The Impact of Applying the International Financial Reporting Standard IFRS 16 Related to Lease Contracts on the Financial Statements of Lessees in the Algerian Environment: A Case Study of an Economic Institution Operating in the Construction Sector

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Abstract

This study primarily aims to identify the potential impacts of adopting the requirements of the International Financial Reporting Standard IFRS 16 related to lease contracts on the financial statements of an economic institution operating in the construction sector. To achieve these objectives, a descriptive-analytical approach was employed, wherein the requirements of IFRS 16 were applied to the lease contracts concluded by the institution concerning essential assets in its operations. The study then identified the impact of applying this standard on the financial statements, focusing on the balance sheet and income statement for the period from 2021 to 2023.

The study concluded that the implementation of the new principles introduced by IFRS 16 in handling lease contracts would have a significant effect on the financial statements of institutions, particularly those with a large volume of off-balance-sheet leases. Moreover, this standard will contribute to ensuring the provision of relevant information regarding lease transactions and increasing transparency in financial statements, thereby aiding users in evaluating the financial position and performance of institutions. It will also allow for comparisons between the financial statements of companies that lease assets and those that borrow to purchase assets. This study recommends the necessity of updating the rules of the financial accounting system (SCF) used in the Algerian environment to align with the requirements of IFRS 16, as well as providing an appropriate environment that enables Algerian economic institutions to effectively implement these requirements.

Keywords:
International Financial Reporting Standard IFRS 16, lease contracts, financial statements, right of use asset, lease liability.

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Introduction

Lease financing is considered one of the most commonly used modern financing methods across various countries worldwide, as it allows economic institutions to acquire the productive assets they need for their operations without the need to spend exorbitant amounts to acquire them. This technique has existed for thousands of years and its development over the ages is linked to the evolution of human economic activity. With the advancement of leasing technology and its widespread use in several fields, discussions have begun regarding the necessity of accounting for lease contracts and the need to find suitable models for accounting for lease transactions. The evolution of this idea is associated with the initial attempts to develop accounting in the United States, where the first official document on this subject was issued in 1949, namely Statement No. 38, which called for the recognition of lease contracts that fundamentally represent installment purchases in the lessee's books. This idea was developed and worked on seriously for several years by many international accounting organizations and bodies. This interest materialized in the issuance of accounting standards that clarify how to handle and report lease contracts for both the lessee and the lessor. Initially, the International Accounting Standards Board issued International Accounting Standard IAS 17 titled "Leases," which stated the need to classify leases into two types: finance leases and operating leases, depending on the extent to which the risks and benefits associated with asset ownership are transferred to the lessee. If the lease transfers substantially all risks and benefits associated with the asset to the lessee, it is classified as a finance lease and is shown as an asset and liability in the lessee's balance sheet, being amortized over the lease term. In contrast, a lease that does not substantially transfer the benefits and risks associated with the asset to the lessee is classified as an operating lease and is not shown on the balance sheet; instead, periodic lease payments are recognized as an expense in the income statement on a straight-line basis. As a result of this classification, International Accounting Standard IAS 17 faced several criticisms from users of financial statements due to obligations related to operating leases that remained off-balance sheet, creating difficulties in comparing the financial statements of companies. This led most financial statement users to estimate the magnitude of off-balance sheet financial obligations, which, in most cases, were greater than the actual amounts.

Various criticisms directed at International Accounting Standard IAS 17 encouraged both the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) to approve a joint project in July 2006 aimed at developing a new standard for accounting for lease contracts. The main goal of this project was to improve the transparency of financial statements by showing as many lease contracts as possible on the balance sheet. This culminated in the IASB issuing International Financial Reporting Standard IFRS 16 in January 2016, while the FASB issued ASC Topic 842 in February 2016, thus moving lease accounting into a new phase.

Study Problem

What is the impact of applying International Financial Reporting Standard IFRS 16 related to lease contracts on the financial statements prepared in the Algerian environment? To address this main problem, we have divided it into the following sub-questions:

1. How can the application of International Financial Reporting Standard IFRS 16 related to lease contracts affect the balance sheet of the lessee?

2. How can the application of International Financial Reporting Standard IFRS 16 related to lease contracts affect the income statement of the lessee?

Study Hypotheses

1. The application of International Financial Reporting Standard IFRS 16 related to lease contracts affects the lessee's balance sheet due to the emergence of assets and liabilities related to lease contracts.

2. The application of International Financial Reporting Standard IFRS 16 related to lease contracts affects the income statement of the lessee due to expenses related to lease contracts.

Study Objectives

This study primarily seeks to identify the potential impacts of adopting International Financial Reporting Standard IFRS 16 related to lease contracts on the financial statements prepared in the Algerian environment. Under this main objective, a set of sub-objectives includes:

- Understanding the principles and foundations introduced by IFRS 16 regarding lease contract handling in comparison to the rules and principles of the financial accounting system (SCF) derived from the previous international accounting standard IAS 17.

- Studying the potential effects of adopting International Financial Reporting Standard IFRS 16 related to lease contracts on the lessee's balance sheet.

- Studying the potential effects of adopting International Financial Reporting Standard IFRS 16 related to lease contracts on the income statement of the lessee.

Study Limits

- **Spatial Limits:** This study was conducted based on lease contracts concluded by a single-member limited liability company (EURL) operating in the construction sector in the Algerian environment.

- **Temporal Limits:** This refers to the period from January 1, 2021, to December 31, 2023.

Study Methodology

This study relied on a descriptive-analytical methodology, including a discussion of the following points:

- The theoretical framework of International Financial Reporting Standard IFRS 16 related to lease contracts.

- The impact of applying International Financial Reporting Standard IFRS 16 related to lease contracts on the financial statements of the sample studied.

Previous Studies

1. **Study by El-Yas Cherchafa et al.** titled "The Effects of Applying the Requirements of International Financial Reporting Standard IFRS 16 'Leases' on the Financial Statements of Institutions," Journal of Economic Studies and Research in Renewable Energies, Vol. 07, No. 02, 2020, Algeria.
This study aimed to identify the changes brought by the new standard to the accounting treatment of lease contracts and the expected effects of those changes on various financial statements. To achieve this objective, the researchers relied on a descriptive-analytical approach to identify the principles and foundations of the new IFRS 16 standard compared to the previous IAS 17 standard. A comparative method was used to identify the differences between the requirements for handling lease contracts according to IFRS 16 and IAS 17. The researchers also employed a case study of a lease contract for a building of an institution operating in the construction sector to analyze the effects of applying IFRS 16 in the financial statements. This study concluded that the expected effects of applying IFRS 16 on the financial statements included an increase in the amount of assets and liabilities of the institution under study and a decline in private equity returns during the first years of the lease contract, with no change recorded in net cash flows. Finally, this study recommended that institutions provide suitable conditions for effectively implementing the new standard and the necessity of expanding research and studies on this standard to better understand its requirements and identify its effects on various institutions and sectors.

2. **Tarek Abdelazeem Youssef Alrashedy and Dalia Adel Abbass**, "The Effect of IFRS 16 Application on Financial Performance - Case Study - Air Arabia," Journal of Financial and Business Research, Volume 23, Issue 1, 2022.
This study aimed to analyze the impact of applying IFRS 16 on the financial performance of Air Arabia, considering that the aviation sector is one of the most affected by the new standard due to its heavy reliance on operating lease contracts for aircraft and airport-related facilities. To achieve this goal, the researchers used interim financial data for the period ending March 31, 2019 (after applying the standard) and compared it with interim financial data for the period ending September 30, 2018 (before applying the standard). The study found that the application of IFRS 16 in Air Arabia resulted in a 1.5% increase in total assets and a 3.36% decrease in total liabilities, in addition to an 8.77% increase in equity and a 17% increase in total revenue, with a 16.37% rise in net income. The implementation of this standard also led to a 2.87% decrease in the debt-to-total-assets ratio and a 0.2% decrease in the debt-to-equity ratio, along with an increase in the current liquidity ratio by 2.4%, the return on equity ratio, and the return on assets ratio. Notably, the results of this study were contrary to those of most previous studies on the same topic.

3. **Renan Eidy Suzuki Tofanelo et al.**, "IFRS 16 - Impact on the Assets of Major Airlines Operating in Brazil," International Journal of Economics and Finance, Vol. 13, No. 9, 2021.
This study seeks to determine the potential impact of applying IFRS 16 on the financial position and total assets of airlines operating in the Brazilian market. To achieve this goal, the researchers relied on financial data of companies starting from January 1, 2019, and utilized explanatory notes

attached to financial statements from previous years to obtain information about future payments of operating lease contracts. After analyzing the financial data of the companies included in this study, the researchers concluded that the application of IFRS 16 leads to a 42.69% increase in the total asset value of airlines since most of the aircraft used by these companies were obtained through operating lease contracts. The study also found a substantial impact on the financial performance indicators of airlines, resulting in decreases in both the current liquidity ratio and asset turnover, as well as return on equity, while there was a significant increase in the debt ratio by 75%, due to the substantial increase in liabilities after recognizing all lease payments related to operating lease contracts on the companies' balance sheets.

4. **Morales-Díaz José et al.**, "IFRS 16 (Leases) Implementation: Impact of Entities' Decisions on Financial Statements," AESTIMATIO, The IEB International Journal of Finance, Number 07, 2018.
This study aimed to analyze the impact of International Financial Reporting Standard IFRS 16 on companies operating in Spain, specifically focusing on the extent to which the decisions taken by entities regarding leasing can affect their financial statements. The study employed a descriptive-analytical methodology to analyze the impact of applying IFRS 16 on the financial statements of a sample of companies. The findings indicated that the implementation of IFRS 16 leads to a significant increase in assets and liabilities on companies' balance sheets, which can negatively affect key financial indicators such as leverage ratios and the return on equity ratio. The study recommended that companies prepare for the implications of this new standard in their financial reporting and management strategies.

1- The Theoretical Framework of International Financial Reporting Standard IFRS 16 Related to Lease Contracts

1-1 Reasons for Issuing IFRS 16 Numerous criticisms directed at the previous international accounting standard IAS 17 contributed to the International Accounting Standards Board (IASB) issuing a new standard for lease contracts known as International Financial Reporting Standard (IFRS 16). The main criticisms can be summarized as follows:

- Failure to meet the needs of financial statement users.
- Weak rules that determine the classification of lease contracts as finance leases or operating leases according to the previous international accounting standard IAS 17, as it leaves room for discretion and personal judgment in classification. The same lease contract can be classified differently between entities, leading to differing accounting treatments, which reduces the comparability of financial statements for users.
- Lack of transparency and fair representation.
- Non-compliance with the conceptual framework: Many critics of the previous international accounting standard IAS 17 believe there is a mismatch between the standard's requirements and the conceptual framework issued by the IASB.

1-2 Objective and Scope of International Financial Reporting Standard IFRS 16 1-2-1 Objective of the Standard: This standard establishes principles related to the recognition, attached to financial statements from previous years to obtain information about future payments of operating lease contracts. After analyzing the financial data of the companies included in this information provides a basis for users of financial statements to assess the impact of lease contracts on the entity's financial position, performance, and cash flows. The IFRS 16 requires entities to consider the terms and conditions of contracts and all relevant facts and circumstances, committing to consistently apply the standard to contracts with similar characteristics and in similar circumstances.

1-2-2 Scope of the Standard The International Financial Reporting Standard IFRS 16 applies to all lease contracts except:

- Leases for exploration or use of minerals, oil, natural gas, and similar non-renewable resources.
- Leases of biological assets held by the lessee (International Accounting Standard 41 "Agriculture").
- Public service concession arrangements within the scope of IFRIC 12 "Public Service Concession Arrangements."
- Intellectual property licenses granted by the lessor within the scope of IFRS 15 "Revenue from Contracts with Customers."
- Rights retained by the lessee under licensing agreements within the scope of International Accounting Standard 38 "Intangible Assets," for items such as films, video recordings, plays, manuscripts, patents, and copyrights.

The lessee may, but is not required to, apply this standard to leases of intangible assets except for those described in the previous paragraph.

1-3 Definition and Identification of a Lease Contract According to IFRS 16 Requirements IFRS 16 defines a lease as "a contract or part of a contract that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration." This definition indicates that any lease is analyzed as acquiring the right to use a specific asset for a defined period (the lease term), in exchange for a commitment to pay lease payments. The definition emphasizes the concept of control and the lessee’s ability to manage the asset subject to the lease. IFRS 16 specifies new criteria that entities must rely on at the beginning of a lease contract to assess whether the contract represents a lease or essentially involves a lease only, which can be clarified as follows:

- **Identifying the Asset:** Assets subject to the lease are typically explicitly identified in the contract, but they can also be implicitly identified at the point when they become available for use by the client.
- **Right to Obtain Economic Benefits:** Control over the use of the underlying asset is achieved when the client has the right to obtain nearly all the economic benefits from using the asset over a specified period, and the client can derive economic benefits from using the asset either directly or indirectly.

- **Right to Direct the Use of the Asset:** The client has the right to direct the use of a specific asset for a specified period in only one of two cases: if the client has the right to dictate how and for what purpose the asset is used throughout the usage period; or if the decisions about how and for what purpose to use the asset are predetermined.

1-4 Classification of Lease Contracts The IFRS 16 standard abolished the lease classification system previously used in IAS 17, and all lease contracts are now classified as finance leases and recognized on the balance sheet. The standard allows the lessee to classify leases as operating leases in a narrow scope and in only two cases:

- The lease term is short-term, less than 12 months, and the lease does not contain a purchase option.
- The lease payment is low, meaning relatively insignificant (e.g., simple office equipment or computers).

For lessors, IFRS 16 maintained the same criteria set by the previous international accounting standard IAS 17 for classifying leases into finance leases and operating leases.

1-5 Measurement Requirements for Lease Contracts According to IFRS 16 Lease contracts are measured under IFRS 16 using a dual measurement model that involves initial measurement and subsequent measurement for both the right-of-use asset and lease liability, as illustrated in the following table:

Table 1: Measurement Requirements for Lease Contracts According to IFRS 16

Measurement Type	Initial Measurement	Subsequent Measurement
Right-of-Use Asset	Right-of-Use Asset = Initial amount of lease liability + Payments made to the lessor - Lease incentives received + Direct costs of the contract + Costs of dismantling or removing the asset.	IFRS 16 requires measuring the right-of-use asset after the lease commencement date using either the "cost model" or "other measurement models."
Lease Liability	Lease Liability = [Fixed payments - Lease incentives received + Variable lease payments + Exercise price of purchase option + Guaranteed residual value + Termination penalties] discounted at the implicit interest rate or incremental borrowing rate.	- Increase in carrying amount to reflect interest on the lease liability; - Decrease in carrying amount to reflect lease payments; - Remeasure carrying amount to reflect any remeasurement or adjustments to the lease contract or to reflect changes in the index or rate used to determine those payments.

Source: Prepared by the researchers based on the requirements of IFRS 16.

1-6 Presentation Requirements for Lease Contracts According to IFRS 16 IFRS 16 requires lessees to present items related to lease contracts in financial statements as follows:

Table 2: Presentation Requirements for Lease Contracts According to IFRS 16

Statement of Financial Position	Statement of Profit and Loss and Comprehensive Income	Statement of Cash Flows
1- Right of Use Asset:		

- Present the right of use asset in a separate item from other assets, or within its corresponding item in the case of ownership, with separate disclosure.

2- **Lease Liability:**

- Present the lease liability separately from other liabilities, or within the items of the statement of financial position that include those liabilities.
- Present interest expense as part of financing costs.
- Present the depreciation expense of the right of use asset.

1- Cash Flows from Operating Activities:

- Cash payments related to short-term contracts or low-value contracts.
- Variable lease payments not included in measuring lease liability.

2- Cash Flows from Financing Activities:

- Cash payments related to the principal amount of the lease liability.

3- Cash Flows from Operating or Financing Activities According to Entity Policy:

- Cash payments related to interest expense on the lease liability.

Source: Prepared by the researchers based on the requirements of IFRS 16.

1-7 Disclosure Requirements for Lease Contracts According to IFRS 16

The International Financial Reporting Standard (IFRS) 16 includes many required disclosures within the notes to the financial statements. The lessee must provide quantitative information regarding the reporting period in the form of notes, including, for example, information about depreciation and interest expenses, expenses related to short-term leases or low-value contracts. In addition, the lessee must disclose qualitative information about leasing activities in the notes, including, for example: general descriptions and nature of leasing activities, extension and termination options, residual value guarantees, and others.

2- Impact of Applying IFRS 16 Related to Lease Contracts on the Financial Statements of the Study Sample

To reach a rich analysis of the effects of applying IFRS 16 related to lease contracts on the financial statements of the lessee, a sole proprietorship with limited liability (EURL) engaged in the construction sector was selected. This entity acquired six essential assets for its activity through lease financing on November 25, 2020, with lease payments starting on January 1, 2021. The acquired assets are as follows:

Table 03: Assets Acquired by the Entity Under Lease Contracts (Currency: DZD)

Contract	Asset Value	First Payment	Installments	Number of Payments	Remaining Value	Direct Costs for the Contract	Payment Method
Contract 01 Auto bétonnière	13,500,000	2,700,000	910,502.29	16	5,000	40,000	Beginning of each quarter
Contract 02 Centrale à béton	25,000,000	5,000,000	1,686,335.97	16	5,000	60,000	Beginning of each quarter
Contract 03 Chargeur tirsam	8,500,000	1,700,000	573,183.29	16	5,000	40,000	Beginning of each quarter
Contract 04 Chariot élévateur	27,486,503.01	5,497,300.60	1,853,825.91	16	10,000		Beginning of each quarter
Contract 05 groupe électrogène 290	4,600,000	920,000	310,074.48	16	5,000	40,000	Beginning of each quarter
Contract 06 groupe électrogène_20240728	4,700,000	940,000	316,561.86	16	5,000	40,000	Beginning of each quarter

Source: Prepared by the researchers based on documents provided by the entity.

2-1 Accounting Measurement of Lease Contracts in the Study Sample According to IFRS 16 Requirements

The measurement of lease contracts according to IFRS 16 requirements follows a dual measurement model, which includes initial measurement and subsequent measurement for both the right of use asset and lease liability.

Before applying IFRS 16 requirements to the lease contracts of the entity in the study sample, it is necessary to ensure whether these contracts meet the new concept of a lease under IFRS 16 and fall within its scope of application by:

- **Lease Term**

IFRS 16 considers lease contracts with a term of less than 12 months as short-term leases that remain off the balance sheet. Contracts longer than 12 months are subject to the requirements of IFRS 16. Since the lease contracts in the study sample have a term of 4 years each, they are subject to IFRS 16 requirements.

- **Asset Value**

IFRS 16 considers lease contracts with a value of less than $5,000 (if new) as operating leases that remain off the balance sheet. Referring to the asset values of the lease contracts in the study sample and comparing them with this amount, we find that (1 dollar = 132.39 DZD). Thus, (5,000 * 132.39 = 661,950 DZD), it can be said that all contracts in the study sample have values exceeding $5,000; therefore, they are subject to IFRS 16 requirements.

2-1-1 Measurement of Lease Liability

2-1-1-1 Initial Measurement of Lease Liability

The initial measurement of the lease liability involves finding the present value of the lease payments not yet made to date. Lease payments must be discounted using the implicit interest rate or the marginal borrowing rate. Therefore, we will try through this element to measure the liability of each lease contract individually at the start date of the contract as follows:

Contract 01:

Based on the information provided in Table 03, we will find the present value of the lease payments by applying the following formula:

$PV = \frac{1-(1+\mathrm{i})^{-n}}{\mathrm{i}} \times p$ where:

- **PV**: represents the present value of lease payments
- **p**: represents the annual lease payment
- **i**: represents the interest rate
- **n**: represents the number of lease payments

For the implicit interest rate, we calculated it based on the specific information in each contract and using rates with the help of Microsoft Excel, determining the interest rate at 4% for all contracts.

Present Value of Lease Liability:

$$PV = \frac{1-(1+i)^{-n}}{i} \times p$$

$$PV = \frac{1-(1+0.04)^{-15}}{0.04} \times 910\ 502{,}29$$

$PV =$ 10 123 317,21

This contract includes a guaranteed residual value at the end of the contract; therefore, we must calculate its present value and add it to the lease liability:

$F.V = (1+i)^{-n} \times R$

where:

- **FV**: present value of the guaranteed residual value
- **R**: guaranteed residual value at the end of the contract

$F.V = (1+0.04)^{-16} \times 5000$

2669,54$F.V =$

Thus, the lease liability related to the first contract equals:

Lease Liability = Present Value of Lease Payments + Present Value of Guaranteed Residual Value + First Payment
Lease Liability = 10,123,317.21 + 2,669.54 + 2,700,000
Lease Liability = 12,825,986.75 DZD

To calculate the lease liability for the remaining contracts, we follow the same steps, and this will be illustrated in the following table:

Table 04: Initial Measurement of Lease Liability (Currency: DZD)

Data	**First Payment 15/03/2022 (1)**	**Present Value of Lease Payments (2)**	**Present Value of Guaranteed Residual Value (3)**	**Initial Lease Liability (3)+(2)+(1)**
Contract 02	5,000,000	18,749,336.65	2,669.54	23,752,006.19
Contract 03	1,700,000	6,372,873.88	2,669.54	8,075,543.42
Contract 04	5,497,300.60	20,611,554.69	5,339.08	26,114,194.37
Contract 05	920,000	3,447,525.20	2,669.54	4,370,194.74
Contract 06	940,000	3,519,657.40	2,669.54	4,462,326.54

Source: Prepared by the researchers based on documents provided by the entity.

2-1-1-2 Subsequent Measurement of Lease Liability
The following table illustrates the subsequent measurement of the lease liability for Contract 01:

Table 05: Subsequent Measurement of Lease Liability for Contract 01 (Currency: DZD)

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	12,825,986.75	2,700,000.00		2,700,000.00	10,125,986.75
15/06/2021	10,125,986.75	910,502.29	405,039.47	505,462.82	9,620,523.93
15/09/2021	9,620,523.93	910,502.29	384,820.96	525,681.33	9,094,842.60
15/12/2021	9,094,842.60	910,502.29	363,793.70	546,708.59	8,548,134.01
15/03/2022	8,548,134.01	910,502.29	341,925.36	568,576.93	7,979,557.08
15/06/2022	7,979,557.08	910,502.29	319,182.28	591,320.01	7,388,237.07
15/09/2022	7,388,237.07	910,502.29	295,529.48	614,972.81	6,773,264.27
15/12/2022	6,773,264.27	910,502.29	270,930.57	639,571.72	6,133,692.55
15/03/2023	6,133,692.55	910,502.29	245,347.70	665,154.59	5,468,537.96
15/06/2023	5,468,537.96	910,502.29	218,741.52	691,760.77	4,776,777.19
15/09/2023	4,776,777.19	910,502.29	191,071.09	719,431.20	4,057,345.99
15/12/2023	4,057,345.99	910,502.29	162,293.84	748,208.45	3,309,137.54
15/03/2024	3,309,137.54	910,502.29	132,365.50	778,136.79	2,531,000.75
15/06/2024	2,531,000.75	910,502.29	101,240.03	809,262.26	1,721,738.49
15/09/2024	1,721,738.49	910,502.29	68,869.54	841,632.75	880,105.74
15/12/2024	880,105.74	910,502.29	35,204.23	875,298.06	4,807.68

Remaining Value: 4,807.68
Guaranteed Residual Value: 5,000.00
Interest Expense: 192.31
Remaining Value: 4,807.68
0.00

Source: Prepared by the researchers based on documents provided by the entity.

And it is recorded in accounting every quarter as follows:

910 502,29	505 462,82 405 039,47	**2021/06/15** **Account/** Lease Liability **Account/** Interest Payable Account Cash Account **Payment of the lease installment for the second quarter of 2021**

In the same way, we measured the remaining contracts, and their tables are outlined in the appendices.

2-1-2 Measurement of Right-of-Use Asset

2-1-2-1 Initial Measurement of Right-of-Use Asset

The right-of-use asset is measured at the lease commencement date at cost, which, according to the sample contracts, consists of the following elements:

Right-of-Use Asset = Initial Measurement Amount of Lease Liability + Initial Direct Costs of the Contract

Contract 01:

Right-of-Use Asset = 12,825,986.75 + 40,000

Right-of-Use Asset = 12,865,986.75 DZD

It is recorded in accounting as follows:

01/01/2021

Debit: Right-of-Use Asset Account

Credit: Lease Liability Account

Credit: Cash Account

Recognition of Lease Contract No. 01 in the balance sheet

12,865,986.75

12,825,986.75

40,000

12 825 986,75 40 000	12 865 986,75	**2021/01/01** **Debit:** Right-of-Use Asset Account **Credit:** Lease Liability Account **Credit:** Cash Account Recognition of Lease Contract No. 01 in the balance sheet

To calculate the right-of-use asset for the remaining contracts, we follow the same steps, and we will illustrate this in the following table:

Table No. 06: Initial Measurement of Right-of-Use Asset

Data	Initial Lease Liability (1)	Direct Costs of Contract (2)	Amount of Right-of-Use Asset (2) + (1)
Contract 02	23,752,006.19	60,000	23,812,006.19
Contract 03	8,075,543.42	40,000	8,115,543.42
Contract 04	26,114,194.37	/	26,114,194.37
Contract 05	4,370,194.74	40,000	4,410,194.74
Contract 06	4,462,326.54	40,000	4,502,326.54

Source: Prepared by the researchers based on documents provided by the institution.

To calculate the right-of-use asset for the remaining contracts, we follow the same steps, and we will illustrate this in the following table:

Table No. 06: Initial Measurement of Right-of-Use Asset

Data	Initial Lease Liability (1)	Direct Costs of Contract (2)	Amount of Right-of-Use Asset (2) + (1)
Contract 02	23,752,006.19	60,000	23,812,006.19
Contract 03	8,075,543.42	40,000	8,115,543.42
Contract 04	26,114,194.37	/	26,114,194.37
Contract 05	4,370,194.74	40,000	4,410,194.74
Contract 06	4,462,326.54	40,000	4,502,326.54

Source: Prepared by the researchers based on documents provided by the institution.

2-1-2-1 Subsequent Measurement of Right-of-Use Asset

After measuring and recognizing the right-of-use asset, the depreciation of the right-of-use asset must be calculated for each contract separately. According to the requirements of IFRS 16, if the lease contract transfers ownership of the asset to the lessee at the end of the lease term, or if the cost of the asset reflects that the lessee will exercise the purchase option at the end of the lease term, the lessee must depreciate the right-of-use asset based on the asset's useful life. If these conditions are not met, the asset should be depreciated based on the lease term.

Upon reviewing the lease contracts in the sample study, we found that the annual depreciation of the assets should be calculated based on the lease term as follows:

Contract 01:

Annual Depreciation Expense of Right-of-Use Asset = (Right-of-Use Asset) / (Lease Term)
Annual Depreciation Expense of Right-of-Use Asset = (12,865,986.75) / 4
Annual Depreciation Expense of Right-of-Use Asset = 3,216,496.68 DZD

It is recorded in accounting at the end of each year as follows:

		2021/12/31
	3 216 496,68	**From Debit Account / Depreciation Expense**
3 216 496,68		**To Credit Account / Accumulated Depreciation**
		Recording the accounting entry for the depreciation expense related to Contract 01

As for the annual depreciation expenses for the remaining contracts, we will illustrate them in the following table:

Table No. 07: Subsequent Measurement of Right-of-Use Asset (Currency: DZD)

Contract	Right-of-Use Asset	Lease Term	Annual Depreciation Expense
Contract 01	12,865,986.75	4 years	3,216,496.68
Contract 02	23,812,006.19	4 years	5,953,001.54
Contract 03	8,115,543.42	4 years	2,028,885.85
Contract 04	26,114,194.37	4 years	6,528,548.59
Contract 05	4,410,194.74	4 years	1,102,548.68
Contract 06	4,502,326.54	4 years	1,125,581.63

Contract	Right-of-Use Asset	Lease Term	Annual Depreciation Expense
Total Depreciation Expenses	/	/	**19,952,062.97**

Source: Prepared by the researchers based on documents provided by the institution.

2-2 Potential Effects of Implementing IFRS 16 on the Financial Statements of the Institution Sample Study

To obtain a clear picture of the impact of implementing IFRS 16 on the financial position of the institution in the sample study, we relied on a comparative method between some elements constituting the financial statements before and after the implementation of the standard to extract the main differences and thus determine the most significant effects, which we will clarify as follows:

2-2-1 Potential Effects on the Balance Sheet

To determine the impact of applying IFRS 16 on the lessee's balance sheet, we must identify the most important changes that occurred in the elements constituting the balance sheet, represented by: assets, liabilities, and equity as follows:

2-2-1-1 Impact on Assets

The institution in the sample study obtained six assets in the form of lease contracts. Since the requirements of IFRS 16 require the recognition of these assets in the balance sheet of the institution as a lessee, we will attempt to determine the effect of this recognition on the total assets of the institution during the period from (2021-2023) as follows:

Table No. 08: Comparison of Total Assets Before and After the Implementation of IFRS 16 (Currency: DZD)

Year	Total Assets Before IFRS 16	Total Assets After IFRS 16	Amount of Change	Percentage of Change
2021	210,384,044.64	270,249,233.65	+59,865,189.01	+28.45%
2022	253,111,865.95	293,021,991.96	+39,910,126.01	+15.76%
2023	247,122,711.10	267,077,774.10	+19,955,063.00	+8.07%

Source: Prepared by the researchers based on the financial statements of the institution.

The results shown in the table above indicate that the implementation of IFRS 16 by the institution in the sample study will contribute to an increase in total assets at a rate ranging from (8.07% - 28.45%) during the period from (2021-2023). It is noted that there is a decrease in the rates of change in total assets from year to year due to the depreciation of assets by the institution in the sample study.

2-2-1-2 Impact on Liabilities

To determine the extent of the impact of IFRS 16 on the liabilities of the institution in the sample study, we will identify the total amount of liabilities before and after the application of IFRS 16 and extract the main differences as follows:

Table No. 09: Comparison of Total Liabilities Before and After the Application of IFRS 16
(Currency: DZD)

Year	Total Liabilities Before IFRS 16	Total Liabilities After IFRS 16	Amount of Change	Percentage of Change
2021	189,068,559.88	251,911,511.29	+62,842,951.40	+33.23%
2022	201,211,745.00	250,734,533.60	+49,522,788.60	+24.61%
2023	190,724,341.16	224,664,423.28	+33,940,082.10	+17.79%

Source: Prepared by the researchers based on the financial statements of the institution.

The results shown in the table above indicate that the implementation of IFRS 16 by the institution in the sample study will contribute to an increase in total liabilities at a rate ranging from (17.79% - 33.23%) during the period from (2021-2023). It is also noted from the table that total liabilities decrease as a result of the institution in the sample study repaying part of these liabilities annually as a lessee.

2-2-1-3 Impact on Equity

To determine the extent of the impact of IFRS 16 on the equity of the institution in the sample study, we will identify the total amount of equity before and after the application of IFRS 16 and extract the main differences as follows:

Table No. 10: Comparison of Total Equity Before and After the Application of IFRS 16
(Currency: DZD)

Year	Total Equity Before IFRS 16	Total Equity After IFRS 16	Amount of Change	Percentage of Change
2021	21,315,484.76	18,337,772.36	-2,977,762.40	-13.96%
2022	51,900,120.95	42,287,458.36	-9,612,662.59	-18.52%
2023	56,398,369.94	42,413,350.82	-13,985,019.12	-24.76%

Source: Prepared by the researchers based on the financial statements of the institution.

The results shown in the table above indicate that the implementation of IFRS 16 will lead to a decrease in equity (net assets) for the institution in the sample study at a rate ranging from (13.96% - 24.76%) during the period from (2021-2023). The main reason for the decrease in equity after

To determine the extent of the impact of IFRS 16 on the liabilities of the institution in the sample study, we will identify the total amount of liabilities before and after the application of IFRS 16 to the lease contract and the amount of the lease obligation are the same at the beginning and end of the lease contract, the amount of the asset is usually less than the amount of the liability during the lease term, resulting in a decrease in equity to restore equality: Total Assets = Total Liabilities.

2-2-2 Potential Effects on the Income Statement

To determine the impact of applying IFRS 16 on the income statement for the lessee, we must identify the main changes that have occurred in the elements constituting the income statement, which are: expenses, revenues, and profits as follows:

2-2-2-1 Impact on Expenses

To determine the impact of applying IFRS 16 on the expenses shown in the income statement, we will compare the total amount of expenses related to lease contracts before the application of the standard and the total amount of expenses related to lease contracts after the application of the standard as follows:

Table No. 11: Comparison of Lease Expenses Before and After the Application of IFRS 16 (Currency: DZD)

Year	Contract	Lease Expense (1)	Interest Expense (2)	Depreciation Expense (3)	Total (4) = (2 + 3)	Amount of Change (5) = (4 - 1)
2021	01	2,731,506.87	1,153,654.13	3,216,496.69	4,370,150.82	1,638,643.95
	02	5,059,007.91	2,136,392.05	5,953,001.55	8,089,393.60	3,030,385.69
	03	1,719,549.87	726,376.76	2,028,885.86	2,755,262.62	1,035,712.75
	04	5,561,477.73	2,348,882.59	6,528,548.59	8,877,431.88	3,315,953.45
	05	930,223.44	393,100.06	1,102,548.69	1,495,648.74	565,425.30
	06	949,685.58	401,317.85	1,125,581.64	1,526,899.49	577,231.91
2022	01	3,642,009.16	1,227,567.70	3,216,496.69	4,444,064.39	802,055.23
	02	6,745,343.88	2,273,136.34	5,953,001.55	8,226,137.89	1,480,794.01
	03	2,292,733.16	772,972.63	2,028,885.86	2,801,858.48	509,125.32
	04	7,415,703.64	2,499,367.75	6,528,548.59	9,027,916.34	1,612,212.70
	05	1,240,297.92	418,387.91	1,102,548.69	1,520,936.60	280,638.68

Year	Contract	Lease Expense (1)	Interest Expense (2)	Depreciation Expense (3)	Total (4) = (2 + 3)	Amount of Change (5) = (4 - 1)
	06	1,266,247.44	427,131.26	1,125,581.64	1,552,712.90	286,465.46
2023	01	3,642,009.16	817,454.15	3,216,496.69	4,033,950.83	391,941.67
	02	6,745,343.88	1,513,493.61	5,953,001.55	7,466,495.16	721,151.28
	03	2,292,733.16	514,828.28	2,028,885.86	2,543,714.14	250,980.98
	04	7,415,703.64	1,664,353.96	6,528,548.59	8,192,902.54	777,198.91
	05	1,240,297.92	278,779.45	1,102,548.69	1,381,328.14	141,030.22
	06	1,266,247.44	284,600.19	1,125,581.64	1,410,181.83	143,934.39

Source: Prepared by the researchers based on the financial statements of the institution.

The application of IFRS 16 will change the nature of expenses related to lease contracts, which previously appeared in the income statement as equal rental expense payments under operational expenses (operating burdens), to depreciation expense related to the leased asset and interest expense incurred on rental payments, which appear under financial expenses. This means that the expenses recognized under IFRS 16 in each period differ from those recognized before the application of the standard. The reason for this difference is that before applying IFRS 16, lease expenses were fixed over the duration of the lease contract, while after applying the standard, depreciation expense is calculated based on a fixed installment, whereas interest expense is higher in the early years of the contract and then decreases as lease obligations decline. Therefore, the total depreciation and interest expenses will be higher during the first half of the contract than the fixed annual rental expense recorded before the application of IFRS 16, which is what we observe in the table above.

2-2-2-2 Impact on Profits

In this section, we will attempt to determine the impact of applying IFRS 16 on the profits achieved by the institution in the sample study during the period from (2021-2023) as follows:

Table No. 10: Comparison of the Net Profit of the Institution Before and After the Application of IFRS 16 (Currency: DZD)

Year	Net Profit Before IFRS 16 (1)	Additional Expenses Resulting from IFRS 16 (2)	Net Profit After IFRS 16 (3) = (1 - 2)	Percentage Change (4)
2021	42,970,224.38	10,163,353.05	32,806,871.33	+23.65%

Year	Net Profit Before IFRS 16 (1)	Additional Expenses Resulting from IFRS 16 (2)	Net Profit After IFRS 16 (3) = (1 - 2)	Percentage Change (4)
2022	60,592,839.93	4,971,291.40	55,621,548.53	+8.24%
2023	135,816,098.42	2,426,237.45	133,389,860.97	+1.78%

Source: Prepared by the researchers based on the financial statements of the institution.

The results shown in the table above indicate that the implementation of IFRS 16 will negatively affect the net profit of the institution in the sample study, as we see that the net profit decreases upon the application of IFRS 16 by rates ranging from (1.78% - 23.65%). This is due to the fact that the rental expense recognized before the application of IFRS 16 was fixed over the duration of the lease contract, whereas after applying IFRS 16, depreciation expense is calculated based on a fixed installment in addition to the interest expense for the lease contracts in the sample study. Therefore, the total of depreciation and interest expenses during the first half of the contract was higher than the fixed annual rental installment recorded before the application of IFRS 16, leading to a decrease in the accounting result after the application of the standard by 23.65% in 2021. In the second half of the lease contracts, the total depreciation and interest expenses are lower, resulting in a reduced impact on the result, which we observed in 2023, where the impact on the result decreased to 1.78%.

Conclusion

Through this study, several results were reached, which can be summarized as follows:

- IFRS 16 contributes to eliminating off-balance-sheet financing and increasing the transparency of financial statements by providing necessary and relevant information about lease contracts that meet the needs of financial statement users for making various decisions.
- The application of the initial measurement and subsequent measurement model for both the right to use the asset and the lease obligation according to the rules and cases defined by IFRS 16 will affect the total amount of assets by increasing the lessee's balance sheet.
- The application of IFRS 16 will lead to an increase in the total amount of liabilities due to the addition of all future obligations related to lease contracts, which were previously unrecognized in the institution's financial statements.
- The application of IFRS 16 will lead to a decrease in the total amount of equity recognized because when applying the standard to lease contracts, the carrying amount of the asset related to these contracts will decline faster than the carrying amount of the lease obligation.
- The expenses recognized when applying IFRS 16 in each period differ from those recognized before the application of the standard. The reason for this difference is that before applying the standard, lease expenses were fixed over the duration of the lease contract, while after applying the standard, depreciation expense is calculated based on a fixed installment, whereas

interest expense is higher in the early years of the contract and then declines as lease obligations decrease.

- The application of IFRS 16 will lead to a decrease in the net profit of the institution in the sample study by rates ranging from (1.78% - 23.65%) during the period from (2021-2023).
- The impact of IFRS 16 on the financial statements is related to the size of off-balance-sheet lease contracts (operating leases). That is, the greater the reliance of companies on using off-balance-sheet lease contracts (operating leases) as a financing tool, the more substantial the impact of applying the requirements of IFRS 16 on the financial statements.

Based on the results reached through this study, several recommendations can be proposed as follows:

- The Algerian National Accounting Council (CNC) should update the rules of the Financial Accounting System (SCF) concerning the treatment of lease contracts to align with the requirements of IFRS 16, as the application of this standard will help improve the quality of accounting information provided to users of financial statements.
- Provide the necessary conditions, capabilities, and suitable environment for adopting and applying International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) in the Algerian environment by activating the financial market and establishing bodies responsible for monitoring all developments in IFRS/IAS accounting standards at the international level.
- Establish training centers to educate and train Algerian professionals on applying International Accounting Standards (IFRS/IAS).
- Update and develop the accounting programs and systems of companies in a way that ensures they accommodate the new requirements of IFRS 16 concerning the treatment of lease contracts.

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Appendices

Appendix No. 01: Subsequent Measurement of Lease Liability for Contract 02

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	23,752,006.19	5,000,000.00		5,000,000.00	18,752,006.19
15/06/2021	18,752,006.19	1,686,335.97	750,080.25	936,255.72	17,815,750.47
15/09/2021	17,815,750.47	1,686,335.97	712,630.02	973,705.95	16,842,044.52
15/12/2021	16,842,044.52	1,686,335.97	673,681.78	1,012,654.19	15,829,390.33
15/03/2022	15,829,390.33	1,686,335.97	633,175.61	1,053,160.36	14,776,229.97
15/06/2022	14,776,229.97	1,686,335.97	591,049.20	1,095,286.77	13,680,943.20
15/09/2022	13,680,943.20	1,686,335.97	547,237.73	1,139,098.24	12,541,844.96
15/12/2022	12,541,844.96	1,686,335.97	501,673.80	1,184,662.17	11,357,182.79
15/03/2023	11,357,182.79	1,686,335.97	454,287.31	1,232,048.66	10,125,134.13
15/06/2023	10,125,134.13	1,686,335.97	405,005.37	1,281,330.60	8,843,803.52
15/09/2023	8,843,803.52	1,686,335.97	353,752.14	1,332,583.83	7,511,219.69
15/12/2023	7,511,219.69	1,686,335.97	300,448.79	1,385,887.18	6,125,332.51
15/03/2024	6,125,332.51	1,686,335.97	245,013.30	1,441,322.67	4,684,009.84
15/06/2024	4,684,009.84	1,686,335.97	187,360.39	1,498,975.58	3,185,034.26
15/09/2024	3,185,034.26	1,686,335.97	127,401.37	1,558,934.60	1,626,099.66
15/12/2024	1,626,099.66	1,686,335.97	65,043.99	1,621,291.98	4,807.68
Remaining Value	4,807.68	5,000.00	192.31	4,807.68	0.00

Appendix No. 02: Subsequent Measurement of Lease Liability for Contract 03

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	8,075,543.42	1,700,000.00		1,700,000.00	6,375,543.42
15/06/2021	6,375,543.42	573,183.29	255,021.74	318,161.55	6,057,381.87
15/09/2021	6,057,381.87	573,183.29	242,295.27	330,888.02	5,726,493.85
15/12/2021	5,726,493.85	573,183.29	229,059.75	344,123.54	5,382,370.32
15/03/2022	5,382,370.32	573,183.29	215,294.81	357,888.48	5,024,481.84
15/06/2022	5,024,481.84	573,183.29	200,979.27	372,204.02	4,652,277.82
15/09/2022	4,652,277.82	573,183.29	186,091.11	387,092.18	4,265,185.64
15/12/2022	4,265,185.64	573,183.29	170,607.43	402,575.86	3,862,609.78
15/03/2023	3,862,609.78	573,183.29	154,504.39	418,678.90	3,443,930.88
15/06/2023	3,443,930.88	573,183.29	137,757.24	435,426.05	3,008,504.83
15/09/2023	3,008,504.83	573,183.29	120,340.19	452,843.10	2,555,661.73
15/12/2023	2,555,661.73	573,183.29	102,226.47	470,956.82	2,084,704.91
15/03/2024	2,084,704.91	573,183.29	83,388.20	489,795.09	1,594,909.82
15/06/2024	1,594,909.82	573,183.29	63,796.39	509,386.90	1,085,522.92
15/09/2024	1,085,522.92	573,183.29	43,420.92	529,762.37	555,760.55
15/12/2024	555,760.55	573,183.29	22,310.61	550,872.68	0.00

Appendix No. 03: Subsequent Measurement of Lease Liability for Contract 04

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	26,114,194.37	5,497,300.60		5,497,300.60	20,616,893.77
15/06/2021	20,616,893.77	1,853,825.91	824,675.75	1,029,150.16	19,587,743.61
15/09/2021	19,587,743.61	1,853,825.91	783,509.74	1,070,316.17	18,517,427.45
15/12/2021	18,517,427.45	1,853,825.91	740,697.10	1,113,128.81	17,404,298.63

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2022	17,404,298.63	1,853,825.91	696,171.95	1,157,653.96	16,246,644.67
15/06/2022	16,246,644.67	1,853,825.91	649,865.79	1,203,960.12	15,042,684.55
15/09/2022	15,042,684.55	1,853,825.91	601,707.38	1,252,118.53	13,790,566.02
15/12/2022	13,790,566.02	1,853,825.91	551,622.64	1,302,203.27	12,488,362.75
15/03/2023	12,488,362.75	1,853,825.91	499,534.51	1,354,291.40	11,134,071.35
15/06/2023	11,134,071.35	1,853,825.91	445,362.85	1,408,463.06	9,725,608.29
15/09/2023	9,725,608.29	1,853,825.91	389,024.33	1,464,801.58	8,260,806.71
15/12/2023	8,260,806.71	1,853,825.91	330,432.27	1,523,393.64	6,737,413.07
15/03/2024	6,737,413.07	1,853,825.91	269,496.52	1,584,329.39	5,153,083.68
15/06/2024	5,153,083.68	1,853,825.91	206,123.35	1,647,702.56	3,505,381.12
15/09/2024	3,505,381.12	1,853,825.91	140,215.24	1,713,610.67	1,791,770.46
15/12/2024	1,791,770.46	1,853,825.91	71,670.82	1,782,155.09	9,615.36
Remaining Value	9,615.36	10,000.00	384.61	9,615.36	0.00

Appendix No. 04: Subsequent Measurement of Lease Liability for Contract 05

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	4,370,194.74	920,000.00		920,000.00	3,450,194.74
15/06/2021	3,450,194.74	310,074.48	138,007.79	172,066.69	3,278,128.05
15/09/2021	3,278,128.05	310,074.48	131,125.12	178,949.36	3,099,178.69
15/12/2021	3,099,178.69	310,074.48	123,967.15	186,107.33	2,913,071.36
15/03/2022	2,913,071.36	310,074.48	116,522.85	193,551.63	2,719,519.73
15/06/2022	2,719,519.73	310,074.48	108,780.79	201,293.69	2,518,226.04
15/09/2022	2,518,226.04	310,074.48	100,729.04	209,345.44	2,308,880.60

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/12/2022	2,308,880.60	310,074.48	92,355.22	217,719.26	2,091,161.35
15/03/2023	2,091,161.35	310,074.48	83,646.45	226,428.03	1,864,733.32
15/06/2023	1,864,733.32	310,074.48	74,589.33	235,485.15	1,629,248.18
15/09/2023	1,629,248.18	310,074.48	65,169.93	244,904.55	1,384,343.62
15/12/2023	1,384,343.62	310,074.48	55,373.74	254,700.74	1,129,642.89
15/03/2024	1,129,642.89	310,074.48	45,185.72	264,888.76	864,754.12
15/06/2024	864,754.12	310,074.48	34,590.16	275,484.32	589,269.81
15/09/2024	589,269.81	310,074.48	23,570.79	286,503.69	302,766.12
15/12/2024	302,766.12	310,074.48	12,110.64	297,963.84	4,802.29
Remaining Value	4,802.29	5,000.00	192.09	4,802.29	0.00

Appendix No. 05: Subsequent Measurement of Lease Liability for Contract 06

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/03/2021	4,462,326.54	940,000.00		940,000.00	3,522,326.54
15/06/2021	3,522,326.54	316,561.86	140,893.06	175,668.80	3,346,657.74
15/09/2021	3,346,657.74	316,561.86	133,866.31	182,695.55	3,163,962.19
15/12/2021	3,163,962.19	316,561.86	126,558.49	190,003.37	2,973,958.82
15/03/2022	2,973,958.82	316,561.86	118,958.35	197,603.51	2,776,355.31
15/06/2022	2,776,355.31	316,561.86	111,054.21	205,507.65	2,570,847.66
15/09/2022	2,570,847.66	316,561.86	102,833.91	213,727.95	2,357,119.71
15/12/2022	2,357,119.71	316,561.86	94,284.79	222,277.07	2,134,842.64
15/03/2023	2,134,842.64	316,561.86	85,393.71	231,168.15	1,903,674.48
15/06/2023	1,903,674.48	316,561.86	76,146.98	240,414.88	1,663,259.60

Date	Outstanding Loan	Payment	Interest (4%)	Loan Amortization	Remaining Value
15/09/2023	1,663,259.60	316,561.86	66,530.38	250,031.48	1,413,228.13
15/12/2023	1,413,228.13	316,561.86	56,529.13	260,032.73	1,153,195.39
15/03/2024	1,153,195.39	316,561.86	46,127.82	270,434.04	882,761.35
15/06/2024	882,761.35	316,561.86	35,310.45	281,251.41	601,509.94
15/09/2024	601,509.94	316,561.86	24,060.40	292,501.46	309,008.48
15/12/2024	309,008.48	316,561.86	12,360.34	304,201.52	4,806.96
Remaining Value	4,806.96	5,000.00	192.28	4,806.96	0.00

Appendix No. 06: Asset Amortization Schedule Related to Lease Contract No. 01

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	12,865,986.75	0.25	3,216,496.69	3,216,496.69	9,649,490.06
31/12/2022	12,865,986.75	0.25	3,216,496.69	6,432,993.38	6,432,993.38
31/12/2023	12,865,986.75	0.25	3,216,496.69	9,649,490.06	3,216,496.69
31/12/2024	12,865,986.75	0.25	3,216,496.69	12,865,986.75	0.00

Appendix No. 07: Asset Amortization Schedule Related to Lease Contract No. 02

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	23,812,006.19	0.25	5,953,001.55	5,953,001.55	17,859,004.64
31/12/2022	23,812,006.19	0.25	5,953,001.55	11,906,003.10	11,906,003.10
31/12/2023	23,812,006.19	0.25	5,953,001.55	17,859,004.64	5,953,001.55
31/12/2024	23,812,006.19	0.25	5,953,001.55	23,812,006.19	0.00

Appendix No. 08: Asset Amortization Schedule Related to Lease Contract No. 03

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	8,115,543.42	0.25	2,028,885.86	2,028,885.86	6,086,657.57
31/12/2022	8,115,543.42	0.25	2,028,885.86	4,057,771.71	4,057,771.71
31/12/2023	8,115,543.42	0.25	2,028,885.86	6,086,657.57	2,028,885.86
31/12/2024	8,115,543.42	0.25	2,028,885.86	8,115,543.42	0.00

Appendix No. 09: Asset Amortization Schedule Related to Lease Contract No. 04

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	26,114,194.37	0.25	6,528,548.59	6,528,548.59	19,585,645.78
31/12/2022	26,114,194.37	0.25	6,528,548.59	13,057,097.19	13,057,097.19
31/12/2023	26,114,194.37	0.25	6,528,548.59	19,585,645.78	6,528,548.59
31/12/2024	26,114,194.37	0.25	6,528,548.59	26,114,194.37	0.00

Appendix No. 10: Asset Amortization Schedule Related to Lease Contract No. 05

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	4,410,194.74	0.25	1,102,548.69	1,102,548.69	3,307,646.06
31/12/2022	4,410,194.74	0.25	1,102,548.69	2,205,097.37	2,205,097.37
31/12/2023	4,410,194.74	0.25	1,102,548.69	3,307,646.06	1,102,548.69
31/12/2024	4,410,194.74	0.25	1,102,548.69	4,410,194.74	0.00

Appendix No. 11: Asset Amortization Schedule Related to Lease Contract No. 06

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2021	4,502,326.54	0.25	1,125,581.64	1,125,581.64	3,376,744.91

Year	Depreciable Value	Depreciation Rate	Amortization Installment	Accumulated Amortization	VNC
31/12/2022	4,502,326.54	0.25	1,125,581.64	2,251,163.27	2,251,163.27
31/12/2023	4,502,326.54	0.25	1,125,581.64	3,376,744.91	1,125,581.64
31/12/2024	4,502,326.54	0.25	1,125,581.64	4,502,326.54	0.00