Financial analysis, concept, importance, types and its relationship to financial leverage

التحليل المالي والمفهوم والأهمية والأنواع وعلاقتها بالرافعة المالية

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Abstract
The modern era is witnessing many developments in economic and social factors and variables, which have led to the increasing importance of accounting information, which forms the vital nerve in the decision-making process. For the purpose of disclosing the value of the information contained in the financial statements, what is known today as financial analysis had to emerge.
Key Words: Financial analysis , leverage , financial ratios , ROE , BANKS

الخلاصة
يشهد العصر الحديث العديد من التطورات في العوامل والمتغيرات الاقتصادية والاجتماعية ، مما أدى إلى تزايد أهمية المعلومات المحاسبية ، والتي تشكل العصب الحيوي في عملية اتخاذ القرار. ولغرض الكشف عن قيمة المعلومات الواردة في البيانات المالية ، كان لابد من ظهور ما يعرف اليوم بالتحليل المالي.
الكلمات المفتاحية :التحليل المالي ، الرافعة المالية ، النسب المالية ، العائد على حقوق الملكية ، المصارف

Research Summary
The use of financial analysis tools by means of financial ratios or vertical -horizontal analysis gives many indicators that are considered the basis for decision making and planning for the future. The researcher used the return on equity ROE ratio as one of the most important ratios related to financial leverage. Three Iraqi banks (two commercial banks And one Islamic bank) for the period (2005-2009), which are the Iraqi Investment Bank, the Gulf Commercial Bank, and the Iraqi Islamic Bank. The numbers on the websites reality of these banks have been approved. It was found that the rate of return on equity in the Islamic bank is the lowest compared to the two commercial banks, and that the rate of return on equity depends on two basic numbers, which are the realized return, which represents the numerator of the ratio and equity, which represents the denominator of the ratio.

Preface

The modern era is witnessing many developments in economic and social factors and variables, which have led to the increasing importance of accounting information, which forms the vital nerve in the decision-making process. For the purpose of disclosing the value of the information contained in the financial statements, what is known today as financial analysis had to emerge.

Theoretical chapter

1.1 Background of the study

Financial analysis was used at the beginning of the thirties of the twentieth century during the period of the great economic recession and the resulting collapse and bankruptcy of many institutions and the emergence of fraud and deception, which made the urgent need to disclose the financial statements of the various institutions and companies in a way that helps secure various financial transactions

1.2 Motivation of the study

The motive of this study is to shed light on the role of financial analysis in measuring the financial positions of companies and banks and its relationship to financial leverage

1.3 Problem of the study

The processes and types of financial analysis are supposed to be used in various economic units, but we notice that they are not used or paid attention to in most sectors

1.4 Objectives of the study

The main objectives of this study can be summarized as follows:

- Highlighting the importance and use of financial analysis and its relationship to financial leverage.
- The study showed that most companies and banks do not give clear importance to the application of financial analysis
- The study may raise many questions about the importance of financial analysis and performance evaluation and the possibility of overcoming weaknesses.

1.5 The Importance of Research

It will highlight the impact of financial analysis on Iraqi banks. The importance of the research lies in the fact that it deals with the effects that may be negative on the basic activities of the banking business, in the event that the tools of analysis and financial leverage are not used.

1.6 The Aim of the Research

Measure the ability to analyze the impact on the rights of shareholders and the financial positions of banks in general. Here it is important for all beneficiaries of the financial statements to know the true financial position of these banks.

First : Definition of Financial Analysis

Financial analysis refers to the analysis of activities related to all operations carried out by the company, which appear through its main financial statements and related clarifications, as well as financial ratios for performance evaluation, in order to assist in making planning and investment decisions. **(Wainganker, 2022)**

For example, the relationship between revenues and expenses, the relationship between fixed assets and long-term liabilities, as well as the relationship between current assets and current liabilities, then interpret the results, identify strengths and weaknesses in planning and financial policy, and find the necessary solutions by evaluating the control systems used. **(SETH, 2022)**

Financial analysis is defined as the systematic study using accounting and financial tools, methods, and information of the bank, in order to give an estimate about the past, current and future risks resulting from the financial position and performance. **(Team, 2023).** It is also known as a method of reviewing the finance-related activities of banks and corporations to assess their performance and suitability. Financial analysis is used to see if the organization is stable, unstable, or in a competitive state **(cleartax, 2023)**

Second : Uses of Financial Analysis

Financial analysis can be used to evaluate and determine performance and the ability to make own decisions. It can be used for the following purposes:

1- Credit Analysis

It is a process by lenders to determine the financial solvency of the borrower, also known as the debtor, and it can be an individual or an institution, and this means the extent to which borrowers (debtors) are able to pay all their obligations, including interest. **(Peterdy, 2022)**

2- Consultative Analysis

Those who carry out this analysis are investors, whether individuals or companies, as their interest is focused on the safety of their investments and the amount of returns on them. This type of analysis is used to measure the company's profitability, liquidity and profitability, and to assess the management's ability to establish new investment areas . **(Levišauskaite, 2010)**

3-Merger and Acquisition Analysis

This type of analysis is used during mergers and acquisitions where two companies unite to form one new entity, and they come under different legal formulas. This analysis also determines the value of the expected future performance of the company after the merger in the future. **(Team, 2023)**

4- Financial Planning

Is the formulation of financial policies related to investment and management of funds and purchases of the institution. In the sense that it is the process of estimating the required capital for the purpose of competition.

Financial planning is considered one of the most important functions of the departments. The planning process is represented by developing a vision of the expected performance of the facility in the future. Here, the roles of financial analysis play an important role in this process in terms of evaluating past performance and estimating expected performance in the future. **(managementstudyguide, 2020)**

There is a close relationship between financial analysis and planning through the analysis of financial statements and the preparation of planning budgets. The objective of financial analysis and planning is to create a plan that can lead to organizational growth with the purpose of improving the financial conditions of the company. The financial analysis and planning is carried out by the company's specialists who report to the CFO to analyze expectations, make organizational changes and research investments . **(Team, 2022)**

5- Financial Control

The interpretation of the meaning of financial control is from several points of view through a comparison between the actual results of the company and its plans over the different time ranges. It is defined as an evaluation of works in accordance with generally accepted standards to ensure that the implementation of these works is proceeding in the correct manner, in order to measure deviations, identify weaknesses, and detect errors and address them in a timely manner. **(captio, 2017)**

6- Performance Appraisal Analysis

Performance appraisal is to measure the performance of an individual's work according to a specific methodology in comparison to the obligations specified for him under his job. That is, it is an assessment of the employee's strengths and weaknesses, and the potential for future development. These appraisals are called performance appraisals or employee reviews . **(Terra, 2023)**

Third : Leverage

Leverage is the process of using borrowed funds in investment operations. Where companies can use leverage to increase returns for investors, a "highly indebted" company is a company that has taken on large debts to finance its operations, and trading with borrowed money is also known as trading on "margin". **(Tamplin, 2023)**

The effect of financial leverage

The effect of financial leverage is more evident in the rate of return on equity, and its impact can be limited to three cases:

1- If the company achieves profits and the rate of return on assets (ROA) is higher than the interest rate that the company pays on its loans, the return on equity (ROE) becomes larger as the rate of increase in the company's capital increases. **(Cook, 2010)**
2- If the company achieves profits and the rate of return on assets (ROA) is less than the interest rate paid by the company on its loans, the return on equity (ROE) fades as the rate of increase in the company's capital increases. **(ifsam, 2019)**
3- The return on equity losses are magnified with the increase in the rate of financial leverage in the company's capital. **(angelone ‹2018)**

Leverage risks

Leverage allows investors to increase their exposure to the market, through stocks, real estate, or commodities.. When the market moves against investors, it amplifies the negative impact on them. An investor can be eliminated just for using too much leverage, but if leverage is well managed this can be in the investor's favor. **(Schmidt ‹2021)**

Fourth : Methods of analyzing the financial statements in commercial banks.

1- Vertical Analysis

Vertical analysis shows the comparison of two different items within the same statement. For example, a comparison of a cash account may be made with total assets for a given year. This analysis determines the percentage of cash over total assets. **(FRANKLIN, et al., 2018)**

2- Horizontal Analysis

Horizontal analysis refers to the percentage change in a particular item compared to the same item in the next accounting period, where horizontal analysis explains the change in the financial statements over two or more accounting periods. **(Vaidya, 2023)**

3- Financial Ratio Analysis

By using the data in financial statements like the balance sheet and statement of cash flows to assess a business's financial strength. These financial ratios help business owners and average investors assess profitability, solvency, efficiency, coverage, market value, and more.

This type of financial analysis is synonymous with the vertical analysis method, and it is by comparing the numbers included in the financial statements for the same financial period that are causally linked with each other, and the financial ratios appear as a result of this comparison. According to these relationships, a large number of financial ratios can be derived, as they are considered as indicators in evaluating the performance of companies and their various activities. **(Carlson, 2022)**

Fifth : The most important financial ratios

The following are the most important financial ratios related to liquidity and profitability, and some ratios related to banking and other ratios.

Liquidity Ratios

Liquidity ratios measure the company's liquidity, giving an accurate indication of the company's ability to pay its obligations from its fixed assets.

Liquidity includes cash and all assets that can be converted into cash cheaply and quickly. Such as stocks and investments with short maturities, in addition to inventory and receivables in certain circumstances and cases. **(Asokan, 2022)**

Profitability Ratios

These ratios are used to assess a company's ability to generate profits through its revenue from ongoing activity, balance sheet assets, or shareholder's equity, using data at a specific point in time. It can be compared to efficiency ratios, which measure how well an organization uses its assets internally to generate income. The following are the most important of these ratios:

1- **Cash Ratio**
The company's cash and cash equivalents are compared to current liabilities and short-term commitments at future maturities . **(wallstreetprep, 2021)**

2- **Quick Ratio**
It is a conservative measure of a company's liquidity because it uses a portion of the current assets. The quick ratio is used only for short-term assets or investments that can be converted into cash in 90 days or less . **(paddle, 2020)**

3- **Current Ratio = Current Assets / Current Liabilities**
The current ratio is the simplest type of liquidity ratio to calculate and interpret. Where current assets can easily be divided by current liabilities on a company's balance sheet. **(CFI, 2020)**

4- **Credit-Deposit Ratio**
The credit-deposit ratio, which is a significant ratio between two elements of the assets and liabilities of banks. They are the total bank loans over the total deposits. It is used to measure the liquidity of a bank. It is an indication of the amount of bank funds used in the lending process, and this is the primary activity of the bank.
(NEXTIAS, 2023)

5- **Debt-to-Equity (D/E) Ratio**
It is the financial leverage ratio that shows the extent to which the company relies on financing that comes from debt or equity. A high ratio means that the company's financing comes from debt in exchange for an equity issue. As is the case with banks because they borrow capital in order to re-lending them. **(MAVERICK, 2021)**

6- **Capital Adequacy Ratio (CAR)**
It is the ratio of the bank's capital in relation to its risk-weighted assets and current liabilities. It is measured as the capital adequacy ratio =
(Tier I + Tier II + Tier III (of the bank's capital) / divided by risk-weighted assets (on and off balance sheet).
Risk weighted assets take into account credit risk, market risk and operational risk. **(indiatimes, 2023)**

7- **Return on Assets (ROA)**
It is an indicator of the efficiency of management in managing its assets. If the return on assets is low, then management may be ineffective, while a high return on assets indicates the efficiency of management. **(shopify, 2022)**.

8- Return On Equity (ROE)

It is one of the indicators of financial performance, and it is by dividing the net income by the shareholders' equity. Since shareholder equity is equal to a company's assets minus its liabilities, ROE is sometimes used to estimate how efficiently a company's management is making a profit from the assets it has available. **(Tamplin, 2023)**

9- Cost-to-Income Ratio

One method used to measure a company's financial condition is the cost-to-income ratio, which determines how much money a company spends on the business compared to the amount of profit generated. **(indeedteam, 2023)**

10- Return On Average Capital Employed (ROACE)

It is a financial ratio that shows the profits achieved to the investments made by the company itself. , measured by taking the average of the end-of-term and beginning-of-opening capital for a given financial period, this measure differs from the calculation of return on capital which only takes capital at the end of the period. **(HAYES, 2020)**

The Formula for ROACE is :

$$ROACE = \frac{EBIT}{\text{Average Total Assets} - L}$$

where:

EBIT=Earnings before interest and taxes

L=Average current liabilities

11- Gross Profit Margin

The direct cost of doing business, includes wages for labor, materials and other direct industrial costs. It is the most important measure of profitability, because a high profit margin keeps the business viable, at least not for long. **(bdc, 2013)**

The formula is :

(Net revenue – direct expenses) / Net revenue x 100% = Gross profit margin ratio

12- Yield on Earning Assets

Return on asset profit is the solvency ratio shown by comparing the interest income of a financial institution with its acquired assets. The return on assets ratio indicates how good the assets are in terms of the amount of income they generate. **(KENTON, 2021)**

13- Labor Productivity Ratio

Labor productivity ratio is the relationship between inputs that represent labor time and outputs that represent units produced during a specific working time. **(Wigmore, 2019)**

14- Net Interest Margin (NIM)

Is a profitability metric. It is formed by comparing the interest earned (credit) with the interest paid (debit) of financial companies and banks. Especially with regard to savings accounts and certificates of deposit. **(freshbooks, 2023)**

15- Breakeven Yield

The break-even point is the point at which the revenue achieved from selling a service or product is equal to the cost of marketing the service or product, and the company begins to make a profit when the returns increase after this point. **(KAGAN, 2022)**

16- Overhead Burden Ratio

This Ratio is calculated by totaling indirect costs over the company's direct costs (machine hours worked or gross sales), and indirect costs are costs that cannot be allocated to one activity or one field of work. The overhead rate is the ratio of a business's administrative costs to some other input or sales. **(Treece, 2023)**

Sixth: Financial Analysis Standards

The calculation of financial ratios and any of the various performance measures on their own will be of limited benefit, unless there is a criterion to measure the results against and compare them with, in order to judge the appropriateness or inappropriateness of the results. There are many criteria used to judge the financial performance of banks, the most important of which are:

1- Absolute Standards

Those ratios or rates which used in the field of financial analysis has become common in all fields, despite the difference in the type of company, its work, and the time of analysis. Examples of these are the trading ratio of 2: 1, the rapid liquidity ratio of 1: 1, and others. **(BLOOMENTHAL, 2023)**

2- Industry Standard

It is the average percentage of a large group of institutions and companies belonging to a particular industry and within a certain period of time. This criterion is useful when comparing the ratio of the bank under study to see its compatibility with the industry rate in the banking sector. **(BIS, 2001)**

3- Historical Standard

This criterion is considered an important tool for evaluating performance by comparing the bank's financial indicators with those of the same bank, but for previous periods of time, and thus it is possible to identify the development of indicators during the time series, and to detect the extent of the change in performance. **(Eurosystem, 2010)**

4- Planned Standard

A planned benchmark is the visualization of several diverse aspects of an organization's future operations for a specified period of time. An example of this is setting several goals by the bank's management before the beginning of the fiscal year, such as return on investment and return on assets. Then a comparison is made between the planned and the actual achieved after the end of the fiscal year. **(AL-Tamimi & Qaddumi, 2004)**

5- Positivist Standard

They are specific ratios determined by competent authorities and those concerned must abide by and implement them, such as the ratios that the Central Bank requires from banks, such as the ratio of investment to total assets. **(Canada, 2020)**

Seventh : Beneficiaries of Financial Analysis

1- The Management

The management of the establishment carries out the financial analysis in order to achieve the following objectives:

- Measuring the liquidity of the establishment
- Measuring the profitability of the facility
- Evaluation of the facility's efficiency in managing its assets and liabilities
- Detecting negative deviations in a timely manner and addressing them
- Knowing the status of the establishment in general among its counterparts in the same sector. **(Woods & Dowd, 2008)**

2- Investors

Investors are interested in financial analysis to achieve the following purposes:

- Knowing the ability of the establishment to generate profits in the future, by calculating the revenue power of the establishment
- Knowing the facility's degree of liquidity and its ability to provide it to protect it from falling into financial hardship
- Enabling investors to discover suitable investment opportunities that suit their desires. **(Kurdi, 2010)**

3- Lenders

The purpose of the credit analysis is to know the degree of liquidity of the establishment, and this is appropriate for lenders with short-term debts, in addition to knowing the degree of profitability of the establishment in the long term, and this is commensurate with lenders with long-term debts. **(SEGAL ،2023)**

4- Official Bodies

The official body, represented by government departments, carries out financial analysis to achieve the following purposes:

- For the purposes of calculating the income tax due on the establishment.
- For the purposes of pricing the facility's production or services.
- For the purposes of following up the growth and development of the establishment, especially the industrial one. **(Rabbo ،2016)**

5- Financial Expertise Offices:

They are categories specialized in financial analysis that analyze the establishment and state its financial position based on a commission from some authorities in exchange for fees. **(awttany ، 2009)**

Practical chapter

Three banks were selected as a sample out of (30) banks (local banks and branches of foreign banks) during the period (2005-2009) which are: (Gulf Commercial bank, Iraqi Islamic bank, Iraqi investment bank.

A sample refers to the unique group on which you gather data. The sample size is usually much smaller than the population size. In research, a population may or may not refer to people

The return on equity ratio was used as one of the important types of ratios related to financial analysis and its relationship to financial leverage

Return on Equity (ROE)

It’s one of the profitability ratios that can be used to measure the amount of net income for the current year compared to Total Equity

Return on equity is one of the effective ways of measuring a company’s profitability. Higher ROE means that the company is efficiently fetching earnings on new investment. Every stock market investor must learn how to check and compare ROEs of different companies before taking investment decisions. It’s also advisable to review ROE trends of the shortlisted companies

Return on equity (ROE) formula

$$\text{ROA} = \frac{\text{Net income}}{\text{Average total equity}}$$

Regarding the relationship between ROE and Financial leverage, the leverage affects ROE theoretically. This effect may be positively or negatively according to the profitability and to the productivity in the use of debt financing. This can be realized under the conditions that the used debts be on time, with lower interest, low costs and through effective using them. In addition to the positive leverage of debt financing is not limitless. After excessing the feasible debt ratio the financial risk, cost of debts and demanded collateral securities increase and in case asking for new debts, put the firm in financial difficulties and the positive leverage effect of debt financing turns into negative

Table (1)

ROE	Numbers in Iraqi Dinar - Million								
BANK	**Gulf Bank**			**Iraqi Islamic Bank**			**Iraqi Investment Bank**		
YEARS	**Return**	**Equity**	**Ratio**	**Return**	**Equity**	**Ratio**	**Return**	**Equity**	**Ratio**
2005	1,489	8,375	18%	446	15,461	3%	6,000	19,067	31%
2006	2,709	18,139	15%	-2,553	26,008	-10%	498	30,936	2%
2007	4,953	26,295	19%	17	25,805	0%	9,680	35,068	28%
2008	15,412	34,741	44%	-204	25,122	-1%	9,208	42,998	21%
2009	8,019	50,126	16%	619	38,072	2%	5,419	54,784	10%
Total	**32,582**	**137,675**		**-1,675**	**130,467**		**30,805**	**182,852**	
Average	**6,516**	**27,535**	**22%**	**-335**	**26,093**	**-1%**	**6,161**	**36,570**	**18%**

- **The table was prepared by the researcher based on the financial data uploaded on the official website of each bank.**

This table shows the rate of return on average equity according to each bank and for the five years (2005 - 2009). lowest percentage was -10%, for the Iraqi Islamic Bank. As the total average equity amounted to 130,467 million dinars.

This table shows the rate of return on average equity according to each bank and for the five years (2005 - 2009), and the highest average rate among the five banks reached 44%, for Gulf Bank in 2008 ,. The Iraqi Investment bank have the highest equity among three three banks for five years at 54784 million dinars, while the Iraqi Islamic Bank have the lowest equity among the bank, with 8375 million dinars during the year 2005.

As for the achieved return, Gulf Bank achieved the highest return during the five years, with an average revenue of 6516 million dinars. As for the Iraqi Islamic Bank, they achieved a negative return of 335 million dinars, while the Iraqi Investment Bank achieved an average return of 6161 million dinars.

Table (2)

Average Equity	**Numbers in Iraqi Dinar – Million**															
YEARS	**2005**	**2006**	**2007**	**2008**	**2009**											
BANK	**Beginning balance**	**Ending balance**	**Average**	**Beginning balance**	**Ending balance**	**Average**	**Beginning balance**	**Ending balance**	**Average**	**Beginning balance**	**Ending balance**	**Average**	**Beginning balance**	**Ending balance**	**Average**	**Average for Five years**
Gulf Bank	4,630	12,119	8,375	12,119	24,158	18,139	24,158	28,432	26,295	28,432	41,050	34,741	41,050	59,201	50,126	27,535
Iraqi Islamic Bank	4,760	26,162	15,461	26,162	25,853	26,008	25,853	25,757	25,805	25,757	24,486	25,122	24,486	51,658	38,072	26,094
Iraqi Investment Bank	7,447	30,687	19,067	30,687	31,185	30,936	31,185	38,950	35,068	38,950	47,045	42,998	47,045	62,522	54,784	36,571

- **The table was prepared by the researcher based on the financial data uploaded on the official website of each bank.**

The table 2 show the Average Equity: The equity on a bank's balance sheet at the end of the current year plus the equity at the end of the previous year, divided by two.

The rate field represents the average of each of the columns during the five years, where the highest average return for banks was 54784 million dinars for the year 2009, which is for the Iraqi Investment Bank, while the lowest return was 15461 million dinars for the year 2005, which is for the Iraqi Islamic Bank. The highest average of bank equity amounted to 36571 million dinars, which is for the Iraqi Investment Bank, while the lowest return was 26094 million dinars, which is for Iraqi Islamic Bank. The average of bank equity for Gulf Bank amounted to 27535 million dinars.

Conclusions and Recommendations

First : Conclusions

1- The use of financial analysis helps to identify past, present and future risks arising from the financial position and performance.

2- Understanding, analyzing and interpreting the financial data and information available in the bank's financial statements helps in judging the financial position of the commercial bank and making decisions.

3- The rate of return on equity ROE is considered one of the most important ratios that can be relied upon in determining the performance of an economic unit

4- The rate of return on equity ROE is the lowest for an Islamic bank

5- Paying attention to financial planning is of great importance in financial analysis.

6- Failure to monitor the financial leverage ratio has great risks to the financial position.

Second : Recommendations

1- Evaluating bank performance, detecting deviations, and predicting the future.

2- Establishing an independent financial analysis unit consisting of a group of specialists and experts in financial analysis.

3- Monitoring the financial leverage ratio because of its great risks to the financial position.

4- Paying attention to disclosure and transparency because of its importance in financial analysis and extracting results that are fairly accurate.

5- Analyzing deviations between established plans and actual results to identify deviations, strengths and weaknesses, and try to avoid negatives, whether in planning or implementation.

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