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Article

Analyzing the Relationship Between Monetary Policy and Banking Liquidity and Its Impact on Reducing Banking Distress in Iraq

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Abstract: This paper investigates the connection between banking liquidity, monetary policy and their impact on diminishing banking distress in the case of Iraq. The study is descriptive in nature and relies on monetary and banking indicators the Central Bank of Iraq (CBI) releases in special reports, that is, from 2021 to 2024. Monetary policy is proxied by the policy interest rate, reserve requirements, and money supply, while banking liquidity is measured by the credit-to-deposits ratio, liquidity coverage ratio (LCR) and net stable funding ratio (NSFR). Bailout risk is captured by banking distress measured by non-performing loans (NPLs) and financial-stability related variables. The findings show bank liquidity is significantly influenced by monetary policy. Efforts by Iraq's central bank to tighten earlier in the period, and then to relax somewhat in 2024, also supported monetary and financial stability. At the level of the banking sector, the credit-to-deposits ratio rose from 51.9% in 2023 to 59.3% in 2024 and the NPL ratio fell from 7.2% in 2022 to 6.3% in 2023. The liquidity ratios were sustained above the minimum regulatory requirement providing reassurance of adequate liquidity. It is observed that proper liquidity levels together with optimal monetary policy and banking regulation and supervision can lead to a decrease in banking distress (and hence increase in the stability of the Iraqi banking system) which is the highlight of this paper.
Keywords: Monetary Policy, Banking Liquidity, Banking Distress, Financial Stability, Non-Performing Loans, Iraqi Banking Sector

1. Introduction

The banking system is a key component of the financial system as it mobilizes deposits, gives credit, makes payments and participates in economic activities. The degree of bank stability, therefore, is a the prerequisite for financial and economic stability. Liquidity is also one of the key factors that influence the stability of the banking directly and it is defined as the ability of bank to fulfill its financial liability on time without incurring significant losses [5]. Monetary policy is intimately related to banking liquidity, since the tightness or ease of monetary policy affects the quantity and the price of funds available to the commercial banks through its instruments. Interest rates, reserve requirements, central-bank operations, and other monetary instruments can influence bank reserves, credit availability, deposits, and liquidity status [6]. The Central Bank of Iraq (CBI) has a significant in maintaining the stability of monetary and financial sectors in Iraq. Its monetary policy has comprised actions “to influence inflation, national currency stabilization, liquidity, and banking sector consolidation”. For instance, in 2024, the Central Bank of Iraq lowered its policy interest rate from 7.5% to 5.5%, while adjusting the reserve requirements for government deposits and reinstating its securities tools [1].

النتيجة

The motive for linking bank liquidity with monetary policy is that both too little and too much liquidity can be problematic. Excessive liquidity can interfere with the ability of banks to fulfill withdrawals and other short-run

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commitments, raising risk of bank distress. On the other hand, too much liquidity could be a sign of poor financial resources utilization and inadequate credit intermediation. Liquidity shortages, exacerbating asset quality, increasing non-performing loans, inefficient profitability and capital inadequacy can all lead to banking distress. Hence, Liquidity provision is a key pillar of preventive banking regulation. The Central Bank of Iraq introduced financial stability and early-warning reports for monitoring risks in banking and the financial soundness indicators [7], [8]. Recent indicators of the financial performance of Iraqi banks indicate altered liquidity and credit conditions. The credit-to-deposits n-ratio stood at 52% in 2023, compared to 47% in 2022 and 55% in 2021. The Central Bank of Iraq also notified a fall in the non-performing loan ratio from 8.8% in 2021 to 7.2% in 2022 and 6.3% in 2023 [3]. This pattern of results is a key motivation to investigate if improved liquidity management and monetary conditions are related to reduced bank distress.

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2. Research Problem

The Iraqi banking sector has experienced changes in monetary conditions, liquidity, credit growth, and asset quality. Although liquidity is essential for banking stability, maintaining high liquidity alone does not guarantee the absence of banking distress.

Therefore, the research problem is represented by the following question:

What is the nature of the relationship between monetary policy and banking liquidity, and to what extent does banking liquidity contribute to reducing banking distress in Iraq?

The study seeks to answer the following questions:

1. How does monetary policy affect banking liquidity in Iraq?
2. What is the development of banking liquidity indicators in Iraq?
3. Has the improvement in liquidity conditions been accompanied by a reduction in banking distress?
4. What is the role of monetary policy in maintaining banking stability?

3. Research Objectives

The study aims to:

1. Analyze the relationship between monetary policy and banking liquidity in Iraq.
2. Examine the development of liquidity indicators in the Iraqi banking sector.
3. Analyze the development of non-performing loans as an indicator of banking distress.
4. Determine the contribution of adequate liquidity to reducing banking distress.
5. Identify the role of the Central Bank of Iraq in maintaining banking and financial stability.

4. Research Hypotheses

The study is based on the following hypotheses:

H1: Monetary policy has a significant relationship with banking liquidity in Iraq.

H2: Adequate banking liquidity contributes to reducing banking distress.

H3: Improvements in banking liquidity and credit management are associated with lower non-performing loans.

H4: Effective monetary policy and banking supervision contribute to strengthening financial stability in Iraq.

5. Methodology

5.1 Research Approach

The study adopts a **descriptive and analytical approach**. The descriptive component is used to identify developments in monetary policy, liquidity, credit, and banking distress. The analytical component is used to interpret the relationship between these variables.

The analysis relies mainly on official data and reports issued by the Central Bank of Iraq, including monetary policy reports, financial stability reports, early-warning reports, and banking-sector indicators.

5.2 Study Variables

The variables are classified into three main groups:

Variable	Indicators	Measurement
Monetary Policy	Policy interest rate	Percentage
Monetary Policy	Reserve requirement	Percentage
Monetary Policy	M1 and M2	IQD trillion
Banking Liquidity	Credit-to-deposits ratio	Percentage
Banking Liquidity	Liquidity Coverage Ratio (LCR)	Percentage
Banking Liquidity	Net Stable Funding Ratio (NSFR)	Percentage
Banking Distress	Non-performing loans	Percentage
Banking Stability	ROA, ROE and capital adequacy	Percentage

The credit-to-deposits ratio is particularly useful because it indicates the extent to which banks transform deposits into credit. A very high ratio may indicate increased liquidity pressure, while a very low ratio may indicate underutilization of deposits.

6. Results and Discussion

6.1 Monetary Policy Developments

The Iraqi monetary policy is very prudent and tight during the period under review. The Central Bank of Iraq raised the policy interest rate and the reserve requirements in the stronger inflationary environment. Based on the policy rate specified in the 2024 Article IV consultation information released by the Central Bank of Iraq, the policy interest rate was raised from 4% to 7.5%, and the reserve requirements went from 15% to 18%.

In 2024, the financial conditions eased, reflecting subsiding inflationary pressures. The policy rate was cut from 7.5% to 5.5 % by the Central Bank. While continuing to employ reserve requirements and securities instruments as part of its liquidity-management framework, it also maintained its use of window guidance for macroeconomic purposes.

Table 1. Selected Monetary Policy Indicators in Iraq

Indicator	Earlier Position	2024 Position	Direction
Policy interest rate	7.5%	5.5%	Decrease
Government deposit reserve requirement	18% / 13%	22%	Increase
M0	—	-13.9%	Decrease
M1	—	-4.6%	Decrease

M2	—	-3.8%	Decrease
Inflation	—	2.6%	Low

The findings indicate that the stance of monetary policy became less restrictive in 2024, largely through reductions in the policy interest rate .However, the use of reserve requirements and the securities instruments at the same time suggests that the monetary authorities were still prudently managing liquidity in the banking system.

6.2 Development of Banking Credit and Liquidity

The banking credit expanded significantly over the period of study. The total loans and advances provided by the Iraqi banks were around IQD 60.8 trillion in 2023 as opposed to IQD 51.9 trillion in 2022 and IQD 46.1 trillion in 2021.

Table 2. Development of Loans and Advances

Year	**Loans and Advances (IQD trillion)**	**Growth**
2021	46.1	7%
2022	51.9	12%
2023	60.8	17%
2024	64.12	5.4%

The table presents information about a steadily increasing amount of banking credit. But the rate of growth decreased slightly in 2024 relative to 2023. This may suggest a drift towards more subdued credit growth. The expansion in credit does not necessarily mean more baink distress. Its impact also depends on credit quality, loan-loss reserves, collateral and risk-management practices of banks.

6.3 Credit-to-Deposits Ratio

The credit-to-deposit ratio is a good measure for evaluating the liquidity of banks. The ratio was 55% in 2021, declined to 47% in 2022, and rose to 52% in 2023 according to the Central Bank of Iraq.

Table 3. Credit-to-Deposits Ratio

Year	**Credit-to-Deposits Ratio**
2021	55%
2022	47%
2023	52%
2024	59.3%

The ratio rose to 59.3% in the fourth quarter of 2024, from 51.9% in the same quarter of 2023 [10].Although this rise, the proportion was below the 75% threshold which is cited by the Central Bank of Iraq that allowed for banks to keep a margin of liquidity in order to accommodate customers withdrawals and other liabilities.

The result is important because it shows that the rise in credit activity had not, at the observed scale, led to an exhaustion of the banking sector’s liquidity buffer.

6.4 Non-Performing Loans and Banking Distress

Non-performing loans are among the most important indicators of banking distress because they reflect weaknesses in credit quality and borrowers' ability to repay their obligations.

Table 4. Non-Performing Loans in the Iraqi Banking Sector

Year	NPLs / Total Credit
2020	8.9%
2021	8.8%
2022	7.2%
2023	6.3%

The results indicate a significant reduction in the non-performing-loan ratio from 8.9% in 2020 to 6.3% in 2023. Decay persisted in the face of rising bank credit. This is a sign of the quality of banking credit having improved, and one that signals less banking fragility. The Central Bank of Iraq, in a press release, further stated that the NPL-to-deposits ratio declined to 3.2% in 2023 from 3.4% in 2022, 4.9% in 2021 and 5.2% in 2020..

6.5 Liquidity Coverage and Stable Funding

More up-to-date information on financial stability showed that the Iraqi banks were able to keep their liquidity ratios above the required minimum. In 2024, the banking sector's NSFR remained above the minimum regulatory limit of 100%. The liquidity coverage ratio of private banks was 197.9 percent against 201.45 percent in 2023..

Table 5. Selected Liquidity Indicators

Indicator	2023	2024	Interpretation
Private-bank LCR	201.45%	197.90%	High liquidity
NSFR	Above 100%	Above 100%	Stable funding
Credit-to-deposits ratio	51.9%	59.3%	Higher credit utilization

Firstly, this decrease in the LCR of private banks should not be regarded as a financial stability undermining factor since the ratio was still very far above the minimum threshold. Similarly, the NSFR was above 100%, signifying that ASF was sufficient to cover RSF.

7. Discussion

النتيجة

The findings indicate that there is a significant impact of monetary policy on banking liquidity and banks distress in Iraq. First, monetary policy affected liquid conditions by varying the policy interest rate, the reserve requirements, and the extent of securities operations.Moving from a somewhat more restrictive stance to a somewhat less restrictive stance in 2024 took place against the background of relatively subdued inflation and ongoing expansion in bank ing activity.

Second, liquidity in banking held up reasonably well. The credit-to-deposit ratio, however, rose from 51.9% in 2023 to 59.3% in 2024 but was still under the 75% threshold set by the CBI [3], [10]. This indicates that the liquidity cushion within the banking system was maintained. Third, the reduction in the NPL ratio from 8.8% in 2021 to 6.3% in 2023 indicates an improving credit quality [3]. The decline took place against the backdrop of a massive increase in loans and advances, indicating that credit expansion was not followed by a parallel rise in non-performing loan. Fourth, the high values of LCR and NSFR also attest that banks held substantial liquidity reserves. The NSFR stayed above 100% as a minimum and the LCR of private banks were around 200% in 2024 [11]. These finding are consistent with the view that monetary policy can indirectly affect the stability of bank through its impact on liquidity. Since liquidity-related distress is less likely when monetary authorities provide suitable liquidity conditions and banks hold sufficient liquidity buffers, it follows that liquidity stress is less likely to lead to distress under these same conditions. However, the relation that is inferred should not only be regarded as being based on descriptive information, and to some extent wholly causal. Capital adequacy, asset quality, profitability, governance, exchange-rate regime, macroeconomic fundamentals, and quality of bank supervision also impact banking distress - and much

of this remained the same as under the Basel definition.So the empirical investigation have to examine these relationships using econometric model for significant of these relationships.

8. Conclusions

The study reached the following conclusion:

1. The exception is monetary policy, which also affects liquidity conditions in the Iraqi banking sector.
2. The Central Bank of Iraq imposed a number of monetary tools, such as interest-rate policy, reserve requirements and securities transactions, in order to influence money and liquidity supply
3. Liquidity in banking remained fairly strong over the period.
4. The credit-to-deposit ratio rose to 59.3% in the fourth quarter of 2024 but stayed below the 75% threshold, revealing a persistent liquidity margin.
5. The ratio of non-performing loans declined from 8.8 percent in 2021 to 6.3 percent in 2023, signaling an improvement in credit quality and a alleviation of a significant measure of banking distress
6. The LCR and NSFR figures were unchanged at relatively strong levels, suggesting that banks had ample liquidity and stable funding capacity
7. The results broadly support the prediction that suffi cient banking liquidity should contribute to mitigating liquidity-driven banking distress.
8. Liquidity should not be examined separately from capital adequacy, asset quality, profitability, and credit risk when assessing the soundness of a bank.

9. Recommendations

The Central Bank of Iraq should maintain its flexible stance on the use of monetary policy instruments in response to developments in inflation, liquidity, and the banking sector. Liquidity-risk management should be enhanced for the commercial banks in Iraq, and they must hold sufficient liquidity buffers. Credit-risk assessment needs to be enhanced in banks to avoid new non-performing loans (NPLs). The monitoring of liquidity should be combined with monitoring of capital adequacy, profitability and asset quality. Stronger early-warning systems should be put in place to detect banks that are likely to face liquidity or solvency issues in the near future. The Central Bank of Iraq should keep progressing in this area by further developing its banking supervision and financial-stability surveillance. Banks should also enhance their asset-liability management practices by narrowing maturity gaps between deposits and loans.

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