An Empirical Analysis of Banking Reform Indicators and Financial Sustainability in The Iraqi Economy (2010–2023)

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Abstract

This study aims to measure and analyze the impact of banking reform indicators—assets, deposits, credit, capital adequacy, and liquidity—on financial sustainability in the Iraqi economy from 2010 to 2023. Using a descriptive and quantitative approach based on Central Bank reports, the study examines how these indicators influence fiscal stability through regression analysis. Results show that bank credit has a statistically significant and positive impact on financial sustainability indicators, particularly the domestic debt-to-GDP ratio, while other reform indicators exhibit limited effects. The findings highlight the essential role of the banking sector in supporting fiscal balance and reducing reliance on oil revenues. The study recommends strengthening credit policy, expanding sustainable financing, and enhancing cooperation between the public and private sectors to achieve long-term financial sustainability.

Keywords: *Banking Reform; Financial Sustainability; Bank Credit; Liquidity; Iraq.*

1. Introduction

Banks play a central role in economic development by mobilizing deposits and extending credit facilities to support investment and production activities across the economy. Economists frequently characterize banks as the "financial circulatory system" of the economy, given their role in channeling funds and supporting overall financial stability. Despite global financial shocks and domestic economic fluctuations, the Iraqi banking sector, under the supervision of the Central Bank of Iraq, has played a critical role in strengthening financial structures, stabilizing the currency, supporting public finances, and providing essential funding during periods of declining oil revenues.

This study examines the impact of key banking indicators—assets, deposits, credit, capital adequacy, and liquidity ratios—on financial sustainability in Iraq for the period 2010–2023. The study aims to provide insights into how banking reform and financial policies enhance transparency, support public finance, and facilitate economic stability and growth.

However, few studies have empirically tested how specific banking reform indicators contribute to Iraq's financial sustainability after major economic shocks, which forms the research gap addressed by this study.

Using a descriptive-analytical approach based on Central Bank annual reports, the study explores the relationship between banking activities and financial sustainability, offering guidance for policymakers and stakeholders in improving the efficiency of the Iraqi banking system.

2. Theoretical Framework

Banking reform refers to a comprehensive set of regulatory, institutional, and technological measures aimed at improving the efficiency of banking operations and enhancing the sector's ability to adapt to global financial developments. Therefore, a comprehensive evaluation of these measures is necessary to ensure their accurate assessment and description.

It also encompasses reforms that enhance banks' capacity to mobilize savings, allocate credit efficiently, and support economic development through the provision of advanced financial services. Banking reform is also considered a continuous process aimed at strengthening lending capacity, supporting deposit growth, and improving the quality of financial services. It is further viewed as part of the broader financial system that facilitates both short- and long-term investment activities. Banking reform plays a fundamental role in strengthening economic stability and enhancing the resilience of the financial system. Its importance is reflected in:

a) Supporting investment by improving access to finance for productive sectors.
b) Enhancing the flow of funds between economic units and mobilizing financial resources.
c) Expanding the capacity of banks to provide efficient and advanced financial services.
d) Contributing to overall economic growth through the restructuring of public banks and stimulation of private banking activity.

The main drivers of banking reform include economic motives related to credit expansion, regulatory motives aimed at strengthening governance and transparency, monetary motives associated with adapting to global financial developments, and technical motives arising from the rapid advancement of financial technologies.

Regarding financial sustainability, it can be defined as follows:

Financial sustainability represents the government's ability to pursue stable fiscal policies, meet future obligations, and finance public spending without excessive borrowing or over-reliance on unstable revenue sources such as oil. Building on the theoretical foundations discussed above, the following section presents an empirical assessment of how banking reform indicators influence financial sustainability in Iraq during the study period.

3. Analysis of Banking Reform and Financial Sustainability Indicators in The Iraqi Economy (2010–2023)

This section empirically examines how banking reform indicators—assets, deposits, credit, capital adequacy, and liquidity—relate to financial sustainability in Iraq during 2010–2023 using a set of key financial indicators.

3.1. Analysis of the relationship between assets and financial sustainability in the Iraqi economy for the period (2010-2023)

It is noted from the data in Table 1 that the value of assets in Iraqi banks amounted to (363.3) trillion dinars, and their percentage of the Iraqi gross domestic product amounted to (5.49%). The reason for this is due to the banks maintaining high cash balances, in addition to the continuous granting of loans to the economic sectors. The surplus in the general budget amounted to (44) trillion dinars, and the reason for this is due to the high percentage of oil revenues to general revenues, which amounted to (95.21%), which means that the budget depends primarily on oil revenues to finance the general budget and achieve financial sustainability. In 2013-2014, the value of assets increased to 208.8 and 226.6 trillion dinars, respectively, and their ratio to GDP reached 77.44% and 86.95%, respectively. This was achieved to support the general budget and finance public spending through available liquidity and bank credit. This followed a decline in oil revenues to 97.22% and 91.91%, respectively, which led to a budget deficit of -5.287 and -7.864, respectively.

Table 1: Relationship between Bank Assets and Financial Sustainability Indicators

Years	Assets (trillion)	Assets to GDP%	Internal Debt-to-GDP Ratio %	Surplus and deficit in the general budget	Oil revenues to public revenue %
2010	363.3	211	5.49	44	95.21
2011	143.8	68	3.42	30.05	90.15
2012	190.9	77.5	2.57	14.678	97.31
2013	208.8	77.44	1.55	-5.287	97.22
2014	226.6	86.95	3.57	-7.864	91.91
2015	222.9	115.8	16.51	-3.927	77.19
2016	221.2	112.3	24.05	-12.658	81.35
2017	156.4	69.28	21.12	1.845	84.14
2018	123	48.99	16.65	25.696	89.72
2019	133	47.8	13.79	-4.157	92.23
2020	138.5	69.6	32.32	-12.883	86.15
2021	159.5	52.91	23.19	6.232	87.33
2022	198.66	51.86	18.14	44.738	95
2023	205.25	62.18	21.37	6.754-	91.7

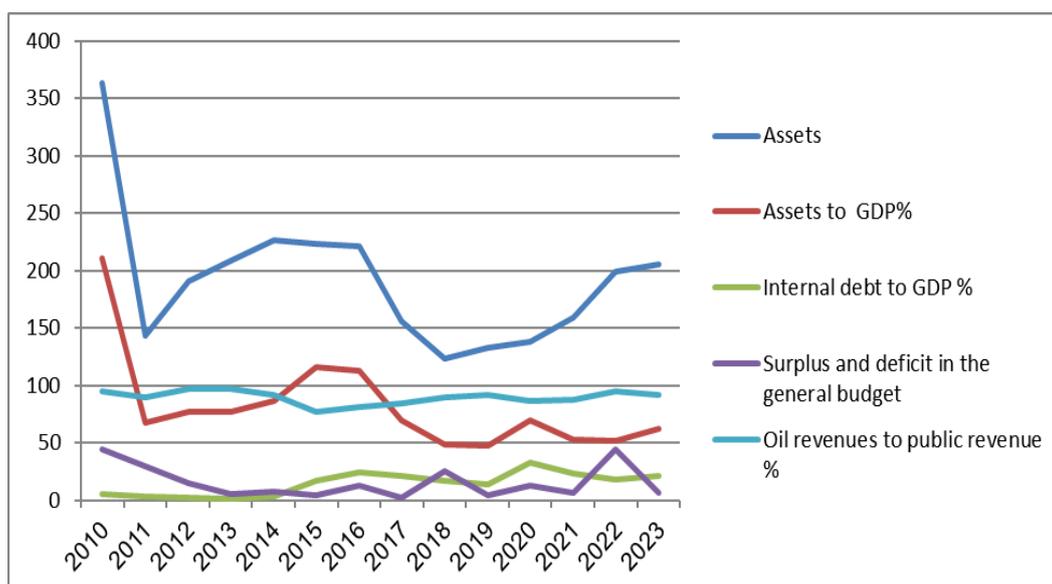Source: Central Bank of Iraq, Annual Financial Stability Reports, various years.

Fig. 1: The Development of the Relationship between Assets and Financial Sustainability in the Iraqi Economy for the Period (2010-2023).

Source: Prepared by the researcher based on data from Table 1.

3.2. Analysis of the relationship between the capital adequacy index and financial sustainability in the Iraqi economy for the period (2010-2023)

It can be observed from the data in Table 2 that the capital adequacy ratio reached its highest level of 285% in 2018, which is an extremely high percentage and well above the minimum requirement set by the Central Bank (12%). The lowest ratio was 34.1% in 2022; despite this decrease, it remained above the required threshold. This is primarily due to off-balance sheet items, represented by letters of credit and guarantee letters issued.

Although the ratio fluctuated over the years, the bank managed to maintain high levels in line with the standards established by the Basel III Committee and the Central Bank of Iraq, because of measures taken by operating banks to raise this ratio. This indicates that the banks possess a strong capital base exceeding the required ratio at both local and international levels, reflecting the bank's financial strength and its ability to support future growth plans amid oil price fluctuations and volatile oil revenues. Furthermore, banks strive to finance growth through their own funds while avoiding external borrowing.

Table 2: Relationship Between Capital Adequacy and Financial Sustainability Indicators (2010-2023)

Years	Capital Adequacy Ratio	Internal debt to GDP	Surplus and deficit in the general budget	Oil revenues to public revenue %
2010	179.6	5.49	44	95.21
2011	89	3.42	30.05	90.15
2012	127.5	2.57	14.678	97.31
2013	146.2	1.55	-5.287	97.22
2014	93.3	3.57	-7.864	91.91
2015	106	16.51	-3.927	77.19
2016	128	24.05	-12.658	81.35
2017	181	21.12	1.845	84.14
2018	285	16.65	25.696	89.72
2019	173	13.79	-4.157	92.23
2020	253	32.32	-12.883	86.15
2021	52.1	23.19	6.232	87.33
2022	34.1	18.14	44.738	95
2023	41.9	21.37	6.754-	91.7

Source: Central Bank of Iraq, Annual Reports, Directorate of Statistics and Research, various years.
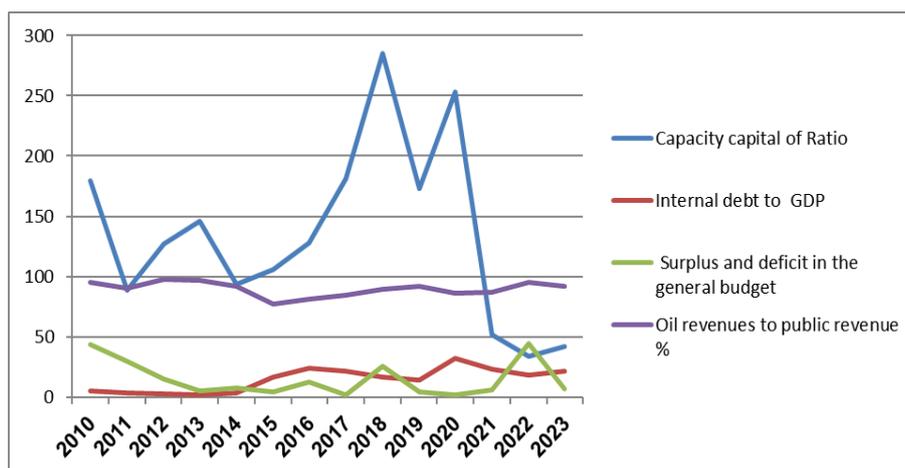

Fig. 2: Shows The Development of the Relationship Between the Capital Adequacy Index and Financial Sustainability in the Iraqi Economy for the Period (2010-2023).

Source: Prepared by the researcher based on data from Table 2.

3.3. Analysis of the relationship between deposits and financial sustainability in the Iraqi economy (2010-2023)

It is noted from the data in Table 3 that bank deposits increased from 34.1 trillion dinars in 2010 to 42 trillion dinars in 2011, with a ratio to the gross domestic product of (20%, 68%). This is a good indicator that reflects the role of banks in promoting economic growth and employing deposits, which was reflected in the decline in the ratio of domestic debt to the gross domestic product from (5.49%) to (3.42%) for the mentioned years, and the ratio of oil revenues reached (95.21%), which led to achieving a surplus in the general budget of (44) trillion dinars, which indicates the ability of commercial banks to support economic activities, reduce reliance on debts, and avoid the burden of domestic debt on the general budget. In the years (2014, 2015, 2016), it witnessed a decrease of (67.8, 64.3, 62.4) trillion dinars, respectively, and a percentage of the gross domestic product (GDP) of (26.01%, 33.41%, 32.65%), which led to an increase in the ratio of domestic debt to the gross domestic product to reach (3.57%, 16.51%, 24.05%), respectively, due to the financial crisis in (2014) in Iraq resulting from the decline in oil prices and the increase in the expenses of the war against terrorism and support for the displaced and immigrants, which hurt the growth rate of public and private deposits. After the crisis, there was a deterioration in the growth of deposits, especially public sector deposits, which declined sharply, while the decline in the growth of private sector deposits was moderate, and the growth rate of deposits reached its lowest level in the year 2015. While it rose to (67) trillion dinars in the year (2017) and the percentage of the gross domestic product reached (27.64%), which led to a decrease in the percentage of domestic debt to (27.64%), the reason for this is due to the rise in oil prices in the global markets. Then it continued to rise until (2023) to reach (133.5) trillion dinars and the percentage of the gross domestic product as an indicator of achieving economic growth reached (40.44%) due to the fluctuations in oil prices and the volatility of oil revenues from time to time, which clarifies the role of Iraqi banks as financial institutions that support and assist the Iraqi economy in light of these fluctuations.

Table 3: Analysis of the Relationship between Deposits and Financial Sustainability in the Iraqi Economy for the Period (2010-2023)

Years	Deposits	Deposits to GDP ratio	Internal Debt-to-GDP Ratio	General budget surplus/deficit	Ratio of oil revenues to public revenues
2010	34.1	20	5.49	44	95.21
2011	42	68	3.42	30.05	90.15
2012	42.5	54.49	2.57	14.678	97.31
2013	49.8	77.5	1.55	-5.287	97.22
2014	67.8	26.01	3.57	-7.864	91.91
2015	64.3	33.41	16.51	-3.927	77.19
2016	62.4	32.65	24.05	-12.658	81.35
2017	67	27.64	21.12	1.845	84.14
2018	76.89	30.62	16.65	25.696	89.72
2019	82	29.5	13.79	-4.157	92.23
2020	85	42.76	32.32	-12.883	86.15
2021	96	31.84	23.19	6.232	87.33
2022	129	33.67	18.14	44.738	95
2023	133.5	40.44	21.37	6.754-	91.7

Source: Central Bank of Iraq, Annual Reports, Directorate of Statistics and Research, various years.
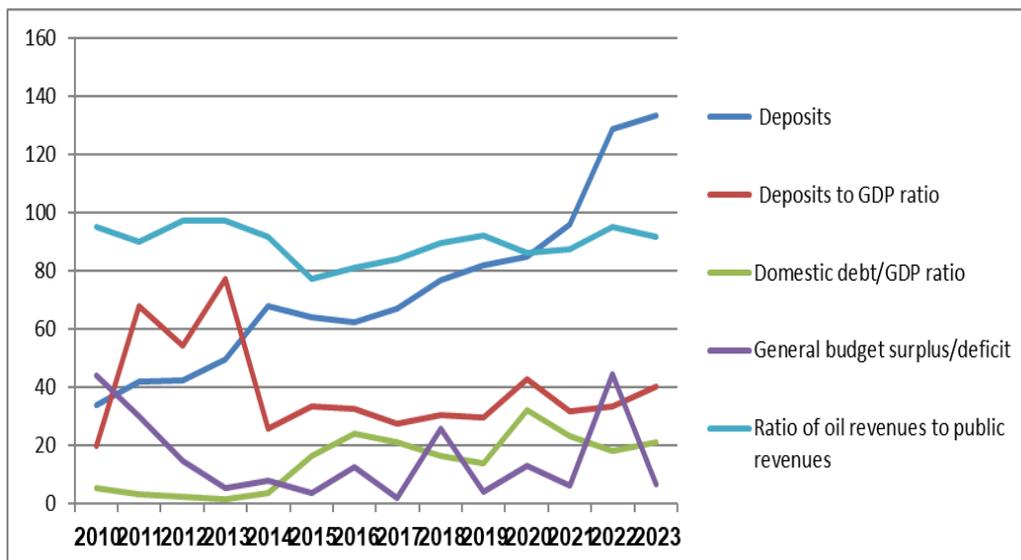

Fig. 3: The Evolution of the Relationship Between Deposits and Financial Sustainability in the Iraqi Economy for the Period (2010-2023).

Source: Prepared by the researcher based on data from Table 3.

3.4. Analysis of the relationship between monetary credit and financial sustainability in the Iraqi economy for the period (2010-2023)

It is noted from the data in Table 4 that the ratio of cash credit to public revenues decreased from 13.40% in the year 2010 to 11.94% in the year 2011 due to the increase in oil revenues because of the increase in crude oil prices. It also led to a decrease in the ratio of domestic debt from 5.46% in the year (2010 to 3.42% in the year (2011 and decreased further to 2.57% in the year (2.57% due to the sufficiency of oil revenues.

In the years (2013, 2014, 2015, 2016), the ratio of cash credit to public revenues recorded a continuous increase to reach (20.73%, 32.28%, 55.42%, 68.34%) respectively. The ratio of cash credit to public spending also recorded an increase of (19.81%, 30.07%, 52.34%, 55.49%) respectively. The ratio of domestic debt also recorded a continuous increase to (1.55%, 3.57%, 16.51%, 24.05%), respectively. The reason for this is due to the decline in the contribution of oil revenues to public revenues, which reached (97.31%, 91.91%, 77.19%) respectively, as a result of crude oil prices in global markets, which forced the government to borrow from commercial banks and borrow from other financial institutions to finance the deficit. In the general budget and support for economic activities to enhance economic growth, the Central Bank, in light of this crisis, has presented a stimulus program to revive the Iraqi economy, achieve economic development, and expand the scope of credit.

As for the increase in the percentage of internal debt, the financial crisis that Iraq faced in 2014 combined several factors to increase it, as the continuous decline in oil prices coincided with the invasion of ISIS gangs in large areas of the country, and with the increasing cost of confronting these gangs, the financial burdens on the government increased with the rise in the number of displaced people to more than three million citizens living in extremely difficult conditions, which prompted the government to take multiple austerity measures to reduce government spending and focus on priorities and postponing many investment projects.

During the years 2017-2018, the ratio of cash credit to revenue decreased by 49.09% and 36.1%, respectively. The ratio of cash credit to public spending also decreased by 50.33% and 47.62% respectively. This was due to the rise in oil prices, which led to an increase in oil revenues to 84.8% and 89.72%, respectively. This was in addition to the improvement in the security situation throughout Iraq after the liberation of the western regions from ISIS gangs. In subsequent years, the ratio was characterized by fluctuations between rises and falls, reaching 48.63% in 2023, and the ratio of cash credit to public spending (20.98%). This was due to the fluctuations in crude oil prices in global markets, which are the most important economic variables controlling economic activity in Iraq. This has made it more vulnerable to economic fluctuations in global markets.

Table 4: Relationship between Bank Credit and Financial Sustainability Indicators

Years	Credit to revenues	Credit to overhead ratio	Credit to GDP ratio	Internal debt to GDP	Oil revenues to public revenue%
2010	13.4	13.4	5.46	5.49	95.21
2011	11.94	16.51	6	3.42	90.15
2012	17.36	19.79	8.4	2.57	97.31
2013	20.73	19.81	8.75	1.55	97.22
2014	32.28	30.07	13.1	3.57	91.91
2015	55.42	52.34	19.1	16.51	77.19
2016	68.34	55.49	18.87	24.05	81.35
2017	49.09	50.33	16.81	21.12	84.14
2018	36.1	47.62	15.32	16.65	89.72
2019	39.11	37.64	15.13	13.79	92.23
2020	78.93	65.53	25.05	32.32	86.15
2021	48.56	51.52	17.57	23.19	87.33
2022	37.48	51.81	15.8	18.14	95
2023	51.06	48.63	20.98	21.37	91.7

Source: Central Bank of Iraq, Annual Reports, Directorate of Statistics and Research, various years.
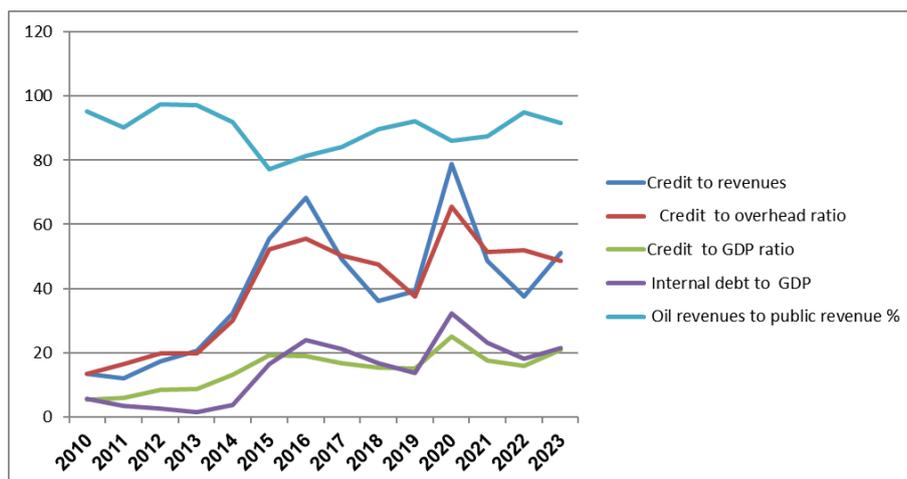
Fig. 4: Evolution of Monetary Credit and Financial Sustainability Indicators.

Source: Prepared by the researcher based on data from Table 4.

3.5. Analysis of the relationship between the liquidity index and financial sustainability in the Iraqi economy for the period (2010-2023)

Having sufficient liquidity helps the banking system cope with financial crises, enhancing financial sustainability. In addition to its role in promoting economic growth and generating new job opportunities, proper and effective liquidity management contributes to enhancing financial sustainability, which helps banks continue to operate and grow.

It is noted from the data in Table 5 that the liquidity ratio witnessed a successive increase, as it reached (7.1%) in the year (2010) and continued to rise until (2017 to reach (56.2%). The reason for this is due to the support of the components of the general budget and the financing of government spending because of the increase in salaries and the implementation of some banking reforms in Iraq in the years 2010 - 2013. As for the period (2014-2017), the Central Bank of Iraq presented a program to stimulate and revive the Iraqi economy and expand the scope of credit by supporting the liquidity of commercial and specialized banks (agricultural and industrial) and the Housing Fund, with an amount of (5) trillion dinars to enable them to grant loans to industrial and agricultural projects and grant housing and real estate loans to support economic activity and provide job opportunities. It also contributed to supporting the state's general budget with an amount of (4.4) trillion dinars by operating (50%) of the reserves of commercial banks deposited with the Central Bank of Iraq, and repurchasing treasury transfers in secondary markets, as the Central Bank purchased approximately (6.2) trillion dinars as a first stage of those bonds and allocated an amount of (1) trillion dinars to private banks to finance small and medium-sized projects exclusively, while it sold securities (deferred delivery bonds in dollar currency) on behalf of the Ministry of Finance. This process will help deepen the financial markets and withdraw local liquidity to develop secondary markets and by diversifying market tools by innovating securities as a means of preserving value, thus encouraging Savings and enhancing positive expectations about the future of the Iraqi dinar and the state's financial solvency (Central Bank of Iraq, 2015: 1).

Table 5: The Relationship between the Liquidity Index and Financial Sustainability in the Iraqi Economy (2010-2023)

Year	Liquid assets/Total assets	Internal Debt-to-GDP Ratio	General budget surplus/deficit	Ratio of oil revenues to public revenues
2010	7.1	5.49	44	95.21
2011	9.2	3.42	30.05	90.15
2012	10	2.57	14.678	97.31
2013	13.6	1.55	-5.287	97.22
2014	17.3	3.57	-7.864	91.91
2015	20.9	16.51	-3.927	77.19
2016	24.2	24.05	-12.658	81.35
2017	56.2	21.12	1.845	84.14
2018	50.5	16.65	25.696	89.72
2019	52.8	13.79	-4.157	92.23

Source: Central Bank of Iraq, Annual Financial Stability Reports, various years.
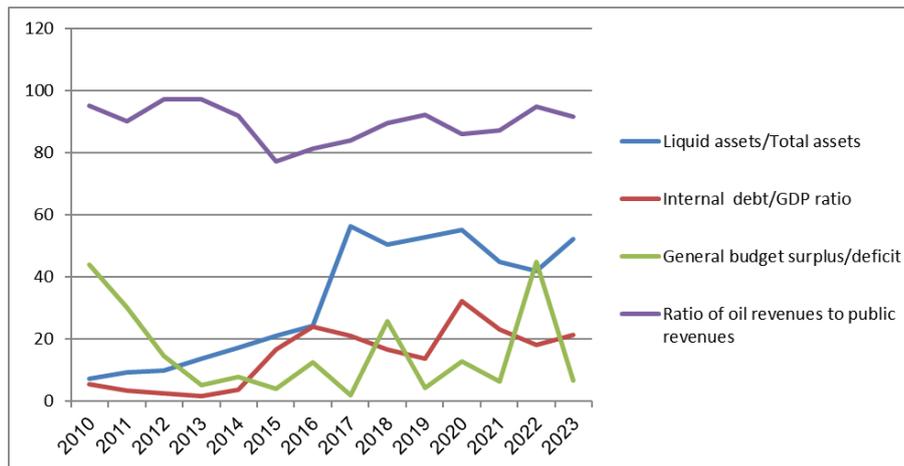
Fig. 5: The Relationship between the Liquidity Index and Financial Sustainability in the Iraqi Economy for the Period (2010-2023).

Source: Prepared by the researcher based on data from Table 5.

4. Statistical Analysis

It is clear from Table (5) in light of the multiple linear regression equation that the constant term (C = -7.41), which means that there is a presence of the dependent variable (public debt/GDP ratio) (Y1) of (-7.41) when the value of the independent variables (assets, deposits, bank credit, capital adequacy and liquidity ratios) is equal to zero. The results of Table 5 also indicate that the value of the explanatory power coefficient (R-Squared) reached 0.91, which means that the independent variables explain about 0.91 of the change in the dependent variable (Y1). The remaining percentage, which is (0.09), is due to other factors that were not included in the estimated model. This is an acceptable indicator when comparing the calculated (F) value, which is (17.78), which is greater than its tabular value (3.11) at a significant level of (5%). We accept the alternative hypothesis, which states that there is an effect of the independent variables on the dependent variable. The insignificance of assets (X1), deposits (X2), capital adequacy (X4), and liquidity (X5) suggests that these indicators did not contribute meaningfully to changes in the debt-to-GDP ratio during the study period. This result reflects the structural nature of the Iraqi economy, where oil revenues—not banking indicators—remain the primary driver of fiscal sustainability. Therefore, improvements in these banking indicators did not translate into measurable changes in public debt levels. Bank credit (X3) is the only variable demonstrating a statistically significant and positive impact on the debt-to-GDP ratio. This result indicates that increases in credit expansion directly support government financing needs, especially during periods of declining oil revenues. As commercial banks increase their lending to the government, domestic debt rises accordingly, making X3 the dominant driver in the model.

The insignificance of most variables in explaining changes in the budget surplus/deficit (Y2) suggests that fiscal outcomes in Iraq are largely determined by fluctuations in oil revenues rather than banking sector performance. The negative significance of credit (X3) indicates that when credit increases, the government relies more heavily on domestic borrowing to finance deficits, especially during periods of revenue instability. That states that the independent variable has a significant effect on the dependent variable.

Table 5: Impact (X1, X2 , X¬3 , X4, X5) in (Y1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable: Y1				
Method: Least Squares				
Date: 10/09/25 Time: 00:04				
Sample: 2010 2023				
Included observations: 14				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.4155	6.7893	-1.0922	0.3065
X1	0.0143	0.0212	0.6767	0.5176
X2	-0.0052	0.0826	-0.0638	0.9506
X3	0.3338	0.0635	5.2498	0.0007
X4	-0.0043	0.0230	-0.1878	0.8556
X5	0.2095	0.1425	1.4694	0.1799
$Y_1 = -7.4155 + 0.0143*X1 - 0.0052*X2 + 0.3338*X3 - 0.0043*X4 + 0.2095*X5$				
R-squared	0.9174			
Adjusted R-squared	0.8658			
F-statistic	17.78746			
Prob(F-statistic)	0.000377			

Source: Eviews 12 statistical analysis program outputs.

The regression results require further clarification to explain the statistical behavior of the independent variables. The following section provides a deeper interpretation of why some indicators were insignificant while bank credit remained the dominant explanatory variable affecting financial sustainability. It is clear from Table (6) in light of the multiple linear regression equation that the constant term (C = -7.41), which means that there is a presence of the dependent variable (surplus and deficit in the general budget) (Y2) of (-12.67) when the value of the independent variables (assets, deposits, bank credit, capital adequacy and liquidity ratios) is equal to zero. The results of Table 5 also indicate that the value of the explanatory power coefficient (R-Squared) reached 0.56, which means that the independent variables explain about 0.56 of the change in the dependent variable (Y1). The remaining percentage, which is (0.44), is due to other factors that were not included in the estimated model. This is an acceptable indicator when comparing the calculated (F) value, which is (2.11), which is less than its tabular value (3.11) at a significant level of (5%). We accept the null hypothesis, which states that there is no significant effect of the independent variables on the dependent variable. The marginal slope test for the four independent variables (X1, X2, X4, X5)

has an insignificant effect because the calculated values for the (t) test are less than its table value (1.78), so we accept the null hypothesis, except for bank credit (X3), which had a significant negative effect on the dependent variable (Y2), and the table value of (t) reached (-2.82), which is greater than its table value (1.78) at a significance level of (0.05), so we accept the alternative hypothesis, which states that there is a significant effect of the independent variable on the dependent variable.

Table 6: Impact (X1, X2 , X¬3 , X4, X5) in (Y2)

Dependent Variable: Y2				
Method: Least Squares				
Date: 10/09/25 Time: 00:14				
Sample: 2010 2023				
Included observations: 14				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-12.6765	31.5602	-0.4016	0.6984
X1	0.0854	0.0986	0.8656	0.4118
X2	0.3986	0.3841	1.0378	0.3296
X3	-0.8350	0.2956	-2.8247	0.0223
X4	0.0715	0.1070	0.6683	0.5227
X5	-0.0099	0.6628	-0.0150	0.9883
$Y_2 = -12.6765 + 0.0854*X1 + 0.3986*X2 - 0.8350*X3 + 0.0715*X4 - 0.0099*X5$				
R-squared	0.5692			
Adjusted R-squared	0.3000			
F-statistic	2.1144			
Prob(F-statistic)	0.1655			

Source: Eviews 12 statistical analysis program outputs.

It is clear from Table (7) in light of the multiple linear regression equation that the constant term (C=86.46), which means that there is a presence of the dependent variable (the ratio of oil revenues / public revenues) (Y3) of (86.46) when the value of the independent variables (assets, deposits, bank credit, capital adequacy and liquidity ratios) is equal to zero. The results of Table 7 also indicate that the value of the explanatory power coefficient (R-Squared) reached 0.71, which means that the independent variables explain about 0.71 of the change in the dependent variable (Y1). The remaining percentage, which is (0.29), is due to other factors that were not included in the estimated model. This is an acceptable indicator when comparing the calculated (F) value of (4.01), which is greater than its tabular value (3.11) at a significant level of (5%). We accept the alternative hypothesis that states that there is an effect of the independent variables on the dependent variable (the ratio of oil revenues / Public revenues (Y3).

Table 7: Impact (X1, X2 , X¬3 , X4, X5) in (Y3)

Dependent Variable: Y3				
Method: Least Squares				
Date: 10/09/25 Time: 00:24				
Sample: 2010 2023				
Included observations: 14				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	86.4671	7.7448	11.1644	3.7085
X1	0.0039	0.0242	0.1645	0.8733
X2	0.1691	0.0942	1.7943	0.1105
X3	-0.2828	0.0725	-3.8983	0.0045
X4	0.0355	0.0262	1.3533	0.2129
X5	-0.1054	0.1626	-0.6485	0.5348
$Y_3 = 86.4671 + 0.00398*X1 + 0.16914*X2 - 0.2828*X3 + 0.0355*X4 - 0.1054*X5$				
R-squared	0.7148			
Adjusted R-squared	0.5366			
F-statistic	4.01177			
Prob(F-statistic)	0.0404			

Source: Eviews 12 statistical analysis program outputs

Overall, the regression results highlight the central role of bank credit in shaping fiscal sustainability outcomes in Iraq, while other banking reform indicators showed limited influence due to the economy's high dependence on oil revenues and structural constraints within the financial system.

5. Conclusions and Recommendations

5.1. Conclusions

5.1.1. The results of the statistical and criterion tests showed that banking reform indicators had an insignificant impact on financial sustainability indicators, except the bank credit indicator, which had a significant positive impact on the ratio of domestic debt to gross domestic product (GDP) in the Iraqi economy.

5.1.2 The test results also showed a significant impact of bank credit on the surplus and general budget in the Iraqi economy, which is a form of financing for the general budget during times of deficit due to declining public revenues.

5.1.3. The significant negative relationship between bank credit (X3) and the ratio of oil revenues to total revenues (Y3) indicates that increases in credit are typically associated with periods of declining oil revenue shares. During such periods, the government compensates for reduced oil income by expanding domestic borrowing, resulting in an inverse relationship between X3 and Y3

These conclusions highlight the importance of strengthening the role of bank credit and liquidity management in achieving financial stability. Accordingly, the following recommendations are proposed:

5.2. Recommendations

5.2.1. Strengthen credit allocation toward productive sectors

Redirect a larger share of bank credit to key non-oil sectors such as manufacturing, agriculture, and small and medium enterprises (SMEs). This contributes to diversifying the economy, reducing pressure on public finances, and supporting sustainable growth.

5.2.2. Enhance the effectiveness of credit risk management

The Central Bank of Iraq should expand the adoption of Basel III credit-risk assessment tools and introduce standardized models for evaluating loan performance, ensuring that credit growth supports productive investment rather than consumption.

5.2.3. Develop targeted financing programs linked to national development priorities

Introduce specialized credit schemes for priority sectors (e.g., renewable energy, food industries, irrigation technology, logistics services), supported by interest incentives and government-backed guarantees.

5.2.4. Promote financial technology (fintech) to improve service efficiency

Expand digital banking initiatives, including e-dinar, electronic payments, and mobile banking, to enhance financial inclusion, reduce transaction costs, and improve liquidity management within the banking system.

5.2.5. Integrate financial sustainability indicators into annual performance evaluations

Both public and private banks should incorporate debt sustainability ratios, liquidity standards, and capital adequacy benchmarks into their internal assessment frameworks to align banking operations with long-term fiscal stability.

5.2.6. Increase transparency and disclosure within the banking sector

Adopt unified reporting standards consistent with IFRS and ensure timely public disclosure of financial indicators to strengthen investor confidence and support macro-financial stability.

5.2.7. Diversify financing sources beyond oil revenues

Encourage banks to expand non-oil financing channels such as syndicated loans, green financing, and partnership-based investments to reduce the fiscal impact of oil price volatility.

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