

## Explanatory Factors of the Compliance with IFRS 16 (Leases) Disclosure Requirements: Evidence from the Portuguese Stock Market

AREA: 3  
TYPE: Application

101

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*Fatores explicativos do cumprimento dos requisitos de divulgação da NIRF 16 (Locações): evidência do mercado de valores português*

*Factores explicativos del cumplimiento de los requisitos de divulgación de la NIIF 16 (Arrendamientos): evidência del mercado de valores português*

*This paper aims to analyze the degree of compliance with the IFRS 16 disclosure requirements, in the first year of mandatory adoption of IFRS 16, and to identify its determinant factors. As methodology, we performed a content analysis of the reports and accounts of a sample of companies listed on Euronext Lisbon. A multiple linear regression model was also developed, which assumes the compliance disclosure index as a dependent variable as some companies' characteristics as potential explanatory factors. Results of descriptive statistics indicate that, in the first year of adoption of IFRS 16, the average level of compliance with disclosure requirements is approximately 0.66. The multivariate analyses reveals that the type of auditor significantly positively influences the compliance disclosure index and therefore we conclude that entities with accounts audited by one of the Big Four exhibit a higher level of disclosure than those that are audited by other audit firms.*

*Este trabalho tem como objetivo identificar o grau de cumprimento dos requisitos de divulgação exigidos pela IFRS 16, no seu primeiro ano de adoção obrigatória, e identificar os seus fatores determinantes. Como metodologia, efetuamos uma análise de conteúdo aos relatórios e contas de uma amostra de empresas cotadas na Euronext Lisbon. Foi também desenvolvido um modelo de regressão linear múltipla, que assume como variável dependente o índice de cumprimento da IFRS 16, e algumas características das empresas como potenciais fatores explicativos. Os resultados da estatística descritiva demonstram que, no primeiro ano de adoção da IFRS 16, o nível médio de cumprimento dos requisitos de divulgação exigidos pela norma é, aproximadamente, 0,66. Os resultados do modelo de regressão linear indicam que o tipo de auditor influencia significativamente e positivamente o índice de cumprimento e por isso concluímos que as entidades com contas auditadas por uma das Big Four exibem um nível de divulgação maior do que aquelas que são auditadas por outras empresas de auditoria.*

*Este trabajo pretende identificar el grado de cumplimiento de los requisitos de información exigidos por la NIIF 16, en su primer año de adopción obligatoria, e identificar sus determinantes. Como metodología, realizamos un análisis de contenido a los informes y cuentas de una muestra de empresas cotizadas en Euronext Lisboa. También se desarrolló un modelo de regresión lineal múltiple, que asume como variable dependiente el índice de cumplimiento de la NIIF 16, y algunas características de las empresas como posibles factores explicativos. Los resultados de las estadísticas descriptivas muestran que, en el primer año de adopción de la NIIF 16, el nivel medio de cumplimiento de los requisitos de divulgación exigidos por la norma es, aproximadamente, de 0,66. Los resultados del modelo de regresión lineal indican que el tipo de auditor influye significativa y positivamente en el índice de cumplimiento y, por lo tanto, concluimos que las entidades con cuentas auditadas por una de Big Four muestran un mayor nivel de divulgación que las auditadas por otras firmas de auditoria.*

DOI  
10.58416/GCG.2023.V17.N2.05

RECEIVED  
14.10.2022

ACCEPTED  
20.01.2023

## 1. Introduction

In 2019 came into force International Financial Reporting Standard (IFRS) 16 - Leases, which changes the accounting treatment of leases, revoking International Accounting Standard (IAS) 17- Leases. With the implementation of IFRS 16 there is no longer the need to classify leases as finance or operating, as required by IAS 17 and this is the main change from one standard to another. In IFRS 16 all leases, except for short-term leases (less than 12 months) or when the underlying asset has reduced value, are now recognized in the balance sheet and there is no longer the dual accounting treatment foreseen in the previous standard.

The study of the degree of compliance with the disclosures demanded by IFRS 16 and the variables that influence the level of compliance is a subject of significant interest to the academic community, since the accounting of leases is changed and, therefore, the information to be included in the Financial Statements is altered. Besides this, the fact that to our knowledge, there is no study that addresses this issue in the population that we intend to study - companies listed in Euronext Lisbon (EL) - in the transition period of the standard, is also a motivation to carry out this research. Thus, we seek to update and extend previous studies, focusing on the first year of mandatory adoption of IFRS 16, assessing the compliance with the requirements demanded by it and its determinants.

In order to pursue the research, the following specific objectives are defined: (i) to assess the degree of compliance with the IFRS 16 disclosure requirements in listed companies in EL, in the first year of mandatory adoption of IFRS 16; and (ii) to identify the factors that influence the degree of compliance with IFRS 16 disclosure requirements in listed companies in EL.

Regarding the structure of the work, after this introduction, it follows the literature review and research hypotheses, the methodology, as well as the presentation and discussion of the results obtained. The article is ended with the conclusion, limitations of the study and clues for future research.

## 2. Literature Review and Research Hypotheses

IFRS 16 is distinguished from IAS 17 by the fact that it now stipulates a single way of accounting for leases. Lessees, with this new standard, must measure lease liabilities at the present value of lease payments unpaid at the lease date. With regard to the subsequent measurement of the right-of-use asset, as indicated in §29, there are 3 models, namely, the cost model (§30-33), the revaluation model (§35) and the fair value model (§34) that the lessee can adopt to measure the right-of-use asset.

KEYWORDS  
IFRS 16 Leases,  
disclosure  
index, level of  
compliance,  
transition,  
determinant  
factors

PALAVRAS-CHAVE  
IFRS 16 Locações,  
índice de  
divulgação, grau  
de cumprimento,  
transição, fatores  
determinantes.

PALAVRAS CLAVE  
NIIF 16  
Arrendamientos,  
índice de  
divulgación, grado  
de cumplimiento,  
transición, factores  
determinantes

JEL CODE  
M41

For the subsequent measurement of the lease liability, the lessee shall measure the lease liability at amortized cost in accordance with IFRS 9 Financial Instruments, because it is a financial liability. As the counterpart to the entry under the liability, the lessee shall recognize as an expense the amount of interest and variable lease payments that are not included in the measurement of the lease liability (paragraph 38).

Regarding disclosure, IFRS 16 defines (in §47) that lessees shall present right-of-use assets and lease liabilities separately from other assets and liabilities, respectively, in the statement of financial position or in the notes. These disclosures are meant to provide the information necessary for users of these statements to assess the effect of leases on the lessee's financial position, financial performance, and cash flows (§51). There are several disclosures that are required to lessees, and these can be found in §53 to §60.

When a new standard comes into force it is always interesting to study the level of compliance with the disclosure requirements demanded by it as a way of assessing whether the new standard is being adopted in the right way and to find aspects to be improved.

Boujelben and Kobbi-Fakhfakh (2020), Correia (2015), Santos et al. (2014), Demir and Bahadir (2014), Alanezi et al. (2012), Tsalavoutas (2011), Tsalavoutas et al. (2010), Cunha (2009) and Alfaraih (2009) are some examples of authors who have dedicated their studies to the level of compliance of various international standards and/or identification of the determinants for that level of compliance. Concerning the IFRS 16 for leases, some international studies investigate the compliance level with IFRS disclosure requirements among listed companies from Africa (Emmanson, 2022), Brazil (Gonzales & Santos, 2022), Romania (Levanti, 2022 and Vrejoiu, 2022) and Asia (Ali (2021).

Emmanson (2022) concluded that most of transportation/logistics firms listed in the Nigeria stock market failed to disclose the measurement policy applied to right of use assets at transition. The study also provides indications that the level of compliance differs among the subsector, ranging from low to moderate level of disclosure. In a similar way, Gonzales and Santos (2022) found that Brazilian listed companies from non-cyclical consumer segment disclose little more than half of the IFRS 16 disclosure requirements. In a sample of Romanian banks, Levanti (2022) recorded an average level of compliance with IFRS 16 disclosure requirements of 62%, in the first year following the IFRS 16 transition. Also in Romania, Vrejoiu (2022) found that the publication, by listed companies, of information on the application of IFRS 16 was very heterogeneous.

Ali (2021) investigates the association of the IFRS 16's level of compliance with some characteristics of the companies listed on Bahraini stock market. The results indicate that the average compliance score with IFRS 16 mandatory presentation and disclosure requirements was of 58.72%. It was also found that the level of compliance was positively and significantly associated with the company size, audit quality and profitability.

In the Portuguese context, Oliveira (2020), Lopes (2019) and Santos (2019) have investigated the degree of compliance with the requirements demanded by the standards that regulate leases. In a sample of companies listed on Euronext Lisbon, Santos (2019) sought to analyze whether companies complied with the disclosure requirements demanded by IAS 17 and identify which factors influenced this degree of compliance. Lima et al. (2020) analyzed the expected impact that the adoption of IFRS 16 would have at the financial statements level and respective financial indicators, as well as how listed companies expected the transition to the new standard to be made. Lopes (2019) addresses the compliance with

the requirements of IFRS 16, even before the standard came into force, making a comparative analysis with IAS 17. Oliveira (2020) and Pinto (2020) have already addressed the mandatory level of disclosure on IFRS 16 in the first year of adoption, however they only focus on the companies of the Portuguese Stock Index (PSI) 20.

Our study seeks to update and expand previous studies, focusing on the first year of mandatory adoption of IFRS 16, evaluating the determining factors of the degree of compliance with the disclosure requirements in the transition year, having as a sample not only PSI 20 companies, but all listed companies on Euronext Lisbon.

The Institutional Theory allows analysis of the institutionalization process and the way in which pressures from the surrounding environment (in this case in particular, coercive pressures) motivate disclosure on leases, due to the homogenization process that occurs among organizations belonging to the same organizational field (in this case in particular, companies with listed securities), with the aim of legitimizing themselves before stakeholders, presenting themselves as compliant companies.

In order to meet the objectives, a set of research hypotheses was formulated that relate the degree of disclosure compliance with potential explanatory variables usually referred to in the empirical literature, and which we will now present:

- **Company size**

Used in most studies, size is one of the most common independent variables in explaining the degree of disclosure. This variable is also supported by the legitimacy theory. Larger companies, by virtue of being subject to greater exposure and visibility, are subject to greater scrutiny, which leads them to increase the degree of compliance with disclosure requirements, in response to institutional pressures and in attempt to avoid threats to their legitimacy.

Several studies (Ali, 2021; Tran et al., 2019; Santos et al., 2014; Alfaraih, 2009) have found that the size of the company positively and significantly influences the level of compliance with the disclosure requirements of international standards. Few studies (Umar et al., 2022; Tsegba et al. 2017; Correia, 2015) verified a negative relationship. Thus, based on these studies we intend to test the following research hypothesis:

***H1: The degree of compliance with the disclosure required by IFRS 16, in EL listed companies, is positively related to the size of the company.***

This variable is usually measured through the asset logarithm (Santos et al., 2014 and Correia, 2015), total assets (Ali, 2021 and Alfaraih, 2009) or even market value (Tsalavoutas, 2011). In our study, we chose to use the logarithm of total assets because, as stated by Correia (2015:55) "the absolute values present a great variability and, using the logarithmic transformation helps to homogenize the eventual variances that may occur in the statistical analysis."

- **Type of auditor**

According to Gaio and Mateus (2014), auditing in companies prompt higher levels of financial information disclosure, seeking to maintain and raise their reputation. Big four are more professional and reputed in audit opinion for companies applying IFRS (Umar et al., 2022; Tran et al., 2019). Some

authors (Ali, 2021, Blay et al., 2019; Tran et al., 2019, Santos et al., 2014 and Tsalavoutas, 2011) have concluded that the fact that companies are audited by an entity that belongs to the Big Four significantly and positively influences compliance. On the other hand, Cunha (2009) did not obtain a significant relationship between this variable and the level of IFRS compliance.

According to Khlif and Achek (2016)'s empirical review, overall, it seems that audit quality, as proxied by the presence of Big 4 auditors, is significantly related to IFRS compliance with respect to the general conformity with IFRS or specific requirements for some IFRS. Therefore, we defined the following research hypothesis:

***H2: The degree of compliance with the disclosure requirements that are demanded by IFRS 16, in EL listed companies, is related to the type of auditor.***

In our study we will distinguish companies that are audited by the Big Four, due to the fact that they are world leading companies in the sector, thus, similarly to Ali (2021) and Santos (2019) we will create a dummy variable.

- ***Sector of activity***

The main reasons given for the use of this variable are based on the postulates of the Institutional Theory, particularly the mimetic isomorphism (DiMaggio & Powell, 1983), since companies tend to follow the examples applied in the same sector, and therefore avoid mistrust/pressure by the markets. The authors Emmanson (2022), Ali (2021), Tsalavoutas (2011) and Correia (2015) failed to prove the significant influence of the sector on the degree of disclosure. However, Cunha (2009) found that the sectors of "consumer goods", "basic materials, industry and construction", "oil and energy" and "consumer services" have a positive and significant influence on the level of compliance with international accounting standards. Also, Alfaraih (2009) obtained a significant relationship between the compliance index and various sectors and found that this significance varies from sector to sector. Since the studies are not consensual, we formulate the following research hypothesis:

***H3: The degree of compliance with the disclosure requirements demanded by IFRS 16, in EL listed companies, is related to the sector and it is not possible to predict the sign.***

In our study, as in Silva (2018), we initially identify the sector of each entity following the Industry Classification Benchmark and later use the dichotomous method adopted by Santos (2019), Correia (2015) and Tsalavoutas (2011).

- ***Profitability***

As a way of giving credibility to the values presented in the profitability levels, the companies with the best financial position tend to bet on the quantity and quality of the information provided, as a way of maintaining their reputation, in accordance with the Legitimacy Theory. From this perspective, a positive relationship between corporate profitability and the degree of compliance is to be expected. According to Tran et al. (2019), companies that make huge profits have higher levels of compliance to prove to investors that their earnings are reliable. This is also consistent with the signaling theory which posits that companies that are performing well have the incentives to disclose more information to signal their good performance (Tsegba et al., 2017). However, the existing empirical evidence points to inconclusive results regarding this relationship.

Previous studies show that the capitalization of operating leases will have a significant effect on profitability. However, literature does not present consistent results in relation to profitability (Zamora-Ramírez & Morales-Dias, 2018). According to Jaworska et al. (2022) and Sbaih et al. (2023), the application of IFRS 16 standard had no significant impact on the profitability ratios. Nevertheless, Correia (2015) obtained a negative and non-significant relationship between profitability and the disclosure degree. Whereas in the works of Ali (2021), Santos et al. (2014) and Correia (2015) the variable was positive but not significant and, on the other hand, some researchers (Umar et al., 2022; Blay et al., 2019, Tran et al., 2019, Alfaraih, 2009 and Cunha, 2009) found that this variable has a positive and significant relationship with IFRS compliance.

Although the literature is not consensual, we chose to predict a positive association regarding this variable. Therefore, we defined the following research hypothesis:

***H4: The degree of compliance with the disclosure requirements demanded by IFRS 16, in EL listed companies, is positively related to profitability (measured through Return on Equity).***

Return on Equity (ROE) is the profitability indicator most used by authors investigating the influence of certain factors on compliance with the requirements demanded by international standards, for this reason we have decided to include it in our analysis as well. ROE is a financial indicator that "measures the degree of remuneration of the partners or shareholders of companies, thus assessing the return on investment provided to the holders of equity capital." (Fernandes et al., 2016: 206)

- ***Indebtedness***

The indebtedness is also a variable used in this type of studies on disclosure, because in an attempt to convey confidence in companies and in their financial structure, companies with a high degree of leverage feel obliged to disclose more information and with higher quality. Some studies show that operating leases result in off-balance sheet financing, earning enhancement and improvement in ratios such as debt to equity (leverage) ((Zamora-Ramírez & Morales-Dias, 2018). Jaworska et al. (2022) found that the implementation of IFRS 16 increased the debt ratio. However, several studies (Ali, 2021, Tran et al., 2019, Santos et al., 2014, Correia (2015) and Tsalavoutas, 2011) found that leverage does not significantly influence the degree of compliance with international standards disclosure requirements. Thus, we expect that there is a relationship, but we could not predict the sign. In this way we define the following research hypothesis:

***H5: The degree of compliance with the disclosure requirements demanded by IFRS 16, in EL listed companies, is related to indebtedness.***

This financial indicator represents the intensity with which a company uses borrowed capital to finance its activities.

### 3. Research Design

#### 3.1. Sample

In September 2020, we accessed the Euronext Lisbon website and retrieved the list of listed companies, a total of 42 companies. We selected the listed companies in 2020, because we will analyze the reports of 2019 period, that is, the first year of IFRS 16 mandatory implementation, as similar to other studies (Ali et al., 2021). Thus, it is important to analyze the companies that, in 2020, published reports related to the IFRS16 transition date (2019).

Financial institutions were excluded, because that they act as lessors, and companies with accounting period different from the calendar year were also excluded. Companies for which it was not possible to find information in the notes on the application of IFRS were also excluded. Therefore, the sample was made up of 32 companies listed on Euronext Lisbon, 17 of which were listed on the PSI 20.

**Table 1** below presents the characterization of the sample.

**Table 1. - Sample Characterization**

		<i>N</i>	<i>%</i>
<i>PSI20</i>	No	17	53.1
	Yes	15	46.9
	<b>Total</b>	<b>32</b>	<b>100.0</b>
		<i>N</i>	<i>%</i>
<i>Type of Auditor</i>	Other auditors	4	12.5
	Big Four	28	87.5
	<b>Total</b>	<b>32</b>	<b>100.0</b>
		<i>N</i>	<i>%</i>
<i>Activity sector</i>	Industry	8	25.0
	Trade and services	24	75.0
	<b>Total</b>	<b>32</b>	<b>100.0</b>
		<i>N</i>	<i>%</i>
<i>Location</i>	North	11	34.4
	Centre	2	6.3
	Lisbon metropolitan area	17	53.1
	Out of Portugal	2	6.3
	<b>Total</b>	<b>32</b>	<b>100.0</b>

Of the 32 companies analyzed, 28 companies (87.5%) are audited by the Big Four, while the remaining 4 resort to other entities. Regarding the sector of activity, 75% of the sample (24 entities) correspond to companies in the trade and services sector, while the remaining 25% (8 entities) refer to entities in the industry sector. Finally, in terms of location, 17 have their headquarters in the Lisbon metropolitan area, another 11 are located in the North region and the remaining 4 are split between the Centre and out of Portugal.

### 3.1. Methodology: Model and Variables

In this research a qualitative methodology was adopted, when we carried out the content analysis to the financial statements for the creation of the index of compliance with IFRS 16 (INDIFRS16) disclosure requirements. It was also adopted a quantitative methodology through the development of a linear regression model, to identify the determinant factors of the degree of compliance.

We started by collecting the 2019 Reports and Accounts and perform a content analysis of the financial statements to collect the disclosed requirements in relation to lease transactions. Alongside this analysis we also collected the necessary information for the independent variables.

To assess the degree of compliance with the disclosure requirements, an index of compliance was created, based on the disclosures requirements of IFRS 16 (like Ali, 2021, Gonzales & Santos 2022 and Emmanson, 2022) and the table developed by Lopes (2019). Thus, we started by defining that the requirements to be disclosed by companies were those regulated in §53, §55, §58, §59 and §60 of the standard. However, after analysis, we have decided to eliminate the requirements of §§53 f) and i) due to the difficulty of identifying the information in the Reports and Accounts and understanding whether or not it is applicable to the companies in the sample. Thus, the disclosure requirements that integrate the construction of the index of compliance (in total 12) are the following:

1. Cost of depreciation of right-of-use assets - §53 a)
2. Interest expense on lease liabilities - §53(b)
3. The expense of short-term leases accounted for in accordance with the exemption in §6 - §53 c)
4. The expense of low value leases accounted for in accordance with the exemption in §6 - §53 d)
5. Expense for variable leases that are not included in the measurement of lease liabilities - §53(e)
6. The cash outflows from leases - §53(g)
7. Additions to right-of-use assets - §53 h)
8. The carrying amount (QE) of assets under right-of-use, by underlying asset class, at the end of the reporting period - §53 j)
9. The amount of lease commitments, relating to short-term leases, accounted for under §6, when the portfolio of short-term leases to which it is committed at the end of the reporting period is different from the portfolio of short-term leases (referred to in §53 c) - §55
10. The maturity of lease liabilities, separately from other financial liabilities - §58
11. Supplementary qualitative and quantitative information regarding lease activities - §59
12. Discloses the fact that it accounts for short-term leases or leases of low-value assets in accordance with §6 - §60

To build the index we initially followed the dichotomous method created by Cooke (1992), cited by Oliveira (2020), classifying with '0' the undisclosed requirements and with '1' those disclosed. afterward, following Ali (2021), Lopes (2019), Santos (2019), Correia (2015), Santos et al. (2014) and Alanezi et al. (2012),



we adapted this method by adding the classification "Not Applicable" to classify the requirements that companies are not obliged to apply. After assigning each requirement the corresponding classification, we calculated the index of compliance for each company by applying an unweighted index, represented in the following formula. As similar to Levanti (2022), this approach assumes that each item is equally important for the users of financial statements.

**Figure 1. - Formula of the index of compliance with the disclosure requirements**

$$Index_{IFRS16} = \frac{\text{Disclosed Items}}{\text{Total applicable disclosure requirements}}$$

The result of this index varies between 0 and 1, where 0 means that no requirements were disclosed and 1 corresponds to the total disclosure of the requirements. In order to analyse the factors influencing the degree of compliance with the IFRS 16 disclosure requirements, a multiple linear regression model was developed in which the above-mentioned index was considered as the dependent variable and as independent variables those associated with the formulated hypotheses. The expression of the multiple linear regression model is described below and to obtain the coefficients and the significance of the relationship between the index and the independent variables we used the SPSS software

**Figure 2. - Multiple linear regression model**

$IND_{IFRS16} = \alpha_0 + \beta_1 SIZE_{i,t} + \beta_2 AUD_{i,t} + \beta_3 ACT_{i,t} + \beta_4 ROE_{i,t} + \beta_5 INDE_{i,t} + \varepsilon_{i,t}$	
$IND_{IFRS16}$	Index of compliance with the IFRS 16 disclosure requirements
$SIZE$	Size - Measured by the logarithm of Total Assets.
$AUD$	Auditor type - Dummy variable, which assumes the value 1 if the company is audited by a Big Four; 0 otherwise
$ACT$	Activity sector - Dummy variable, which assumes the value 1 if the company belongs to the "Industry" sector; 0 otherwise
$ROE$	Profitability - Measure of return on equity
$INDE$	Indebtedness - Total liabilities/total assets
$\alpha_0$	Constant.
$\varepsilon_i$	Residual random variable.

## 4. Results and Discussion

We begin by presenting in **table 2**, the descriptive statistics obtained for the index of compliance.

**Table 2. - Compliance rate: descriptive statistics**

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
$Ind_{IFRS16}$	32	0,1667	1,000	0,6588	0,1959

We can observe that the average value of the index of compliance is not very high, approximately 0.66. That means that, on average, just over half of requirements were disclosed. We agree with Gonzales & Santos (2022), that the lack of information can hinder the analysis and interpretation of companies' activities. Also, Emmanson (2022) argue that insufficient level of disclosure is an indication of the lack of transparency, necessary for investors regarding risk exposure, and which raise doubts as to whether the disclosures' objective of IFRS16 had been effectively met: provide clarity on leases transactions.

However, this average value, regarding the compliance with IFRS 16 disclosure requirements, is in accordance with the average indexes of 0.64, 0.62 and 0.57 obtained in other countries, respectively, by Ali (2021), Levanti (2022) and Gonzales & Santos (2022), and also the obtained by Oliveira (2020), in the Portuguese context (average= 0.59). Comparing with the studies that evaluate the compliance in the first year of adoption of an international standard, we can verify that our study meets the studies of Correia (2015), Alfaraih (2009) and Cunha (2009) since the average index was respectively, 0.57, 0.51, 0.726 and 0.52.

Regarding the regression model, the results obtained are presented in **Table 3** below.

**Table 3. - Results of the multiple linear regression model**

Variables	Non-Standardized Coefficient		Standardized Coefficient	t.	Sig.	Collinearity Statistics	
	Coef.	Standard Deviation					VIF
a0	0,920	0,429		2,142			
SIZE	-0,060	0,046	-0,242	-1,302	0,204	0,784	1,275
AUD	0,328	0,116	0,563	2,839	0,009***	0,689	1,452
ACT	0,029	0,086	0,066	0,343	0,735	0,732	1,366
ROE	-0,088	0,157	-0,094	-0,558	0,582	0,948	1,055
INDE	-0,016	0,126	-0,027	-0,123	0,903	0,573	1,745

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard deviation of the estimate	Durbin-Watson
0,544 <sup>a</sup>	0,296	0,160	0,1796	1,1918
a – Preditores: a <sub>0</sub> , SIZE, AUD, ACT, ROE e INDE				

Model	Sum of squares	df	Average of squares	F	Sig.
Regression	0,352	5	0,70	2,183	0,087*
Residue	0,838	6	0,321		
Total	1,190	31			

\* p<0.1; \*\* p<0.05; \*\*\*p<0.01

By analyzing the model results, as Jaworska et al. (2022) and Sbaih et al. (2023), we observe that the entry into force of the new IFRS 16 standard had no significant impact on the profitability ratios. Our result is in line with Fuad et al. (2022), who note that implementation of IFRS 16 does not bring about higher financial performance. Also, as Ali (2021), we found that debt-to-total assets ratio does not significantly

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influence the degree of compliance with IFRS 16 disclosure requirements. Like Emmanson (2022), Ali (2021), we also failed to prove the significant influence of the sector on the degree of disclosure. Contrary to Ali (2021), we did not find any association with size variable.

The type of auditor is the only variable that presents a statistically significant positive association with the index of compliance, for a significance level of 1%. Thereby, we validate Hypothesis 2, being that companies with accounts audited by a Big Four entity exhibit a higher degree of compliance than those that are audited by companies that do not belong to the Big Four. Our result is in consonance with a large part of the literature, namely Umar et al. (2022), Ali (2021), Tran et al. (2019), Blay et al. (2019) Santos et al. (2014) and Tsalavoutas (2011).

The first financial statements, after IFRS 16 transition, must be confirmed by the report of an independent auditor. The first statements in accordance with IFRS 16 are the most prone to errors. The auditor needs to check whether the first package of annual financial statements in accordance with IFRS 16 meets its disclosure requirements: comparative information, explanations on the transition to IFRS, and reconciliation (Lyubenko et al., 2022). The model results prove that listed companies audited by Big four are more advantageous in the adoption of IFRS 16, because big audit companies have enough expertise and experience to support and advise companies.

We note that the F-test presents a  $p\_value$  of 0.087. Since it is significant, for a significance level of 10%, it allows the validation of the model in overall terms and also the conclusion that it is suitable to describe the relationship between the independent variables and the  $IND_{IFRS16}$ . Thus, together with the analysis of the  $R^2$  we can state that the estimated model explains 29.6% of the value of the  $IND_{IFRS16}$ .

Considering that our study focuses on companies with a high public visibility (i.e. listed companies), we would expect, according to Legitimacy Theory, that this type of companies, and in particular those audited by the Big Four, would show some propensity to comply with the requirements of lease disclosure, in order to maintain their image as a compliant company. On the other hand, the Institutional Theory, namely at the level of coercive isomorphism, justifies the moderate degree of compliance with the standard. In fact, given the existence of a certain legal obligation, compliance with IFRS 16 can be seen as one of the ways companies can obtain legitimacy before stakeholders.

According to Kabwe et al. (2022) external enforcement mechanisms of IFRS compliance relates to the legal and regulatory enforcement, but also to external auditors. Our findings prove that listed companies having a Big 4 international accounting firm as auditor display higher levels of preparedness to implement IFRS 16.

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## 5. Conclusion

This article aims to contribute to the discussion around the new accounting treatment of leases, having as objectives (i) to evaluate the degree of compliance with IFRS 16 disclosure requirements, in the first year of adoption of the standard (2019), (ii) to identify its explanatory factors. We considered as sample the listed companies in Euronext Lisbon, i.e., the companies where the application of the IASB international standard is mandatory.

To our knowledge, to date, there is no study addressing this issue in the transition period of the standard that focuses on listed companies in EL. The most similar studies in Portugal are those of Santos (2019), but which focuses on the degree of compliance with IAS 17 (which precedes IFRS 16) and that of Lopes (2019), which focuses on the expected degree of compliance with IFRS 16, carried out before the standard comes into force. Oliveira (2020) and Pinto (2020) already analyse the level of mandatory disclosure on IFRS 16 in the first year of adoption, but limit their analysis to PSI 20 companies. Thus, our study represents a contribution to the literature, due to its timeliness and relevance, expanding and updating previous studies in the Portuguese context, joining other studies of international scope such as Ali's (2021), which also analyze the determinant factors of IFRS 16 disclosure compliance.

The methodology adopted to answer the first objective consisted of a content analysis (qualitative nature) of the 2019 Annual Report and Accounts in order to calculate the index of compliance with the disclosure requirements of IFRS 16. As a methodology to answer the second objective, we developed a multiple linear regression model (quantitative nature), having the index as dependent variable and a set of 5 independent variables.

As a result of the descriptive statistics, it was possible to conclude that the average rate of compliance with IFRS 16 disclosure requirements is moderate, approximately 0.66. We can thus conclude that Portuguese listed companies, in the first year of adoption of the standard, only complied with more than half of the disclosure requirements demanded by the standard. However, the value could be improved in the following years since 2019 was the first year of adoption and companies could still be getting familiar with the new requirements. Compared to other international studies, our average value is in accordance with Ali (2021), and Levanti (2022), who found similar averages, respectively, in Bahraini companies (0.64) and Romanian banks (0.62). In Portugal, the previous study of Oliveira (2020) found a lower average value (0.59), in listed companies on PSI 20. Therefore, there is a lot of room for improvement in the following years.

Regarding the results of the multiple linear regression model, the only variable that presents itself statistically significant, for a significance level of 1%, is the type of audit entity, which allows us to validate hypothesis 2. This result is consistent with the results of Ali (2021) – specifically to IFRS 16 analysis – and with Santos et al. (2014) and Tsalavoutas (2011), as they also found that the type of audit entity influences the disclosure index of international standards. Therefore, we may conclude that Portuguese listed companies show a moderate level of compliance with IFRS 16 disclosure requirements ( $IND_{IFRS16}=0,66$ ), with companies audited by a Big Four tending to show higher levels of compliance.

Although the degree of compliance does not present a very high value, the results demonstrate the beginning of an institutionalization and homogenization process of reporting practices on the new accounting treatment of leases, which is based on a coercive isomorphism, in the light of the Institutional

Theory. The disclosure practices carried out by listed companies are influenced by pressures from independent professionals, who aim to monitor and control management (normative isomorphism). The audit carried out by the Big Four encourages higher levels of disclosure, seeking to maintain and raise their reputation. On the other hand, compliance with the law, i.e., the desire for the company to be seen as being in compliance with the law, is one of the assumptions underlying the legitimacy theory.

This work aims to contribute to international research related to mandatory reporting on lease contracts, providing empirical evidence in our country, Portugal, where existing studies are still scarce. Our study contributes to the fact that we have identified the degree of compliance of each company in the sample, which may help them to improve or increase their degree of disclosure with the requirements defined in §§ 53 to 60 of IFRS 16.

The results could also be an input for accounting regulators with regard to potential enforcement mechanisms in case of non-compliance with the standard. They may also serve as a learning process for unlisted companies that, by choice, are interested in applying the international standard. We anticipate that, in the short term, the new accounting treatment of leases, recommended by the international standard, will be adopted in the Portuguese Accounting Standardization System, through the amendment of Portuguese Accounting and Financial Reporting Standard 9- Leases. In this sense, this study opens the door to reflection on the impacts of the future change in the recognition and reporting of leases in the remaining Portuguese business sector, essentially composed of micro and small, unlisted entities.

Our study also has limitations, particularly in terms of methodology, because the content analysis technique is somewhat subjective and involves value judgements. The sample size is also considered a limitation because the initial idea was to analyze all the companies that were part of the EL at the time of the research, but for the reasons already mentioned above, we had to exclude 10 companies and the sample was reduced to 32 companies. The fact that only the year 2019, of transition to the new normative, is analyzed, is presented as a limitation, but it opens doors for future research.

In this sense, we suggest, as a future research project, a longitudinal study to include the periods 2020 and 2021, allowing to increase the number of observations and conduct a panel data study. This would allow us to assess the evolution of mandatory reporting, and its improvement is expected, in quantity and quality, as a result of the learning process that has taken place since the mandatory adoption of the standard, as well as the expected mimetic isomorphism. In order to expand the sample, we suggest conducting a comparative analysis on the degree of compliance with IFRS 16 in the Iberian market, including Spanish companies in the Ibex 35. Another work that may be of interest, when the standard is transposed to national regulations and Accounting and Financial Reporting Standard 9 has been amended, will be the analysis of the difference in the degree of compliance with the requirements of IFRS 16 between listed and unlisted companies in Portugal.

Considering the positive effect of auditor type in enforcing compliance with IFRS 16, future research may deepen our research on how auditor's IFRS expertise, auditor's industry specialization and audit tenure may influence higher levels of IFRS compliance.

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