

### The Effect of The Cash Balance and Money Employment Indicators on The Cash Credit of a Sample of Banks Listed in The Iraqi Stock Exchange for the Period (2010-2020)

By

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### **Abstract**

The research aims to shed light on banking liquidity as it is of great importance to banks because it enhances the strength and durability of banks, especially when confronting the obligations arising from them and vice versa in the event of a lack of liquidity, putting the bank in a stressful period, and the greatest returns are achieved when settling the customer's confidence in the bank and increasing Investment opportunities, and that it does not go too far in its credit activity in a way that weakens its services in other aspects. And because cash credit is one of the banking services provided by banks as it is the most attractive investment for banks compared to the rest of the investments, so it was decided to focus on this indicator and consider it a dependent variable for the study and to show the impact of the two indicators of cash balance and the employment of funds on it. The study was conducted for a sample consisting of (10) banks represented B) National Bank of Iraq, Gulf Commercial Bank, Commercial Bank of Iraq, Sumer Commercial Bank Bank of Baghdad, Al-Mansour Bank, United Investment Bank, Ashur International Bank, and the Investment Bank of Iraq, Middle East Bank) during the period (2010-2020), using financial and statistical analysis as well as using the statistical program (SPSS), for the purpose of arriving at scientific and reliable results for the purpose of Extracting the optimal solutions to the main study problem. The search showed the most important results The cash balance indicator is one of the indicators that are of importance to commercial banks and that have a positive impact on the decisions taken by the banking administration, and that show the bank's ability to fulfill all its obligations. Recommended search 1- Banks, in general, must determine the best levels of bank liquidity, depending on the assets available to them and based on the speed and time in order to convert them into cash.

**Keywords:** cash balance index, money employment index, cash credit.

#### Introduction

The increasing challenges witnessed by commercial banks, the development of banking industries, the emergence of irregular markets and the increase in unstable customer demands prompted banks to expand their banking service and to settle themselves alongside the rest of the financial institutions, whether they were in times of financial hardship or in times of large surpluses, and because the banking sector It is an important link in the development of the country's economy, so banks seek to use their own approach in order to attract the largest

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possible number of customers and create confidence between them and the customer, as well as to meet all his requirements and abide by them in terms of credit requests (banking facilities and advances) And cases of withdrawing a bank deposit in order to achieve profits, based on indicators and a ratio through which its bank liquidity and adequacy are determined, represented by the cash balance and the ratio of money investment, and the provision of a distinguished banking service that is a mirror reflecting the strength and financial strength of the bank, and among these services that received great attention by banks, we find Cash credit, as the bank increases the volume of liquidity and its presence in excess This will generate a main motive for the bank to provide lending services to credit-requesting parties, but at the same time, it may generate negative effects, especially if the bank directs this liquidity only on credit operations represented by banking facilities, leaving behind requests and depositors' withdrawals for their deposits.

### **Research Methodology**

#### 1. The research importance

The importance of the research stems from the importance of the title of our topic (the impact of the indicators of cash balance and money investment in cash credit), and because the topic of the research is predominantly of a modern nature, our study focused on studying the impact of the indicators of legal reserve and legal liquidity on cash credit and through a sample of participating commercial banks in the Iraqi Stock Exchange.

#### 2.the research problem

The problem of the research crystallized by delving into a topic that is considered very important, which is the indicators of cash balance and money employment, as any defect in these indicators and the failure to give them early predictions about bank failures and cash flow problems, can be negatively reflected on the granting of credit and the discharge and payment of debts, On this basis, these two indicators have been shed light on and their real effects on commercial banks granting cash credit, and based on the foregoing, the research problem can be raised through the main question:

(Explanation of the impact of the cash balance and money investment indicators on the cash credit granted by commercial banks, the study sample), which was subdivided into

- A- Is there an effect of the cash balance ratio indicator on the cash credit granted by banks?
- **B** Is there an impact of the money investment ratio indicator in the cash credit granted by banks?

#### 3- research hypotheses

The main hypothesis of the research lies:

There is no statistically significant effect of the two indicators of cash balance and money investment in the cash credit granted by the study sample banks. Several sub-hypotheses emerged from it

- **A-** There is no effect of the cash balance ratio indicator on the cash credit granted by the study sample banks.
- **B-** There is no effect of the money investment ratio indicator in the cash credit granted by the study sample banks.

#### 4. Research objectives

1. Presenting a broad and comprehensive concept on the subject of the cash balance indicators

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and the investment of funds and studying it from different aspects.

- 2. Identifying the amount of cash credit granted by banks based on the two indicators of cash balance and money investment.
- 3. To test the impact of the cash balance and money investment indicators on cash credit.

#### 5. The temporal and spatial boundaries of the research

The temporal boundaries of the research are embodied for the period (2010-2020), while the spatial boundaries were represented by a sample of banks contributing to the Iraqi market for securities and distributed over (10) banks, represented by (the Iraqi National Bank, the Gulf Commercial Bank, the Commercial Bank of Iraq, Sumer Commercial Bank, Bank of Baghdad, Al-Mansour Bank, United Investment Bank, Ashur International Bank, Iraqi Investment Bank, Middle East Bank).

#### The theoretical side of the research

Commercial banks rely heavily on short-term sources of funds that are provided by depositors, in addition to the fact that a large part of these deposits are the right of depositors, as he withdraws them upon request or after a short period from the date of the bank's notification of the depositor's desire to withdraw funds. This means that the bank will face large withdrawals by depositors, and here it will have to maintain large rates of liquidity that are commensurate with long-term debt obligations. It is not intended to maintain rates of liquidity, it is the bank's retention of its money in the form of liquid cash, but rather the ability of the bank to convert the assets available to it into liquid money without any losses and very quickly. (Al-Serafy, 2007: 19) since liquidity was defined in general as "the possibility of converting an asset into cash in a short time and with minimal losses, and that the main objective of maintaining these liquid assets is to cover the obligations due on time or in the shortest periods" (Al-Shanti and Shaker, 119: 2005)

Also, liquidity can be defined as "the ease with which an asset can be bought or sold without affecting the basic price, so the greater the price movement due to the selling process, the less the amount of liquidity in the original" (Fayez, 65: 2009). It means the ability of the bank to meet or fulfill its obligations immediately, by converting any of its assets into liquid cash quickly and without loss. (Alani, 2003: 89)

#### 1. Cash Balance Ratio

This percentage is expressed in all deposits, foreign currencies and gold coins held by the bank in addition to the cash in the fund. In terms of deposits, it includes all liabilities, excluding property rights (owned capital), and by increasing the cash balance ratios, the bank can perform all the obligations arising It has the direction of its customers, and this is reflected negatively on the bank's returns, due to the inability to employ these liquid amounts in investment operations through which banks can achieve returns. It is calculated through the following equation: (Al-Husseini and Al-Douri, 2000: 96)

## Cash in hand + cash at the central bank / total deposits x 100%.... (1) 2- Fund investment ratios

It is a measure of the bank's ability to grant credit and knowledge of the aspects of that credit, which are based mainly on a set of specific criteria that banks should not avoid, in addition to placing sums of money in the form of allocations to cover the granted credit, taking into account the extent The ability of the loan applicants to return the origin of these loans at their due dates, according to the credit plans. In addition, we find that banks are working to meet the needs of their customers depending on the volume of deposits available to them, and the more these percentages increase, this indicates an increase in the ability of banks to grant

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credit, and it is calculated from Through the following equation. (Fahmy, 2006: 57):

#### Loans and advances / total deposits x 100% ... (2) Cash Credit

Commercial banks provide multiple banking services, the most important of which is cash credit, whether these services are at the level of Iraq or the level of countries in the world. Banking through which banks achieve remunerative revenues and returns as a result of the banks' reception of various bank deposits and then their introduction into operational operations between investors and savers, as well as the significant contribution provided by cash credit in directing economic activities to investment operations in general and strategic in particular, which suffers the country suffers from a great shortage in it, as it is an important financing interface.

#### 1. The concept of cash credit

The concepts that clarified cash credit are multiple, some of them considered it a basic activity in the bank and some considered it a job equivalent to another job, represented by deposit acceptances, because the bank lends to customers with cash balances deposited with it previously, and this has changed the course of work of these funds and others From unemployed funds to funds generating new returns (Al-Sobaq, 2011: 79), cash credit is a form of financing with long, medium and short terms, which is widely used in various activities of the economic, commercial and service sectors. (Al-Dabbas, 2013: 25) Cash credit is defined as "a transaction between two parties, one of whom is the creditor or lender to provide money, goods, services, or securities in return for a promise from the other party, the debtor or borrower, to pay in the future, and these transactions include the payment of interest to the lender" (Ali, 2015: 219), also known as: It is a contractual agreement between the bank and the customer according to which the customer obtains the right to obtain a certain amount of money, provided that he agrees to pay the amount at a later time with the interest resulting from it." (Ashish, 2010: 58).

#### 2. The importance of cash credit

The importance of cash credit can be summed up in the following points: (Al-Ghalbi, 2016: 16)

- a) Cash credit is one of the most important sources of financing for economic activity in the country.
- **b**) Banks granting loans more broadly to all commercial and economic activities could be a great stimulus to aggregate demand, and consequently the quality of a significant increase on both consumer and investment demand.
- c) Cash credit is a means of exchanging and transferring money from one customer to another.
- **d**) Take advantage of the idle funds and include them in an operational process in the form of loans granted to the consumer and production sectors.
- e) It is considered one of the investments through which banks can achieve the largest profits as a result of the large increase in the volume of returns achieved.

## The relationship of the cash balance indicators and the employment of money in cash credit 1. The relationship between cash balance and monetary credit

Banks are an important tool at the level of the national economy in general and at the level of financial institutions in particular, as a result of their ability to evaluate prices and encourage commodity exchanges, so money is the cornerstone on which it depends in the current circumstances and that the economy The national cannot practice exchange operations of goods and services without money, as well as it has a major role in the interconnected operations between the economic sector inside and outside the country, and on the other hand,



banks cannot conduct banking operations without the availability of cash, so the more the amount of money increases with it The ability of banks to meet their obligations and provide banking service faster, in addition to the fact that banks keep this money in the form of cash balances, which they consider the first line of prevention because the increase in customers' withdrawals for their deposits, prompts banks to fall into financial crises, so it is necessary for banks to maintain these percentages of Yes, it has liquidity through which it is able to face any financial crisis, and there is a question in our minds: Is there a difference in the volumes of these funds from another bank? The difference in the volumes of these funds from one bank to another depends on the economic conditions and the level of banking culture and awareness among customers, because the presence of banking awareness means a decrease in the volumes of bank liquidity and an increase in investment operations with funds, and the situation is opposite when the banking awareness is low. And the increase in banks' profits depends on the volumes of liquidity available to them, and thus increasing these percentages of liquidity will be a great incentive for banks to provide banking services, the most important of which is responding to credit requests, because the greater the volumes of cash at banks, the greater their ability to lend, and thus they will invest these funds and return to them. Rewarding profits, without cash, it is not possible to enter into lending operations. (Kanaan, 2012: 181)

#### 2. The relationship between the investment of funds and cash credit

This indicator reflects the ability of the bank to grant cash credit and the careful study that it performs on the party requesting credit without ignoring any specific criterion for the process of granting credit, and the extent of the latter's ability to pay the origin of this credit and the benefits resulting from it and with agreed deadlines In other words, banks employ what they have of financial assets and transfer them to lending operations of various types, and in return they receive interest that they collect with them in the form of bank returns, and therefore these operations have positive results for the bank. (Al-Hourani and Hassani, 2011: 126) There are several questions, including, what are the sources of these funds, and how do banks employ them and enter them into credit operations, and what is the impact of this on monetary credit? Many writers indicated that the sources of these funds are different, some of them are cash accumulated in the form of balances with local and foreign banks, and some of them are with the Central Bank, while the other part is semi-cash represented by financial and commercial papers (such as treasury bills and government bonds) and so on. The availability of this money is to meet the needs of customers from sudden withdrawals of deposits and credit requests, and that percentages of the sources of these funds are collected at the Central Bank In the form of legal reserves specified compulsorily by the monetary authorities, in order for the banks to make profits and because their mechanism of action is to confront the withdrawals of depositors, as the depositor does not withdraw all his deposit, the banks invest these deposits in part as they turn them into legal reserves according to the specified ratios and the remaining part By investing it in the form of granting loans, and this means that the ability of banks to grant loans depends mainly on what is available to them of deposits, and therefore the higher the percentage of these deposits, the higher the bank's ability to grant cash credit and vice versa. (Hatem, 2004: 50)

#### The applied aspect of research

#### 1. Analysis of the cash balance indicator for the study sample for the period (2010-2020)

This indicator shows us the ability of banks to meet all their obligations through the available amounts of cash in the treasury, and that withdrawals and deposits are the main influence on the volume of these balances, as it is necessary to achieve the balance between them regardless of the goal that the bank seeks, which is to achieve profits, as well as the strength of the financial position of any bank. The cash balance indicator is calculated through

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the following equation:

#### Cash in hand + cash at the central bank / total deposits x 100%

Table No. (1) shows the cash balance ratios with commercial banks for the study sample for the period (2010-2020):

**Table No.** (1). The ratios of the cash balance index for the years of the study sample 2010-2020

The Investme nt Bank of Iraq	Ashur Internation al Bank	Al- Mansou r Bank		Baghda d Bank	Bank for Investme nt	Sumer Commerci al Bank the United	Gulf Commerci al Bank	Iroa		Banksth e years
8.767	0.821	1.241	1.931	0.612	0.567	1.806	3.269	1.203	0.981	2010
7.220	0.625	2.540	1.395	0.465	0.705	1.129	4.531	2.012	1.453	2011
5.071	3.531	2.270	1.547	0.483	0.493	1.999	1.744	8.011	2.334	2012
5.587	2.984	4.696	1.654	0.651	0.429	6.480	1.515	0.743	1.232	2013
2.836	6.237	2.089	1.283	0.558	0.054	6.367	1.859	7.488	1.950	2014
1.159	4.221	0.691	1.627	0.427	3.339	5.848	1.304	0.504	1.607	2015
1.881	0.407	0.421	1.266	0.803	3.404	3.900	1.880	3.651	6.463	2016
1.256	0.335	0.613	1.085	2.562	3.927	2.420	2.874	7.369	2.859	2017
1.999	0.891	0.569	9.639	0.783	0.247	2.692	2.761	1.689	2.891	2018
1.407	1.818	1.595	1.173	0.576	0.301	3.307	3.439	7.326	2.196	2019
1.999	9.835	0.209	1.162	0.794	0.152	3.679	3.908	1.716	1.549	2020
8.767	9.835	4.696	9.639	2.562	3.927	6.480	4.531	8.011	6.463	max
1.159	0.335	0.209	1.085	0.427	0.054	1.129	1.304	0.504	0.981	min
3.562	2.882	1.540	2.160	0.792	1.238	3.603	2.644	3.792	2.319	average

Source: From the researcher's work based on the reports of the Securities Commission for the years (2010-2020)

Based on the data shown in Table No. (1) it showed that the average ratios of the cash balance index at the National Bank of Iraq amounted to ((2.319), and the bank recorded the highest percentage of the cash balance in (2016), which amounted to (6.463), due to the high volume of cash available With the bank compared to the decrease in the volume of deposits, but in the year (2010) we note that the bank recorded the lowest percentage of cash balances, which amounted to (0.981) as a result of the significant increase in total deposits, while the average ratios of the cash balance index with the Commercial Bank of Iraq reached (3.792), And thus achieving the highest percentage in (2018) and it was (8.012) as a result of the significant increase in bank liquidity, taking from it to cover all its obligations, while the lowest percentage was in (2015) and it amounted to (0.504), and this indicates a decrease in the size of the cash balance, as well as the effects it had. The war with terrorist organizations, which affected the state budget and the bank. As for Khaleeji Commercial Bank, the average cash balance index ratio reached (2.644), and the highest percentage of cash balance achieved by the bank in (2011) was (4,531) as a result of the significant increase in the volume of cash in the bank compared to the size of the deposit and this increase in the volume of liquidity Banking has become a shield for the bank's treasury to face sudden withdrawals in stressful periods, and the lowest percentage of the cash balance was (1,304) in (2015). As for Sumer Commercial Bank, its average cash balance amounted to (3.603), and we noticed a significant increase in the volume of its cash balances compared to the volume of deposits, as the cash ratio amounted to (6,480) in (2013), and the lowest percentage was (1.129) in (2011). This is explained by the exposure of the bank's budget to a total deficit due to external borrowing operations to pay off its accumulated debts. As for the United Bank for Investment, the average cash balance amounted to (1.238), and the bank recorded the highest percentage of cash balance in (2017), which amounted to (3.927), and this is due to the strength of the bank's financial position and the presence of discreet monitoring and follow-up systems on funds and control of all investment and credit operations, while the lowest percentage was (0.054) in (2014), and it

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was noted that the average cash balance at the Bank of Baghdad amounted to (0.792), and that the highest percentage of cash balance achieved by the bank was in (2017), which amounted to (2.562) in When the lowest percentage was in (2015), which amounted to (0.427). As for the average percentage of the cash balance index at the Middle East Bank, it reached (2.160), and it was noted that the highest percentage of the cash balance achieved by the bank reached (9.639) in (2018) in the Middle East Bank, and the reason for this rise is due to the remarkable development in the oil markets, which was reflected Positively on oil prices, which is the first and supportive part of the country's economy, which led to an increase in citizens' incomes, which encouraged them to deposit their money in banks, and the lowest percentage reached (1,085) in 2017 due to the lack of security in the country and the spread of political conflicts. Which negatively reflected on the bank's policy. As for Al-Mansour Bank, its average cash balance ratio reached (1.540), and the highest percentage of cash balance amounted to (4.696) in (2013) as a result of the improvement in the economic situation in the country, and the lowest percentage was recorded in (2020) of (0.209) due to The reason for the decrease in the volume of cash led to individuals increasing their deposit withdrawals from banks for fear of collateral disasters that existed in the country, especially with the entry of terrorist organizations, which had a negative impact on the management of banks and the country as well. The average cash balance with Ashur International Bank was (2.882), and the highest percentage of cash was in (2020) amounting to (9.835). The reason for the increase in cash volume is due to the bank's preference to keep cash to meet depositors' withdrawals and credit requests, and the lowest percentage was recorded in (2017). amounting to (0.335), as for the Investment Bank of Iraq, the average cash balance was (3,562) and it was the highest achieved percentage of the cash balance in (2010) amounting to (8,767) as a result of the banks increasing their retention of cash due to their large capacity in the face of fast withdrawals by customers Confronting banking risks and the risks that the country is going through in general, and the lowest percentage was in (2015) and amounted to (1.159). Which reflected negatively on the bank's policy and directing the money deposited with it into unthoughtful investment operations.

The Investme nt Bank of Iraq	Ashur Internation al Bank	Al- Mansou r Bank		Baghda d Bank	Bank for Investme nt	( Ammerci	Gulf Commerci al Bank	Commerci al Bank of Iraq		Banksth e years
1.383	0.998	0.480	0.039	0.671	7.058	0.214	1.388	0.448	0.690	2010
6.789	2.334	1.106	0.035	0.508	6.012	0.211	3.095	0.099	0.648	2011
5.608	5.674	3.149	0.030	0.447	4.203	0.124	0.642	2.062	4.359	2012
4.009	3.060	1.478	0.033	0.480	5.548	0.257	0.578	0.409	0.321	2013
3.674	2.037	2.989	0.034	0.448	4.283	0.213	0.537	5.910	0.490	2014
3.837	1.714	2.547	0.029	0.566	7.861	0.190	0.610	1.006	0.666	2015
3.378	0.056	1.073	0.390	9.218	5.111	0.119	0.375	2.484	0.896	2016
3.960	0.059	1.220	0.234	7.057	1.033	0.051	0.523	1.676	0.557	2017
4.842	0.041	1.696	0.243	0.143	0.283	0.066	0.603	0.601	4.028	2018
3.890	0.273	8.492	3.027	0.225	0.184	0.090	0.690	1.586	2.275	2019
3.307	0.275	1.052	3.154	0.179	0.414	0.080	0.759	1.591	1.103	2020
6.789	5.674	8.492	3.154	9.218	7.861	0.257	3.095	5.910	4.359	max
1.383	0.041	0.480	0.029	0.143	0.184	0.051	0.375	0.099	0.321	min
4.062	1.502	3.117	0.659	1.812	3.817	0.147	0.891	1.625	1.458	average

Source: From the researcher's work based on the reports of the Securities Commission for the years (2010-2020)

## 2. Analysis of the employment indicator for the study sample banks for the period (2010-2020)

This ratio is represented by the volume of loans and advances granted by commercial banks and their relationship to the volume of deposits, meaning that the bank's fulfillment of



customers' requests is due to its ability to use the volumes of deposits available to it. This indicator is calculated through the following equation:

#### Loans and advances/total deposits

**Schedule (2).** Employment index percentages for the study sample for the period 2010-2020

The results shown in table (2) showed the highest and lowest employment rates for each bank separately, as it was found that the average employment index of the bank for the National Bank of Iraq amounted to (1.458) during the period (2010-2020), and that the highest employment rate was in (2012), which amounted to (4,359), while the lowest percentage was for the same bank in the year (2013), amounting to (0.321), and this is due to the decisions taken by the Central Bank regarding banks and the operations and studied plans that were introduced that added strength and strength. To the banking system in general, as well as the increase in oil revenues during that period enabled banks to take advantage of this point and turn it into credit operations and employ them according to appropriate strategies, as well as the public's confidence in the bank. It is considered an accumulation of revenue that will be benefited from in the future. As for the Commercial Bank of Iraq, its average employment index was (1.625) during the period (2010-2020), thus achieving the highest employment rate, which was in (2014) and amounting to (5.910), which was matched by the lowest percentage of the same bank in the year (2011) which amounted to (0.099). It was noted that Khaleeji Commercial Bank had an average employment rate of (0.891) during the period (2010-2020), and that the highest employment rate achieved by the bank was (3.095) in (2011) and the lowest was in (2016), which amounted to (0.375). The rise and fall resulted in the stability of the security and economic situation in that period, as well as the efforts made by the bank to attract the largest number of deposits, especially with the measures taken by the Ministry of Finance, the content of which was the transfer of deposits from private banks to government banks. As for Sumer Commercial Bank, its average employment ratio was (0.147) during the period (2010-2020), and that the highest employment rate achieved by the bank was in (2013), which amounted to (0.257), and the lowest percentage was in (2017), which amounted to (0.051) From the same bank, while it was noted that the United Bank for Investment had an average employment rate of (3.817) during the period (2010-2020), and the highest employment rates achieved by the bank in the year (2015), which amounted to (7.861) and was offset by that in (2018) with the lowest The levels of employment ratios, which amounted to (0.184), while the Bank of Baghdad recorded average employment rates of approximately (1.812) during the period (2010-2020). And that the highest percentage achieved by the bank in (2016) amounting to (9.218) corresponds to the lowest percentage, which amounted to (0.143) in (2018) for the same bank, and it was also noted that the average employment rates with the Middle East Bank amounted to approximately (0.659) during the period (2010-2020), and that the highest percentage achieved by the bank was in (2020), which amounted to (3.154), and the lowest percentage for the same bank was (0.029) for the year (2015). The country started wars against terrorist organizations after the year (2014), and although it drained the state budget significantly to finance the war and military aspect, it was a strong motive for the state in general and the banks in particular if it changed their plans To activate the side of the private sector and eliminate this aspect of unemployment would also raise the income of individuals and thus increase the confidence of customers in banks, which in turn turns this increase into deposit pools with banks benefiting from credit operations for the parties requesting credit. As for Al-Mansour Bank, the average employment ratio reached (3,117) during the period (2010-2020), and that the highest percentage achieved by the bank was in (2019) amounting to (8.492), compared to the lowest percentage, which amounted to (0.480) in (2010), in When the average employment rates with Ashur International Bank reached (1,502) during the period



(2010-2020), and that the highest employment rate achieved by the bank was in (2012) with a rate of (5.674) and the lowest was (0.041) for the year (2018), while the average employment rates were The investment bank of Iraq reached (4.062) during the period (2010-2020), and that the highest percentage achieved by the bank was in (2011) amounting to (6.789), and the lowest percentage was from the same bank (1.383) in (2010) and explains the reason for the increase in employment rates For the above banks in the years (2010, 2012) to the return of the economic aspect of the country to the stage of recovery, which positively affected the decisions of the banks, which were attractive to the confidence of individuals, in addition to the increase in oil revenues, which had a major role in increasing the returns of banks by focusing on the private sectors and activating the matter Which led to an increase in the income of individuals, in addition to the conservative policy of cash balances that were followed by banks. Agricultural, commercial, service and economic projects have stopped working, marking the emergence of terrorist organizations and the war with ISIS, which this war took a lot from the state budget, which affected the bank's budget, which in turn reduced the volume of bank returns and increased deposit withdrawals, as well as increased international borrowing operations from abroad, which in turn weakened the internal credit operations.

The volume of cash credit granted by the National Bank of Iraq in the year (2009), which is the base year, amounted to (18574) million dinars, but a year later the growth rate was positive (99.1%) to become (36973) million dinars, and the reason for this rise is that the country He was able to renew his economic activity and achieve huge revenues and returns from oil revenues, which were positively reflected on the bank, which increased deposits and benefited from the bank liquidity available to it in credit operations, but in the year (2011) it reached The volume of cash credit (51584) million dinars, with a growth rate of (39.5%), and the volume of cash credit continued to rise until (2012) to reach (69,094) million dinars, with a growth rate of (33.9%), and this is due to the improvement of the economic situation in general and the bank in general. Specifically, and then decreased in (2013) with a negative growth rate (83.2%) and an amount of (11629) million dinars, due to the decrease in the volume of assets in banks and the increase in sudden withdrawals, which came as a result of the country's entry into wars with terrorist organizations and the allocation of part of the funds As financing for the military side, which led to the weakening of the bank and its distance from the cash credit department. In the years (2014, 2015) the cash credit recorded an increase of (18,4049) and (16548) million dinars, with a growth rate of (42.3%), (11.2%) This is due to the significant increase in the volume of funds at the bank and benefiting from them in lending operations to a large segment of citizens, such as residential or consumer loans. In (2016) the volume of cash credit granted decreased to (12,468) million dinars, with a negative growth rate of (32.3%), and back This is due to the lack of lending from the bank as a result of the emergency situation the country is going through as it enters into wars with terrorist organizations, as well as the cases of stumbling that the bank's management has been exposed to as a result of the lack of extensive study of the credit requesting parties, which is reflected in a negative image on the banking management. As for the years (2017, 2018), it recorded a noticeable increase in the volume of cash credit granted, which amounted to (13436) and (76828) million dinars, respectively, with positive growth rates (7.8%) and (471.8%). This increase is due to the decisions The Ministry of Interior, which was taken in the studied way to build an appropriate banking structure through which it was able to diversify in the method of granting loans and advances, and in the year (2019) the volume of cash credit tended to decline significantly and with a negative growth rate (-78.1%) and an amount of (16896) million dinars, and this is due to the great default In the repayments by the borrower, which prompted the bank to reduce lending operations, on the other hand, the lack of banking awareness of a customer at times and the low level of confidence he had in the direction of the bank, and in the year



(2020) cash credit rates increased Granted to reach (31760) million dinars and a growth rate of (88.2%). The reason for the rise is attributed to the improvement in the economic situation of the country and the bank as well, and the increase in bank deposit volumes, which was positively reflected on the credit side of the bank.

Cash credit analysis of the study sample banks for the period (2010-2020): When the data in Table (3). is observed, the following appears:

0	al Bank	Ashur Internation	Bank	MAI-	East Bank	Middle	Bank	Rachdad	mvesument	Bank for	al Bank the United	Sumer Commerci	al Bank	Gulf	ar Dank or Iraq	Commerci	Bank of Iraq	The National	Banks
cash credit growt h rat	growt h rat	cash credit	growt h rat	cash credit	growt h rat	cash	growt h rat	cash	growt h rat	cash credit	growt h rat	cash credit	growt h rat	cash credit	growt h rat	cash credit	growt h rat	cash credit	the years
82327 223.5	42.3	16372	389.1	65703	(-77.6)	14263	(-43.7)	18080	138.7	26209	4.7	49182	25.4	45875	(-46.0)	35966	99.1	36973	2010
12614 (-84.7)	168.3	43931	(-47.2)	34716	33.7	19076	(-17.2)	14978	9.4	28683	53.6	75548	91.1	87645	130.5	82915	39.5	51584	2011
18058 43.2	15.4	50698	94.0	67356	4.0	19835	(-1.6)	14740	35.1	38740	75.5)	74269	75.5)	21434	72.1)	23110	33.9	69094	2012
24416 35.2	91.3	96974	33.1	89660	5.3	20887	48.7	21917	38.8	53783	(-85.8)	10547	33.7	28657	71.2	39563	(-83.2)	11629	2013
16547 (-32.2)	(-12.3)	85074	(-88.6)	10204	(-10.1)	18787	4.4	22890	(-29.1)	38149	35.6	14305	0.5	28810	80.8	71545	42.3	16548	2014
12374 2(-7)	85 <sup>(-</sup>	12374	7.7	10992	20.2	14992	3.9	23792	15.0)	32423	20.4)	11391	7.9	31087	27.2	91020	11.2	18404	2015
10340 (-16.4)	677.7	96233	4.2	11453	(-24.2)	11371	(-18.0)	19507	(-0.3)	32333	(-5.1)	10806	(-7.5)	28755	8.8	99040	(-32.3)	12468	2016
11871 14.8	(-89.1)	10463	1.9	11674	(-11.8)	10025	(-25.4)	14560	1.8	32905	777.6	94838	(-29.0)	20427	(-89.1)	10789	7.8	13436	2017
14106 18.8	437.5	56241	(-5.1)	11073	843.4	94572	11.2	16195	3.6	34101	16.8)	78931	16.0)	17149	10.6	11933	471.8	76828	2018
14656 3.9	(-73.3)	14990	(-1.4)	10913	(-0.6)	94051	(-7.6)	14960	-26.0)(	25221	-2.7)(	76837	-15.7)(	14462	(-4.1)	11447	(-78.1)	16896	2019
13883 (-5.3)	67.5	25108	(-5.9)	10267	(-9.5)	85136	(-5.3)	14163	(-52.9)	11884	(-40.1)	46028	(-12.2)	12700	58.0	18084	88.2	31760	2020

Source: Prepared by researchers based on data issued by the Securities Commission for the period (2010-2020). Cash credit analysis of the study sample banks for the period (2010-2020) (2) Schedule

Al Khaleej Commercial Bank: The volume of cash credit granted by the Khaleeji Res Militaris, vol.13, n°1, Winter-Spring 2023



Commercial Bank in the year (2009), which is the base year, amounted to (36,587) million dinars, but a year later the growth rate was positive (25.4%) and in the amount of (45,875) million dinars. (2011) A significant increase in the volume of cash credit Granted with an amount of (87,645) million dinars, with a positive growth rate of (91.1%), which recorded the highest cash credit rate granted in that year. The extensive work he was doing to the credit requesting parties, as well as taking deliberate decisions to build an appropriate banking structure through which he was able to diversify the method of granting cash credit, and the year (2012) recorded a significant decline in the cash credit granted with a negative growth rate (75.5%). With an amount of (21434) million dinars, the reason for this decrease is attributed to what The financial crisis that occurred in (2008) left it with great consequences on the state budget in general and the bank's treasury in particular, as the state relied mainly on oil revenues and filling the deficit in the state budget, which led the bank to adopt a deflationary policy in the processes of granting loans and advances to preserve funds For emergency cases, as well as the state's external borrowing operations to fill its accumulated debts, and this in turn negatively impacted the monetary credit rates. Despite the significant decline that the bank faced in the last year, it returned to a rise in the operations of granting cash credit for the years (2013). 2014, 2015) with growth rates of (33.7%), (0.5%) and (7.9%) and in amounts (28657), (28810) and (31087) million dinars, respectively, and this is due to the strategy adopted by the bank in changing many of its decisions The internal affairs, which changed banking services for the better, thus increasing the customer's confidence in the bank, as well as the increase in banking awareness and the customer's interest in the services provided by the bank. As for the years (2016, 2017, 2018), they recorded a significant decrease in the volume of cash credit With negative growth rates (-7.5%) (-29.0%) (-16.0%) and in amounts (28,755) (20,427) (17149) million dinars, respectively, followed by the decline also in the years (2019, 2020) and in amounts that reached (14,462)) 12700) million dinars, respectively, with negative growth rates of -15.7 percent (12.2%) and the reason for this decline is the deterioration of the country's economic situation in general and the deterioration of the security situation, especially for the years in which terrorist organizations appeared. This in turn stopped the bank from working, which led to The spread of administrative corruption Within the bank's environment, as well as the bank's adoption of a conservative policy on its money in the years that the Corona pandemic appeared, which affected the country's economy and the plans established by the bank during that period, this reflected negatively on the bank's ability to grant loans and advances.

The Commercial Bank of Iraq: The amount of cash credit granted by the Commercial Bank of Iraq in the year (2009), which is the base year, amounted to (66618) million dinars, but a year later the growth rate was negative (46.0%) and the amount of (35,966) million dinars. This decrease in the amount of cash credit to the administrative corruption that exists within the banking environment, which led the bank to enter into unplanned credit operations that narrowed the limits. The bank should grant cash credit, but the year (2011) recorded a significant increase in cash credit with an amount of (82,915) million dinars, with the highest growth rate in those years (130.5%), and this is due to the improvement in the economic situation in the country in general and the bank as well, as well as an increase Deposits with the bank, which enabled it to enter into well-studied investment and credit operations, which was positively reflected on the credit side of the bank. The year (2012) recorded a decrease in the cash credit granted with a negative growth rate of (72.1%) and an amount of (23110) million dinars. The reason for the decline is due to the absence of The careful study by the bank of the credit requesting parties and the failure to take into account the credit default of the borrowing party, as well as the absence of credit diversity, which was reflected negatively on the credit side of the bank, while the years (2014, 2015, 2016, 2013) recorded a significant improvement



in the credit grants of the bank, as the total values amounted to (71,545), (91,020), (99,040) and (39563) million dinars, respectively. With growth rates of (71.2%) (80.8%) (27.2%) (8.8%), the reason for the rise is due to the improvement in the economic and security situation and the increase in the ability of banks to respond to the needs of their customers and the increase in their ability to employ the available funds and enter them into credit operations, and the lack of Omission of the careful study of the credit requesting parties. As for the year (2017), it witnessed a decrease in the rates of cash credit granted, as it reached (10789) million dinars, with a negative growth rate (-89.1%). The reason for the decline is due to the followers of The bank has a precautionary policy on funds for fear of any emergency situations in the future, in addition to the fact that the bank has been following a flexible policy in dealing with borrowing failures from the parties requesting credit, while the bank resumed in the operations of granting cash credit in the year (2018) to witness an increase in the granting of loans Advances in the amount of (11933) and a growth rate of (10.6%), followed by the year (2019) to witness a decrease in credit and an amount of (11447) million dinars and a negative growth rate of (4.1%), as the bank was following a conservative policy on funds as a result of the country entering into The Corona crisis, which affected the economy of a country in general, either in the year (2020), as it recorded an amount of (18084) million dinars and a growth rate of (58.0%), and the bank was able to restart its activity again and change its strategy for the purpose of raising credit rates and placing control restrictions on credit-requesting entities in order not to put the bank's management in the area of credit default.

Sumer Commercial Bank: The amount of cash credit granted by Sumer Commercial Bank in the year (2009), which is the base year, amounted to (46974) million dinars, but a year later the growth rate was positive (4.7%) and the amount of (49182) million dinars, and the bank continued In the case of the increase in the volume of cash credit granted to reach an amount of (75,548) million dinars in the year (2011) and a growth rate of (53.6%), the reason is due to the improvement of the economic situation and the bank's adoption of the method of diversity in granting credit, either in the years (2012, 2013) face the bank A significant decrease in cash credit rates by an amount of (74269) (10547) million dinars, respectively, and with a negative growth rate of (75.5%) (85.8%) is primarily due to banks adopting a flexible policy in dealing with borrowing failures, which is negatively reflected on the cash balances of The bank and its decline, and this in turn leads to an increase in credit risks, but in the year (2014) the bank resumed its activity in granting credit to reach an amount of (14305) million dinars, with a growth rate of (35.6%), but as a result of financial distress and the country's entry into the war with terrorist organizations and directing part Of the bank's money to support the military side, the credit rates decreased in the years (2015, 2016) to reach amounts of (11391) (10,086) million dinars, respectively, with negative growth rates of (-20.4) (-5.1). In the year (2017) the bank was able to resume its activity and raise the credit rate to reach (94838) million dinars, with a growth rate of (777.6%), thus registering the highest growth rates, while the bank witnessed in its last years (2018, 2019). (2020), a decrease in the credit rate by (78931) (76837) (46028) million dinars, respectively, with negative growth rates (-16.8) and -2.7) (40.1). borrowing, which negatively affects the bank's cash balances and their decrease, and this in turn leads to an increase in credit risks, as well as a decrease in the value of And the size of the guarantees provided by the borrowers and their reluctance to pay as a result of their evasion outside Iraq, which in turn keeps the bank away from the lending circle, and the bank follows the policy of safer investments for it and provides credit in other directions, such as in the processes of issuing letters of guarantee or opening letters of credit.

The United Bank for Investment: The amount of cash credit granted by the United Bank for Investment in the year (2009), which is the base year, amounted to (10978) million



dinars, but a year later the growth rate was positive (138.7%) and the amount of (26209) million dinars, and it continued to The increase for the years (2011, 2012, 2013) in amounts It was estimated, respectively, (28,683), (38,740) and (53783) million dinars, with growth rates reaching (9.4%) (35.1%) (38.8%), and this is due to the bank's strength and diversification in credit activity, despite the low volume of bank liquidity. And he followed an expansionary policy in granting cash credit, but in the years (2015, 2016 and 2017) it witnessed great financial distress, with which the volume of cash credit granted decreased, with total values reaching (38149) (32423) (32333) million dinars, respectively, with growth rates of (-29.1%) (%-15.0%) (-0.3%), and the reason for this decrease is attributed to the emergence of terrorist organizations, which this war drained a lot from the state budget, which affected the bank's budget, which in turn reduced the volume of bank returns and increased Deposit withdrawals, as well as the increase in international borrowing from abroad, which in turn weakened the operations of granting cash credit. Then the bank resumed its activity in providing banking services, so that the years (2017, 2018) witnessed an increase in the volume of cash credit granted, with amounts estimated at (32905) (34101) million dinars, respectively, with positive growth rates (1.8%) (3.6%), and the reason is due to the high levels of culture Banking customers and the bank management's interest in the credit aspect and diversity in granting loans, especially after the country's economy returned to strength and strength after the end of the war with terrorist organizations, which in turn stimulated banks to provide deeper and more beneficial banking services For both parties, however, this increase in the granting of cash credit did not last long, as the years (2019, 2020) witnessed a significant decrease in cash credit to reach (25,221) (11884) million dinars, respectively, with negative growth rates of -26.

Bank of Baghdad: The amount of cash credit granted by the Bank of Baghdad in the year (2009), which is the base year, amounted to (32136) million dinars, but a year later the growth rate was negative (-43.7) and in the amount of (18080) million dinars, and it continued to decline for the years (2011, 2012), with amounts amounting to (14,978) and (14,740) million dinars, respectively, with negative growth rates (-17.2) (-1.6), and this decrease is due to widespread administrative corruption. Within the banking environment, and the remnants left red in the previous years for the bank and its conservative by the financial crisis that occur policy for fear of any emergency situation in the future, which negatively affected the monetary credit activity, but in the years (2013, 2014, 2015) the bank was able to resume its activity in Providing banking services and increasing the volume of cash credit granted to reach (21917), (22890) and (23792) million dinars, respectively, with positive growth rates of (48.7%), (4.4%) and (3.9%), respectively. Credit diversification and the development of strategies for the purpose of attracting the confidence of the customer, as well as the customer's culture and awareness, which enabled the bank to offer loans and advances with acceptable guarantees. While the years have seen (2016, 2017) a significant decrease in cash credit rates by the amounts of (19507) (14,560) million dinars, respectively, with negative growth rates (-18.0) and (-25.4). This is due to the bank investing its money away from any lending process as a result of borrowers' defaults And their failure to pay their obligations towards the bank, in addition to the bank directing part of its money to the military side, given that this period witnessed the country's entry into wars with terrorist organizations, which affected the state budget and the bank, and despite the increase in the volume of cash credit in the year (2018).) with an amount of (16195) million dinars and a positive growth rate of (11.2%), but the cash credit growth rates decreased at negative rates (-7.6) and (-5.3) and in amounts of (14,960) and (14,163) million Dinars, respectively, for the years (2019, 2020) and the reason is due to the suspension of many agricultural, commercial, service and economic projects, marking the spread of the Corona pandemic, which drained a lot of the state budget as well as the bank, as well as the increase in international borrowing operations from abroad, which in turn weakened the credit activity inside the country. .



Middle East Bank: The amount of cash credit granted by the Middle East Bank in the year (2009), which is the base year, amounted to (63710) million dinars, but a year later the growth rate was negative (77.6%) and the amount of (14263) million dinars, and this The great decline in the volume of monetary credit did not last long, as it was possible to It restores its activity and rises in the years (2011, 2012, 2013) by amounts (19076), (19835) and (20887) million dinars, respectively, with growth rates of (33.7%), (4.0%) and (5.3%), and this is due to the bank's strength and increase The money in those years enabled it to increase its credit expansion and to provide loans and advances to the largest segment of citizens. In the years (2014, 2015, 2016, 2017) the bank faced great financial hardship as a result of the funds that were directed at that period to support the war side and the war The list with terrorist organizations prompted him to reduce the volume of lending, as the monetary credit growth rates decreased to (-10.1%), (-20.2%), (24.2%) and (-11.8%), respectively, by amounts (18787). And (14992), (11371) and (10025) million dinars and respectively. In the year (2018), the bank was able to renew its banking activity, employ what it has of money and enter it into credit operations, and diversify the method of granting cash credit, as well as raising the value of guarantees on credit requesting parties, as the growth rates of cash credit increased as a result. to reach (843.4%) and the amount of (94572) million dinars, but this rise did not last long and the volume of credit decreased Cash for the years (2019, 2020) with negative growth rates (-0.6%) and (-9.5%) and amounts estimated at (94051) and (85136) million dinars. The per capita income marked the spread of the Corona pandemic, the spread of unemployment rates and the low turnout of individuals to banks, which led to a weak credit activity in the bank.

Al-Mansour Bank: The amount of cash credit granted by Al-Mansour Bank in the year (2009), which is the base year, amounted to (13434) million dinars, but a year later the growth rate was positive (389.1%) and the amount of (65703) million dinars, followed by that year (2011) with a significant decline in the granting of cash credit, which amounted to (34716) million dinars, with a negative growth rate (47.2%), but this decline did not last long as the bank was able to improve its strategy for the better by developing well-studied plans and activating the training workshops side in order to provide A more appropriate banking service and diversification in the method of granting credit, as the growth rates in granting cash credit for the years (2012, 2013) respectively amounted to (94.0%) and (33.1%), with amounts estimated at (67356) and (89660) million. In the year (2014), the credit granting rates decreased by a negative percentage (-88.6%) and by an amount of (10204) million dinars. In the years (2015, 2016 and 2017), the bank was able to face financial distress and decline with a significant development in granting credit, as growth rates in credit grants reached (7.7%) (4.2%) (1.9%) and amounts estimated at (10,992) and (11453 and (11674) million dinars, respectively, as a result of the relative improvement in oil revenues and security stability in the country. (2018, 2019 and 2020) the volume of credit decreased to (11073), (10,913) and (10,267) million dinars, respectively, at negative rates (-5.1%), (-1.4%) and (-5.9%), and this is due to Signs of the emergence of the Corona pandemic, which affected a large segment of citizens, as this negatively reflected on the economy in general and the bank in particular, and thus the decrease in credit activity as a result of the decrease in borrowing rates.

Ashur International Bank: The amount of cash credit granted by the Ashur International Bank in the year (2009), which is the base year, amounted to (11504) million dinars, but a year later the growth rate was positive (42.3%) and the amount of (16372) million dinars, and this is due The escalation of the country's economy activity and the increase in its oil revenue, which was positively reflected on the volume of credit activity, and the bank's activity continued to grant credit for the years (2011, 2012, 2013) and in a successive rise in

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amounts (43931), (50698) and (96974), respectively, and with growth rates Positive (168.3%), (15.4%) and (91.3%), and this is due to the bank's development in introducing new strategies that enabled the bank to diversify its credit granting, in addition to the escalation of the pace of the volume of deposits and the increase in capital. This led to the granting of credit to a large number of citizens. As for the years (2014, 2015), the volume of credit activity at the bank decreased with negative growth rates (-12.3% and (85.5%) and in amounts of (85074) and (12374) million dinars, This is due to the state's internal borrowing operations to bridge the financing aspects, which led to a decrease in the volume of credit activity, but in the year (2016) the volume of cash credit granted by The bank amounted to (96233) million dinars, with a positive growth rate (677.7%). The reason is the waste left by the war with terrorist organizations, which stopped many factories and projects from working, which negatively affected the bank's activity. In the year (2018), the bank was able to restore its credit activity by diversifying in granting credit, as the growth rate reached a positive rate. (437.5%) and an amount of (56241) million dinars, while in the year (2019) the volume of credit activity with the bank decreased and reached (14,990) compared to the previous year with a negative growth rate (-73.3%), and this is due to the conservative policy followed by the bank as a result of signs of spreading The Corona pandemic, which instructed the bank to follow a precautionary method on funds and to stay away from any credit operations for fear of any future emergencies, but in the year (2020) the volume of cash credit increased and reached (25108) million dinars with a positive growth rate (67.5%).

The Investment Bank of Iraq: The amount of cash credit granted by the Investment Bank of Iraq in the year (2009), which is the base year, amounted to (25,445) million dinars, but a year later the growth rate was positive (223.5%) and in the amount of (82327) million dinars, and in the year (2011) the volume of cash credit decreased to reach (12614) million dinars, with a negative growth rate (84.7%), but the bank was able to resume its activity in the years (2012, 2013) with positive growth rates (43%) (94%) and in amounts of (18058) and (24416) million dinars, respectively. This is due to the bank's adoption of the diversification method in granting cash credit as a result of the significant increase in the volume of capital and the increase in banking culture among citizens, which led to an increase in the volume of bank deposits. in When the bank faced in the years (2014, 2015 and 2016) a significant decline in the volume of cash credit granted with negative growth rates (32.2%) (-25.2%) (-16.4%) and in amounts (16,547), (12374) and (10340) million dinars, respectively, and the reason is due to the decrease in the size of the assets of the bank and the increase in sudden withdrawals, which came as a result of the country's entry into wars with terrorist organizations and the allocation of part of the money as financing for the military side, which led to the weakening of the bank and its distance from the circle of granting cash credit, as for the years (2017). (2018, 2019) the bank was able to resume its activity in granting cash credit and facing financial hardship For the previous years, the total credit granted amounted to (11871), (14106), and (14656) million dinars, respectively, with positive growth rates of (14.8%), (18.8%) and (3.9%), respectively, while there was a decrease in the volume of The cash credit granted in the year (2020) with an amount reaching (13883) million dinars and a negative growth rate of (5.3%) and this is due to the destabilization of security and the deterioration of the economic situation in the country and which negatively affected the credit activity of the bank.

#### Show the significance level of the study variables:

This axis aims to present and describe the primary statistical indicators in order to give a simplified idea of the variables of the current study, which are the arithmetic means, standard deviation, flatness and skewness, as well as testing the distribution of the data under study if they follow the normal distribution or not.

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#### 1.building regression models:

It is statistically known when measuring the effect of the relationship between the independent variable and the dependent variable, which is done by employing regression analysis and building special models with assumptions, research and then estimating those models using appropriate estimation methods with the data under study. And as follows:

#### 1.1 The effect of cash balance on cash credit

According to the current regression model, we find that cash credit represents the dependent variable that is affected by the cash balance ratio. The regression model that measures the effect of the cash balance on bank credit can be formulated mathematically according to the following model

Cash Credit= $\beta_0+\beta_1$  [(Cash Balance)]  $i+\epsilon_i$ , i=1,2....44

#### whereas

dependent variable cash credit

Independent Variable Cash Balance Ratio

 $\beta\_0$  is the constant term and the vector  $(\beta\_1)$  represents the marginal slope

 $\epsilon_i$  The term of the random error that is distributed according to the normal distribution with a mean equal to zero and a variance equal to  $\sigma^2$ 

#### 1.2. The effect of employment rate on cash credit:

According to the current regression model, we find that cash credit represents the dependent variable that is affected by the employment rate. The regression model that measures the effect of the employment rate on bank credit can be mathematically formulated according to the following model

Cash Credit= $\beta$  0+ $\beta$  1 (Employment)+ $\epsilon$  i,i=1,2....44

#### whereas

dependent variable cash credit

Independent Variable Employment Ratio

 $\beta$  0 is the constant term and the vector ( $\beta$  1) represents the marginal slope

 $\epsilon\_i$  the term of the random error that is distributed according to the normal distribution with a mean equal to zero and a variance equal to  $\sigma^2$ 

#### 2. The relationship of the effect between the study variables

In this section, the effect relationship between the independent variables and the dependent variable will be studied, according to regression models

The effect of the ratio of cash balance to cash credit: Through the results presented in the table below, it is possible to measure the relationship of the impact of the cash balance ratio on the cash credit of the study sample banks:

Al Ahli Bank of Iraq: From the results listed in the above table, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.745653). And the value of the corrected coefficient of determination is (7277520.) This means that the interpretability of the regression model is high, meaning that (72.7%) of the changes that occur in credit Cash credit refers to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance index is in great agreement with the



phenomenon studied, and this is evident through the calculated (F) value (14.049454), which is a significant value below the 0.05 significance level. We find that the value of ( $\beta$  = 0.029608) means that increasing the cash balance index by one unit will lead to an increase in cash credit by (0.029608) units. This means that there is a positive but not statistically significant effect of the cash balance index variable on cash credit, This is evident through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (0.222381) and its corresponding probability value in the language of (0.8251), and when compared, we find that its probabilistic value is much greater than the level of significance of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance indicator on the cash credit granted to the National Bank of Iraq) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to the National Bank of Iraq). Iraqi).

**Table No. (3).** shows the values of simple regression coefficients between the ratio of cash balance and cash credit to banks, the study sample for the period (2010-2020)

			<i>J</i>							
dependent variable independent variable	cash credit									
cash balance	$\mathbb{R}^2$	adj	β	T	${f F}$	sig				
Al Ahli Bank of Iraq	0.745653	0.727752	0.029608	0.222381	14.049454	0.005095				
Commercial Bank of Iraq	0.538082	0.515179	0.056599	1.289480	5.662759	0.014287				
Gulf Commercial Bank	0.219331	0.174018	-0.012742	-0.909902	0.827922	0.368067				
SumerCommercial Bank	0.223990	0.180752	-0.186383	-1.016052	1.032362	0.315422				
UnitedInvestment Bank	0.150958	0.122829	-0.009267	-0.200635	0.040254	0.841953				
Baghdad Bank	0.888549	0.851609	0.032449	4.127257	17.03425	0.000170				
Middle East Bank	0.992406	0.972226	0.993416	74.08769	5488.986	0.000000				
Al-Mansour Bank	0.630953	0.590262	0.303242	2.515713	6.328813	0.015790				
AshurInternational Bank	0.703323	0.684355	-0.320374	-3.273986	10.71898	0.002128				
Investment Bank of Iraq	0.244092	0.229620	-0.079811	-0.415417	0.172571	0.679952				

Source: prepared by researchers based on the data of the statistical program.

Commercial Bank of Iraq from the results listed in the table above, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.538082). The value of the corrected coefficient of determination is (0.515179). This means that the interpretability of the regression model is rather good, meaning that (51.5%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between the cash credit and the cash balance index is in great agreement with the studied phenomenon, and this is evident through the calculated (F) value (5.662759), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta$  = 0.056599) means that increasing the cash balance index by one unit will lead to an increase in cash credit by (0.056599) units. This means that there is a positive but not statistically significant effect of the cash balance index variable on cash credit, and that is clear through The value of the (t-Statistic) test for the parameter Beta (B), which amounted to (1.289480) and its corresponding probability value in the language of (0.2043), and when compared, we find that its probabilistic value is much greater than the level of significance of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance index on the cash credit granted to Gulf Commercial Bank) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance index on the cash credit granted to Gulf Bank). commercial).

Gulf Commercial Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.219331). And the value of the corrected **Res Militaris**, vol.13, n°1, Winter-Spring 2023



coefficient of determination is in the language of (0.174018). This means that the interpretability of the regression model is rather good, that is, (17.4%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance index does not fit well with the phenomenon studied, and this is evident through the calculated (F) value (0.827922), which is a significant value below the 0.05 significance level. We find that the value of  $(\beta=-0.012742)$  means that an increase in the cash balance index by one unit will lead to a decrease in cash credit by 0.012742)) units. Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (-0.909902) and its corresponding probability value in the language of (0.3681), and when compared, we find that its probabilistic value is much greater than the significance level of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance indicator on the cash credit granted to the Commercial Bank of Iraq) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to the Commercial Bank of Iraq.

**SumerCommercial Bank:** From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.223990). The value of the corrected coefficient of determination is in the language of (0.180752). This means that the interpretability of the regression model is rather good, that is, (18.07%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance indicator does not fit well with the phenomenon studied, and this is evident through the calculated (F) value (1.032362), which is a significant value below the 0.05 significance level. We find that the value of ( $\beta$ =-0.186383) This means that increasing the cash balance index by one unit will lead to a decrease in cash credit by -0.186383) units. This means that there is a negative and statistically insignificant effect of the cash balance index variable on cash credit, and that is clear Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (-1.016052) and its corresponding probability value in the language of (0.3154), and when compared, we find that its probabilistic value is much greater than the significance level of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance indicator on the cash credit granted to Sumer Commercial Bank) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to Sumer Bank) commercial).

*UnitedInvestment Bank:* From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.150958). And the value of the corrected coefficient of determination is (0.122829). This means that the interpretability of the regression model is rather good, that is, that (12.2%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance indicator does not fit well with the phenomenon studied, and this is evident through the calculated (F) value (0.040254), which is a significant value below the 0.05 significance level. We find that the value of (β=-0.009267) means that an increase in the cash balance index by one unit will lead to a decrease in cash credit by -0.009267 units. Through the value of the (t-Statistic) test for the parameter Beta (B) which amounted to -0.20635) and its corresponding probability value in the language of (0.8420), and when compared, we find that its probabilistic value is much greater than the significance level of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance



indicator on the cash credit granted to The United Bank for Investment) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to The United Bank). for investment).

**Baghdad Bank:** From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.888549). The value of the corrected coefficient of determination is in language (0.851609). This means that the interpretability of the regression model is rather good, that is, (85.1%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between the cash credit and the cash balance indicator fits well with the phenomenon studied, and this is evident through the calculated (F) value (17.03425), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta$ =0.032449) means that an increase in the cash balance index by one unit will lead to a rise in cash credit by 0.032449) units. The (t-Statistic) test for the parameter Beta (B), which amounted to 4.127257) and its corresponding probability value in the language of (0.0002), and when compared, we find that its probability value is less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the cash balance indicator on the cash credit granted to the Bank of Baghdad) and we reject the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to the Bank of Baghdad).

Middle East Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.992406). The value of the corrected coefficient of determination is (0.972226). This means that the interpretability of the regression model is rather good, that is, (97.2%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance index fits well with the phenomenon studied, and this is evident through the calculated (F) value (5488.986), which is a significant value below the level of significance of 0.05. We find that the value of ( $\beta$ =0.993416) means that an increase in the cash balance index by one unit will lead to a rise in cash credit by 0.993416) units. The (t-Statistic) test for the parameter Beta (B) which amounted to 74.08769) and its corresponding probability value in the language of (0.0000), and when compared, we find that its probability value is less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the cash balance index on the cash credit granted to the Middle East Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the cash balance index on the cash credit granted to the Bank of the Middle East) middle).

Al-Mansour Bank; From the results listed in the table above, we find that the value of the coefficient of determination (R2) is (0.630953). The value of the corrected coefficient of determination is (0.590262). This means that the interpretability of the regression model is rather good, meaning that (59.02%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance index does not fit well with the phenomenon studied, and this is evident through the calculated (F) value (6.328813), which is a significant value below the 0.05 significance level. find that the value of ( $\beta$ =0.303242) means that an increase in the cash balance index by one unit will lead to a rise in cash credit by 0.303242) units. The (t-Statistic) test for the parameter Beta (B) which amounted to 2.515713) and its corresponding probability value in the language of (0.0158), and when compared, we find that its probability value is less than the significance level of 0.05. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically

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significant effect of the cash balance indicator on the cash credit granted to Al-Mansour Bank) and we accept the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to Al-Mansour Bank).

AshurInternational Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.703323). And the value of the corrected coefficient of determination is (0.684355). This means that the interpretability of the regression model is rather good, that is, (68.4%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance index fits well with the phenomenon studied, and this is evident through the calculated (F) value (10.71898), which is a significant value below the 0.05 significance level. We find that the value of ( $\beta$ =-0.320374) means that increasing the cash balance index by one unit will lead to a decrease in cash credit by -0.320374) units. This means that there is a negative and statistically significant effect of the cash balance index variable on cash credit, and that is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to -3.273986) and its corresponding probability value in the language of (0.0021), and when compared, we find that its probabilistic value is less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the cash balance indicator on the cash credit granted to Ashur International Bank), and we reject the null hypothesis that states (there is no statistically significant effect of the cash balance indicator on the cash credit granted to Ashur International Bank) international).

Investment Bank of Iraq: From the results listed in the above table, we find that the value of the coefficient of determination (R<sup>2</sup>) is (0.244092). And the value of the corrected coefficient of determination is (0.229620). This means that the interpretability of the regression model is rather good, that is, (22.9%) of the changes that occur in Cash credit is due to the cash balance indicator, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the cash balance indicator does not fit well with the phenomenon studied, and this is evident through the calculated (F) value (0.172571), which is a significant value below the level of significance of 0.05. We find that the value of (β=-0.079811) means that an increase in the cash balance index by one unit will lead to a decrease in cash credit by -0.079811) units. Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to -0.415417) and its corresponding probability value in the language of (0.6800), and when compared, we find that its probabilistic value is much greater than the 0.05 level of significance. Through the results shown in the table above, we reject the alternative hypothesis that states (there is a statistically significant effect of the cash balance index on the cash credit granted to the Investment Bank of Iraq) and accept the null hypothesis that states (there is no statistically significant effect of the cash balance index on the cash credit granted to the Investment Bank) Iraqi.

#### 2. The effect of the money investment ratio on cash credit

Through the results presented in the table below, it is possible to measure the relationship of the impact of the money investment ratio on the cash credit of the banks, the study sample for the period (2010-2020):

-Al Ahli Bank of Iraq: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.823691). And the value of the corrected coefficient of determination is (0.807589). This means that the explicability of the regression model is high, meaning that (80.7%) of the changes that occur in cash credit (Cash credit) refers to the money employment ratio indicator, and the rest is due to uncontrolled random factors.

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We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is clear through the calculated (F) value (20.10180), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta$ =0.512292) means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.512292) units. This means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (4.483504) and its corresponding probability value in the language of (0.0001), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the fund-employment ratio indicator on the cash credit granted to the National Bank of Iraq) and we reject the null hypothesis that states (there is no statistically significant effect of the fund-employment ratio indicator on the cash credit granted for the National Bank of Iraq).

**Table No (4).** shows the values of simple regression coefficients between the ratio of money investment and cash credit to the banks of the study sample during the period 2010-2020

dependent variable independent variable	cash credit										
investing money	$\mathbb{R}^2$	adj	β	T	F	sig					
Al Ahli Bank of Iraq	0.823691	0.807589	0.512292	4.483504	20.10180	0.0000					
Commercial Bank of Iraq	0.645561	0.618116	0.118194	3.148313	8.234865	0.0105					
Gulf Commercial Bank	0.869131	0.834110	0.244451	4.957302	24.57484	0.0000					
SumerCommercial Bank	0.610387	0.583175	0.660275	2.816404	8.440853	0.0143					
UnitedInvestment Bank	0.794263	0.775078	0.068332	3.182163	10.12616	0.0027					
Baghdad Bank	0.751755	0.731559	0.071780	2.741170	7.514013	0.0192					
Middle East Bank	0.628785	0.585097	0.604986	5.666381	7.514013	0.0000					
Al-Mansour Bank	0.822423	0.791529	0.121605	2.420549	5.859060	0.0199					
AshurInternational Bank	0.712724	0.691599	0.143783	2.309960	5.335914	0.0259					
Investment Bank of Iraq	0.550604	0.523191	0.071533	3.776622	5.025388	0.0042					

Source: prepared by researchers based on the data of the statistical program.

Commercial Bank of Iraq: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.645561). And the value of the corrected coefficient of determination is (0.618116). This means that the interpretability of the regression model is very high, meaning that (61.8%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is evident through the calculated (F) value (8.234865), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta$ =0.118194) means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.118194) units, this means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (3.148313) and its corresponding probability value in the language of (0.0105), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the fundemployment ratio indicator on the cash credit granted to the Commercial Bank of Iraq) and we reject the null hypothesis that states (there is no statistically significant effect of the moneyemployment ratio indicator on the cash credit granted to the Commercial Bank of Iraq).



Gulf Commercial Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.869131). And the value of the corrected coefficient of determination is (0.834110). This means that the interpretability of the regression model is very high, meaning that (83.4%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is clear through the calculated (F) value (24.57484), which is a significant value below the level of significance of 0.05. We find that the value of ( $\beta$ =0.244451) means that an increase in the money investment ratio index by one unit will lead to an increase in cash credit by (0.244451) units. Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (4.957302) and its corresponding probability value in the language of (0.000000), when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the fund-employment ratio indicator on the cash credit granted to Khaleeji Commercial Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the money-employment ratio indicator on the cash credit granted to Gulf Commercial Bank).

SumerCommercial Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.610387). And the value of the corrected coefficient of determination is (0.583175). This means that the interpretability of the regression model is very high, meaning that (58.3%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is evident through the calculated (F) value (8.440853), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta = 0.660275$ ) means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.660275) units. Through the value of the (t-Statistic) test for the parameter Beta (B), which reached (2.816404) and its corresponding probability value in the language of (0.0143), and when compared, we find that its probabilistic value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to Sumer Commercial Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted Sumer Commercial Bank).

UnitedInvestment Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.794263). And the value of the corrected coefficient of determination is (0.775078). This means that the interpretability of the regression model is very high, meaning that (77.5%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is evident through the calculated (F) value (10.12616), which is a significant value below the level of significance of 0.05. We find that the value of ( $\beta = 0.068332$ ) This means that an increase in the money investment ratio index by one unit will lead to an increase in cash credit by (0.068332) units, this means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (3.182163) and its corresponding probability value in the language of (0.0027), and when compared, we find that its probability value is much less than



the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to the United Bank for Investment) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted to the United Bank for Investment).

**Baghdad Bank:** From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.751755). The value of the corrected coefficient of determination is (0.731559). This means that the interpretability of the regression model is very high, meaning that (73.2%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is clear through the calculated (F) value (7.514013), which is a significant value below the level of significance of 0.05. We find that the value of  $(\beta=0.071780)$  means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.071780) units. This means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which reached (2.741170) and its corresponding probability value in the language of (0.0192), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the above table, we accept the alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to the Bank of Baghdad) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted to a bank Baghdad).

Middle East Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.628785). And the value of the corrected coefficient of determination is (0.585097). This means that the interpretability of the regression model is very high, meaning that (58.5%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is clear through the calculated (F) value (7.514013), which is a significant value below the level of significance of 0.05. We find that the value of  $(\beta=0.604986)$  means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.604986) units. This means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (5.666381) and its corresponding probability value in the language of (0.0000), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to the Middle East Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted Middle East Bank).

**Al-Mansour Bank:** From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.822423). And the value of the corrected coefficient of determination is (0.791529). This means that the interpretability of the regression model is very high, meaning that (79.2%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that



the model studied between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is evident through the calculated (F) value (5.859060), which is a significant value below the level of significance of 0.05. We find that the value of ( $\beta$  = 0.121605) This means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.121605) units, this means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which reached (2.420549) and its corresponding probability value in the language of (0.0199), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the above table, we accept the alternative hypothesis that states (there is a statistically significant effect of the fund-employment ratio indicator on the cash credit granted to Al-Mansour Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the fund-employment ratio indicator on the cash credit granted to the bank Mansour).

AshurInternational Bank: From the results listed in the above table, we find that the value of the coefficient of determination (R2) is (0.712724). The value of the corrected coefficient of determination is (0.691599). This means that the interpretability of the regression model is very high, meaning that (69.1%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and money investment ratio is in great agreement with the studied phenomenon, and this is evident through the calculated (F) value (5.335914), which is a significant value below the level of significance of 0.05. We find that the value of ( $\beta = 0.143783$ ) This means that increasing the money investment ratio index by one unit will lead to an increase in cash credit by (0.143783) units, this means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which amounted to (2.309960) and its corresponding probability value in the language of (0.0259), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the table above, we accept the alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to Ashur International Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted Ashur International Bank).

Investment Bank of Iraq: From the results listed in the above table, we find that the value of the coefficient of determination ( $R^2$ ) is (0.550604). And the value of the corrected coefficient of determination is (0.523191). This means that the interpretability of the regression model is very high, meaning that (52.3%) of the changes that occur in credit Cash credit refers to the money employment ratio, and the rest is due to uncontrolled random factors. We also find that the studied model between cash credit and the ratio of money investment, is in great agreement with the phenomenon studied, and this is evident through the calculated (F) value (5.025388), which is a significant value below the significance level of 0.05. We find that the value of ( $\beta = 0.071533$ ) This means that an increase in the money investment ratio index by one unit will lead to an increase in cash credit by (0.071533) units, this means that there is a positive and statistically significant effect of the money investment ratio indicator variable on cash credit, and this is clear from Through the value of the (t-Statistic) test for the parameter Beta (B), which reached (3.776622) and its corresponding probability value in the language of (0.0042), and when compared, we find that its probability value is much less than the significance level of 0.05. Through the results shown in the above table, we accept the

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alternative hypothesis that states (there is a statistically significant effect of the money investment ratio indicator on the cash credit granted to the Iraqi Investment Bank) and we reject the null hypothesis that states (there is no statistically significant effect of the money investment ratio indicator on the cash credit granted to the Investment Bank of Iraq).

### **Conclusions**

- 1 The cash balance indicator is one of the indicators that are of importance to commercial banks and that have a positive impact on the decisions taken by the banking administration, and that show the bank's ability to fulfill all its obligations.
- 2. Cash credit has an effective and important role in settling and financing all projects, especially investment projects with an abundant need of capital for the purpose of supporting economic development operations.
  - 3. The goal of the fund investment index is not only investing money in credit operations, but rather maximizing the value of a bank and attracting the largest possible number of customers in a way that ensures the continuation of the bank's work and the achievement of revenues.
  - 4. The average cash balance in the study sample banks during the study period was high for the banks (the Iraqi commercial, Sumer commercial, the Iraqi investment) as a result of the increase in their investment and credit activities and low for the banks (United Investment, Bank of Baghdad, and Al-Mansour) as a result of the decrease in investment and credit in these banks.
  - 5. The average ratio of money investment in the study sample banks during the study period was high for banks (United Bank for Investment, Iraqi Investment Bank and Al-Mansour Bank) as a result of the increase in their investment and credit activities, and low for banks (Middle East Bank, Khaleej Commercial Bank,) as a result of the decrease in investment and credit in these banks.
  - 6. The results showed that there is a direct effect relationship between the cash balance and the cash credit of the banks represented (Al-Mansour, Baghdad, and the Middle East) and the absence of a direct relationship between the cash balance and the cash credit of the banks (Business Bay, Iraqi Commercial, Al-Ahly of Iraq, United Investment, and Iraqi Investment).
  - 7. The results showed that there is a direct effect relationship between the investment of money and the cash credit of the study sample banks.

#### **Recommendations**

- **1-** Banks, in general, must determine the best levels of bank liquidity, depending on the assets available to them and based on the speed and time in order to convert them into cash.
- **2-** Iraqi banks should seek to develop areas of financial investment, as well as an expansion in cash credit of its various types, for the purpose of obtaining additional returns, paying attention to risk management of all kinds, and seeking to achieve banking stability.
- **3-** For the purpose of gaining the confidence of customers who are deposited in the banking sector, banks should pay attention to the deposit insurance system, which would increase deposits with banks, which leads to an increase in the ability of banks to grant monetary credit.
- **4-** The necessity of paying attention to the investment fund index for the purpose of settling banks under investment and credit operations and expanding their investment scope in order to achieve profit and competitive advantage.

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