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MEASURING THE FINANCIAL SUSTAINABILITY OF A SAMPLE OF BANKS LISTED ON THE IRAQ STOCK EXCHANGE USING STRESS TESTS

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Abstract:

The subject of the financial sustainability of the banking system receives great attention from specialists in this field, as the repeated crises that the banking system was exposed to showed that measuring the financial sustainability of banks and their ability to face crises is not an easy matter, therefore, this study sought to measure financial sustainability indicators represented by (capital adequacy and the index of sustainability, liquidity and profitability), and an indication of the basic stages through which the process of applying stress tests goes through and an indication of their role in achieving financial sustainability, as well as an explanation of questions about the possibility of relying on stress tests in measuring the financial sustainability of banks and determining their ability to withstand shocks, and knowing the change in Indicators of financial sustainability in the event of scenarios of different severity (least severe, medium severity, most severe), and the study sample included a number of Iraqi commercial banks listed in the Iraq Stock Exchange, amounting to (3) banks and for the period (2011-2021)..

Keywords: financial sustainability, stress tests.

INTRODUCTION:

The banking sector faces many crises that impede its work and which must be mitigated. Banking crises can be hedged and managed and a good level of financial sustainability is maintained through stress tests. The term financial sustainability revolves around the attempt of institutions and credit programs to cover their operations and financial costs. Through the wide spread in different regions, the provision of high-quality loans, as well as the management of an optimal loan portfolio, in order to achieve discreet and accurate financial statements that are better able to sustain credit during the crisis, the Basel III Committee has presented many regulatory and complementary proposals to Basel II where it can be Evaluating the strength of the bank and then focusing on the new regulatory standards for capital, liquidity and the stability of funding sources in order to achieve financial sustainability for banks, and stress tests approved by the Basel III Committee are applied, especially after the global crisis of 2008 in order to enhance the financial sustainability of banks as it is the goal sought by central banks To upgrade a banking system that can face the shocks that it may be exposed to in the future. Banking activities, like other activities in the business environment, are subject to rapid transformations and changes, financial globalization and technological developments.

RESEARCH METHODOLOGY:

First: the research problem

The study problem can be formulated in the following questions:

1- Can stress tests be relied upon to measure the financial sustainability of banks and determine their ability to withstand shocks?

2- What is the change in the indicators of financial sustainability in the event of the occurrence of scenarios of different severity (least severe, medium severity, most severe)?

Second: the importance of research

Stress tests are one of the modern strategic tools through which banks can measure the financial sustainability, because they go through two basic stages: the stage of predicting the occurrence of the financial crisis and the stage of anticipating corrections before they occur, as well as the use of stress tests to measure the change in financial sustainability indicators in the event of scenarios of different severity.

Third: Research objectives

The research objectives focus on the following:

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1. Measuring financial sustainability indicators for a sample of banks listed in the Iraq Stock Exchange.
2. Clarifying the role of stress tests in measuring the financial sustainability of the research sample banks.

Fourth: research hypotheses

The study is based on a set of basic hypotheses represented in the following points:

1. Stress tests can be relied upon to measure the sustainability of banks and their ability to withstand shocks.
2. The indicators of financial sustainability of commercial banks are exposed to a clear decline in the event of shocks of varying severity.

Fifth: Research Methodology

The inductive approach will be used in presenting the theoretical side, as well as using the analytical method in presenting the practical side and testing hypotheses in this study.

Sixth: Research Structure

In order to reach the goals that the research seeks, it was divided into three main axes, the first axis included the concept of financial sustainability and its indicators, the second axis included the role of stress tests in achieving financial sustainability, while the third axis included measuring financial sustainability indicators using stress tests, and the research concluded a set of conclusions and proposals.

The first axis: the concept of financial sustainability and its indicators

First: the concept of financial sustainability

The issue of financial sustainability receives great attention from specialists and researchers in this field, as financial sustainability is represented in the ability of banks to fulfill their obligations continuously without exposure to bankruptcy, and this matter requires the bank to change its policies while continuing its ability to fulfill its obligations (Qabaja, 2012: 5). It is also expressed in the bank's ability to develop its banking and financial performance at the present time and in the future, in addition to continuing to provide a different variety of financing directed to customers. What excludes financing institutions is the philosophy of putting profitability as the basis and that it strives to build a financial system capable of laying the foundations for launch and sustainability in the public financial system because it is in front of a limiter that is the lack of any support at the establishment of the emerging institution from any party, whether governmental or non-governmental because it is unknown at the time of emergence Or when incorporating because of the recent incorporation (2015:8, Chikaz), that is, it reflects the ability of the bank to carry out activities and services continuously to achieve its goals.

He explained the concept of financial sustainability as a measure of the bank's ability to meet all obligations related to financing, whether these funds come from user fees or from budgetary sources, as well as fulfilling their obligations and serving stakeholders over time (Iskandar, 2021, 101).

Second: financial sustainability indicators

The financial sustainability of banks is measured through a set of key indicators, my agency (Al-Hashimi, 2017, 114-115):-

1. Capital adequacy index: This indicator is necessary for the safety of the bank and the consolidation of confidence in it by customers. The capital adequacy index can be calculated through the following equation:

   Capital Adequacy = Equity Capital / Risk Weighted Assets X 100

2. Liquidity index: It expresses the extent of the bank's ability to convert assets into cash. This indicator also expresses the bank's ability to meet the obligations incurred by it and on the specified dates. This indicator can be calculated through the following equation:

   Liquidity = Liquid Assets / Deposits x 100

3. Financial Sustainability Index: It is expressed through the following equation:

   Financial sustainability index = total loans / total assets X

4. Profitability index: It expresses the extent to which the bank achieves profits, and it is expressed through the ratio of net profits after interest and tax to total assets, as follows:

   Profitability index = net profit after interest and tax / total assets x 100

The second axis: the role of stress tests in achieving financial sustainability

Banking stress tests are an important tool in banking systems, especially in light of the diversity of risks facing the banking business.

1. Expected losses: It represents the average losses that are likely to be realized in the future based on current information, and it is part of the bank's basic business that it may be exposed to naturally. Expected losses include loan loss provisions (impairment fees) and reserves are usually set aside to cover This type of loss, and these losses affect the capital adequacy ratio.

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2. Unexpected losses: These are large losses arising from unexpected fluctuations in credit risks, and these losses are less likely to occur and banks do not provide provisions for them and instead expect that capital will be used to absorb them (i.e. shareholders lose the value of their shares when faced bank unexpected losses).

Banking authorities use stress tests to achieve a range of different objectives, including assessing the capital adequacy of banks, as well as assessing liquidity adequacy (Bank for International Settlements, 2020:5-6). As stress tests are considered one of the important tools to confront banking crises, which increased interest in them during the period, but they are harmful during the normal conditions that the banking system is going through, as enhancing transparency during the crisis period can increase the state of certainty between banks and contribute to achieving financial stability, while increasing Transparency under the natural conditions that the banking system goes through increases the state of uncertainty between banks and is likely to lead to a rush towards small banks, in addition to that, the authorities may waive negative information related to individual banks to avoid negative market reactions (2019:18-17) Hobelt).

Stress tests work to ensure the ability of large banks to lend in the event of a severe recession, as they evaluate losses, revenues, expenses, and capital levels to face crises that they may face in the future. Central banks and commercial banks play a key role in the work of financial markets by forming responses and implementing the necessary policies to balance The effects of banking crises, in order to enable the banking system to detect and avoid or mitigate the effects of banking crises, and by studying the risks and scenarios that could involve potential failures in its operations amidst the tools available to assess weaknesses and risk management, and stress tests are the most important tools used in this Domain 2022:10 (Stragiotti).

Stress tests are used in banks to ensure their ability to withstand possible banking crises, as well as these tests are applied to better know the weaknesses in banks, as well as to know the possibility of the presence of systemic threats that surround the bank, and therefore the great benefit of stress tests is their ability to promote services Banking through a set of standard risk management tools and thus provide a comprehensive coverage for the financial institution of the potential effects of the crisis, and thus the scenarios in turn can endanger the adequacy of capital and liquidity at risk, as these scenarios may be historical crises experienced by the banking system (Friesz, 68 : 2021).

The Basel III Committee presented a set of decisions, the most important of which are capital requirements and stress tests, in response to the global crisis of 2008 with the aim of enhancing the sustainability and ability of the banking system to withstand future banking crises, and therefore specialists in this field work to achieve this goal through the following (Sad, 2022 :28). (Bank for International Settlements):

1. Banks should have sound stress testing processes to be used in assessing capital adequacy.
2. Requiring banks to maintain large amounts of capital and the need to comply with the decisions of the Basel III Committee regarding the capital adequacy ratio.
3. Forcing banks to participate in high-stress tests to assess their future financial position.

Stress tests are increasingly used to calibrate total precautionary measures, as well as the use of these tests as early warning indicators to identify potential weaknesses in the banking system and to strengthen the plans used in managing banking crises. These tests are also used to assess the financial resilience of banking systems. Supervisory review and verification of the process of assessing capital adequacy and internal liquidity adequacy of banks. Reverse stress tests can be used to provide a certain estimated probability or an expected capital ratio after applying the stress test. While this approach helps to identify weaknesses in the future, there are different types of stress tests, as Any type of these tests requires determining the time horizon for applying the test, as the time horizon for applying the liquidity pressure test is much less than the capital adequacy pressure tests, as the time horizon for applying the capital adequacy pressure tests extends between two to five years, while the time horizon is To test liquidity stress from one day to a few months given the rapid or even immediate transmission of liquidity shocks (BankforInternationalSettlements2018:10-9).

The third axis: measuring the financial sustainability of the study sample banks

First: Measuring the financial sustainability of the Iraqi Khaleej Commercial Bank

Table (1) shows the financial sustainability indicators of the Iraqi Khaleej Commercial Bank during the period 2011-2021:

Table (1) and Figure (1) show the values reached by the study variables for Khaleeji Commercial

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Bank for the period 2011-2021 (indicators of financial sustainability). The highest percentage of the variable (capital adequacy) X1 was (1.489) in 2019, and the lowest percentage was (0.515).) in 2012, and the arithmetic mean of the variable X1 was (1.018) with a standard deviation of 0.358)) and the variable X2 (sustainability index) achieved the highest rate of 0.394 in 2012 and the lowest rate of 0.189 in 2011, and the arithmetic mean was 0.300. With a standard deviation of 0.058, while the X3 variable (liquidity) achieved the highest percentage of 1.430 in 2014 and the lowest of 0.445 in 2011, with the arithmetic mean being 0.888 with a standard deviation of 0.301. While the variable X 4 (profitability) achieved the highest percentage (0.085) in 2012 and the lowest percentage (-0.007) in 2019, with the arithmetic mean (0.019) and a standard deviation of 0.0321 (0.0321).

Table (1) Financial Sustainability Indicators for Khaleeji Commercial Bank for the period 2011-2021 (%)

the year	capital adequacy	Sustainability index	liquidity index	profitability index
2011	0.602	0.189	0.445	0.0352
2012	0.515	0.394	0.613	0.085
2013	0.783	0.308	0.884	0.071
2014	0.788	0.300	1.430	0.005
2015	0.728	0.350	0.598	0.011
2016	0.892	0.347	0.719	0.007
2017	1.25	0.338	0.786	0.007
2018	1.307	0.296	0.937	0.001
2019	1.489	0.263	1.125	-0.007
2020	1.438	0.248	1.162	-2.9
2021	1.411	0.269	1.075	-0.002
Mean	1.018	0.300	0.888	0.019
Maximum	1.489	0.394	1.430	0.085
Minimum	0.515	0.189	0.445	-0.007
Std. Dev.	0.358	0.058	0.301	0.032

Source: prepared by the researcher based on the annual reports issued by the Iraqi commercial banks, the study sample

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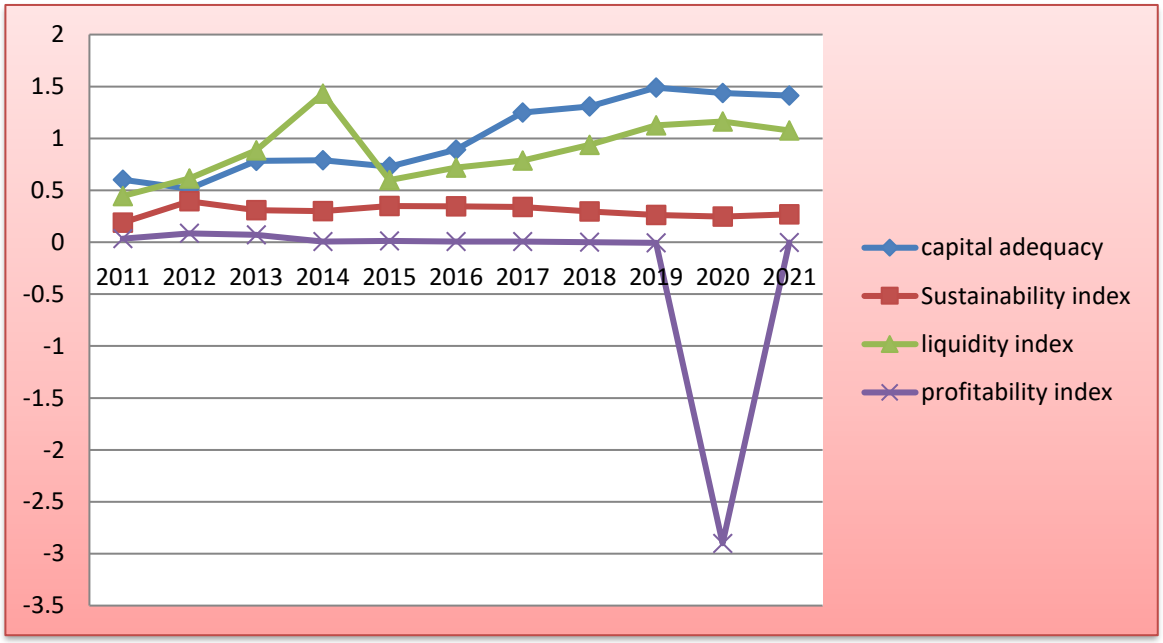

Figure (1) Indicators of Financial Sustainability for Khaleej Commercial Bank for the period (2011-2021) Source: Prepared by the researcher based on the outputs of (excel

Second: Measuring the financial sustainability of a bank across Iraq:

Table (2) shows the financial sustainability indicators for Trans Iraq Bank during the period 2011-2021:

It is clear from Table (2) and Figure (2) the values reached by the study variables for a bank across Iraq for the period 2011-2021 (financial sustainability indicators). The highest value of the variable (capital adequacy) X1 was (19.83) in 2013 and the lowest value was (0.985).) in 2011, and the arithmetic mean of the variable (X1) was (4.147) with a standard deviation of (5.557), and the variable X2 (sustainability index) achieved the highest value of (0.425) in 2015 and the lowest value (2.430) in 2013, and the arithmetic mean was (0.2685) with a standard deviation The value of (0.159), while the variable X3 (liquidity) achieved the highest value, amounting to (10.65) in 2012, and the lowest value (1.219) in 2011, with the arithmetic mean (4.491) and a standard deviation of (3.110), while the variable X4 (profitability) achieved the highest value, amounting to (0.036) in 2016 and the lowest value (-0.003) in 2011 with the arithmetic mean (0.0169) and a standard deviation of (0.013).

%.Table (2) Indicators of Financial Sustainability for Trans-Iraq Bank for the period 2011-2021

the year	capital adequacy	Sustainability index	liquidity index	profitability index
2011	0.985	0.011	1.219	-0.003
2012	1.07	0.005	10.658	0.006
2013	19.83	2.435	8.765	0.027
2014	3.42	0.294	3.960	0.019
2015	2.19	0.425	1.884	0.029
2016	2.18	0.379	1.925	0.036
2017	3.16	0.316	5.911	0.029
2018	3.55	0.291	5.158	0.019
2019	3.55	0.249	2.989	0.003
2020	2.49	0.264	3.159	0.008

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2021	**3.196**	**0.268**	**3.769**	**0.010**
Mean	**4.147**	**0.227**	**4.491**	**0.016**
Maximum	**19.83**	**0.425**	**10.658**	**0.036**
Minimum	**0.985**	**2.435**	**1.219**	**-0.003**
Std. Dev.	**5.557**	**0.159**	**3.110**	**0.013**

Source: prepared by the researcher based on the annual reports issued by the Iraqi commercial banks, the study sample.

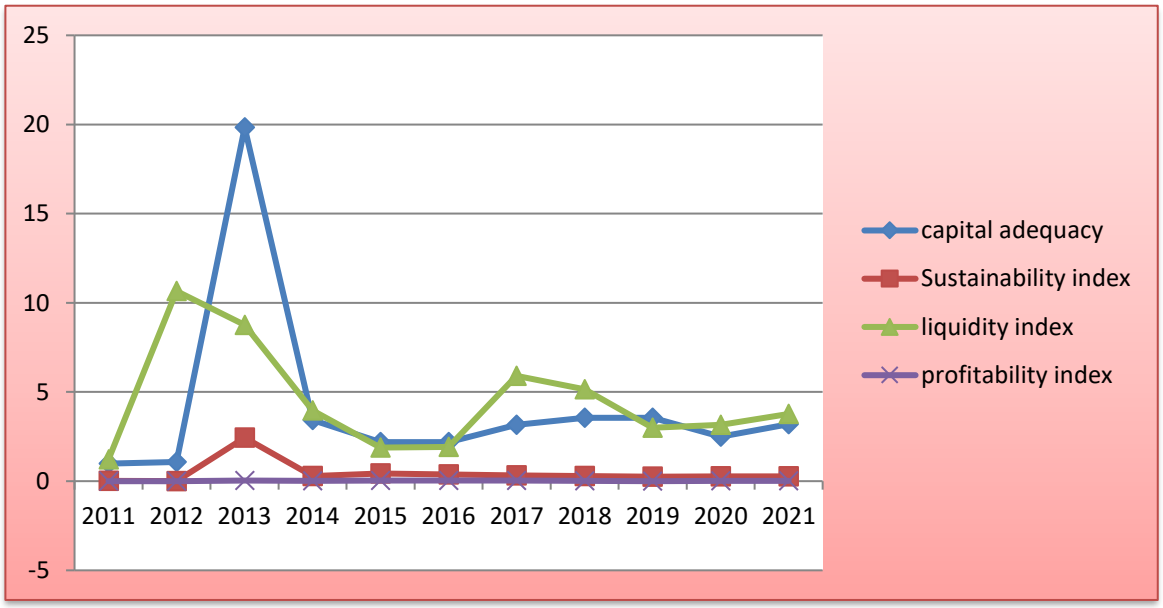

Figure (2) Indicators of financial sustainability for Trans-Iraq Bank for the period 2011-2021
.Source: Prepared by the researcher based on Excel outputs

Third: Measuring the financial sustainability of the Mosul Bank for Development and Investment

Table (3) shows financial sustainability indicators of Mosul Bank for Development and Investment during the period 2011-2021:

Table (3) shows the values reached by the study variables of Mosul Development Bank for the period 2011-2021 (indicators of financial sustainability). The highest ratio of the variable (capital adequacy) X1 was (1.62) in 2017 and the lowest value was (0.696) in 2011. The arithmetic mean of the variable (X1) is (1.286) with a standard deviation of (0.248), and the variable X2 (sustainability index) achieved the highest percentage of (0.474) in 2014 and the lowest percentage (0.224) in 2020

Table (3) Financial Sustainability Indicators for Mosul Bank for Development and Investment 2011-2021

the year	capital adequacy	Sustainability index	liquidity index	profitability index
2011	**0.696**	**0.319**	**0.764**	**0.038**
2012	**1.2**	**0.427**	**0.843**	**0.032**
2013	**1.36**	**0.273**	**1.183**	**0.081**
2014	**1.49**	**0.474**	**1.288**	**0.006**
2015	**1.2**	**0.429**	**1.557**	**-0.000**
2016	**1.42**	**0.420**	**1.806**	**0.008**

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2017	**1.62**	**0.423**	**1.652**	**0.011**
2018	**1.39**	**0.270**	**1.604**	**0.006**
2019	**1.23**	**0.279**	**1.394**	**0.008**
2020	**1.25**	**0.224**	**1.730**	**0.003**
2021	**1.29**	**0.258**	**1.576**	**0.006**
Mean	**1.286**	**0.345**	**1.400**	**0.018**
Maximum	**1.62**	**0.474**	**1.806**	**0.081**
Minimum	**0.696**	**0.224**	**0.764**	**-0.000**
Std. Dev.	**0.248**	**0.089**	**0.361**	**0.025**

Source: prepared by the researcher based on the annual reports issued by the Iraqi commercial banks, the study sample.

. The arithmetic mean is (0.345) with a standard deviation of (0.089), while The variable X3 (liquidity) achieved the highest rate of (1.806) in 2016 and the lowest rate (0.764) in 2011, with an arithmetic mean of (1.400) and a standard deviation of (0.361), while the variable X4 (profitability) achieved the highest rate of (0.081) in in 2013 and the lowest percentage (-0.000) in 2015, with the arithmetic mean (0.020) and a standard deviation of (0.037)**.**

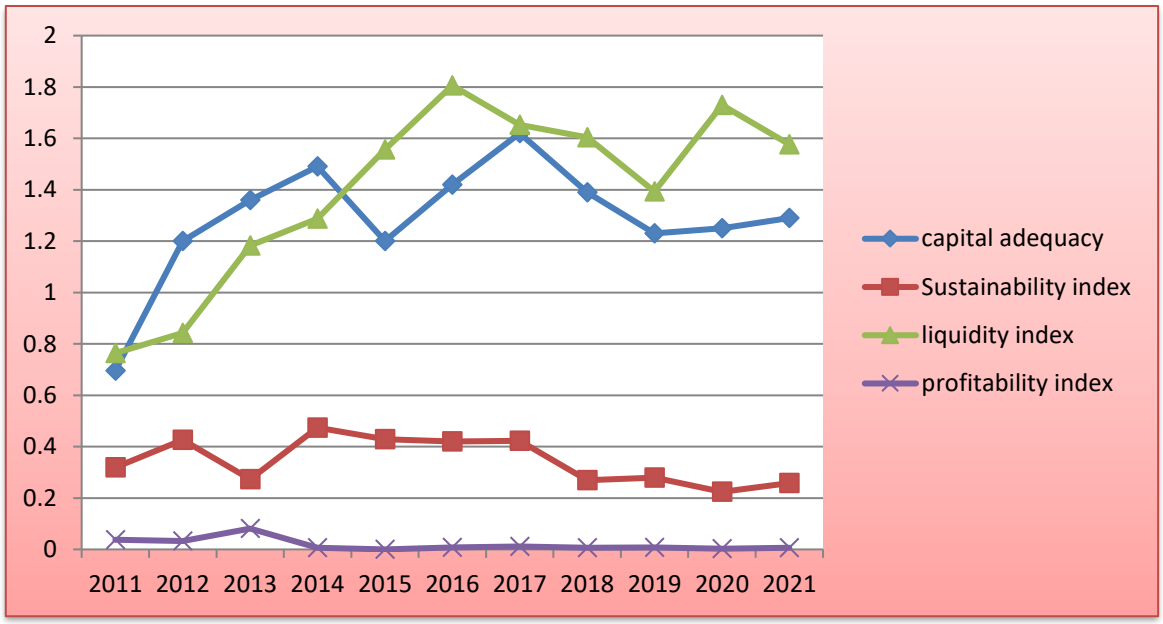

Figure (3) Financial sustainability indicators for Mosul Development Bank for the period 2011-2021
.(Source: Prepared by the researcher based on Excel outputs **)**

Fourth: Measuring financial sustainability using stress tests

1. Applying stress tests on the capital adequacy index:

The average capital adequacy ratio for Khaleeji Commercial Bank during the study period was 101%, which is higher than the minimum ratio set by the Central Bank of Iraq and the Basel III Committee for Supervision and Regulation, amounting to (8%). The average ratio reached 76% when applying the least severe scenario, which is higher than the limit. The lowest percentage determined by the Central Bank of Iraq and the Basel 3 Committee for Supervision and Regulation, while the average percentage was 50% when applying the medium severity scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee for Supervision and Regulation, while the average percentage reached 25% when applying the most severe scenario, which is higher From the minimum percentage prescribed by the Central Bank of Iraq for supervision and regulation. This reflects the bank's good condition and its ability to face the various shocks that it might be exposed to in the future.

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(%) Table (4) Application of stress tests on the average capital adequacy index for the period 2011-2021

Number	bank	base scenario	Least severe scenario 25%	Medium severity scenario 50%	Most severe scenario 75%
1	**Bank across Iraq**	**4.147**	**3.110**	**2.073**	**1.036**
2	**Gulf Commercial Bank**	**1.018**	**0.764**	**0.509**	**0.254**
3	**Mosul Bank for Development and Investment**	**1.286**	**0.964**	**0.723**	**0.542**

The table was prepared by the researcher based on Excel outputs

The average capital adequacy of a bank across Iraq during the study period was 414%, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel III Committee for Supervision and Regulation, amounting to (8%), while the average capital adequacy was 311% when applying the least severe scenario, which is higher than The minimum ratio determined by the Central Bank of Iraq and the Basel 3 Committee for Supervision and Regulation, while the average capital adequacy ratio was 207% when applying the medium severity scenario. It is also higher than the minimum ratio determined by the Central Bank of Iraq and the Basel 3 Committee for Supervision and Regulation. The average capital adequacy ratio for the Ashur Bank was 103% in the event of applying the most severe scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel III Committee for Supervision and Regulation, and this reflects the good condition of the bank and its ability to face the various shocks that it may be exposed to in the future.

The average capital adequacy ratio of the Mosul Bank for Development and Investment during the study period was 128%, which is higher than the minimum ratio established by the Central Bank of Iraq and the Basel III Committee for Supervision and Regulation, which is (8%), and the average ratio reached 96% when applying the least severe scenario, which is more than the limit The minimum percentage determined by the Central Bank and the Basel 3 Committee for Supervision and Regulation, while the average percentage reached 72% in the event of applying the medium severity scenario, which is more than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee for Supervision and Regulation. The average percentage reached 54% when applying the most severe scenario, which is more than the limit. The minimum percentage determined by the Central Bank of Iraq and the Basel III Committee for Supervision and Regulation. This reflects the bank's good condition and its ability to face the various shocks that it might be exposed to in the future.

2. Apply stress tests to the liquidity index:

Table (5) Application of stress tests on the average liquidity index for the period 2011-2021 (%)

Number	Bank	base scenario	Least severe scenario 25%	Medium severity scenario 50%	Most severe scenario 75%
1	**Bank across Iraq**	**4.491**	**3.368**	**2.245**	**1.122**
2	**Gulf Commercial Bank**	**0.888**	**0.666**	**0.444**	**0.222**

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3	**Mosul Bank for Development and Investment**	**1.400**	**1.050**	**0.700**	**0.350**

The table was prepared by the researcher based on Excel outputs

The average liquidity ratio for a bank across Iraq during the study period was 449%, which is higher than the minimum ratio determined by the Central Bank and the Basel III Committee, amounting to (20-30). This means that the bank is able to face liquidity risk in the prevailing conditions and when applying the least severe scenario, the average ratio reached 336%, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel III Committee for Regulation and Supervision, while the average percentage reached 224% when applying the medium severity scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel III Committee. Thus, the bank can face liquidity risk in the event of Its exposure to moderate-intensity shocks, while the average liquidity ratio reached 112% when applying the most severe scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel III Committee. Therefore, it will be able to face liquidity risks in the event of the occurrence of more severe shocks**.**

The average liquidity ratio of Khaleej Commercial Bank during the study period was 88%, which is higher than the minimum ratio determined by the Central Bank and the Basel III Committee, amounting to (20-30). This means that the bank is able to face the liquidity risk in the prevailing circumstances. 66%, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee for Regulation and Supervision, while the average percentage reached 44% when applying the medium severity scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee. Thus, the bank can face liquidity risk in the event Exposure to moderate-intensity shocks, while the average liquidity ratio reached 22% when applying the most severe scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee**.**

The average liquidity ratio of the Mosul Bank for Development and Investment during the study period was 140%, which is higher than the minimum ratio determined by the Central Bank and the Basel III Committee, amounting to (20-30). The ratio is 105%, which is higher than the minimum ratio established by the Central Bank of Iraq and the Basel III Committee for Regulation and Supervision, while the average ratio reached 70% when applying the medium severity scenario, which is higher than the minimum ratio determined by the Central Bank of Iraq and the Basel III Committee. Thus, the bank can face the liquidity risk in If it was exposed to moderate-intensity shocks, while the average liquidity rate reached 35% when applying the most severe scenario, which is higher than the minimum percentage determined by the Central Bank of Iraq and the Basel 3 Committee, therefore, the bank will be able to face liquidity risks in the event of the occurrence of more severe shocks**.**

3. Apply stress tests to profitability index:

The average profitability ratio for a bank across Iraq during the study period was 1.6%, and when applying the least severe scenario, the average ratio was 1.2%, while the average ratio was 0.8% when applying the medium severity scenario, while the average profitability ratio was 0.4% when applying the most severe scenario, when the bank was exposed to a group From various shocks, it will face a clear decline in profitability levels.

Table (6) Application of stress tests on the average profitability index for the period 2011-2021 (%)

Number	Bank	base scenario	Least severe scenario 25%	Medium severity scenario 50%	Most severe scenario 75%
1	**Bank across Iraq**	**0.016**	**0.012**	**0.008**	**0.004**

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2	**Gulf Commercial Bank**	**0.028**	**0.021**	**0.014**	**0.007**
3	**Mosul Bank for Development and Investment**	**0.035**	**0.026**	**0.017**	**0.008**

The table was prepared by the researcher based on Excel outputs

The average profitability ratio for Khaleej Commercial Bank during the study period was 2.8% and when applying the least severe scenario, the average ratio was 2.1%, while the average ratio was 1.4% when applying the medium severity scenario, while the average profitability ratio was 0.7% when applying the most severe scenario, when the bank was exposed to a group From various shocks, it will face a clear decline in profitability levels.

The average profitability ratio of Mosul Bank for Development and Investment during the study period was 3.5%, and when applying the least severe scenario, the average ratio was 2.6%, while the average ratio was 1.7% when applying the medium severity scenario, while the average profitability ratio was 0.8% when applying the most severe scenario, when the bank was exposed. For a group of different shocks, it will face a clear decline in profitability levels.

CONCLUSIONS AND SUGGESTIONS

First - conclusions

The study reached a number of conclusions, the most important of which are:

1. The financial sustainability of banks can be measured using stress tests
2. The average liquidity ratio of the Mosul Bank for Development and Investment during the study period was 140%, which is higher than the minimum ratio determined by the Central Bank and the Basel III Committee, amounting to (20-30). This means that the bank is able to face liquidity risk in the prevailing circumstances and when applying the least severe scenario. The average rate was 105%, which is higher than the minimum rate set by the Central Bank of Iraq and the Basel III Committee for Regulation and Supervision.
3. Banks that have solid and realistic financial statements and are committed to applying stress tests are able to achieve financial sustainability.
4. The banks (study sample) have a strong capital base that enables them to face the shocks that they may be exposed to in the future.
5. It was found that the banks (study sample) enjoy rates higher than the minimum set by the Basel Committee and the Central Bank of Iraq (liquidity) that enables them to face the shocks resulting from the collective and sudden demand from depositors for the funds deposited with the bank.
6. The average profitability ratio for a bank across Iraq during the study period was 1.6%, and when applying the least severe scenario, the average ratio was 1.2%, while the average ratio was 0.8% when applying the medium severity scenario, while the average profitability ratio reached 0.4% when applying the most severe scenario. The bank will face a set of different shocks, and it will face a clear decline in profitability levels.

Second - proposals

Based on the conclusions reached by the study, the proposals were formulated as follows:

1. The need to continuously conduct stress tests on financial indicators that achieve the sustainability of the banking system as a whole.
2. Maintaining a high level of capital to face the shocks that the banking system may face in the future.
3. Work to achieve a reasonable level of liquidity through which it is possible to face liquidity risks and fulfill the obligations incurred by banks in the event of any future shock.
4. Focusing on financially fragile banks and working to improve the indicators that achieve their financial sustainability.
5. Reducing abnormal liquidity levels and investing surplus funds in a way that contributes to enhancing the profitability that banks seek to achieve.
6. Work to achieve an appropriate level of the sustainability index in a way that achieves a reasonable return for the bank as well as an acceptable level of risk.

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