Review of Futures Markets
ISSN 1933-7116 (Print)
fra.st/rfm

Volume 34 · Issue 2 · 2026
Pages 1499–1508

# Analysis and Evaluation of Financial Soundness Indicators of the Algerian Banking Sector During the Period 2015–2024

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**Received:** 05/03/2026 | **Accepted:** 20/08/2026 | **Published:** 19/10/2026

## Abstract

This study aims to provide an analytical and evaluative assessment of the evolution of financial soundness indicators in the Algerian banking sector over the period 2015–2024. It examines the main indicators related to banks' solvency, liquidity ratios, non-performing loans and provisioning rates, bank profitability indicators, and banking intermediation margins, with the aim of assessing the soundness of the sector and identifying its main strengths and weaknesses.

To achieve this objective, the study employs a descriptive-analytical approach based on the analysis of annual data on financial soundness indicators, their statistical analysis, and the examination of their trends over the study period. Temporal comparisons are also conducted to interpret the financial implications of these indicators.

The results reveal that the Algerian banking sector experienced a noticeable improvement in solvency and profitability indicators, while challenges related to non-performing loans persisted. The study concludes that the financial soundness of the Algerian banking sector improved across certain dimensions, particularly with regard to solvency and profitability indicators.

**Keywords:** Financial Soundness; Financial Soundness Indicators; Algerian Banking Sector.

## Introduction

The banking sector represents a pivotal component of the financial system. The soundness of the banking sector is not limited to banks' ability to continue conducting their activities and meeting their obligations; rather, its implications extend to the soundness and stability of the financial system, as well as to the economy's ability to achieve growth and maintain the continuity of economic activity in the face of various shocks.

In recent years, the Algerian banking sector has undergone a number of developments associated with banking and financial reforms, as well as changes in the economic environment, alongside transformations related to the development of banking and digital services. These developments have required Algerian banks to strengthen their capacity to manage risks, maintain adequate levels of capital and liquidity, and improve asset quality. Consequently, assessing the financial position of the banking sector has become increasingly important in light of the need to ensure its

**How to cite:** Amira et al. (2026). Analysis and Evaluation of Financial Soundness Indicators of the Algerian Banking Sector During the Period 2015–2024. Review of Futures Markets, 34(2), 1499–1508.
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stability and its ability to continue performing its financing and intermediation functions.

Accordingly, assessing the soundness of the banking sector has become one of the fundamental approaches to understanding the ability of the financial system to withstand shocks and maintain the continuity of its functions. Such an assessment cannot be achieved through a single financial indicator; rather, it requires the analysis of an integrated set of indicators reflecting the different dimensions of banks' financial position. This is provided by the Financial Soundness Indicators framework, which focuses on solvency indicators, banks' liquidity ratios, non-performing loan ratios and provisioning rates, bank profitability indicators, and banking intermediation margins.

Financial Soundness Indicators therefore constitute an important tool for analyzing the financial position of the Algerian banking sector. Furthermore, analyzing these indicators over an extended period allows for the identification of the general trends experienced by the sector and the determination of its strengths and weaknesses, which may not become apparent when a single year is analyzed separately.

***Research Problem***

Based on the foregoing, the following research question can be formulated:

**How have the Financial Soundness Indicators of the Algerian banking sector evolved during the period 2015–2024, and what are the results of their analysis and evaluation?**

***Study Objective***

The main objective of this study is to analyze the evolution of the Financial Soundness Indicators of the Algerian banking sector during the period 2015–2024 by tracking the trends of these indicators and identifying the main improvements and deteriorations observed over the study period. This ultimately aims to provide an analytical assessment of the sector's soundness and identify potential sources of risk that may affect its financial soundness.

***Research Methodology***

The study adopts a descriptive-analytical approach by addressing the fundamental concepts related to the subject of the study, in addition to collecting data on the Financial Soundness Indicators of the Algerian banking sector for the period 2015–2024. The data are organized and presented in tables, followed by an analysis of their trends over time and statistical analysis, together with comparisons across the years and an interpretation of the findings in light of the nature of the indicators and their financial implications.

## Theoretical Framework

### 1. Financial Stability and Financial Soundness

#### *1.1 Definition of Financial Stability*

Financial stability is defined as "the ability of the financial system to perform its core functions efficiently and continuously, through the efficient allocation of resources, risk management, and the provision of liquidity, while being able to absorb and adapt to financial shocks and imbalances, thereby allowing the continued support of economic activity and growth" (J. Shinasi, 2004, p. 8).

#### *1.2 Definition of Financial Soundness*

The financial soundness of the financial sector is defined as "its ability to absorb adverse shocks and cope with their effects without resulting in major disruptions in the performance of the financial sector" (Craig, 2004, p. 279).

Financial Soundness Indicators (FSIs) should cover several dimensions of financial health and soundness. In this regard, the International Monetary Fund (2006, p. 3) indicates that:

- Capital strength is important as a buffer against unexpected losses.
- The quality and composition of assets constitute essential elements.
- Exposure to financial risks should be monitored.
- Income and expenses are critical elements, as an institution cannot be considered financially sound without generating adequate income.
- The indicators help identify developments that may signal increasing financial vulnerability.
- They also contribute to assessing the sector's resilience to adverse conditions.

### 2. Financial Soundness Indicators

#### *2.1 Definition of Financial Soundness Indicators*

Financial Soundness Indicators (FSIs) are indicators that reflect the current financial health and soundness of financial institutions in a country, as well as those of related sectors, such as the corporate and household sectors. These indicators include aggregated data on

financial institutions and indicators reflecting the conditions of the markets in which these institutions operate. They rely primarily on supervisory data and are used to support macroprudential analysis (International Monetary Fund, 2019, p. 1).

Financial Soundness Indicators are generally considered "a useful tool for organizing the analytical process and are likely to contribute to improvements in the collection and quality of data in the future" (Sundararajan and al., 2002, p. 9).

### *2.2 Objectives of Financial Soundness Indicators*

These indicators are used for the following purposes (International Monetary Fund, 2019, p. 2):

- To assist users in their financial and macroeconomic surveillance efforts aimed at achieving financial stability;
- To serve as indicators of the financial sector's contribution to economic growth by providing effective maturity and liquidity transformation, credit provision, and other financial services;
- To help monitor and address vulnerabilities, as these vulnerabilities may trigger a broader economic crisis;
- To monitor risks to the stability of national financial systems arising from the collective behavior of individual institutions;
- To monitor risks at the level of the banking sector as a whole.

### *2.3 Importance of Financial Soundness Indicators*

Financial Soundness Indicators constitute one of the key tools for assessing the stability of the financial system, as they provide quantitative information on the strengths and weaknesses of financial institutions. Their importance lies in their ability to (International Monetary Fund, 2006, pp. 16–17):

- Detect new developments at an early stage;
- Facilitate comparisons and analysis over time;
- Support an understanding of developments in the financial system;
- Serve as an input into macroprudential analysis;
- Complement early warning systems and contribute to crisis prevention.

### *2.4 Types of Financial Soundness Indicators*

According to the International Monetary Fund, Financial Soundness Indicators can be classified as follows:

***Table 1. Financial Soundness Indicators: The Core and Additional***

| Financial Soundness Indicators: The Core and Additional | |
|---|---|
| Core Set | |
| Deposit Takers | |
| Capital Adequacy | Regulatory capital to risk-weighted assets<br>Tier 1 capital to risk-weighted assets<br>Nonperforming loans net of provisions to capital<br>Common Equity Tier 1 capital to risk-weighted assets<br>Tier 1 capital to assets<br>Asset Quality Nonperforming loans to to |
| Asset Quality | Nonperforming loans to total gross loans<br>Loan concentration by economic activity<br>Provisions to nonperforming loans |
| Earnings and Profitability | Return on assets<br>Return on equity<br>Interest margin to gross income<br>Noninterest expenses to gross income |
| Liquidity | Liquid assets to total assets (liquid asset ratio) for all DTs<br>Liquid assets to short term liabilities for all DTs<br>Liquidity Coverage Ratio for the DTs that have implemented Basel III liquidity standards<br>Net Stable Funding Ratio for the DTs that have implemented Basel III liquidity standards |
| Sensitivity to Market Risk Net open position in foreign exchange to capital | Sensitivity to Market Risk Net open position in foreign exchange to capital |
| Real Estate Markets | |
| | Residential real estate prices |
| Additional Set | |

The above table shows that the International Monetary Fund distinguishes between core and additional Financial Soundness Indicators for assessing the soundness of the financial system. The core indicators for deposit-taking institutions cover five main dimensions: capital adequacy, asset quality, earnings

| | |
|---|---|
| Deposit Takers | Large exposures to capital<br>Geographical distribution of loans to total loans<br>Gross asset position in financial derivatives to capital<br>Gross liability position in financial derivatives to capital<br>Trading income to total income<br>Personnel expenses to noninterest expenses<br>Spread between reference lending and deposit rates<br>Spread between highest and lowest interbank rate<br>Customer deposits to total (noninterbank) loans<br>Foreign-currency-denominated loans to total loans<br>Foreign-currency-denominated liabilities to total liabilities<br>Credit growth to private sector |
| Other Financial Corporations | Assets to total financial system assets (for total of OFCs and by subsectors)<br>Assets to gross domestic product (GDP) (for total of OFCs and by subsectors) |
| Other Financial Corporations<br>Money Market Funds | Sectoral distribution of investments<br>Maturity distribution of investments |
| Other Financial Corporations<br>Insurance Corporations | Shareholder equity to total invested assets (life and non-life insurance)<br>Combined ratio (non-life insurance only)<br>Return on assets (life insurance only)<br>Return on equity (life and non-life insurance) |
| Other Financial Corporations<br>Pension Funds | Liquid assets to estimated pension payments in the next year<br>Return on assets |
| Nonfinancial Corporations | Total debt to equity<br>External debt to equity<br>Foreign currency debt to equity<br>Total debt to GDP<br>Return on equity<br>Earnings to interest and principal expenses<br>Earnings to interest expenses |
| Households (HH) | Household debt to GDP<br>Household debt service and principal payments to income<br>Household debt to household disposable income |
| Real Estate Markets | Commercial real estate prices<br>Residential real estate loans to total loans<br>Commercial real estate loans to total loans |

Source: **International Monetary Fund (2019), pp. 2–3, https://www.imf.org//media/files/data/2019/2019-fsi-guide.pdf**

and profitability, liquidity, and sensitivity to market risk.

The additional set includes more detailed indicators related to foreign currencies, financial derivatives, and credit growth. The framework also extends to other financial corporations, nonfinancial corporations, households, and real estate markets, with the aim of providing a comprehensive assessment of the strengths and weaknesses, as well as the various risks, within the financial system.

## Applied Framework

### 1. Evolution of Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024

Based on the information reported by the Bank of Algeria during this period, this section aims to identify the various developments in financial soundness indicators and compare them across the different years of the study.

#### *1.1 Banks' Solvency Indicator*

This indicator is used to assess the bank's ability, over the long term, to meet its various obligations toward depositors and creditors, as well as its capacity to withstand any unexpected losses. It is considered one of the most important financial soundness indicators, as it measures the extent to which banks are capable of absorbing and withstanding various risks

***Table 02: Banks' Solvency Indicators during the Period 2015–2024***

| Indicator | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Solvency Ratio | 18.40% | 18.75% | 19.45% | 19.05% | 17.99% | 19.17% | 21.60% | 21.53% | 22.82% | 22.82% |
| Tier 1 Solvency Ratio | 15.76% | 16.25% | 15.03% | 14.98% | 14.26% | 15.38% | 17.72% | 17.74% | 19.19% | 19.37% |

**Source: Prepared by the researchers based on reports of the Bank of Algeria.**

The above table, which presents the solvency indicators of the Algerian banking sector during the period 2015–2024, shows, based on the total and Tier 1 solvency ratios, that the Algerian banking sector maintained high levels of capital adequacy throughout the period (2015–2024), despite some fluctuations during 2018–2019. The total solvency ratio increased from 18.40% in 2015 to 22.82% in 2024. It recorded a slight decline in 2018 and 2019, reaching 17.99%, before resuming its upward trend from 2020 and stabilizing at 22.82% in both 2023 and 2024.

As for the Tier 1 solvency ratio, it increased from 15.76% in 2015 to 19.37% in 2024, with a limited decline during the period 2017–2019, before resuming its upward trend.

This development can be explained by the fact that banks maintained high levels of capital relative to risk-weighted assets, while strengthening their capital base in recent years, in addition to the implementation of prudential requirements by the Bank of Algeria. The ratios remained high and exhibited an upward trend in most years, reflecting a sound capacity to withstand risks and strengthening the resilience of the banking sector. Furthermore, the notable improvement after 2020 indicates enhanced banks' capacity to absorb shocks and achieve high levels of financial soundness. This reflects the adoption of prudential policies that contributed to strengthening the resilience of the banking sector and its ability to withstand potential risks.

### *1.2 Liquid Assets Ratio of Banks (Bank Liquidity Ratios)*

The liquid assets ratio is an indicator used to measure the bank's ability to meet various short-term obligations without resorting to borrowing. It is considered one of the most important financial soundness indicators, as it reflects banks' ability to meet their short-term obligations and satisfy deposit withdrawal demands. It also indicates whether the bank maintains sufficient liquidity to withstand various financial crises, thereby supporting financial stability.

***Table 3: Liquid Assets Ratio of Banks (Bank Liquidity Ratios) during the Period 2015–2024***

| Indicator | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Liquid Assets / Total Assets | 27.14% | 23.52% | 23.51% | 19.84% | 15.97% | 13.11% | 35.98% | 40.22% | 40.11% | 39.41% |
| Liquid Assets / Short-Term Liabilities | 61.64% | 58.39% | 53.39% | 47.45% | 44.23% | 37.14% | 102.06% | 108.53% | 116.99% | 113.79% |

**Source: Prepared by the researchers based on reports of the Bank of Algeria.**

The above table shows that liquidity indicators in the Algerian banking sector experienced divergent trends during the period 2015–2024. The ratio of liquid assets to total assets gradually declined from 27.14% in 2015 to 13.11% in 2020, reflecting a decrease in the volume of liquid assets relative to banks' total assets. This decline may be associated with the economic effects of the COVID-19 pandemic. However, this ratio recorded a notable improvement beginning in 2021, when it increased to 35.98%, and then exceeded 40% in 2022 and 2023, before stabilizing at 39.41% in 2024. This indicates that banks regained relatively high levels of liquidity.

The ratio of liquid assets to short-term liabilities followed a similar trend. It declined from 61.64% in 2015 to 37.14% in 2020, reflecting a decrease in banks' ability to cover their short-term obligations with liquid assets during this period. However, the indicator underwent a clear shift beginning in 2021, when the ratio exceeded 100%, reaching 102.06% in 2021, 108.53% in 2022, and 116.99% in 2023, before stabilizing at 113.79% in 2024. This indicates that liquid assets exceeded short-term liabilities, thereby enhancing banks' ability to meet their immediate obligations and reducing liquidity risk.

This indicator can be assessed by noting the significant improvement in liquidity indicators, which reflects an enhanced funding capacity of banks and a higher safety margin for meeting short-term obligations. It also indicates that banks hold a volume of liquid assets sufficient to cover their short-term liabilities, thereby strengthening their ability to withstand liquidity risks and respond to unexpected obligations without being exposed to financial pressures. Accordingly, this indicator provides a positive indication of the resilience of the banking sector and supports its financial stability

amid the economic changes experienced by the sector.

### *1.3 Non-Performing Loans Ratios (Uncollected Receivables) and Provisioning Rates*

Among the financial soundness indicators, this indicator provides insights into the quality of loans and enables the measurement of credit risk. It also allows for assessing banks' ability to withstand various losses and, consequently, identifying potential weaknesses in order to assess the financial soundness of banks.

***Table 4: Non-Performing Loans Ratios (Uncollected Receivables) and Provisioning Rates during the Period 2015–2024***

| Indicator | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Net Non-Performing Loans after Provisions / Regulatory Capital | 26.47% | 35.00% | 36.42% | 39.35% | 52.57% | 59.56% | 58.15% | 56.24% | 57.53% | 58.65% |
| Non-Performing Loans Ratio | 9.77% | 12.09% | 12.96% | 12.70% | 14.76% | 16.36% | 19.64% | 19.86% | 20.88% | 20.68% |
| Provisioning Rate for Non-Performing Loans | 59.93% | 54.62% | 52.82% | 50.12% | 46.69% | 46.14% | 48.73% | 49.94% | 47.79% | 47.83% |

**Source: Prepared by the researchers based on reports of the Bank of Algeria.**

The above results reveal a clear increase in credit risk in the Algerian banking sector. The non-performing loans ratio increased from 9.77% in 2015 to 20.68% in 2024, reflecting a relative deterioration in the quality of the loan portfolio.

In contrast, the provisioning rate for non-performing loans declined from 59.93% in 2015 to 47.83% in 2024. This indicates a decline in the level of coverage of non-performing loans by provisions compared with the beginning of the period. This development was reflected in the increase in net non-performing loans after provisions relative to regulatory capital, from 26.47% to 58.65%, indicating increased potential pressure on banks' capital base.

The increase in non-performing loans in the Algerian banking sector can be explained by the deterioration in borrowers' repayment capacity amid the slowdown in economic activity during the COVID-19 pandemic, in addition to the decline in oil prices during that period.

### *1.4 Bank Profitability Indicators*

This indicator aims to measure the bank's ability to generate profits and returns, as well as to assess the bank's efficiency in utilizing its assets to generate profits.

***Table 5: Bank Profitability Indicators during the Period 2015–2024***

| Indicator | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Return on Equity (ROE) | 21.31% | 17.79% | 18.85% | 22.41% | 14.08% | 11.80% | 14.35% | 13.47% | 13.61% | 14.19% |
| Return on Equity before Provisions | 29.06% | 28.22% | 26.99% | 29.49% | 25.67% | 21.89% | 19.16% | 16.83% | 16.81% | 19.04% |
| Cost-to-Income Coverage Ratio | 143.43% | 144.74% | 145.54% | 164.06% | 134.61% | 131.34% | 141.28% | 137.06% | 135.18% | 144.25% |
| Return on Assets (ROA) | 1.92% | 1.83% | 2.05% | 2.42% | 1.51% | 1.43% | 1.72% | 1.38% | 1.37% | 1.43% |
| Banking Margin | 3.86% | 4.14% | 4.15% | 4.32% | 3.85% | 3.70% | 3.37% | 2.67% | 2.60% | 2.79% |

**Source: Prepared by the researchers based on reports of the Bank of Algeria.**

The above table shows notable developments and changes in this indicator, as follows:

- **Return on Equity (ROE):** It stood at 21.31% in 2015, then declined significantly to 11.80% in 2020. Thereafter, it gradually improved to reach 14.19% in 2024. This indicates a decline in banks' ability to generate returns on their equity during 2019–2020 due to the effects of the COVID-19 pandemic, followed by a partial recovery in their profit-generating capacity thereafter.
- **Return on Equity before Provisions:** This indicator recorded relatively high levels in most years; however, it began to decline in 2020 and subsequently stabilized within the range of 17–19% during the later years of the period. It measures the ability of equity to generate profits before the effect of provisions.

- **Cost-to-Income Coverage Ratio:** This ratio remained relatively high throughout the period, ranging between 131.34% and 164.06%. Its exceeding 100% in all years indicates that the results generated were sufficient to cover costs, which constitutes a positive factor for financial stability.
- **Return on Assets (ROA):** It increased from 1.92% in 2015 to its highest level of 2.42% in 2018, before stabilizing at levels of approximately 1.4% during 2022–2024. Its overall development indicates a relative improvement in the efficiency of asset utilization and profit generation.
- **Banking Margin:** It increased from 3.86% in 2015 to 4.32% in 2018, after which it followed a gradual downward trend, reaching 2.79% in 2024. This indicates fluctuations in the ability of core banking activities to generate a margin from their resources.

### *1-5 Banking Intermediation Margins*

This indicator aims to assess the extent to which banks are able to generate income through their banking activities and, consequently, their ability to generate revenues that can be used to cover various costs, provisions, and losses.

**Table 06:** Banking Intermediation Margins during the Period 2015–2024

| Indicator | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| Interest margin / Gross income | 66.81% | 72.51% | 73.00% | 78.78% | 78.53% | 73.47% | 78.45% | 78.69% | 80.33% | 80.33% |
| Non-interest expenses / Gross income | 40.01% | 34.08% | 35.99% | 29.34% | 30.78% | 35.93% | 35.29% | 39.96% | 39.27% | 33.03% |

**Source:** Prepared by the researchers based on the reports of the Bank of Algeria.

It can be stated that the Algerian banking sector has become increasingly reliant on interest income, as the contribution of the interest margin to gross income increased from 66.81% in 2015 to 80.33% in 2024. Meanwhile, non-interest expenses fluctuated throughout the period but declined to 33.03% in 2024. Overall, this indicates a relative improvement in the income structure and in the efficiency of expense management toward the end of the period, while banks continued to rely heavily on banking intermediation activities as a source of income.

## *2. Statistical and Trend Analysis of the Financial Soundness of the Algerian Banking Sector during the Period 2015–2024*

To examine the evolution of the level of financial soundness of the Algerian banking sector over the period 2015–2024, this section analyzes the various statistical trends of financial soundness indicators by measuring their levels and changes throughout the period. This analysis also makes it possible to identify the general trend of each indicator and assess its implications in order to determine the strengths and weaknesses and, consequently, assess the financial soundness of the banking sector during this period.

### *2-1 Descriptive Statistics of the Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024*

**Table 07:** Descriptive Statistics of the Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024

| Indicator | Mean % | Minimum % | Maximum % | Standard Deviation | Coefficient of Variation % | Change 2015–2024 % |
|---|---|---|---|---|---|---|
| Total solvency | 20.16 | 17.99 | 22.82 | 1.77 | 8.77 | +24.02 |
| Core solvency | 16.57 | 14.26 | 19.37 | 1.74 | 10.51 | +22.91 |
| Liquid assets / Total assets | 27.88 | 13.11 | 40.22 | 9.69 | 34.73 | +45.21 |
| Liquid assets / Short-term liabilities | 74.36 | 37.14 | 116.99 | 30.00 | 40.34 | +84.60 |
| Net non-performing loans / Capital | 48.00 | 26.47 | 59.56 | 11.33 | 23.61 | +121.57 |
| Non-performing loan ratio | 15.97 | 9.77 | 20.88 | 3.68 | 23.04 | +111.67 |
| Provisioning ratio / Non-performing loans | 50.46 | 46.14 | 59.93 | 4.52 | 8.96 | −20.19 |

**Table 07:** Descriptive Statistics of the Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024 *(continued)*

| | | | | | | |
|---|---|---|---|---|---|---|
| Interest margin / Gross income | 76.09 | 66.81 | 80.33 | 4.16 | 5.47 | +20.24 |
| Non-interest expenses / Gross income | 35.37 | 29.34 | 40.01 | 3.74 | 10.58 | −17.45 |

**Source:** Prepared by the researchers based on the above information.

The statistical results for the period 2015–2024 reveal variations in the levels and stability of the financial soundness indicators of the Algerian banking sector. Solvency indicators recorded relatively low levels of volatility, together with an upward trend toward the end of the period, reflecting an improvement in capital strength. Liquidity indicators also showed a marked increase, although they exhibited greater volatility, particularly during the period following 2020.

In contrast, asset quality indicators revealed a clear increase in non-performing loans and in their ratio to capital, representing a source of pressure on financial soundness. Meanwhile, profitability and efficiency indicators exhibited a positive trend, reflected in the increase in the interest margin and the decline in the ratio of non-interest expenses to gross income.

### *2-2 Overall Trend and Assessment of the Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024*

**Table 08:** Overall Trend and Assessment of the Financial Soundness Indicators of the Algerian Banking Sector during the Period 2015–2024

| Indicator | 2015 Value | 2024 Value | Change 2015–2024 | Overall Trend | Assessment in Terms of Financial Soundness | Soundness Level |
|---|---|---|---|---|---|---|
| Total solvency ratio | 18.40% | 22.82% | +24.02% | ↗ Increase | **Positive – Improved capacity of the sector to absorb losses and withstand risks** | **Strong** |
| Core solvency ratio | 15.76% | 19.37% | +22.91% | ↗ Increase | **Positive – Strengthening of the core capital base** | **Strong** |
| Liquid assets / Total assets | 27.14% | 39.41% | +45.21% | ↗ Increase | **Positive – Improved capacity to meet liquidity needs** | **Strong** |
| Liquid assets / Short-term liabilities | 61.64% | 113.79% | +84.60% | ↗ Increase | **Positive – Improved capacity of the sector to cover short-term obligations** | **Strong** |
| Net non-performing loans after provisions / Capital | 26.47% | 58.65% | +121.57% | ↗ Increase | **Negative – Increased potential risks to capital** | **Weak** |
| Non-performing loan ratio | 9.77% | 20.68% | +111.67% | ↗ Increase | **Negative – Deterioration in credit portfolio quality and increased credit risk** | **Weak** |
| Non-performing loan coverage ratio | 59.93% | 47.83% | −20.19% | ↘ Decrease | **Negative – Decline in the level of coverage of non-performing loans** | **Moderate** |
| Interest margin / Gross income | 66.81% | 80.33% | +20.24% | ↗ Increase | **Positive – Improved contribution of the interest margin to income generation** | **Good** |
| Non-interest expenses / Gross income | 40.01% | 33.03% | −17.45% | ↘ Decrease | **Positive – Relative improvement in operational efficiency** | **Good** |

**Source:** Prepared by the researchers based on the above information.

The results of the statistical and trend analysis indicate an improvement in the capital strength, liquidity, profitability, and efficiency of the Algerian banking sector over the period 2015–2024, while asset quality remained weak, as evidenced by the marked increase in non-performing loan ratios and their ratio to capital, in addition to the decline in their provisioning coverage ratio compared with the beginning of the period. Accordingly, the financial soundness of the sector can be described as relatively good, although credit risk and asset quality remain among the most prominent challenges requiring continuous monitoring.

Based on the foregoing, it can be concluded that the financial soundness of the Algerian banking sector during the period 2015–2024 was characterized by relative resilience, supported primarily by solvency, liquidity, and profitability. However, the sustainability of this resilience remains dependent on the sector's ability to mitigate credit risk, improve asset quality, and strengthen the coverage of non-performing loans.

Therefore, the assessment of financial soundness requires an integrated approach that is not limited to capital and liquidity indicators, but also takes into account asset quality as one of the key determinants of the long-term stability of the banking sector.

## Conclusion

Based on the foregoing, it can be concluded that the financial soundness of the Algerian banking sector during the study period exhibited a positive trend in terms of solvency, liquidity, and profitability, while a relative weakness persisted in asset quality and credit risk. Accordingly, the financial soundness of the sector combines important strengths with sources of risk that require continuous monitoring, particularly the increase in non-performing loans and the decline in their provisioning coverage ratio.

## Results

- The empirical results revealed a clear improvement in the financial solvency indicator of the Algerian banking sector over the period 2015–2024.
- The total solvency ratio increased from 18.40% in 2015 to 22.82% in 2024, reflecting an improvement in the sector's capacity to withstand potential losses.
- Liquidity improved significantly from 2021 onward, with the ratio of liquid assets to total assets reaching 39.41% in 2024.
- The ratio of liquid assets to short-term liabilities increased from 61.64% in 2015 to 113.79% in 2024, indicating an improvement in the sector's ability to meet its short-term obligations.
- The ratio of net non-performing loans to capital increased from 26.47% in 2015 to 58.65% in 2024, highlighting the significance of credit risk as one of the major sources of vulnerability in the banking sector.
- The non-performing loan coverage ratio through provisions recorded varying levels throughout the period, reaching 47.83% in 2024, reflecting the continued need to strengthen credit risk coverage mechanisms.
- The study results showed that the Return on Equity (ROE) and Return on Assets (ROA) indicators reflected an improvement in the performance and profitability of the Algerian banking sector during the study period, indicating an enhanced ability of banks to utilize their resources and capital to generate profits.
- The profitability results showed an increase in the interest margin-to-gross income ratio from 66.81% in 2015 to 80.33% in 2024, confirming the continued importance of interest-based activities in generating income for the banking sector.
- The ratio of non-interest expenses to gross income declined from 40.01% in 2015 to 33.03% in 2024, despite fluctuations during the intervening years. This indicates a relative improvement in the control of such expenses toward the end of the period.
- The descriptive statistics revealed variations in the levels of financial soundness indicators over the period 2015–2024, reflecting differences in the degree of stability across the financial dimensions of the banking sector.
- The results of the statistical analysis and overall trend analysis reveal improvements in certain aspects of financial soundness, alongside the persistence of pressures in other areas.
- The main strengths are represented by solvency and profitability, together with improved liquidity in recent years, whereas the main weaknesses are associated with asset quality and the increase in non-performing loans.
- It can be stated that the Algerian banking sector enjoys a good level of resilience in terms of solvency, liquidity, and profitability; however, it faces challenges primarily related to asset quality and the high level of non-performing loans.

## Recommendations

Based on the above results, the following recommendations can be put forward:

- Strengthen the monitoring of asset quality and continuously monitor developments in non-performing loans.
- Reduce non-performing loans by improving credit-granting standards, developing loan recovery mechanisms, and restructuring viable loans.
- Maintain adequate levels of capital to enable banks to absorb losses and withstand potential risks.
- Strengthen banking risk management systems, particularly credit and liquidity risk management, and develop effective early warning systems.
- Improve operational efficiency and rationalize expenses, particularly by expanding the use of digitalization and technology in the provision of banking services.
- Enhance transparency and disclosure regarding financial soundness indicators and ensure their

regular publication.

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