Analyzing the Impact of Financial Stability Using the General Aggregate Index Technique for A Sample of Iraqi Private Banks

Karim Sami Karim¹, Ahmed Hamdi Al Husseini²
¹,² Collage of Management and Economics, University of Al Mustansiriyah, Iraq

Kareemsami@uomustansiriyah.edu.iq, Ahmedhamdv@uomustansiriyah.edu.iq

Abstract. Studying the state of general financial stability from the perspective of commercial banks and the extent of their application of its indicators is one of the important topics that has received great attention internationally. The problem of the study, which bears the title (Analysis of the impact of financial stability using the general aggregate index technique for a sample of Iraqi banks for the period from 2015 to 2021) is focused on the question: Next: Do commercial banks in Iraq have an impact in achieving financial stability in Iraq if the financial stability rates applied by the Central Bank are applied? The study came in two main parts, the first of which dealt with the theoretical framework of financial stability in terms of the concept, challenges, risks, characteristics and components, while the second dealt with the theoretical framework of financial stability in terms of the concept, challenges, risks, characteristics and components. He touched on showing the extent to which the study sample of commercial banks in Iraq applied financial stability rates through financial analysis of indicators. Thus, the study showed a number of conclusions. One of the most important conclusions was that the state of financial stability in Iraq depends to a large extent in achieving it on commercial banks, which must be developed. And keeping pace with the external environment, other global indicators must be applied, and the position of the commercial banks in the research sample was concluded on the basis of financial analysis, which shows an impact in achieving financial stability.

Keywords. financial stability, iraqi private banks, commercial banks, general aggregate index

Introduction

The importance of financial stability has gained significant attention in recent times due to its clear impact on global and local economies, as well as the frequency of global financial crises that have negatively affected economies and destabilized financial stability. This has created a drive to develop policies and legislation that aim to maintain financial stability, as all economies rely on the stability of their financial systems. Studies have focused on defining and interpreting financial stability according to the needs of different stakeholders, as well as identifying the characteristics of financial stability in order to achieve sustainable stability. Additionally, it is necessary to identify the supporting factors that contribute to maintaining positive financial or economic conditions, and to study the risks and obstacles that can weaken financial stability in order to avoid or minimize them. The aim of this study is to demonstrate
the state of financial stability and to define its concepts and focus on reviewing the risks and challenges that prevent its achievement. The study also aims to focus on commercial banks in terms of their application of financial stability ratios, as this component has a prominent importance and an effective role within the other components of the financial system, which it has gained through its functions and operations such as deposit acceptance operations, granting credit facilities, and other activities that affect the money supply and contribute to achieving the policies and decisions of the central bank, which are usually aimed at evaluating the performance of the financial system and thus achieving acceptable levels of financial stability.

The theoretical Framework

The concept of financial stability from the perspective of some financial institutions

Financial institutions of all kinds have been and still are interested in modern and influential economic and financial situations and phenomena, especially the issue of financial stability, which has recently attracted wide attention due to its impact on the nature of these financial institutions as they are directly linked to the state of financial stability. A set of concepts related to financial stability has been selected from the perspective of the administrations of these institutions, including the World Bank, which defines financial stability as the resilience of the financial system to economic and financial stresses, and that the degree of financial stability is usually linked to the absence or failure of financial system components to perform their duties. The financial system is considered stable when it dissipates financial imbalances that arise internally or as a result of negative and unexpected events. In a stable state, the system will primarily absorb shocks through self-correcting mechanisms, preventing negative events from having a destructive impact on the real economy or other financial systems. The International Monetary Fund defines financial stability as the ability of financial systems to absorb shocks affecting the financial system, leading to disruptions in financial markets that weaken the financial system's ability to provide services, resulting in a decline in real economic activity. As for the Central Bank of Iraq, it interprets financial stability as the state that enables the financial sector in general and the banking sector in particular to address risks or any negative impacts on the current and future reality of national economic growth and development. (Abayomi, 2008:6). The Central Bank of Argentina clarified financial stability in a report published in 2007, stating that the financial services sector can efficiently and securely direct individual savings and provide a country's payment system with continuity over time (Abayomi, 2008:6). As for the Reserve Bank of Australia, it interpreted financial stability as the presence of a stable and balanced financial system that facilitates the transfer of funds between savers and investors, thereby supporting and enhancing overall economic activity (International Monetary Fund publications, 2014). The Austrian National Bank clarified the state of financial stability as the condition in which financial markets are able to smoothly function in distributing savings satisfactorily even in the event of shocks (International Monetary Fund publications, 2014). The Bank of Japan defined financial stability as the state in which a country performs the functions of the financial system correctly and participants such as companies and individuals have confidence in the system (International Monetary Fund publications, 2014). As for the German bank, it interpreted it as the ability of the financial system to perform its tasks fully, so that the overall economy operates well, even under stress during crises or disruptions (https://www.bundesbank.de/de/).

The European Central Bank interpreted the state of financial stability as "a financial system that includes financial intermediaries, markets, and market infrastructure capable of
withstanding shocks and financial imbalances, reducing the likelihood of obstacles preventing the completion of financial intermediation and significantly weakening the allocation of savings to profitable investment opportunities” (Arab Monetary Fund, 2016:13).

**Characteristics of financial stability:**

It is noted that the financial systems that were able to achieve high rates of financial stability found that there are prominent characteristics associated with that situation that can be considered characteristics of financial stability, which are as follows (European Central Bank, 2009)(Santoso, 2007). The stability of the prices of a group of the most important securities, i.e. those with weight in the market, with prices that are consistent with the fundamental analysis components of the financial institutions issuing these securities, as well as stability in credit trends at the local and global levels, which leads to the concentration of credit and its direction in an appropriate and correct direction, as well as a decrease in risks. Related to the inability to repay, as this characteristic is reflected in the activation and stimulation of the financial system in terms of providing credit. Stability of spending levels at the set levels to suit actual economic growth, with clarity of priority spending paths in line with drawn up plans, as well as the characteristic of decentralization and diversification. It is noted that economic systems characterized by decentralization and diversification usually achieve high rates of financial stability, and decentralization and diversification can lead to To limit the effects of financial shocks sometimes, in light of the presence of a number of institutions operating in the financial system, the failure of one institution does not affect the stability of this system because there are other institutions working to provide various financial services. The characteristic of efficiency, which contributes to operations through... The incentives created by competition support stable business models for financial institutions and contribute to achieving general gains in efficiency in the financial system and the real economy. Transparency, which reduces information asymmetry and enables risk assessment to be more accurate and at better prices. It can also enhance the creation of instruments with specific risk exposure and completeness. Markets and improving the ability of market participants to manage risks. As well as ease of access and suitability of financial services: Access to financial services and their suitability affects the financial inclusion of families and commercial institutions, including small and medium-sized enterprises.

**Dimensions of financial stability**

The presence of any positive financial or economic situation requires elements that contribute to maintaining positive levels of that situation, and financial stability also requires elements that make it a permanent state as much as possible. Below are some elements of financial stability: organization, supervision, and oversight of institutions, economic stability, precautionary supervision, financial legislation, financial disclosure, cooperation among banking regulatory agencies, efficiency of financial institutions and markets, availability of secure and reliable financial infrastructure, availability of secure financial safety nets. Supervision and oversight of the financial and banking sector represent the most important aspect in this regard, as it helps strengthen the pillars of overall economic stability and therefore financial stability, due to the close link between financial stability and economic stability. Precautionary supervision is defined as a set of standards that banking institutions must respect, follow, and comply with to prevent various risks they face, as well as to control and preempt various banking risks to ensure banking and financial stability and protect depositors in a competitive environment. Precautionary supervision is still in its early stages in most Arab
countries. One of the conditions for maintaining financial stability is the requirement to strengthen legislation, practices, and banking supervision tools by strengthening centralized supervision of risks and limiting credit concentrations. Governments must enhance their practices in their banking institutions by ensuring the independence of the board of directors and improving financial and non-financial disclosure. (Securities and Exchange Commission, 2012)

**The risks affecting financial stability.**

There are several risks that contribute to undermining financial stability (Shinassi, 2014):

1- Internal risks (from within the system):
   These risks arise within any component of the financial system:
   A- Institutional risks: including financial risks such as credit, market, liquidity, interest rate, currency, and operational risks such as aspects of information technology and its weaknesses, legal risks, business strategic risks, capital adequacy risks, reputation risks.
   B- Market risks: including counterparty risks, asset price inconsistency, credit, liquidity.
   C- Infrastructure-based risks: including risks of clearing, payment and settlement systems, vulnerabilities in the infrastructure such as legal, regulatory, accounting, and supervisory, loss of trust leading to waves of withdrawals.

2- External risks (from outside the system):
   External problems do not occur within the financial system, financial stability is sensitive to crises originating from outside the financial system, resulting from overall economic disruptions such as natural disasters, changes in the trade balance, oil price fluctuations, neighboring countries defaulting on sovereign debts, as well as innovations, inventions, technological advancements, all of which weaken the economic system and create disruptions in the financial system or macroeconomic events such as collapse of large companies affecting market confidence and weakening it, thus affecting the entire financial system and leading to financial instability.

**Methodology and Dissuasions**

This study aims to analyze the composite indicator of financial stability (the banking sector axis with its four variables) using the reports published in the sample banks (4 banks) for the period 2015-2021, and using the mechanism adopted by the Central Bank of Iraq to reach the results and compare them with the general indicator of the banking sector.

1- **Capital Adequacy Ratio**

The Capital Adequacy Ratio is the primary variable indicator for the aggregate financial stability index - the banking sector axis, which aims to achieve financial stability at the banking sector level and enhance the financial resilience of banks and their ability to absorb shocks and losses, reflecting positively on the financial health and resilience of the banking sector. The Central Bank of Iraq has paid attention to increasing the capital of banks to strengthen their financial position, which was one of the reasons that led to an increase in this ratio in a manner that exceeds the standard ratios set by the Basel II Committee at 8% and the Central Bank of Iraq at 12%, as one of the main lines of defense against potential risks. In addition, some banks attribute this increase to non-investment of these funds or investment in
government securities or for other reasons that some may consider as aspects of financial strength or resilience in banking.

It is evident from Table (1) that all the banks in the research sample had averages lower than the overall average of (0.0819) during the research period, with a close percentage found for Al-Mansour Bank at (0.0815) despite the calculated ratios for all banks being higher when referring to the annex list before the standard and preferential procedures for these ratios according to the scientific rule adopted by the Central Bank of Iraq. The lowest recorded ratio was for the Iraqi Investment Bank at (0.0537). Additionally, the overall average for Ashur Bank reached (0.0715), with the highest increase in ratios in the three years (2018, 2019, 2020) compared to the rest of the research period due to the increase in capital adequacy ratio for this bank, represented by a decrease in risk-weighted assets corresponding to the lowest ratio of (0.000) as it is a weighted ratio and not absolute values, and being the lowest ratio for this indicator recorded during the period, it became zero when applying the standard score equation. Meanwhile, the average for Babel Bank for this indicator was (0.0673), with the highest weighted ratio represented in the first four years, followed by a gradual decrease in this indicator for the bank in question due to the increase in risk-weighted assets compared to its core and supplementary capital.

### Table 1: Sufficient Capital Adequacy Ratio

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0715</td>
<td>0.070</td>
<td>0.099</td>
<td>0.127</td>
<td>0.130</td>
<td>0.037</td>
<td>0.000</td>
<td>0.038</td>
<td>Ashour</td>
</tr>
<tr>
<td>0.0673</td>
<td>0.000</td>
<td>0.006</td>
<td>0.030</td>
<td>0.081</td>
<td>0.109</td>
<td>0.130</td>
<td>0.115</td>
<td>Babel</td>
</tr>
<tr>
<td>0.0815</td>
<td>0.000</td>
<td>0.026</td>
<td>0.111</td>
<td>0.106</td>
<td>0.107</td>
<td>0.130</td>
<td>0.090</td>
<td>Almansour</td>
</tr>
<tr>
<td>0.0537</td>
<td>0.003</td>
<td>0.008</td>
<td>0.000</td>
<td>0.055</td>
<td>0.102</td>
<td>0.077</td>
<td>0.130</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>0.0819</td>
<td>0.095</td>
<td>0.080</td>
<td>0.100</td>
<td>0.130</td>
<td>0.077</td>
<td>0.092</td>
<td>0.000</td>
<td>General Indicator</td>
</tr>
</tbody>
</table>

2- The Overall Assets Quality Index.

This index is one of the key variables for the banking sector axis, focusing on building the overall index for financial stability, which represents the collection of three indicators: the ratio of non-performing debts to total debts, the ratio of net non-performing debts to capital, and the coverage ratio of provisions (provisions to non-performing debts), which gives a clear picture of the integration of four elements essential for measurement: defaulted debts after credit issuance, provisions for these debts as a hedging aspect, capital representing the mainstay of banking operations, and its integration representing the quality of assets resulting from capital investment and the outcomes that can be achieved as a result of this investment. It is evident from Table (2) that all estimated ratios for these banks were high (except for Mansour Bank) compared to the overall index, which was (0.0554) and (0.0451). They have two interpretations:
one positive if considering the size of their provisions relative to non-performing debts, and negative due to the increase in their non-performing debts relative to cash credit and capital.

Table 2: The general index of preferred asset quality

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashour</td>
<td>0.0690</td>
<td>0.150</td>
<td>0.142</td>
<td>0.092</td>
<td>0.051</td>
<td>0.039</td>
<td>0.007</td>
<td>0.002</td>
</tr>
<tr>
<td>Babel</td>
<td>0.0701</td>
<td>0.013</td>
<td>0.000</td>
<td>0.032</td>
<td>0.102</td>
<td>0.098</td>
<td>0.096</td>
<td>0.150</td>
</tr>
<tr>
<td>Almansour</td>
<td>0.0451</td>
<td>0.105</td>
<td>0.070</td>
<td>0.101</td>
<td>0.000</td>
<td>0.006</td>
<td>0.011</td>
<td>0.023</td>
</tr>
<tr>
<td>Alestethmar</td>
<td>0.0831</td>
<td>0.059</td>
<td>0.116</td>
<td>0.148</td>
<td>0.083</td>
<td>0.090</td>
<td>0.045</td>
<td>0.042</td>
</tr>
<tr>
<td>General Indicator</td>
<td>0.0554</td>
<td>0.035</td>
<td>0.030</td>
<td>0.121</td>
<td>0.033</td>
<td>0.038</td>
<td>0.055</td>
<td>0.077</td>
</tr>
</tbody>
</table>

The general liquidity indicator is one of the key variables for the banking sector axis, which is also focused on in building the general financial stability indicator. It represents the sum of two indicators (liquid assets to liquid liabilities ratio, total debt to total customer deposits ratio), which give a clear result about the banking liquidity status of the research sample banks and their ability to meet their short-term financial obligations on one hand, and the employment status of customer deposits without exposing them to financial distress as a result of excessive use of both indicators.

It is clear from table (3) that the average general index for this ratio is (0.0554) and that the highest preferential ratio for the general liquidity index at the bank level is represented by the Investment Bank, reaching (0.0699), while the lowest ratio recorded was at Al-Mansour Bank, amounting to (0.0371) compared to the general index of the banking sector at the liquidity level. However, this does not mean that this bank does not have sufficient liquidity or that it is not effectively employing others' funds to the extent of caution by the bank and in accordance with a policy it follows in its operations, which is reflected in the reality represented by this index during the research period. The opposite is true for banks with higher ratios, in line with banks that recorded lower than the average for the general liquidity index.

Table 3: The general index of preferential liquidity

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashour</td>
<td>0.0521</td>
<td>0.025</td>
<td>0.080</td>
<td>0.067</td>
<td>0.060</td>
<td>0.062</td>
<td>0.041</td>
<td>0.030</td>
</tr>
<tr>
<td>Babel</td>
<td>0.0581</td>
<td>0.060</td>
<td>0.062</td>
<td>0.054</td>
<td>0.044</td>
<td>0.032</td>
<td>0.064</td>
<td>0.091</td>
</tr>
<tr>
<td>Almansour</td>
<td>0.0371</td>
<td>0.061</td>
<td>0.010</td>
<td>0.004</td>
<td>0.051</td>
<td>0.050</td>
<td>0.051</td>
<td>0.033</td>
</tr>
<tr>
<td>Alestethmar</td>
<td>0.0699</td>
<td>0.015</td>
<td>0.038</td>
<td>0.068</td>
<td>0.084</td>
<td>0.113</td>
<td>0.098</td>
<td>0.073</td>
</tr>
<tr>
<td>General Indicator</td>
<td>0.0554</td>
<td>0.041</td>
<td>0.006</td>
<td>0.059</td>
<td>0.104</td>
<td>0.078</td>
<td>0.038</td>
<td>0.062</td>
</tr>
</tbody>
</table>
4-The overall profitability indexes

is one of the four key variables of the banking sector axis, which is also focused on building its overall financial stability index. This index represents the sum of four important indicators (return on assets, return on equity, total non-interest expenses to total income, interest margin to total income), which, when combined according to the method adopted in measuring financial stability for this index by the Central Bank of Iraq, give a clear result about the profitability status of the sample banks and their ability to achieve the desired revenues and profits from their operational activities on one hand, and their ability to cover their operating expenses and achieve returns that reflect the positive picture of the proper utilization of their assets and equity on the other hand. It is evident from Table (4) that the average overall index of these ratios, which is (0.0691), for the four profitability indicators. The research sample banks recorded lower preferential rates than the overall average preferential rate for the index.

The highest preference ratio for the overall profitability index at the banking level is represented by Babel Bank, reaching (0.0687), while the lowest ratio recorded was at Investment Bank, reaching (0.0509) compared to the general averages of banks and the overall profitability index at the banking sector level. However, this does not mean that this bank does not have the required level, or that it employs incompetent staff, or that its total expenses are high, or that it fails to achieve the desired revenues, and other considerations that reflect the negative image of this bank and others to the extent of caution by this bank, according to a policy it follows in its work field, which is reflected in the reality represented by this index during the research period. This is also the case for banks that reflected a negative image of the indicators, and vice versa for banks with the highest ratios and percentages recorded in the overall index and the four indices. Therefore, the increase or decrease in these ratios is indicative of how to achieve better integration at the operational activity levels and in a manner that contributes to enhancing the role of banks at the economic level, and consequently its reflection on the social reality in terms of its role as a banking institution practicing its diverse activities.

Table.4 The overall indicator of leverage profitability

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0551</td>
<td>0.022</td>
<td>0.078</td>
<td>0.037</td>
<td>0.012</td>
<td>0.052</td>
<td>0.074</td>
<td>0.111</td>
<td>ashour</td>
</tr>
<tr>
<td>0.0687</td>
<td>0.051</td>
<td>0.040</td>
<td>0.069</td>
<td>0.077</td>
<td>0.076</td>
<td>0.090</td>
<td>0.077</td>
<td>babel</td>
</tr>
<tr>
<td>0.0649</td>
<td>0.019</td>
<td>0.017</td>
<td>0.035</td>
<td>0.119</td>
<td>0.080</td>
<td>0.080</td>
<td>0.104</td>
<td>almansour</td>
</tr>
<tr>
<td>0.0509</td>
<td>0.024</td>
<td>0.049</td>
<td>0.030</td>
<td>0.022</td>
<td>0.047</td>
<td>0.081</td>
<td>0.103</td>
<td>International Investment Bank</td>
</tr>
<tr>
<td>0.0691</td>
<td>0.049</td>
<td>0.054</td>
<td>0.080</td>
<td>0.038</td>
<td>0.122</td>
<td>0.078</td>
<td>0.064</td>
<td>general indicator</td>
</tr>
</tbody>
</table>

Conclusions:

The development of commercial banks contributes to activating the other components of the financial system due to the nature of the activities they engage in, thus contributing to achieving financial stability. Financial stability is an important indicator in the functioning of banks in general, including commercial banks. It involves avoiding financial crises, as well as
the efficiency and geographical distribution of financial and economic resources. Financial stability is based on components such as supervision, oversight, economic stability, precautionary supervision, financial regulations, financial disclosure, and cooperation among banking supervisory authorities. There are a set of mechanisms and controls that maintain financial stability, including the bank offering many solutions to overcome any crisis and achieve financial stability. It also requires building a system based on the regulations and provisions of the central bank and other regulations.

References:


