

THE IMPACT OF BANKING ACTIVITY INDICATORS ON THE RETURN ON DEPOSITS, APPLIED RESEARCH A SAMPLE OF IRAQI COMMERCIAL BANKS

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A B S T R A C T	KEYWORDS
The study aims to demonstrate the effect of theoretical relationships between the variables of banking activity indicators, the investment indicator on deposits and the resource employment indicator, as independent variables with the return on deposits indicator as a dependent variable. Financial analysis on the study sample (the National Bank of Iraq, the Iraqi Middle East Investment Bank, and the Gulf Commercial Bank). And then find the statistical correlation and effect of the high rates of bank deposits and bank loans on bank liquidity by using the statistical analysis program (SPSS.26) to reach the most important results that proved the existence of a relationship of effects that occur in the dependent variable the rate of return on deposits as a result of the influence of the independent sub-variables , as there is a positive relationship between the deposit investment index and the return on deposits for the correlation value (0.906**) at a significant level (0.01), while there is an inverse relationship between the resource employment index and the return on deposits for a correlation value (-0.033) at a significant level (0.01), In addition to the presence of a significant direct effect on the return on deposits of commercial banks, the study sample, as a result of increasing the percentage of deposit investment index by one unit, which is a significant effect of (0.000) at a significant level of less than (5%) While there is an insignificant direct effect on the return on	deposit investment index, resource employment index, rate of return on deposits.

deposits as a result of increasing the resource employment index by one unit and by (12%), which is more than (5%).	
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Introduction

Commercial banks are characterized by great importance in attracting funds from various funding sources and working to find investment fields. Investment deposits are the main source on which commercial banks rely. Several types of investment deposits fall under them, including savings deposits: which represent investment accounts with small amounts that contribute to the annual profits of the bank. Commercial, the aim of which is to encourage small depositors to obtain a small percentage of the profits. (Abbas, Abd, & Kareem, 2020). Term deposits: They are monthly, quarterly, semi-annual or annual deposits that the bank presents to its customers who wish to participate in investing in commercial banks. It is not permissible to withdraw from these deposits during the deposit period agreed upon between the bank and the depositor. Term deposits with notification: They are the same as the aforementioned term deposits, except that they differ from them in the mechanism of withdrawal from them, (Burkhanov , 2020) as the owner of the deposit must notify the Commercial Bank in writing of his desire to withdraw from this deposit, Commercial banks also play a major role in providing loans to customers and other financial institutions, and the inability of customers to repay loans exposes the bank to the risks of lack of liquidity at the bank, , (Chowdhury & Zaman, 2018) .which leads these banks to bankruptcy after withdrawing deposits from depositors. The purpose of maintaining this budget is to measure performance in banking activity and identify weaknesses and strengths in the performance of the bank's activities, and then provide the necessary information in order to take corrective measures that ensure the survival of the bank in the competitive market and then achieve revenues and profits, and this is done by calculating activity indicators. Banking and finding the effect relationship between it and the returns, and this is what will be dealt with in the theoretical and practical side of the study, (Sahyoun, & Magnan , 2020).

LITERATURE REVIEW

First: Indicators of banking activity:

Commercial banks grant loans and invest surplus deposits until they are required for repayment, as commercial banks seek to find feasible investment opportunities to employ their resources in return for obtaining benefits that cover their expenses, and what is more than that is considered a profit for the bank, (Abd & Kazem, 2022). taken by those banks in their perspective of the degree of risk associated For these banking financial investments, deposits constitute the largest percentage of the financing sources for the commercial bank, (Arif & Nauman , 2012). and achieving profits from the available resources (deposits) indicates the ability of the bank to employ the surplus or accumulated money with the customer to obtain returns. The financial return that results from it, as commercial banks employ a large part of their resources in this investment, (Chowdhury & Zaman, 2018). and it is one of the basic functions of any commercial bank, and it includes the process of granting loans for various long, short and medium terms, and these investments are in the form of advances, loans, discounted commercial papers, or through

withdrawals Overdraft, and in order to create a balance between the process of granting loans and investing in the size of bank financial deposits to avoid liquidity risks that could expose banks to financial failure or bankruptcy, (Chioma, Okoye, & Chidume, 2021) a set of banking activity indicators are used, including: (Galili, Zviely, Ronen, & Mienis, 2007), (Schieber, 1998)

*Deposit investment index: The banking department is interested in this indicator, because it measures the extent of the department's ability to employ one of the important sources of financing for the bank, which are deposits of various types in order to exploit and invest them in achieving profits. The deposit investment index is calculated according to the following equation: $(\text{Investments} / \text{Deposits}) * 100$. (Van & J, 2016)

*Resource Employment Index: This indicator focuses on the extent of the bank's ability to employ its resources. Profits are a measure of the efficiency of management of all investments, whether they are long-term or short-term investments. The resource employment index is calculated according to the following equation $(\text{Investments} / (\text{Deposits} + \text{Equity})) * 100$. (Hasan, Atshan, & Abd, 2023).

Second: Return on Deposits:

Second: Return on Deposits: (ROD): Commercial banks are always looking for an increase in profitability from short investments and long-term investments, and the rise of this indicator indicates the efficiency of the investment and operational management policies or investment in ordinary stocks during a certain period, (Burkhanov, 2020). as it shows the rate of return on Deposits The extent to which bank deposits generate profits to enhance the bank's competitiveness. This rate also measures the share of each unit of deposits in the net profit due to the bank after paying taxes. Therefore, banks seek to achieve a balance between risk and return from banking operations, in a way that ensures maximization of return and minimization of risk. Return on Deposits Index: (ROD) according to the following formula: $\text{net profit after tax} / \text{rate of return on deposits} * 100$. (Abd & Kazem, 2022)

The practical side of the study

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) $(\text{net profit after tax} / \text{deposits}) * 100$ and calculate the deposit investment index $(\text{investments} / \text{deposits}) * 100$ resource employment index $(\text{investments} / (\text{deposits} + \text{equity})) * 100$, and after completing the financial analysis, test the hypotheses of the study based on the following:

* The first main hypothesis: There is a significant correlation between indicators of banking activity as an independent variable with the dependent variable return on deposits at a significant level (0.01) Two sub-hypotheses are derived from it:

1- There is a significant correlation between the investment index on deposits as an independent variable with the dependent variable return on deposits at a significant level (0.01).

2-There is a significant correlation between the resource employment index as an independent variable with the dependent variable return on deposits at a significant level (0.01).

* The second main hypothesis (there is a significant impact relationship between indicators of banking activity as an independent variable with the dependent variable return on deposits at a lower significant level (0.05).

1- There is a significant impact relationship between the investment index on deposits as an independent variable with the dependent variable return on deposits at a lower significant level (0.05).

2- There is a significant impact relationship between the resource employment index as an independent variable with the dependent variable return on deposits at a lower significant level (0.05).

Second: Measuring the rate of return on deposits with banking activity indicators (deposit investment index, resource employment index) for the National Bank of Iraq:

Table (1) National Bank of Iraq, amounts in millions (Iraqi dinars)

the years	Total equity	Total investments	total deposit	Net profit after tax	Return on deposits (net profit after tax/deposits	Deposit investment index (investments / deposits) * 100	Resources Employment Index (Investments / (Deposits + Equity) * 100
2006	26361	7122	13562	-742	-5.47	52.5	52.5
2007	27945	4395	21816	1584	7.26	20	20
2008	31080	15319	37519	3135	8.36	49	49
2009	51771	19732	40308	586	1.45	48.9	48.9
2010	52913	11546	51706	1141	2.21	22.3	22.3
2011	105416	16335	75720	2495	3.30	21.5	21.5
2012	154660	1943	154837	15415	9.96	1.25	1.25
2013	168541	32785	360328	13874	3.85	9.09	9.09
2014	263429	13805	337379	6947	2.06	4.09	4.09
2015	260396	2542	267565	2295	0.86	0.95	0.95
2016	287838	1615	162071	23501	14.51	0.99	0.99
2017	285719	2548	184729	2965	1.61	1.37	1.37
2018	257849	27013	190731	-7912	-4.15	14	14
2019	256641	59092	250556	9164	3.66	23.5	23.5
2020	307483	72224	419234	19907	4.75	17	17
average	169202.8	19201.07	171200.5	6290333	3.6	19	19

Source: prepared by the researcher based on the reports of the Iraq Stock Exchange

The above table shows the rate of return on deposits by dividing (net profit after tax / total deposits) for the National Bank of Iraq, as the average rate of return on deposits for the National Bank of Iraq was (3.6), as well as the average deposit investment index and the resource employment index reached (19, 8.5). respectively.

Third: Measuring the rate of return on deposits with banking activity indicators (deposit investment index, resource employment index) for the Iraqi Middle East Investment Bank.

Table (2) Measurement of the Iraqi Middle East Investment Bank amounts in millions (Iraqi dinars)

the years	Total equity	Total investments	total deposit	Net profit after tax	Return on deposits (net profit after tax/deposits)	Deposit investment index (investments / deposits) * 100	Resources Employment Index (Investments / (Deposits + Equity) * 100
2006	35,782	98,557	239,348	5,154	2.15	41	35.8
2007	50,449	151,046	323,057	14,451	4.47	46.7	40.4
2008	63,840	187,597	431,100	13,952	3.24	43.5	37.9
2009	75,547	77,067	452,515	11,707	2.59	17	14.6
2010	84,098	8,702	463,327	8,627	1.86	1.8	1.6
2011	137,899	5,257	505,117	18,453	3.65	1	0.8
2012	187,746	43,487	615,784	24,282	3.94	7.	5.4
2013	202,779	19,065	551,856	20,875	3.78	3.4	2.5
2014	307,074	26,858	358,117	3,605	1.01	7.5	4
2015	276,967	42,5739	331,665	5,420	1.63	128	70
2016	272,093	42,149	251,839	11,750	4.67	16.7	8
2017	261,150	10,233	324,584	-581	-.18	3	1.7
2018	267,467	36,404	429,602	-2,295	-.53	8.5	5
2019	267,290	36,404	271,418	78	.03	13	6.7
2020	264,800	38,068	266,696	-2,095	-.79	14	7.2
average	183665.4	79171.2	387735	8892	2	23	16

Source: prepared by the researcher based on the reports of the Iraq Stock Exchange .

The above table shows the rate of return on deposits by dividing (net profit after tax / total deposits) for the Iraqi Middle East Investment Bank, as the average rate of return on deposits for the Iraqi Middle East Investment Bank was (2), as well as the average deposit investment index and the resource employment index reached two (23, 16) respectively.

Fourthly: Measuring the rate of return on deposits with banking activity indicators (deposit investment index, resource employment index) for Golf Commercial Bank.

Table (3) Golf Commercial Bank amounts in millions (Iraqi dinars)

the years	Total equity	Total investments	total deposit	Net profit after tax	Return on deposits (net profit after tax/deposits)	Deposit investment index (investments / deposits) * 100	Resources Employment Index (Investments / (Deposits + Equity) * 100
2006	24,157	17,965	54,007	2,441	4.52	33.2	22.9
2007	28,431	59,136	106,116	4,770	4.50	55.7	43.95
2008	41,050	129,904	165,752	15,111	9.12	78.3	62.8
2009	59,200	135,527	187,469	7,977	4.26	72.29	54.9
2010	63,548	110,162	190,009	6,161	3.24	57.9	43.4
2011	118,183	129,604	216,937	11,632	5.36	59.74	38.6
2012	149,087	17,944	260,779	30,856	11.83	6.8	4.37
2013	303,984	64,783	417,143	47,451	11.38	15.5	8.98
2014	345,974	77,925	455,212	36,140	7.94	17.11	9.72
2015	321,625	167,113	409,220	9,859	2.41	40.8	22.8
2016	317,733	140,195	427,200	5,870	1.37	32.8	18.8
2017	320,887	82,724	265,803	4,230	1.59	31.1	14.1
2018	314,472	66,626	232,934	591,789	254.06	28.6	12.17
2019	306,709	60,428	201,579	-3,931	-1.95	29.9	11.8
2020	307,172	60,893	180,767	-1	.00	33.68	12.4

average	201480.8	88061.93	251395.1	51357	21	39.5	25
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Source: prepared by the researcher based on the reports of the Iraq Stock Exchange.

The above table shows the rate of return on deposits by dividing (net profit after tax / total deposits) for Golf Commercial Bank, as the average rate of return on deposits for Golf Commercial Bank was (21), as well as the average deposit investment index and resource employment index, which reached (39.5, 25) respectively.

Fifth: Testing the relationship between the independent study variables (deposit investment index, resource employment index) with the dependent variable return on deposits.

Table (4) Matrix of correlation coefficients between the independent study variables (deposit investment index, resource employment index with the dependent variable return on deposits.

	test effect coefficient β	Resource Employment Index	Deposit Investment Index	Index Return on Deposits
Resource Employment Index	Pearson Correlation	1	-.209	-.033
	Sig. (2-tailed)		.169	.828
	N	45	45	45
Deposit investment index	Pearson Correlation	-.209	1	.906**
	Sig. (2-tailed)	.169		.000
	N	45	45	45
return on deposits	Pearson Correlation	-.033	.906**	1
	Sig. (2-tailed)	.828	.000	
	N	45	45	45

It is clear from the above table that:

*The existence of a positive relationship with significant significance between the deposit investment index and the return on deposits, and this provides operational support for testing the impact hypotheses, as the value of the correlation reached the deposit investment index as an independent variable in the variable return on deposits as a dependent variable in commercial banks, the study sample (0.906**) at a significant level (0.01).

* The existence of an inverse relationship between the resource employment index and the return on deposits, and this provides operational support for testing the impact hypotheses, as the value of the correlation was the deposit investment index as an independent variable in the return on deposits variable as a dependent variable in commercial banks, the study sample (-0.33) at a significant level (0.01).

Sixthly: Testing the effect relationship between the independent study variables (deposit investment index, resource employment index) with the dependent variable return on deposits.

Table (6) Effect relationship between the independent study variables (deposit investment index, resource employment index) with the dependent variable return on deposits.

independent variables	test effect coefficient β	T test	Morale level Sig. T
fixed limit	-10.753	-3.153	0.03
Deposit investment index	0.248	2.633	0.000
Resource Employment Index	0.349	15.197	0.12

Morale level Sig. F	0.000	-3.153	
R Square is the coefficient of determination	0.846		
Test F	115.625		

It is clear to us through the above table: that the coefficient of the fixed limit amounted to (-10.753), so if the independent variable is equal to zero, i. The calculated T is (-3.153), and when compared to its tabular counterpart of (1.699), we find that it is greater than the tabular (T), with a degree of freedom of (29), and this was confirmed by the (Sig) test assumed by the researcher with a percentage of (5%) and a confidence level of (95 %), as we notice the probability rate is less than (5%).

In order to detail this, the researchers analyzed the impact of each dimension of the independent variable on the return on deposits.

As for the independent variables, the results of the analysis of the deposit investment index had a direct effect on the return on deposits of the commercial banks, the study sample. When the ratio of the deposit investment index increases by one unit, it is accompanied by a change in the return on deposits by (0.248), which is a significant effect of (0.000) at a significant level of less than (5%), and this was confirmed by the (Sig) test, the probability ratio is less than (5%), and thus we accept the hypothesis that there is a significant effect relationship between the investment index on deposits as an independent variable with the dependent variable return on deposits at a lower significant level (0.05). While the results of the analysis of the resource employment index had a direct effect on the return on deposits, when the resource employment index increases by one unit, it leads to an increase in the return on deposits by (0.349), but this effect is not significant when compared to the level of significance (5%) that the researchers assumed, so its value was (0.12), which is more than (5%) Thus, we reject the hypothesis that there is a significant effect relationship between the resource employment index as an independent variable with the dependent variable return on deposits at a lower significant level (0.05), and we accept the null hypothesis (null hypothesis).

The coefficient of determination (R^2) explained the value of (0.846) of the effects that occur in (return on deposits), and these effects are due to the effect of the independent variable (indicators of banking activity of banks in the study sample, while the other effects amounting to (0.154) are due to other variables Not included in this form.

The F test and the sig level of significance measure the significance of the model as a whole, as it is noted that the estimated model is significant at the level of significance of 5%. When comparing the calculated F with its tabular counterpart, we find it larger as its value reached (115.625), while the tabular F reached (2.55), while (the level of significance Sig.F) for the model As a whole, it represents (0.00), which is less than (5%) assumed by the researcher. Therefore, the hypothesis accepts the second main hypothesis that there is a significant effect relationship between indicators of banking activity as an independent variable with the dependent variable return on deposits at a lower significant level (0.05).

Conclusions:

There is a positive relationship between the deposit investment index and the return on deposits for the correlation value (0.906**) at a significant level (0.01), while there is an inverse relationship between the resource employment index and the return on deposits for a correlation value (-0.033) at a significant level (0.01). In addition to the presence of a significant direct effect on the return on deposits

of commercial banks, the study sample, as a result of increasing the percentage of deposit investment index by one unit, which is a significant effect of (0.000) at a significant level of less than (5%). While there is an insignificant direct effect on the return on deposits as a result of increasing the percentage of resource employment index by one unit and by (0.349), but this effect is not significant as its value was (0.12), which is more than (5%).

Recommendations:

The need for commercial banks to pay attention to the strong relationship between banking activity indicators represented by the deposit investment index and the resource employment index, and their impact on the rate of return on deposits, as the banking investment indicators reflect the good condition of the bank, which indicates that this bank follows sound and appropriate policies and procedures compared to other banks. commercial competition. Emphasis on banks to study the reasons for the decrease in the values of the indicators of the rate of return on deposits in the sample of the study in order to be able to know and treat the deviations that occurred and work to achieve the best returns.

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