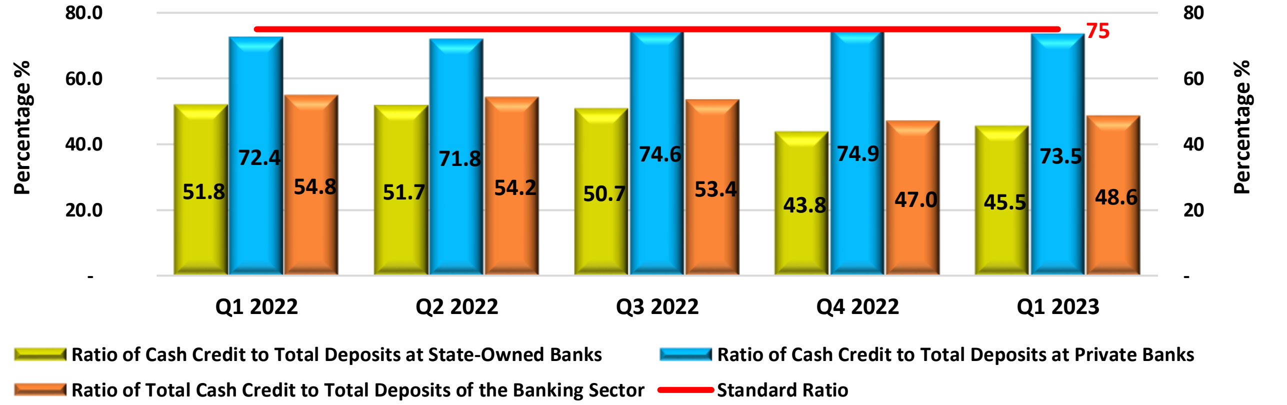


Source: Central Bank of Iraq, Statistical Website.

3. Total Cash Credit / Total Deposits

This indicator is calculated by dividing total credit (the amounts lent out to customers as loans and credit) by total deposits (the amounts deposited by customers in banks). A decrease in this ratio reflects a decrease in the bank's ability to provide credit compared to the size of deposits, indicating a shortage of liquidity. Conversely, an increase in the ratio indicates an increase in the bank's ability to provide credit compared to the size of deposits, suggesting an increase in liquidity. The Central Bank of Iraq has set a standard ratio of 75%, and Figure No. 10 shows a decrease in the ratio of credit granted by the banking sector to its total deposits, reaching 48.6% in the first quarter of 2023 compared to 54.5% in the same quarter of the previous year. This is due to the higher growth rate of total deposits at 26.2%, which is greater than the growth rate of credit granted at 12.6%.

Figure No. (10):
Ratio of Cash Credit to Total Deposits at State-Owned and Private Banks and the Banking Sector as a whole



Source:

- Central Bank of Iraq, Statistical Website.
- Central Bank of Iraq, Department of Statistics and Research, Monetary and Financial Statistics Division.

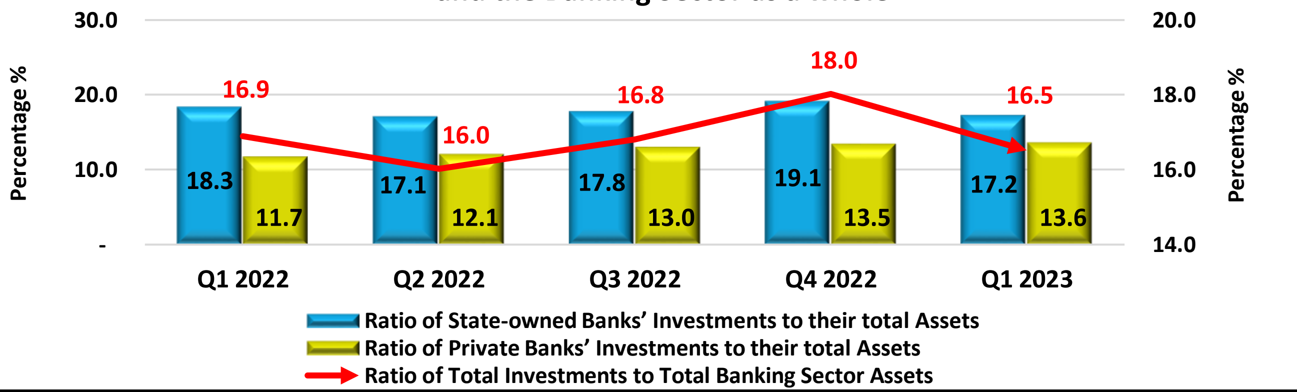
This indicator recorded an increase for private banks from 72.6% in the first quarter of 2022 to 73.5% in the same quarter of 2023, which is close to the limit set by the central bank. This increase is attributed to the credit granted to private banks through the initiative launched by the central bank, independent of their deposit base. When compared to government banks, the ratio has been lower in previous years, decreasing from 51.8% in the first quarter of 2022 to 45.5% in the same quarter of 2023, which is within the limits set by the Central Bank of Iraq.

4. Banks' Investments

The bank investment index is a crucial indicator that reveals the extent of actual investments in bank balance sheets. It highlights the significant contribution of these investments in generating returns and increasing profits for banks, especially if these investments bolster economic sectors and positively contribute to the national economy. Investments are financed by the bank's own capital and available deposits and are reflected in the assets section of the bank's balance sheet. The size of investments is measured by comparing it to total assets to determine its significance and size within the bank.

If the investment ratio of operating banks is high, it indicates strong and successful investments that contribute to generating returns and increasing profits for the bank. It may also have a positive impact on the real sector of the economy by financing projects and stimulating economic growth. Figure No. 11 shows a decrease in the ratio of investments to total assets of commercial banks from 16.9% in the first quarter of 2022 to 16.5% in the same quarter of 2023. This decrease is due to the growth in total assets by 17.5%, which is higher than the growth in investments at 14.7%. It was also observed that the investment ratio for government banks to their total assets decreased from 18.3% in the first quarter of 2022 to 17.2% in the same quarter of 2023. However, investments in private banks as a proportion of their total assets increased from 11.7% to 13.6% over the same period. It is worth noting that investments by government banks constitute 83.4% of total investments by operating banks, while investments by private banks constitute 16.6%. This is due to the high level of public trust in government banks because of the large scale of banking activities provided by these banks and their extensive branch network throughout all Iraqi governorates.

Figure No. (11):
Ratio of Total Investments to Total Assets at State-Owned and Private Banks and the Banking Sector as a whole

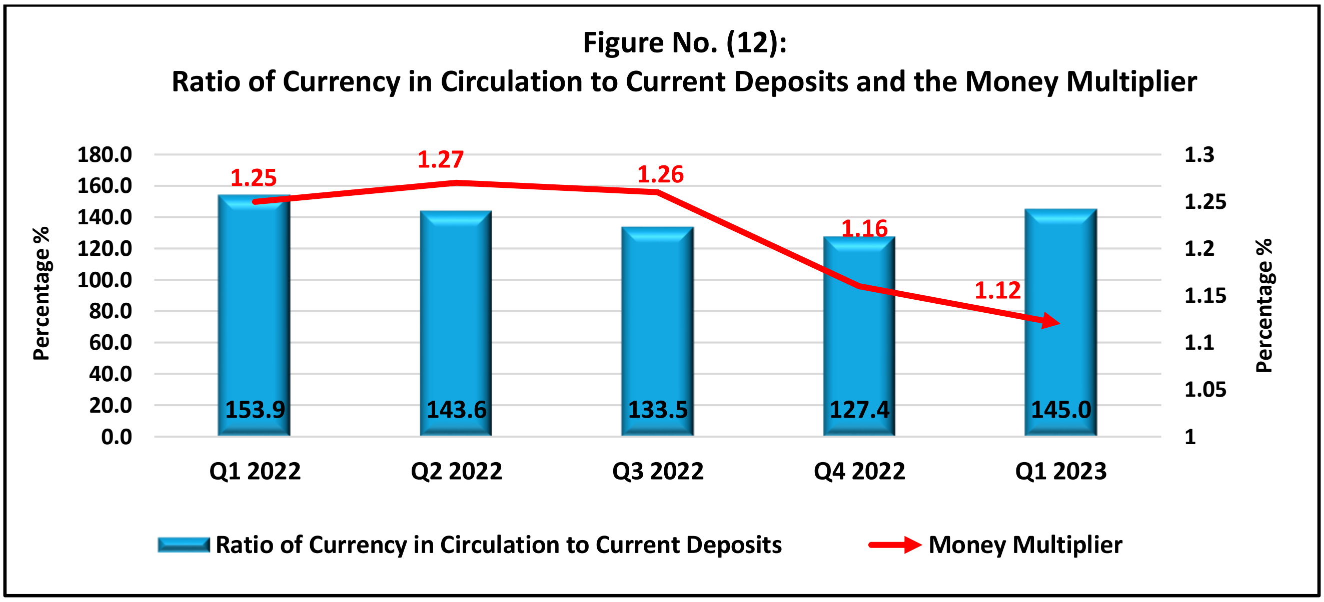


Source: Central Bank of Iraq, Department of Statistics and Research, Monetary and Financial Statistics.

5. Money Multiplier

The money multiplier relates to the ability of banks to convert deposits into loans and credits for the public and businesses. The money multiplier reflects banking activity in the real economy and expresses public confidence in the banking services provided. It also reflects the willingness of banks to provide credit and benefit from the resulting interest. The money multiplier is calculated by dividing the broad money supply (M2) by the monetary base (M0). This ratio reflects the ability of banks to create credit based on the deposits they hold.

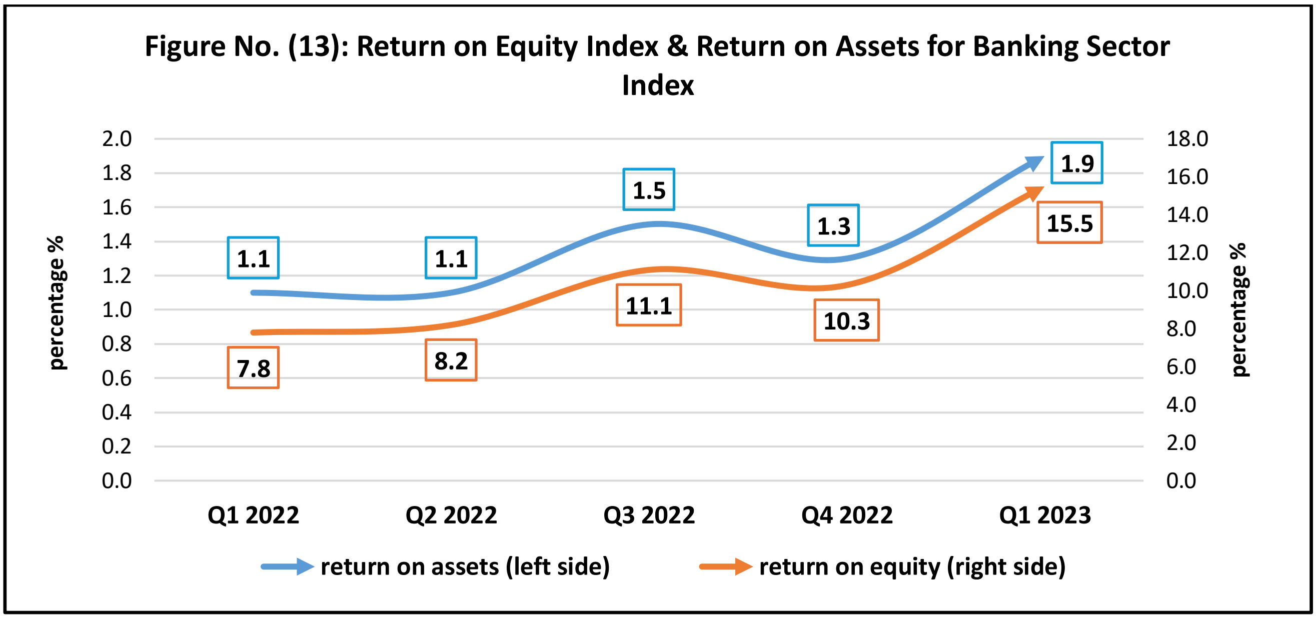
Figure No. 12 shows a decrease in the money multiplier from 1.25% to 1.12% during the period (2023/Q1-2022/Q1). This is due to an increase in excess reserves held by commercial banks by 12.5%. It was also observed that the ratio of currency in circulation to current deposits decreased from 154.6% in the first quarter of 2022 to 144.0% in the same quarter of 2023. These changes indicate shifts in the structure of liquidity and banking activity. The central bank is monitoring these changes to ensure the stability of the banking system and the economy as a whole.



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

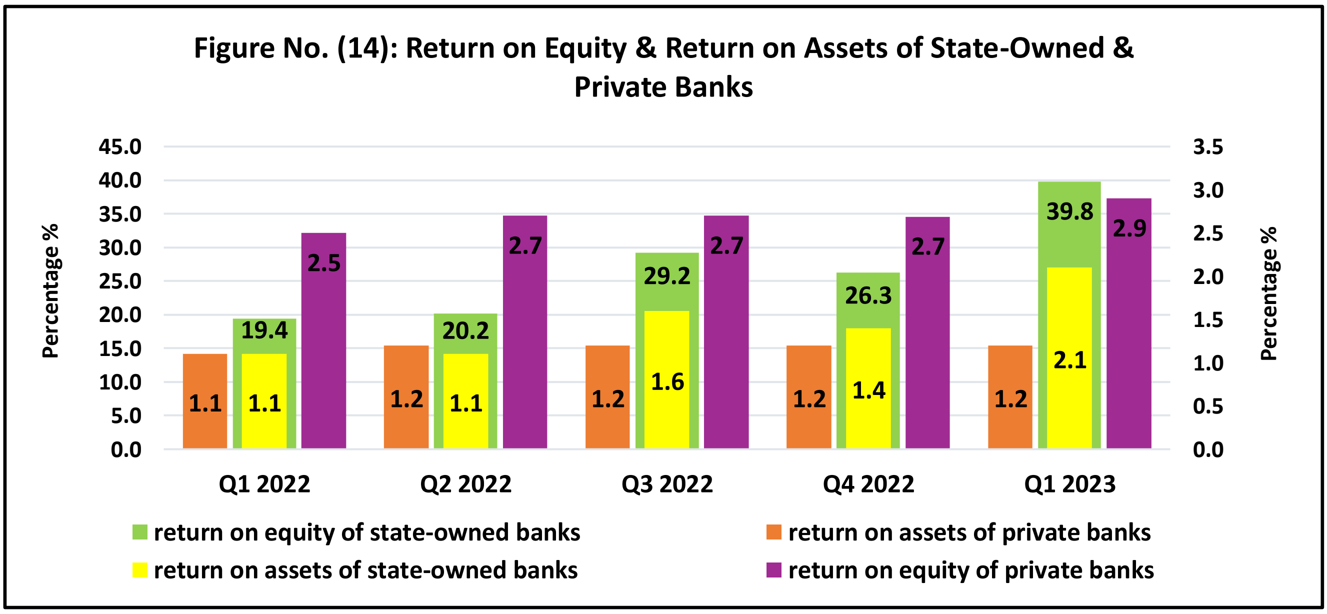
6. Banks' Profitability:

This indicator is used to measure the profits or losses incurred by banks. The indicator assesses two main aspects: return on equity (RoE), which evaluates the efficiency of shareholders in utilizing the bank's funds and their ability to generate profits; while the second aspect is the return on assets (RoA) that reflects the bank's operational efficiency and ability to use assets to generate profits. Figure No. 13 shows an increase in (RoE) for the banking sector from 7.8% in Q1 of 2022 to 15.5% in the same quarter of 2023. The figure also shows an increase in (RoA) from 1.1% in Q1 of 2022 to 1.9% in the same quarter of 2023. This indicates that banks are effectively utilizing their surplus resources to generate profits, whereas the increase in these ratios reflects the effectiveness and efficiency of banks in managing their funds and generating returns. This boosts confidence in the banks' financial performance and makes them attractive to investors and depositors. Consequently, it is important for CBI and supervisory authorities to closely monitor these ratios in order to ensure the sustainability and stability of the banking system.



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

The ratios presented in figure No. (14) show an increase in the return on equity and return on assets of government banks. The return on equity increased from (19.4%) in Q4 of 2022 to (39.8%) in the same quarter of 2023. Similarly, the return on assets increased from (1.1%) to (2.1%) during the same period. This indicates the ability of government banks to efficiently utilize their resources and assets to generate profits. Additionally, the return on equity and return on assets of private banks were decreased, as the return on equity increased from (2.5%) in Q1 of 2022 to (2.9%) in the same quarter of 2023. While the return on assets increased from (1.1%) to (1.2%) during the same period. This is due to an increase in the capital and assets of private banks at a rate greater than the increase in their returns.



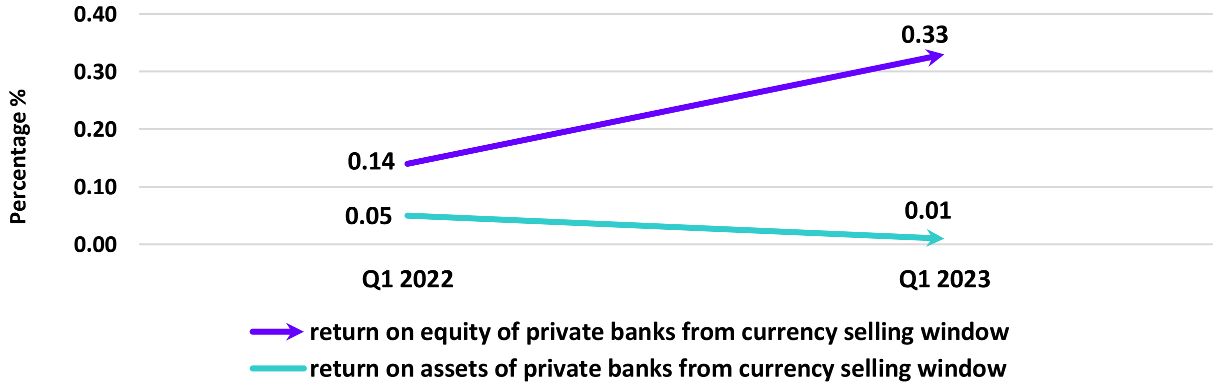
Source: Central Bank of Iraq, Statistics and Research Department.

7. Profitability Of Private Banks from Foreign Currency Selling Window: *[1]

The indicator shows the profitability of private banks from non-interest income sources, since the foreign currency selling window represents one of these sources. Figure No. (15) illustrates an increase in the return on equity and return on assets for private banks as a result of their purchases from the foreign currency selling window. The return on equity from private banks' purchases from the foreign currency selling window increased from (0.14%) in Q1 of 2022 to (0.33%) in the same quarter of 2023.

The return on assets decreased during the same period from (0.05%) to (0.01%). This decrease in the profitability of private banks is due to a decrease in their share of foreign currency.

Figure No. (15): Return on Equity & Return on Assets of Private Banks from Currency Selling Window



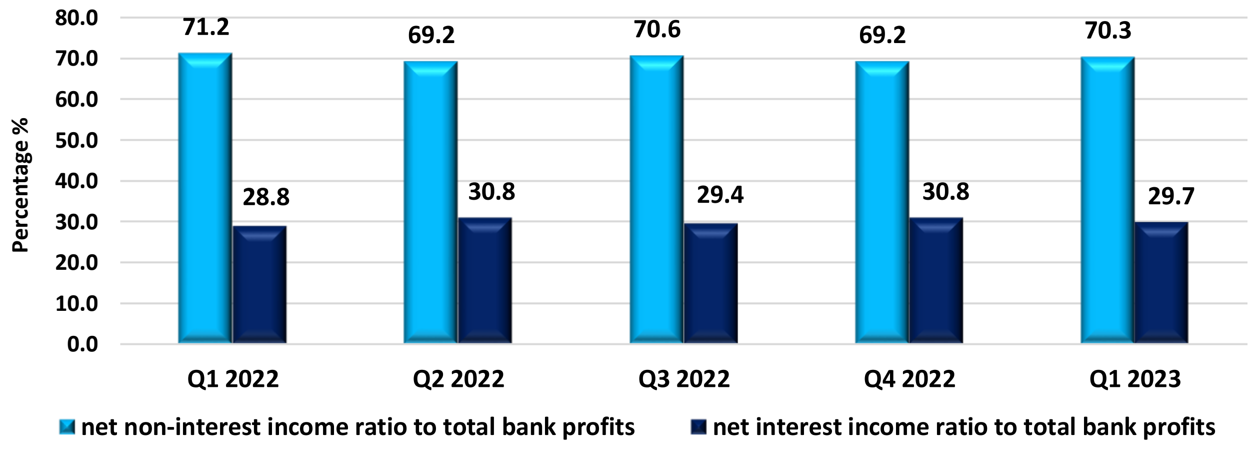
Source: Central Bank of Iraq, Estimates of Monetary and Financial Stability Division, 2023.

When examining the profits of private banks generated from banking activities, such as interest earned from granting credit, it can be found that the proportion of these profits is low compared to the total profits of banks. In Q1 of 2023, the proportion of private banks' profits from interest earned from providing credit was approximately (92.7%), which reflects the concentration of private banks' activities in areas other than providing credit. Figure No. 16 shows that the net income generated from non-interest sources by private banks represents around (70.3%) of the total income of banks in Q1 of 2023.

*[1] For more information, see CBI, 2021, Early Warning Report, issue seventeen.

This indicates that private banks rely heavily on sources of income other than interest, such as fees, commissions, and other activities. This requires private banks to increase their activity in the real sector by expanding the scope of lending and attracting deposits, as well as increasing the financial services those banks provide. It is worth noting that this matter differs for government banks, since these banks generally do not participate significantly in the foreign currency selling window, or their participation is so limited. In Q1 of 2023, the proportion of net interest income for government banks to total net interest income for banks was nearly (80%). Consequently, private banks must increase their focus on lending activities, attracting deposits, and enhancing financial services to attain more returns and profits.

Figure No. (16): Net Income from Interest & Non-Interest of Private Banks

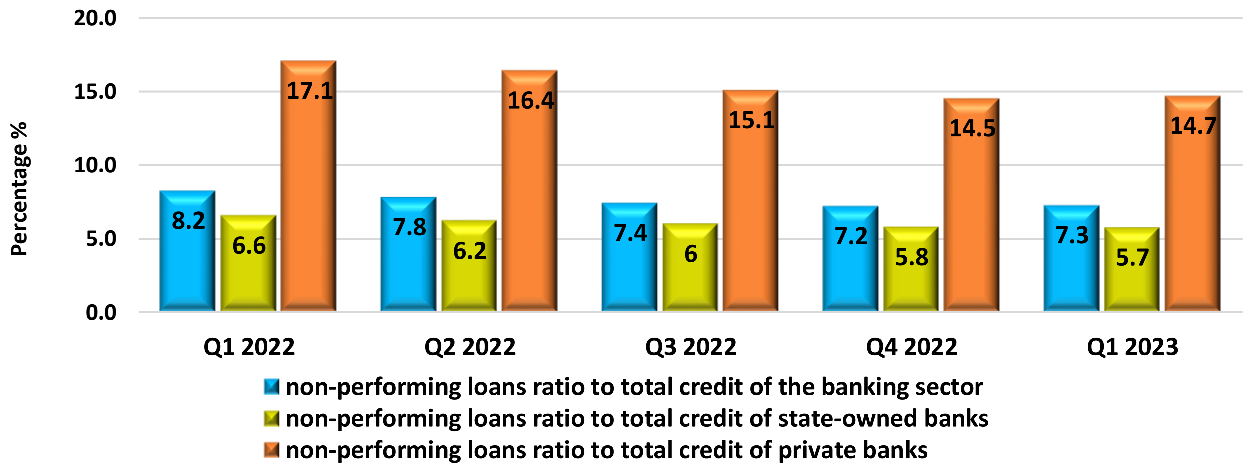


Source: Central Bank of Iraq, Statistics and Research Department.

8. Non-Performing Loans / Total Cash Credit

This indicator is a crucial tool for measuring the safety of the banking sector and assessing credit risk. Accordingly, when the indicator is high, it indicates a high proportion of loans that have not been repaid regularly, implying a potential for a financial crisis in the banking system in general, or in a specific banking sector. In such cases, monetary authorities can take measures to address the problem, such as imposing a higher ceiling for covering non-performing loans, aiming to reduce potential risks and prevent the problem from spreading. On the other hand, if the indicator is low, it means that the banking system is stable and has a good ability to repay loans, making the financial crisis less likely. Figure No. (17) shows a decrease in the ratio of non-performing loans compared to the total credit of operating banks, so it decreased from (8.2%) in Q1 of 2022 to (7.3%) in the same quarter of 2023. The growth rate of non-performing loans in the banking sector also decreased by (0.6%), and this low indicator indicates the soundness of the banking system and the ability to manage credit-related risks and repay loans regularly.

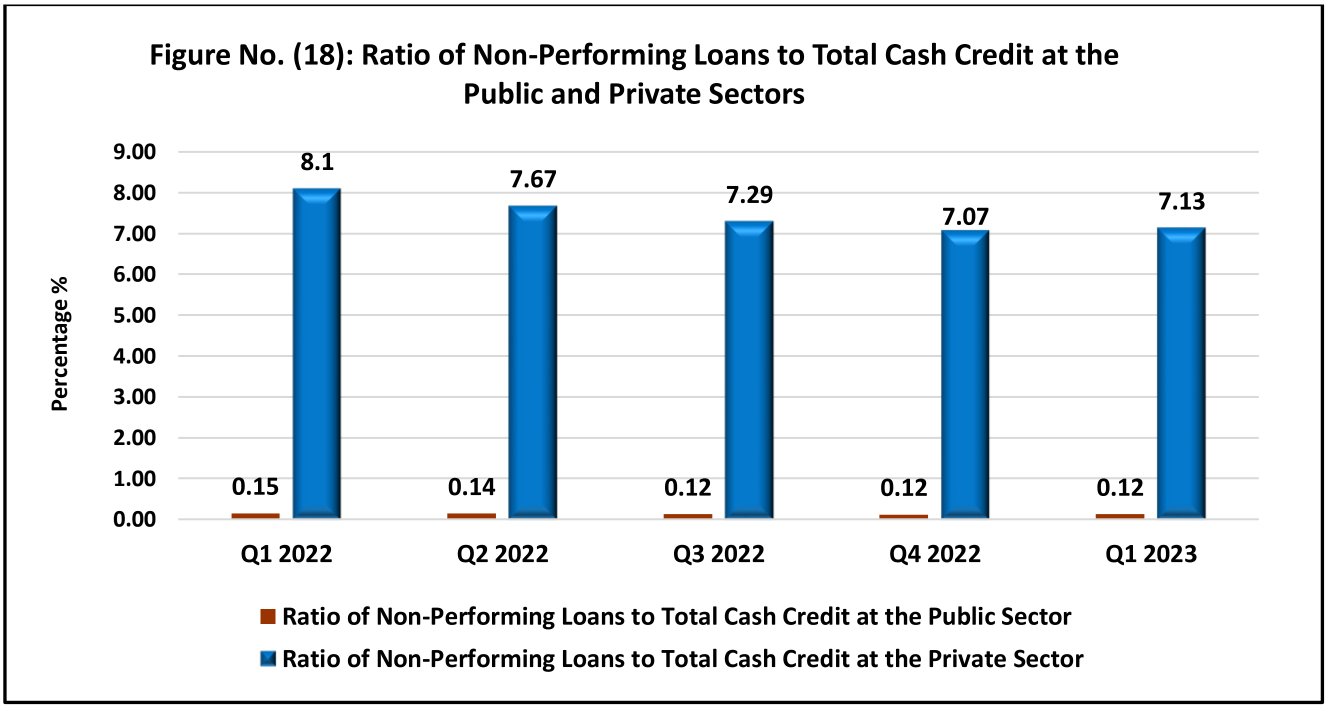
Figure No. (17): Ratio of Non-Performing Loans to Total Cash Credit of State-Owned, Private Banks, And the Banking Sector



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

Regarding non-performing loans in the banking system, it could be found that the ratio of non-performing loans to total credit in state-owned banks has decreased from (6.6%) in Q1 of 2022 to (5.7%) in the same quarter of 2023. In contrast, the ratio of non-performing loans is higher in private banks, with the ratio of non-performing loans to total credit decreasing from (16.8%) in Q1 of 2022 to (14.7%) in the same quarter of 2023. Concerning the distribution between the government and private sectors for non-performing loans as a ratio of total credit, figure No. (18) shows a decrease in the private sector from (8.10%) in Q1 of 2022 to (7.14%) in the same quarter of 2023. The ratio also decreased in the government sector from (0.15%) to (0.12%) during the same period.

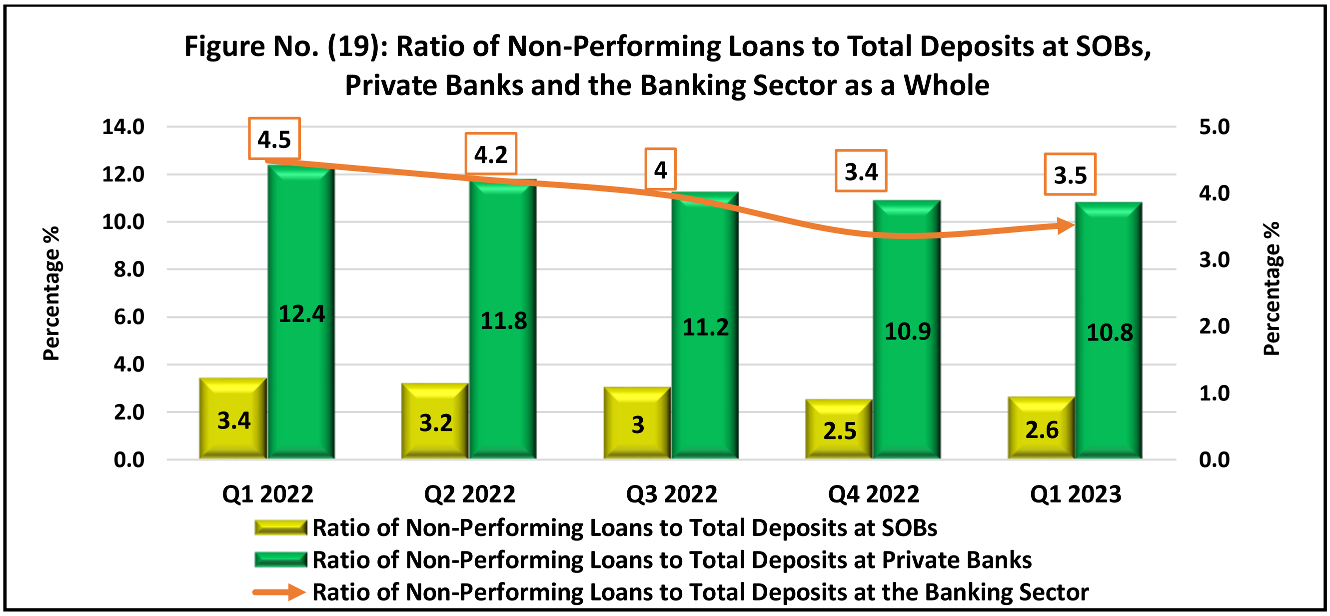
Therefore, it could be that the ratio of non-performing loans to total non-performing loans in the private sector is higher by (98.3%) compared to the government sector, which accounts for (1.6%). This is attributed to the increased role of the private sector in economic activity. Whereas the economic, political, and social factors increase the level of risk in the private sector compared to the government sector (government and public institutions), where risks are lower. Based on this data, the private banking sector can be considered more exposed to risks related to non-performing loans compared to the government banking sector, as shown in figure No. (18).



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

9. Non-Performing Loans/ Total Deposits

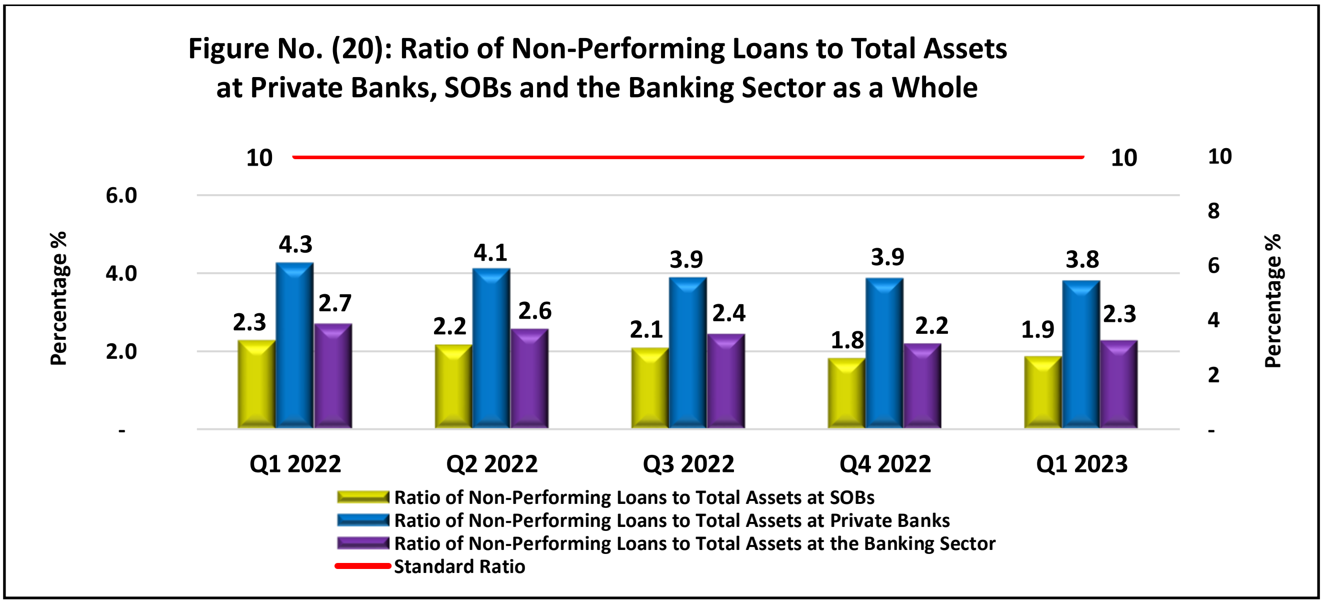
This index is measured by dividing non-performing loans by total deposits at banks. Figure No. (19) shows the decrease of non-performing loans to total deposits ratio in the banking sector from (4.5%) for Q1 of 2022 to (3.5%) for the same quarter of 2023. It is considered a good index for operating banks, showing their ability to handle non-performing loans. At the SOBs and private banks level, the ratio of non-performing loans to total deposits in private banks decreased from (12.2%) to (10.8%), which is also a good index, although it remained high compared to SOBs due to their large volume of deposits. The ratio of non-performing loans to total deposits decreased from (3.4%) to (2.6%) for (Q1 2022 - Q1 2023). These figures reflect an improvement in the index of non-performing loans to total deposits in the banking sector generally. It indicates banks' ability to deal with the challenges of non-performing loans.



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

10. Non-Performing Loans/ Total Assets

This index is measured by dividing non-performing loans by the total assets of banks, as the standard value of this ratio is (10%) *1. Figure No. (20) shows the ratio of non-performing loans to the total assets of banks operating in Iraq. It is noted that the ratio decreased from (2.7%) for Q1 of 2022 to (2.3%) for the same quarter of 2023. Thus, the ratio of non-performing loans to total assets did not exceed the standard ratio, indicating that banks manage the loan portfolio effectively and control credit risk well.



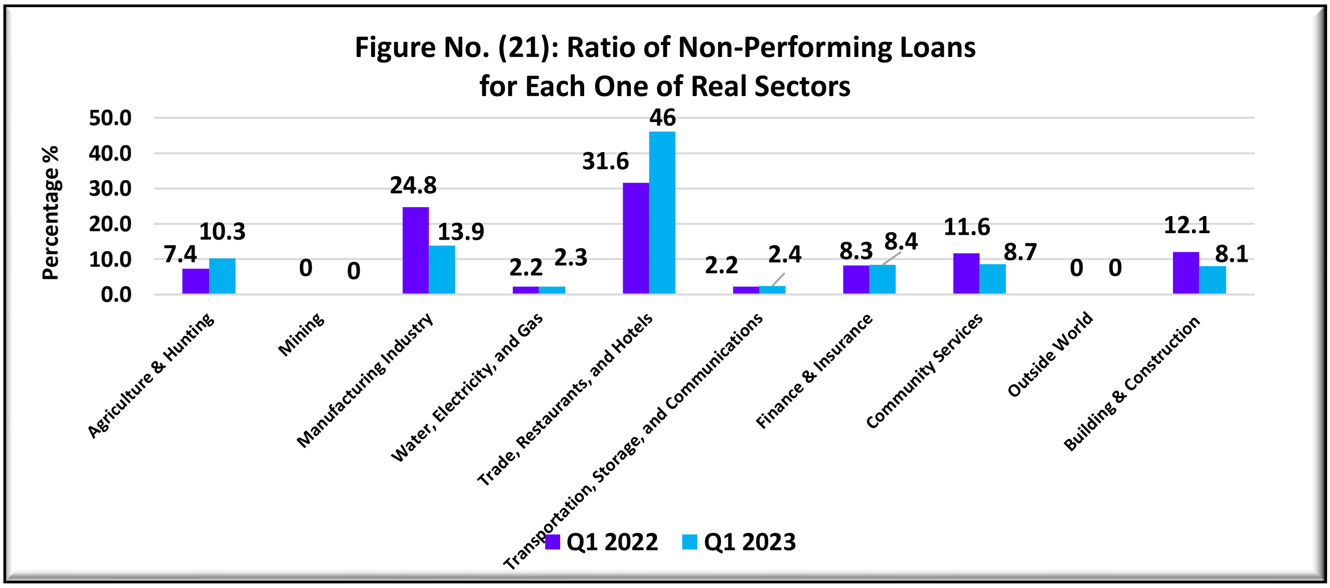
Source: Central Bank of Iraq, Statistics and Research Department.

*1 For more information, see Central Bank of Iraq 2020 “Early Warning Report for the Banking Sector”, Issue 13.

The ratio of non-performing loans to total assets of private banks and SOBs recorded a decline for the period (Q1 2023–Q1 2022). The ratio for private banks decreased from (4.3%) to (3.8%), while it decreased from (2.3%) to (1.9%) for SOBs. Although the ratio of private banks is higher than of SOBs, but it did not exceed the standard ratio set at (10%) by the Central Bank of Iraq. This low ratio in both private banks and SOBs indicates that there are no significant asset quality risks in the banking sector. It should be noted that SOBs have a larger share of the total assets of the banking sector, which shows the stability of the banking system in general.

11. Sectoral Distribution of Non-performing Loans

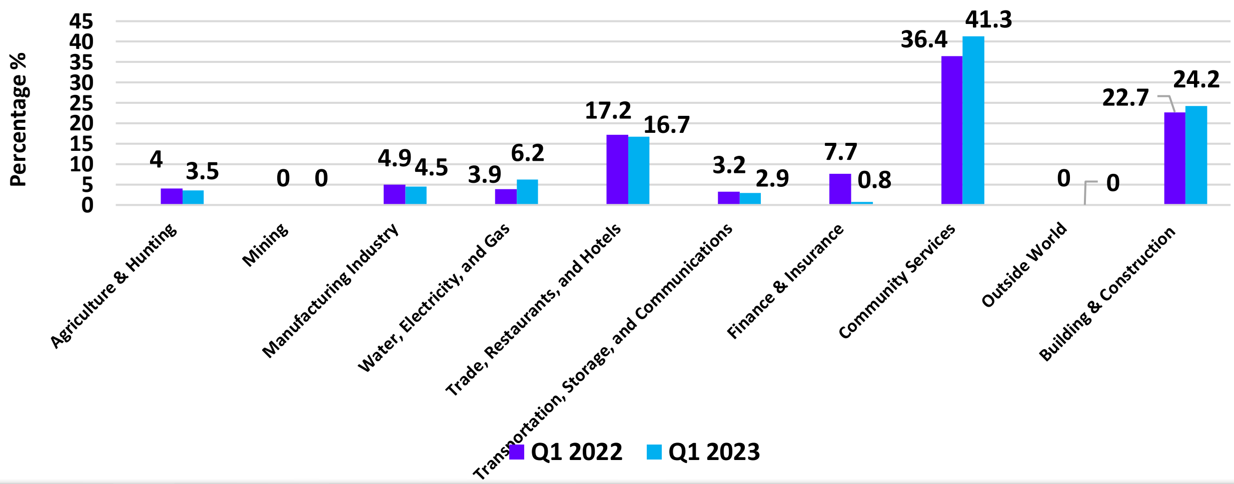
This index shows the ratio of non-performing loans distributed by economic sectors. The most important of these indices that can be noticed from Figure No. (21) is the increase of non-performing loans ratio in the (trade, restaurants and hotels) sector to (46%) for Q1 of 2023, compared to (31.57%) for the same period of 2022. Followed by a decrease of non-performing loans ratio in the manufacturing sector from (24.75%) to (13.9%) and for the same period, as well as a decrease in the (building & construction) sector of (12.09%) for Q1 of 2022 to (8.1%) for the same period of 2023. Accordingly, banks are required to take more precautions and be cautious when granting credit to these sectors to avoid disruption of activities and ensure the safety of depositors' funds. Policies must also be put in place to enable these sectors to recover from the problem of high non-performing loans, which leads to a reduction in the volume of cash credit provided to them and negatively affects the continuity of their business.



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

The real sectors of the economy witnessed shifts of cash credit ratios granted to them for the period (Q1 2022 – Q1 2023). Regarding the (trade, restaurants and hotels) sector, a decrease in the cash credit ratio was recorded from (17.2%) to (16.7%). While the cash credit ratio in the community services sector increased from (36.4%) for Q1 of 2022 to (41.3%) for the same quarter of 2023, with a low default ratio. Although this sector accounts for the largest proportion of the volume of granted cash credit, still the default rate is low, indicating the strength and stability of this sector. As for the (building and construction) sector, the cash credit ratio increased from (22.7%) during Q1 of 2022 to (24.2%) for the same quarter of 2023, indicating an increase in the volume of granted credit to this sector.

Figure No. (22): Granted Cash Credit Ratio for Each One of Real Sectors



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

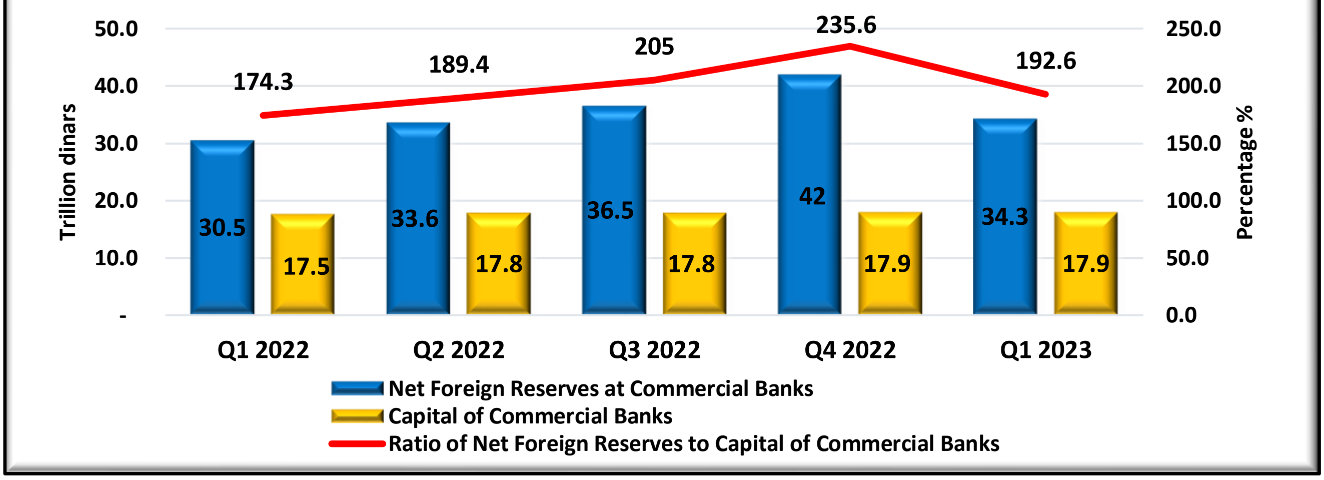
12. Net Foreign Assets/Capital

This index is measured by dividing the net foreign assets of operating banks by their capital. This index is known as the "net foreign assets ratio", which shows the amount to which banks hold foreign currency, as shown in figure No. (23). The value provided for foreign currency in the banking sector is denominated in domestic currency at the official exchange rate. As banks keep foreign currencies to meet the needs of their customers, whether to travel or to foreign trade. They are considered as part of their cash reserves to maintain the stability of the domestic currency, meet market needs, and to hedge against monetary risks such as exchange rate instability.

It was noted that the ratio of net foreign assets of commercial banks increased from (174.3%) for Q1 of 2022 to (192).6%) for the same quarter of 2023. The source of foreign assets for the banking sector is an internal source[*1]. On the other hand, the Central Bank of Iraq maintains a sufficient ratio of foreign assets against the broad money supply, as the ratio of foreign reserves to the broad money supply reached (83.2%) for Q1 of 2023. The monetary authority of Iraq controls the ratio of foreign assets to the capital of banks.

[*1] Meaning that Iraqi banks do not borrow from abroad in foreign currency and re-lend in domestic currency.

Figure No. (23): Ratio of Net Foreign Reserves to Total Capital at Operating Banks

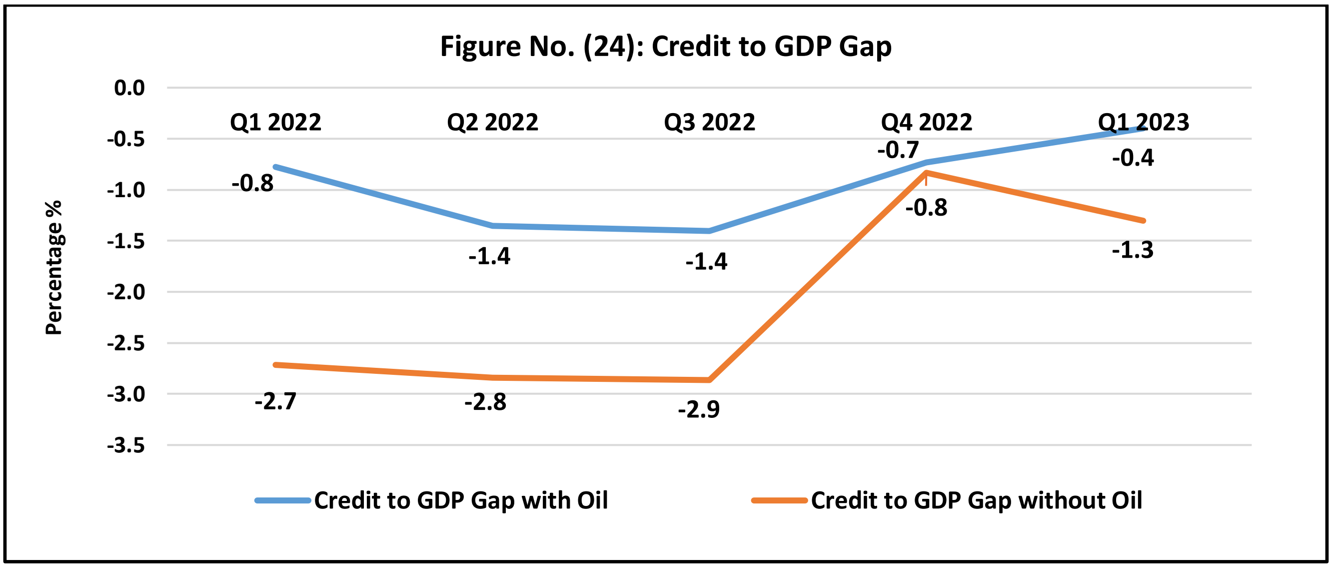


Source: Central Bank of Iraq, Statistical Website.

13. The Credit to GDP Gap *[1]

The credit GDP gap is the ratio of cash credit provided to the private sector to GDP, excluding the general trend of credit ratio directed to the private sector. This gap is used as an index to measure the use of cash credit in the economy and determine the availability of finance to the private sector. The standard value of the credit gap usually ranges between (2%) and (10%). When the gap reaches (10%) or more, buffers are put in place from capital reserves to counter the cash credit growth. If this ratio exceeds the upper limit, it indicates excessive credit from banks, which means that non-performing loans could increase if any economic sector of the private sector fails. Figure No. (24) shows the credit to GDP gap with and without oil. In Q1 of 2023, the gap without oil was (-1.3) compared to the same quarter of 2022, which amounted to (-2.7). The gap when using GDP data with oil amounted to (-0.4) for Q1 of 2023 compared to (-0.8) for the same quarter of 2022. It was noted that the gap for Q1 of 2023 is below the standard ratio, indicating the weakness of credit directed from operating banks to the private sector, which calls for increasing the credit available to the private sector by enhancing banks' ability to provide more financing to companies and individuals with the aim of promoting economic growth and achieve economy stability.

*[1] For more information on the method of calculating the output gap, see the Central Bank of Iraq, Early Warning Report, Issue 18, First Semester 2020, pp. 23-24.



Source: Central Bank of Iraq, Statistics and Research Department, Estimates of the Monetary and Financial Stability Division 2023.

Table No. (2) **Indices Related to the Performance of The Banking Sector**					
Index	Index Value During Q1 of 2022	Index Value During Q1 of 2023	Change Rate %	Impact on Financial Stability	Index Trend
Central Bank loans/Total Liabilities of Banks (%)	0	0	0	**Constant**	
Banking Deposits to Broad Money Supply Ratio (M2) (%)	48.1	48.2	0.2	**Positive**	
Ratio of Currency in Circulation to M2 (%)	51.9	51.8	0.19-	**Positive**	
Total Cash Credit to Total Deposits (%)	54.5	48.6	-11.31	**Acceptable**	
Cash Multiplier (%)	1.25	1.12	-10.4	**Acceptable**	
Return on Equity (%)	7.8	15.5	98.2	**Positive**	
Return on Assets (%)	1.1	1.9	80.4	**Positive**	
Return on Equity by The Foreign Currency Selling Window to Private Banks (%)	0.14	0.33	135.7	**Acceptable**	
Return on Assets by The Foreign Currency Selling Window to Private Banks (%)	0.05	0.01	76-	**Acceptable**	
Ratio of Net Interest Income to Total Profits of Private Banks (%)	28.83	29.70	3	**Positive**	
Ratio of Net Non-Interest Income to Total Profits of Private Banks (%)	71.17	70.30	1.2-	**Acceptable**	
Return on Equity of Private Banks (%)	2.5	2.9	15.5	**Positive**	
Return on Assets for Private Banks (%)	1.1	1.2	10.7	**Positive**	
Non-Performing Loans to Total Cash Credit (%)	8.2	7.3	-10.98	**Positive**	
Non-Performing Loans to Total Deposits (%)	4.5	3.5	-22.2	**Positive**	
Non-Performing Loans to Total Assets (%)	2.7	2.3	-14.81	**Positive**	
Net Foreign Assets to Bank Capital (%)	174.3	192.6	10.49	**Positive**	
Credit-to-GDP Gap With Oil (%)	-0.8	-0.4	-50	**Positive**	
Credit-to-GDP Gap Without Oil (%)	-2.7	-1.3	-51.8	**Positive**	

Prepared based on: Statistics and Research Department, Monetary and Financial Statistics Division.

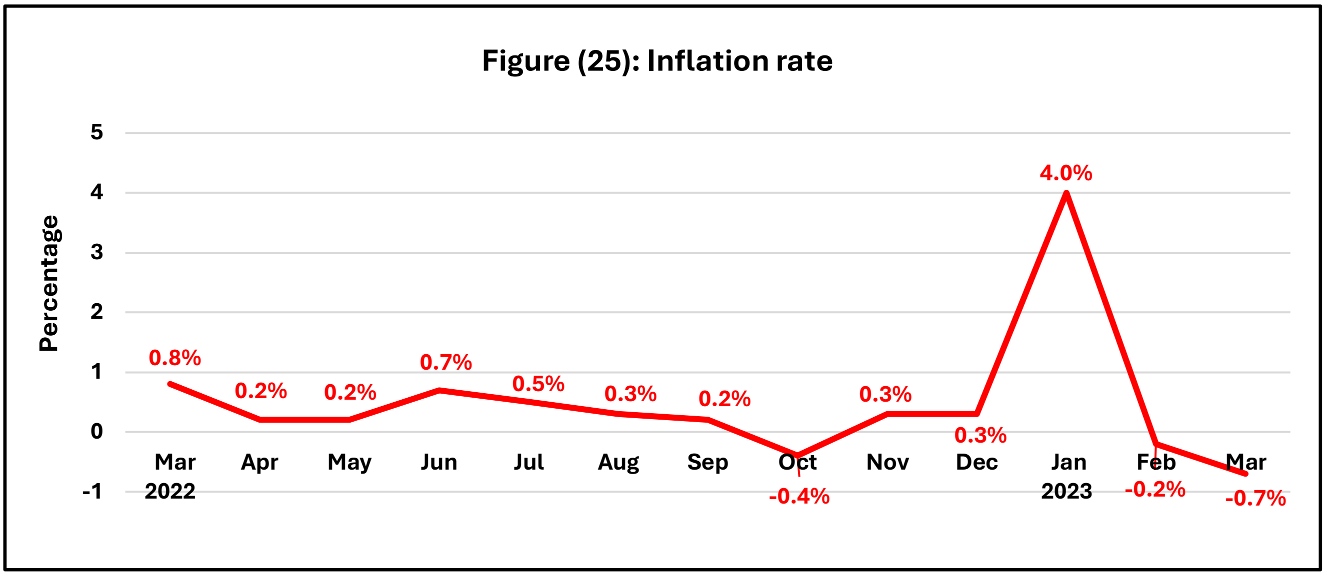
Chapter Three: Macroeconomic Performance Indices

Macroeconomic performance indices are used to assess the soundness and performance of the economy. These include a wide range of economic variables that contribute to the analysis of economic growth, inflation, unemployment, production, investment, trade and other major economic factors. Some of the most important macroeconomic performance indices, analyzed by the "Early Warning Report", are related to inflation index, the ratio of surplus or deficit of the public budget to GDP, as well as the implicit price deflator calculation (Implicit Price Deflator) and GDP gap measurement (GDP-Gap), as the following:

First: Inflation Rate:

Inflation rate is used as an important economic index to measure the general level of prices in a certain economy. It reflects the change of prices level of a specific group of goods and services during a specified period of time. Usually, it is calculated by comparing the price level in a given period of time, such as one month or one year, with the price level of the same period of the previous year. Inflation levels vary from one country to another and from one period of time to another. Inflation is considered somewhat natural in economies where a gradual increase of price level can occur because of various factors such as increased production costs and public demand for goods and services. However, if inflation increases excessively and rapidly, it can deteriorate the purchasing power of the currency and reduce consumers' purchasing power. From figure No. (26), it was noted that the consumer basket prices in Iraq recorded a decrease of (122.1) points during March 2023 compared to February of the same year, in which it reached (123.0) points. Meaning a decrease of (-0.7%), representing the monthly inflation rate. When comparing general price index in Iraq annually, which rose to record (122.1) points in March 2023 compared with the same month of the previous year of 2022, in which it recorded (116.0 points), meaning with a rise of (5.3%) representing annual inflation[*1], as shown in figure No. (25).

[*1] Source: Central Bank of Iraq, Key Financial Indicators.

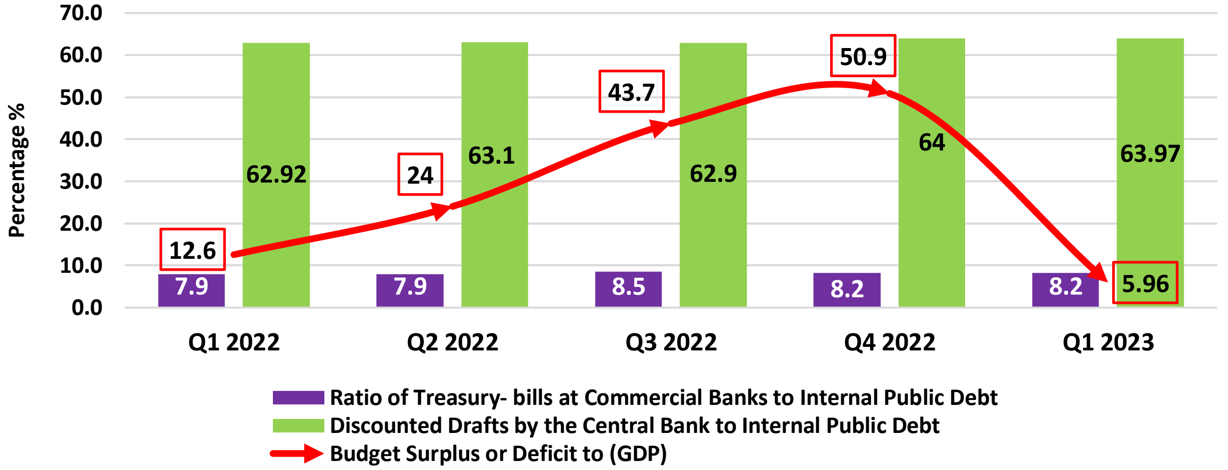


Source: Central Bank of Iraq, Key Financial Indicators.

Second: Ratio of Surplus or Deficit of Public Budget to GDP:

Financial balance is achieved when the country's general revenues correspond to its public expenditures, as the general budget deficit occurs when total public expenditures exceed the volume of public revenues, meaning that the government has a deficit and requires financial resources from other sectors. This indicator is important to measure the soundness of the public budget, both by surplus and deficit relative to GDP. It is important in defining spending strategies and determining appropriate financial policies to improve the public budget position. When there is a surplus in the public budget, the need for public debt is low and, conversely, in the case of deficits. It was noted that the country's public budget had achieved a surplus of (5.96%) to GDP in Q1 of 2023, as total budget surplus reached IQD 4.56 trillion approximately compared to the same quarter of the previous year, reaching IQD 11.4 trillion. Treasury-bills at commercial banks and discounted drafts by the central bank recorded a rise of (2.1%) for Q1 of 2023 and (0.5%) for the same quarter of the previous year against bonds and loans of financial institutions recording a decrease of (30.9%) and (1.5%), respectively, for the same period resulting in a small decline that reached (1.2%) of internal public debt. However, discounted drafts by the central bank recorded (63.97%) for Q1 of 2023 of total internal debt compared to (62.92%) for the same quarter of the previous year, as illustrated in figure No. (26).

Figure No. (26): Ratio of Budget Surplus or Deficit to (GDP), Ratio of Treasury-Bills at Commercial Banks and Discounted Drafts by the Central Bank to Internal Public Debt

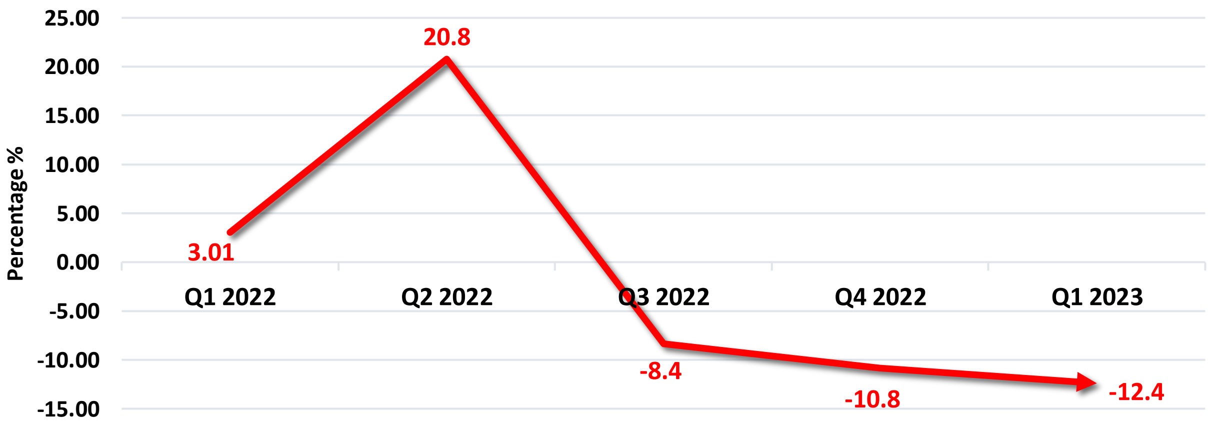


Source: Central Bank of Iraq, Statistical Website.

Third: GDP Change Rate:

The GDP index reflects the economic activity volume that has been driven by society over a certain period of time, usually one year, and is used in economists' economic analyses to assess the performance of the country's economy and anticipate future growth or deflation in the short term. When the country has a positive GDP growth rate, it indicates an increase of general economy volume and growth. Conversely, if the rate is negative, it indicates the economy deflation and its volume decline. GDP at current prices declined at a rate of (-12.4%) in Q1 of 2023 reaching IQD (77) trillion, compared to Q1 of 2022, when it reached IQD 89 trillion because of lower prices and exports of crude oil, reflected in lower GDP growth as crude oil accounted for the largest proportion of GDP composition, as shown in figure No. (27).

Figure No. (27): GDP Change Rate



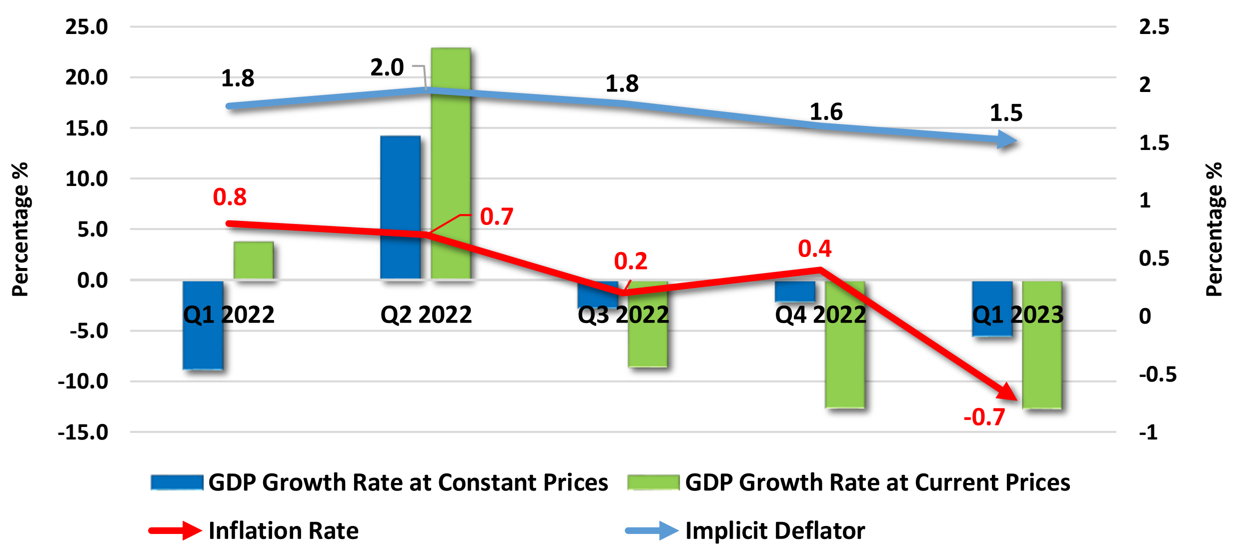
Source: Ministry of Planning, Central Statistical Organization, GDP Data for Q1 of 2023.

Fourth: Implicit Price Deflator (IPD):

The implicit deflator can be measured by calculating changes of all goods and services produced in the economy at current prices to those changes in all prices of goods and services by taking the base year (meaning at constant prices) *[1].

The importance of this index is that it analyzes the impact of inflation rates on the macroeconomics and that the IPD value fell from (1.8%) for Q1 of 2022 to (1.5%) for Q1 of 2023 due to GDP decreased value at current prices from IQD (89.05) trillion for Q1 of 2022 to IQD (76.6) trillion, with real GDP rising to IQD (50.5) trillion for Q1 of 2023 compared with Q1 of the previous year that amounted IQD (49.3) trillion, as illustrated in figure No. (28).

Figure No. (28): Implicit Price Deflator and Inflation Rate



Source:

- Ministry of Planning, CSO, GDP Data for Q1 of 2023.
- Central Bank of Iraq, Key Financial Indicators.

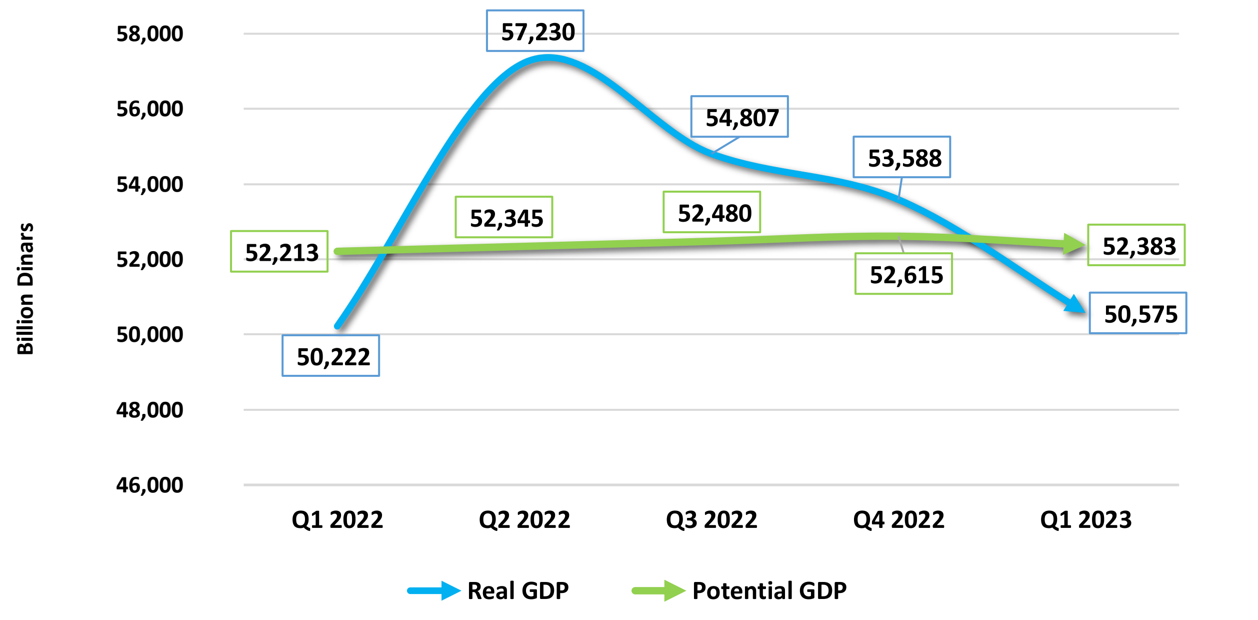
The previous figure also shows a decrease of inflation growth rate from (0.8%) for Q1 of 2022 to (-0.7%) for the same quarter of 2023, bringing the gap between the implicit deflator and the inflation rate to (2.2%) during Q1 of 2023. The value of the implicit deflator is always higher than the inflation rate value because it is not linked to a basket of goods and services but includes all internal and external price impacts and their reflection on the economy.

*[1] For more information, see Central Bank of Iraq "Early Warning Report", issue 19.

Fifth: GDP Gap:

The production gap is a term used in the analysis of gross domestic product (GDP) (economy growth) to measure the difference between actual real GDP, meaning the actual value of the output in the economy, and real potential GDP, representing the output that can be achieved if all resources are used efficiently and effectively. The negative production gap occurs when the actual output is lower than the potential output, when the economy is operating below its potential and not using its resources adequately, meaning the economy is in deflation and vice versa. It is noted that actual real GDP decreased to IQD (50.5) trillion from real potential GDP to IQD (52.3) trillion for Q1of 2023. The output gap was negative amounted IQD (-1.8) trillion for Q1of the current year, because of declined demand for goods and services and decreased inflation rate. When comparing the GDP gap for Q1 of the previous year, the gap was also negative amounting IQD (-1.9) trillion, reflecting a slowdown of economic growth due to weak demand during Q1 of 2023 and 2022, as shown in figure No. (29).

Figure No. (29): GDP Gap



Source:

- Central Bank of Iraq, Statistics and Research Department, Estimates of Monetary and Financial Stability Division.
- Ministry of Planning Data, CSO for 2022 & 2023.

Table No. (3): Indices Related to the Performance of Macroeconomics					
Index	**Index Value During Q1 of 2022**	**Index Value During Q1 of 2023**	**Change Rate %**	**Impact on Financial Stability**	**Index Trend**
Monthly Inflation Rate (%)	0.8	-0.7	-187.5	**Positive**	
Public Budget Surplus or Deficit to GDP (%)	12.6	5.96	-52.7	**Acceptable**	
Ratio of Treasury-Bills at Commercial Banks to Total Internal Public Debt (%)	7.9	8.2	3.7	**Positive**	
Ratio of Treasury-Bills Discounted by the Central Bank to Total Internal Public Debt (%)	62.92	63.97	1.6	**Acceptable**	
GDP Change Rate (%)	3	-12.4	-513.3	**Acceptable**	
GDP Implicit Price Deflator (%)	1.8	1.5	-16.7	**Acceptable**	
Real GDP (IQD billion)	49,291	50,575	2.3	**Positive**	
Current GDP (IQD billion)	89,057	76,641	-14.5	**Acceptable**	
GDP Gap (IQD billion)	-1991	-1808	10.1	**Positive**	

Prepared based on:

- Central Bank of Iraq, Statistical Website.
- Ministry of Planning Data, CSO for 2022 & 2023.

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