



The Impact of High Indicators of Deposits and Loans on Banking Liquidity an Applied Study in Some Banks Registered in the Iraq Stock Exchange

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Received: 09 January 2023

Accepted: 27 March 2023

Published: 04 May 2023

Abstract: *From the theoretical side, the study aims to demonstrate the impact of the theoretical relationship between the variables of the independent study, bank deposits and loans, with the dependent variable on bank liquidity. National Bank of Iraq, the Iraqi Middle East Investment Bank, and the Gulf Commercial Bank). And then find the statistical correlation and the effect of the high percentage of bank deposits and bank loans on bank liquidity by using the statistical analysis program (SPSSv.26) to reach the most important results that proved the existence of a correlation between bank deposits and bank liquidity for the value of the correlation (0.804**) at Significance level (0.01). As well as the existence of a correlation between bank loans and bank liquidity on the value of the correlation (0.301 *) at a significant level (0.01). The existence of a relationship of effects that occur in the dependent variable banking liquidity as a result of the influence of the independent variable bank deposits, as the coefficient of determination (R^2) reached a value of (0.647) and the existence of a relationship of effects that occur in the dependent variable bank liquidity as a result of the influence of the independent variable bank loans as it reached The coefficient of determination (R^2) is (0.091).*

Keywords: Bank Deposits, Bank Loans, Bank Liquidity.

1. INTRODUCTION

Commercial banks are a necessary and important tool in implementing the financial policies of different countries by providing loans that provide the financial financing necessary to carry out various economic activities, as the activity of granting loans to banks is one of the main activities that it carries out, in addition to being a major source of profit generation



(Kazem, 2021). As loans mean those services provided to customers, according to which individuals and economic units are provided with the funds necessary to carry out their activities, provided that the customer undertakes to pay those funds and their benefits, commercial banks also practice the activities of receiving bank deposits, which represent a basic pillar to ensure economic balance and monetary stability, as it is a means to reduce inflation Which accompanies the process of economic development in countries, (Abbas, Abd, & Kareem, 2020). as it represents the deduction of part of the current available income, which works to reduce the inflationary pressures that accompany the retention of funds with customers, and in order for the bank to achieve a balance between the process of granting loans and fulfilling the recovery of bank deposits to customers, it is necessary to maintain bank liquidity, as Banking liquidity means the extent to which commercial banks are able to fulfill obligations immediately, by converting any of the assets into liquid cash quickly and without losses. Thus, the concept of banking liquidity expresses the relationship between cash and assets that quickly convert into cash and the obligations that are required to be fulfilled on the maturity date. Thus, commercial banks are in a state of abundance of liquidity when they have the ability to lend available surplus funds to customers without compromising bank deposits (Sahyoun, & Magnan , 2020).

Literature Review

First: Bank Deposits:

The concept of bank deposits is represented by an amount of money deposited by its owner in the commercial bank for a specific period according to a contract concluded between the bank and the owner of the deposit, and he is not entitled to withdraw it before the period specified in the contract, (Arif & Nauman , 2012). The deposit period is increased by conditions that require the deposit to be repaid or transferred to another account with interest or with a premium or without interest or premium, either upon request or at a time or conditions agreed upon by the depositor and that person or agreed upon on their behalf. The bank shall be indebted to the principal of the money deposited in it with the interests that are due on time, (Chioma, Okoye, & Chidume, 2021) and the owner of the deposit shall be a creditor to the bank of the principal of the money and the accrued interest thereon. Deposits are often in the form of sums of money or sometimes take other forms, and thus everything that individuals or economic units place in commercial banks in the short or long term, for safekeeping or employment, Bank deposits are also one of the sources of internal financing for banks, (Galili, Zviely, Ronen, & Mienis, 2007). The goal of the deposit may be to save important documents for the customer or to keep his jewelry in an iron safe that the customer rents from the bank, so the safe remains under the auspices of the commercial bank, but he does not have the power to open and view it. Rather, the key to the safe is in the possession of the bank deposit owner, who alone has the right to open and use the safe According to the procedures and deadlines determined by the commercial bank, bank deposits are divided into two main parts: cash deposits, which are called “money deposits”, and non-cash deposits, which are related to the deposit of the checks and securities, whether to manage them and collect their profits and benefits, or to sell them for the account of their owner, or to deposit them on Mortgage method for loans and credits granted by the bank to the customer. Bank deposits can be divided into the following: (Schieber,, 1998)



- Bank deposits on demand: It means the deposit that the bank receives and that can be withdrawn upon request. Withdrawal of amounts from the deposit exceeding the original amount deposited.
- Savings bank deposits: It is a form of demand deposit intended to encourage people to save money and collect their savings.
- Current account: It is a form of deposit on demand, whereby the depositor is allowed to withdraw several times according to the balance in the account or even a certain amount agreed upon.
- Bank deposit for him: means the deposit received by the bank for a specific period that is subject to withdrawal only after the end of the specified period and includes deposits such as fixed deposit certificate, monthly income certificate / quarterly income certificate, recurring income.

Second: Bank loans:

Bank loans are represented by those services provided to customers, according to which individuals and economic entities are provided with the necessary funds to carry out their various activities, provided that they undertake to pay the amount with its interest in one payment or in the form of installments, (Burkhanov , 2020)in addition to the guarantees that guarantee the recovery of the bank loan amount from the customer in the event that he stops paying. Granting bank loans is the main activity that provides revenues to commercial banks through the interest rates set by the bank on loans and thus obtaining returns that cover the interests of deposits that are granted to depositors and achieve the profit required for the continuation of the bank's work and its survival in the market. (Abd & Kazem, 2022) Despite the importance of the activity of granting loans in generating bank revenues, it is an activity surrounded by risks, as the failure of any customer or any of the parties to the contract and not fulfilling the due time, it exposes the bank to huge losses that may lead to bankruptcy, (Abd & Kazem, 2022) and thus the depositors' money is exposed to danger, so commercial banks should offer different types of bank loans that are granted in a deliberate manner and based on real information To ensure the repayment of those loans at the time of their maturity with interest. The commercial banks have given great importance in planning the lending policy in order to increase the sources of income, preserve the assets and thus reduce the costs of non-performing loans to a minimum. By following up the guarantee of repayment of the principal of the loan with its interests on the specified date so that risks can be discovered early and work to avoid them before they actually occur, as the bank secures permanent contact with the customer to inquire about the delay in the payment of installments, study and analyze the reasons for the delay, take the appropriate measures and take the decision in a timely manner, and the loans are divided banking to: (Chowdhury & Zaman, 2018)

- Short-term loans, which are short loans, usually for one year, and are used to finance investment and commercial projects
- Medium-term loans, which are loans with a maturity of 5 years and are used to finance capital operations
- Long-term loans: These are loans for a period exceeding 5 years and may reach 10 years. It is used in financing housing projects, land reclamation and structure factories. To secure this loan, the Corporation uses the sailing loan.



Third: Banking liquidity:

Bank liquidity is a major source in the banking sector, as commercial banks need to ensure that sufficient cash or other liquid assets are kept to meet their obligations in order to face normal and abnormal changes in cash flows, (Van & J, 2016) If other institutions or depositors realize that the bank lacks liquidity, this may lead to Stampede on the bank and may lead to bankruptcy. Banking liquidity as a concept means the possibility of paying all commercial obligations in cash by the bank, and responding to credit requests, such as granting new loans, which requires the provision of liquid cash, or the possibility of obtaining it by converting some of its assets into liquid cash quickly and easily. The concept of banking liquidity refers to the bank's, (Kazem, 2021).ability to meet depositors' requests to withdraw from bank deposits, and its ability to meet the requests of individual borrowers and economic units. This makes the process of banking liquidity planning and forecasting an important part of banking activity, by knowing the amount of liquidity specified by the central bank for comparison. It enhances the possibility of dealing with other financial ratios. Liquidity ratios are considered one of the financial ratios used in evaluating the reality of the bank's financial position in terms of its ability to achieve compatibility between the maturity structure of liabilities and the maturity structure of assets in order to ensure that there are no immediate or future funding pressures.

Fourth: Relationship between the variables of the study (deposits, loans, bank liquidity)

Bank loans are considered one of the most important main functions through which the commercial bank achieves the largest percentage of its profits, and the success of the bank in recovering the principal of the loan is done through efficient management that adheres to balanced standards that are not strict or easy to achieve a degree of stability and then decrease the degrees of financial failure. Despite the guarantees required by commercial banks when granting bank loans, the level of risk is high and may result in negative effects that threaten the survival of commercial banks, (Burkhanov , 2020) so banks should secure sufficient liquidity to meet the withdrawals of depositors on the other hand to meet the needs of borrowers in a timely manner, that is, not to miss an opportunity investment without having to sell securities with large losses or borrowing at high interest rates, (Chowdhury & Zaman, 2018) and that one of the determinants of the bank's ability to fulfill its obligations is the adequacy of balances and quasi-cash, especially the secondary reserve represented in securities that are easy to sell with a minimum of losses, (Hasan, Atshan, & Abd, 2023).

The third topic: the practical side

The practical side deals with a brief summary of the study sample (the National Bank of Iraq, the Iraqi Middle East Investment Bank, and the Gulf Commercial Bank) as well as analyzing the financial statements for the period from 2006-2020, extracting the ratios of deposits to total liquid assets, calculating the ratio of loans to total deposits, and then calculating The dependent variable is the banking liquidity ratio by dividing the liquid assets by the total assets, and testing the hypotheses of the study based on:

- There is a significant relationship between deposit ratios as an independent variable with the dependent variable banking liquidity at a significant level (0.01).



- There is a significant relationship between loan ratios as an independent variable with the dependent variable banking liquidity at a significant level (0.01).
- There is a significant impact relationship between deposits and loans ratios as independent variables with the dependent variable banking liquidity at a lower significant level (0.05).

Table (1) a brief summary of the study sample banks

No.	Name of bank	Year of establishment	Start-up capital	Bank code	capital upon listing	No. of branches	No.of Employees
1	National Bank of Iraq	1995	400,000,000	BNOI	1,143,000,000	15	384
2	Iraqi Middle East Investment Bank	1993	400,000,000	BIME	7,500,000,000	18	707
3	Gulf Commercial Bank	1993	400,000,000	BIME	7,500,000,000	18	707

Second: Measuring the index of the ratio of deposits and the ratio of loans to total liquid assets, and the measurement and index of banking liquidity for the National Bank of Iraq:

Table (2) National Bank of Iraq, amounts in millions of dinars

year	Total of assets	liquid assets	total deposit	Total loans	Deposit/liquid assets ratio	Loans/total deposits ratio	Liquidity = liquid assets / total assets
2006	43,925	28,383	13,562	2,505	48	18.47	64.6
2007	51,192	39,375	21,816	3,547	55	16.26	76.9
2008	70,563	42,299	37,519	6,125	89	16.33	59.9
2009	94,052	52,477	40,308	12,532	77	31.09	55.7
2010	107,558	50,688	51,706	25,427	102	49.18	47
2011	184,664	109,984	75,720	32,853	69	43.39	59.5
2012	337,248	257,644	154,837	50,682	60	32.73	76
2013	542,453	383,205	360,328	90,801	94	25.20	70.6
2014	615,235	409,722	337,379	137,584	82	40.78	66.6
2015	535,764	311,459	267,565	163,936	86	61.27	58
2016	578,847	367,817	162,017	144,071	44	88.92	63.5
2017	603,980	399,496	184,729	164,684	46	89.15	66
2018	525,757	378,455	190,731	85,244	50	44.69	72



2019	632,802	355,227	250,556	186,152	70	74.30	56
2020	893,964	441,117	419,234	341,522	95	81.46	49.

Third: Measuring the indicator of the ratio of deposits and the ratio of loans to total liquid assets, and measuring and measuring the banking liquidity index of the Iraqi Middle East Investment Bank:

Table (3) Measurement of the Iraqi Middle East Investment Bank

year	Total of assets	liquid assets	total deposit	Total loans	Deposit/liquid assets ratio	Loans/total deposits ratio	Liquidity = liquid assets / total assets
2006	299,385	138,600	239,348	12,111	172.6	5.06	46
2007	406,782	174,354	323,057	10,452	185	3.24	42.8
2008	569,667	217,433	431,100	6,736	198	1.56	38
2009	557,540	355,744	452,515	47,252	127	10.44	63.8
2010	580,125	343,909	463,327	89,248	135	19.26	59
2011	668,017	369,713	505,117	98,160	136	19.43	55
2012	818,969	463,908	615,784	107,118	132	17.40	56.6
2013	774,180	422,060	551,856	106,143	130	19.23	54.5
2014	683,076	349,766	358,117	94,334	102	26.34	51
2015	675,123	325,310	331,665	81,570	101.9	24.59	48
2016	633,833	329,238	251,839	94,279	76.5	37.44	51.9
2017	770,690	429,269	324,584	87,136	75.6	26.85	55.6
2018	800,749	474,994	429,602	82,939	90.4	19.31	59
2019	658,231	326,833	271,418	85,336	83	31.44	49.6
2020	647,868	317,314	266,696	81,277	84	30.48	48.9

Fourth: Measuring the indicator of the ratio of deposits and the ratio of loans to total liquid assets, and measuring and measuring the banking liquidity index of the Gulf Commercial Bank:

Table (4) Gulf Commercial Bank

year	Total of assets	liquid assets	total deposit	Total loans	Deposit/liquid assets ratio	Loans/total deposits ratio	Liquidity = liquid assets / total assets
2006	81,847	31,269	54,007	6,375	173	11.81	38
2007	141,855	50,424	106,116	4,953	210	4.67	35.54
2008	239,984	69,356	165,752	9,322	239	5.62	28.9
2009	258,650	57,993	187,469	14,988	323	8.00	22.4



2010	272,031	75,931	190,009	14,371	250	7.56	27.9
2011	354,046	96,677	216,937	11,881	224	5.48	27.3
2012	424,766	160,054	260,779	60,854	163	23.34	37.7
2013	781,479	368,940	417,143	83,199	113	19.95	47
2014	816,478	365,218	455,212	51,055	125	11.22	44.7
2015	810,971	244,871	409,220	74,524	167	18.21	30
2016	802,022	307,543	427,200	160,324	139	37.53	38
2017	603,312	225,842	265,803	139,046	118	52.31	37
2018	578,336	248,049	232,934	140,388	94	60.27	42.9
2019	549,145	258,253	201,579	139,822	78	69.36	47
2020	510,798	234,509	180,767	138,818	77	76.79	45

Fifth: Testing the relationship between the independent study variables (credit risks, capital risks) with the dependent variable bank liquidity.

- Testing the relationship between the ratio of deposits to total liquid assets with bank liquidity:

Table (5) Matrix of correlation coefficients between the ratio of deposits and bank liquidity

		Bank deposits	banking liquidity
Bank deposits	Pearson Correlation	1	.804**
	Sig. (2-tailed)		.000
	N	45	45
banking liquidity	Pearson Correlation	.804**	1
	Sig. (2-tailed)	.000	
	N	45	45

It is clear from the above table that there is a significant relationship between deposit ratios as an independent variable with the dependent variable banking liquidity, and this provides preliminary support for testing impact hypotheses, as the value of the correlation with bank deposit ratios and bank liquidity in commercial banks, the study sample (0.804**) at a significant level (0.01).

- Testing the relationship between the ratio of loans and bank liquidity:

Table (6) Matrix of correlation coefficients between the ratio of loans and bank liquidity

		Bank loans	banking liquidity
Bank loans	Pearson Correlation	1	.301*
	Sig. (2-tailed)		.044
	N	45	45
banking liquidity	Pearson Correlation	.301*	1
	Sig. (2-tailed)	.044	
	N	45	45



It is clear from the above table that there is a significant relationship between loan ratios as an independent variable with the dependent variable banking liquidity, and this provides preliminary support for testing impact hypotheses, as the value of the correlation between bank loan ratios and bank liquidity in commercial banks, the study sample (0.301*) at a significant level (0.01).

Sixth: Testing the effect relationship between the variables of the independent study (deposit ratio, loan ratio) with the dependent variable bank liquidity.

• **Examining the effect relationship between deposit ratio and bank liquidity:**

Table (7) the effect relationship between deposit ratio and bank liquidity

independent variables	Impact coefficient β	T test	Morale level Sig.	decision
deposit ratio	0.000	27.041	0.000	
fixed limit	71.332			
R Square is the coefficient of determination	0.647			
Test F	78.768			

It is clear from the above table that the coefficient of the fixed limit amounted to (71.332). In its tabular counterpart of (1.684), we find it less than the tabular T, with a degree of freedom of (44), and the coefficient of determination (R^2) explained what value (0.647) of the effects that occur in (bank liquidity) and these effects are due to the effect of the variable The independent bank deposits of banks, the research sample, while the other effects amounting to (0.353) are due to other variables that were not included in this model. The F test and the level of significance (sig) measure the significance of the model as a whole, as it is noted that the estimated model is significant at a level of significance less than 5%. F) for the model as a whole represents (0.000), which is less than (5%) that the researcher assumed, and he must accept the hypothesis of the model (there is a significant effect relationship between bank deposit rates and bank liquidity).

• **Examining the influence relationship between the ratio of loans and bank liquidity:**

Table (8) Testing the effect relationship between the ratio of loans and bank liquidity

independent variables	Impact coefficient β	T test	Morale level Sig.	decision
deposit ratio	0.000	14.368	0.044	
fixed limit	45.269			
R Square is the coefficient of determination	0.091			



Test F	4.290			
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It is clear from the above table that the coefficient of the fixed limit amounted to (45.269), and if the independent variable is equal to zero, that is, in the absence of bank loans to commercial banks, the study sample, then the value of bank liquidity is equal to (45.269), while the calculated value of T was (14.368), and when compared to its tabular counterpart The amount (1.684) we find is greater than the tabular T, with a degree of freedom of (44), and the coefficient of determination (R^2) explained the value of (0.091) of the effects that occur in bank liquidity, and these effects result from the influence of the independent variable bank loans to banks in the research sample The other effects (0.909) are due to other variables that were not included in this model. The F test and the level of significance (sig) measure the significance of the model as a whole, as it is noted that the estimated model is significant at a level of significance less than 5%. F for the model as a whole represents (0.044), which is less than (5%) that the researchers assumed, and therefore the hypothesis of the model is accepted (there is a significant effect relationship between bank loan ratios and bank liquidity).

2. CONCLUSIONS

Bank liquidity indicates the possibility of reassurance about the bank's ability to pay obligations. The accumulation of bank liquidity is not considered positive without exploiting it in investment aspects for the benefit of the bank .There is a relationship between bank deposits and bank liquidity on the correlation value (0.804**) at a significant level (0.01). As well as the existence of a relationship between bank loans and bank liquidity on the value of the correlation (0.301*) at a significant level (0.01).The existence of a relationship of effects that occur in the dependent variable bank liquidity as a result of the influence of the independent variable bank deposits, as the coefficient of determination (R^2) reached a value of (0.647).There is a relationship between the effects that occur in the dependent variable on bank liquidity as a result of the influence of the independent variable on bank loans, as the coefficient of determination (R^2) has a value of (0.091).

3. REFERENCES

1. Abd, W. H., & Kazem, D. A. (2022). THE RELATIONSHIP BETWEEN THE BALANCED SCORECARD AND THE COBIT-5 CRITERION IN IMPROVING BANKING PERFORMANCE, AN APPLIED RESEARCH IN A SAMPLE OF COMMERCIAL BANKS LISTED IN THE IRAQI STOCK EXCHANGE. World Economics and Finance Bulletin, pp. 13, 82-91.
2. Arif, A., & Nauman , A. A. (2012). Liquidity risk and performance of banking system.. Journal of Financial regulation and compliance, pp. 20(2), 182-195.
3. Bashatweh, A. D., & Ahmed, E. Y. (2020). Financial Performance Evaluation of the commercial banks in Jordan: Based on the CAMELS Framework. International Journal of Advanced Science and Technology, pp. 29(5), 985-994.



4. Burkhanov , A. (2020). Indicators to assess financial security of the banks. . Архив научных исследований, p. 27.
5. Chioma, A. V., Okoye, N. E., & Chidume, A. J. (2021). Assessing the effect of capital adequacy risk and liquidity risk management on firm value of deposit money banks in Nigeria. *African Journal of Accounting and Financial Research*, pp. , 4(1), 3.
6. Chowdhury, M. M., & Zaman, S. (2018). Effect of liquidity risk on performance of Islamic banks in Bangladesh. . *IOSR Journal of Economics and Finance*, pp. 9(4), 01-09.
7. Galili, E., Zviely, D., Ronen, A., & Mienis, H. K. (2007). Beach deposits of MIS 5e high sea stand as indicators for tectonic stability of the Carmel coastal plain, Israel.. *Quaternary Science Reviews*, pp. 26(19-21), 2544-2557.
8. Hasan, M. G., Atshan, A. A., & Abd, W. H. (2023). The Impact of the Relationship between Supervisors of Commercial Banks and the Work of the External Auditor, a Study According to the International Auditing Standard (1004). . *Journal of Corporate Finance Management and Banking System (JCFMBS) ISSN:*, pp. 2799-1059, 3(03), 14-28.
9. Kazem, H. A. (2021). Banking liquidation according to the Iraqi Banking Law No.(94) of 2004 (Comparative study). *Journal of Misan Comparative Legal Studies*, , p. 1(5).
10. Melecky, M., & Podpiera, A. M. (2010). Macroprudential stress-testing practices of central banks in central and south eastern Europe: an overview and challenges ahead. *World Bank Policy Research Working Paper*, (5434).
11. Polizzi, S., & Scannella, E. (2023). Continuous auditing in public sector and central banks: a framework to tackle implementation challenges. *Journal of Financial Regulation and Compliance*, pp. 31(1), 40-59.
12. Sahyoun, , N., & Magnan , M. (2020). The association between voluntary disclosure in audit committee reports and banks' earnings management. . *Managerial Auditing Journal*, pp. 35(6), 795-817.
13. Schieber,, J. (1998). . Possible indicators of microbial mat deposits in shales and sandstones: examples from the Mid-Proterozoic Belt Supergroup, Montana, USA.. *Sedimentary Geology*, pp. 120(1-4), 105-124.
14. Van , d., & J, W. (2016). A macroprudential approach to address liquidity risk with the loan-to-deposit ratio. . *The European Journal of Finance*, pp. 22(3), 237-253.