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EXPLANATORY FACTORS OF LEASE DISCLOSURE LEVEL OF BANKS: CENTRAL AND EASTERN EUROPE EVIDENCE

***Abstract.** Leasing is a financial instrument commonly used in the banking industry. It provides flexibility and enables banks to address the issue of obsolescence and residual value risk. The objective of this paper is to analyze how several variables influence lease disclosure practices of banks in Central and Eastern Europe. This study employs first a content analysis on the annual financial statements. In doing so, a disclosure checklist is created and applied. Then, two empirical models are estimated by applying simple and multiple linear regressions. The application of the simple linear regression suggests that four of the five hypotheses tested are valid. The size of the bank classified upon the value of its total assets, the audit firm and the listed status of the bank show positive effects on the lease disclosure level, while the country variable has a negative effect. The models used for the multiple linear regression show a relatively low explanatory power and thus, we concluded that none of the defined hypotheses is valid.*

***Keywords:** Banks, CEE, Disclosures, Disclosure Checklist, IFRS 16, Leasing.*

JEL Classification: G21, G32, M41

1. Introduction

Leasing is an important financial solution used by many organizations. It enables companies to use property, plant, and equipment without needing to incur large initial cash outflows. It also provides flexibility and enables lessees to address the issue of obsolescence and residual value risk. This financing instrument is commonly used in the banking industry. To carry out their daily operations, banks enter into lease agreements, mostly for their office spaces (headquarters and branches), vehicles, ATM locations and IT equipment.

The standard dealing with lease accounting, IFRS 16 “Leases” (IFRS 16), was issued in January 2016, due to the severe criticism received by the former standard lease standard, IAS 17 “Leases” (IAS 17), in meeting the needs of the financial statements’ users. Academics (Reither, 1998), practitioners (AICPA, 1994) and financial statements’ users (Beattie et al., 2006), all argued that lessees were not recognizing all lease obligations and assets derived in their balance sheets, which lead to a lack of comparability between financial statements.

IFRS 16 is effective for annual reporting periods beginning on or after 1 January 2019, with early application permitted. Under the new model, the distinction between operating and finance leases is eliminated for lessees, and a new lease asset (representing the right to use the leased item for the lease term) and lease liability (representing the obligation to pay rentals) are recognized for all leases. Several studies analyzed the effect that operating leases capitalization would have on the financial statements and financial ratios of entities operating in multiple industries. Most of them were carried out before the date IFRS 16 initial application date. These studies focused on estimating the effects for listed entities from different jurisdiction in the European Union, operating in a wide range of industries. In the majority of cases, credit institutions were excluded from the sample, as a common practice in the accounting literature given the different interpretation of financial ratios across industries.

However, disclosure of leasing activities and related accounting policies by banks has not yet been researched. In this work, we focus on the information provided by banks in their annual IFRS financial statements. We seek to examine which factors influence the level of lease disclosure in the financial statements of banks across countries from Central and Eastern Europe (“CEE”). The analysis presented in this article covers the following ten CEE countries: Romania, Poland, the Czech Republic, Bulgaria, Hungary, Estonia, Latvia, Lithuania, Slovakia, and Slovenia. Such delimitation resulted from the classification provided by the Organization for Economic Co-operation and Development (OECD). The option for this region of Europe is that with the transition to market economies, CEE has become one of the most open, in turn stimulating international business research to look at the interaction of radical societal change, business development and foreign direct investment. All ten states are members of the European Union. Therefore, all the banks operating in their banking sectors prepare the annual financial statements according to IFRS.

We conducted a content analysis of the financial statements and developed a disclosure checklist. Further, we tested a dependence model in which the disclosure index obtained is regressed on several variables, such as the size of the bank, the audit firm, the listed status, country and the subsidiary bank status in an international banking group.

This paper is structured as follows. The next section reviews related literature and develops the hypotheses. The research design is described in the third section, while empirical findings are discussed in the fourth section. Finally, we present the paper summary and conclusions.

2. Literature review and hypotheses development

The existing literature on corporate disclosure is constantly growing. However, the studies approaching the financial services sector and their related accounting framework are limited. Previous literature on disclosures by banks has focused on examining risk disclosures and performance, value and stock prices, leaving the accounting disclosure segment little explored. Most of them employed similar methodologies, by conducting content analyses based on disclosure indices and analyzing the influence of several factors on the level of particular disclosures.

Kahl and Belkaoui (1981) investigated the overall extent of disclosures by commercial banks located in 18 countries. Disclosure adequacy was measured by the extent to which 30 selected information items, which formed the disclosure index, are presented in the annual report. The degree of association between the extent of disclosure and asset size was measured by calculating the Spearman's rank correlation coefficient between the relative score and the asset size rankings of each bank. The findings suggest that there is a relationship between size and adequacy of disclosure which is just barely significant at the 5% level but highly significant at the 10% level. Furthermore, the results indicate that the extent of disclosure is relatively different among the countries examined, with the US banks leading the list.

Hamid (2004) studied the corporate social disclosures practiced by 66 banks and finance companies in Malaysia. The authors analyzed the social disclosures included in the annual reports by employing a content analysis and developing a disclosure checklist. The OLS regression was used to assess the effect of each independent variable on the corporate social disclosures. The results indicate that the size of a bank given by its total assets, the listing status and the age of business appear to significantly influence the disclosure practice, while the profitability variable show insignificant relationship.

Baumann and Nier (2004) examined the influence of the stock's volatility on disclosures of banks. The authors made use of a set of data on about 600 banks across 31 countries over the period 1993 – 2000. The data set contains detailed information about the items that banks disclose in their annual accounts. The methodology employed includes the development of a composite disclosure index and the application of a linear regression. Controlling for a number of other factors, such as the size and risk of the bank, the results indicate that banks that disclose more information on key items of disclosure show lower measures of stock volatility than do banks that disclose less information.

Hossain (2008) conducted an empirical investigation of the extent of both mandatory and voluntary disclosure by listed banks in India (sample of 38 banks). The authors developed an unweighted disclosure index and carried out a content analysis on the disclosures from the annual reports for 2002 and 2003. The findings indicate that size, profitability, board composition, and market discipline variables are significant, and other variables such as age, complexity of business and asset-in-place are insignificant in explaining the level of disclosure.

Bischof (2009) analyzed the effect of IFRS 7 “Financial instruments – disclosures” first-time adoption on disclosure quality of 171 banks from 28 European countries. It was identified that disclosure quality has generally increased both in financial statements and in risk reports but that the focus of disclosures has shifted from market risk exposures to credit risk exposures. The effect of the first-time adoption strongly varied across countries. These variations could be explained by differences in the enforcement and interpretation of IFRS 7 by national banking supervision. The findings suggest that it is not only the content of IFRS 7 but also the enforcement of the standard that accounts for the increase in disclosure quality.

Nahar et al. (2016) analyzed the determinants of risk disclosure by listed banks in Bangladesh. The research relied on a theoretical framework based on agency theory and the creation of a risk disclosure index based on IFRS 7 and Basel II provisions. The data was hand-collected from the annual reports of the 30 banks traded on the Dhaka Stock Exchange over 2007-2012, creating 180 bank-year observations. The study suggested that implementation of IFRS 7 and Basel II provisions raised the extent of risk disclosure in every category of financial institution risk (market, credit, liquidity, operational and equities). Specifically, whilst the determinants of disclosure vary across types of risk, the number of risk committees, leverage, company size, the existence of a risk management unit, board size and a Big4 affiliate auditor are significant determinants of at least one category of risk disclosure.

Therefore, taking into account the different positions and results of previous studies, the following hypotheses have been established:

Hypothesis 1: There is a positive association between the size of a bank and the level of IFRS 16 disclosures.

Hypothesis 1.1: There is a positive association between the size of a bank expressed as the value of total assets and the level of IFRS 16 disclosures.

Hypothesis 1.2: There is a positive association between the size of a bank expressed as the number of branches and the level of IFRS 16 disclosures.

Hypothesis 1.3: There is a positive association between the size of a bank expressed as the number of employees and the level of IFRS 16 disclosures.

Hypothesis 2: There is a positive association between membership of a bank in an international banking group and the level of IFRS 16 disclosures.

Hypothesis 3: There is a positive association between the auditor of a bank (Big 4 vs. non-Big4) and the level of IFRS 16 disclosures.

Hypothesis 4: There is a positive association between the listing status of a bank and the level of IFRS 16 disclosures.

Hypothesis 5: There is an association between the country where a bank operates and the level of IFRS 16 disclosures.

3. Research methodology

Population

In order to achieve the objectives established for this study, 43 banks were selected as our target population. The sample was designed to include all the banks

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operating in the Romanian banking system and all the banks listed on the primary markets of the stock exchanges from the other 9 countries located in the CEE region. The latter were identified following our research on the official websites of the stock exchanges from each CEE country. The sample was defined as follows:

- 23 banks operating in the Romanian banking system. According to the annual report of the National Bank of Romania, as at 31 December 2019, in the Romanian banking market operated 34 banks, out of which 7 are branches of foreign banking groups, whose IFRS financial statements are prepared by the parent bank. For other 4 banks, the IFRS financial statements are not publicly available.
- nine banks listed on the primary market of the Polish Stock Exchange – Warsaw;
- three banks listed on the primary market of the Czech Stock Exchange – Prague;
- three banks listed on the primary market of the NASDAQ Baltics;
- two banks listed on the primary market of the Hungarian Stock Exchange - Budapest;
- two banks listed on the primary market of the Bulgarian Stock Exchange - Sofia;
- one bank listed on the primary market of the Slovenian Stock Exchange – Ljubljana.

There are no banks listed on the primary market of the Slovakian Stock Exchange – Bratislava. Also, there are no Latvian banks listed on the primary market of the Baltics stock exchange.

Content analysis: creating a disclosure checklist

To study IFRS 16 disclosures, we used the content analysis, one of the most widely used techniques in analyzing the information provided by companies and institutions. Krippendorf (1980) defined content analysis as a research technique for making a valid inference from the data according to their content, while Waber (1988) defined it as a method of codifying text (or content) of a piece of writing into various groups (or categories) depending on selection criteria. Krippendorf (1980) and Neuendorf (2002) have recommended three essential processes as guidance in conducting any content analysis study. The first process is deciding which document to analyze. This research has used the audited IFRS financial statements for the financial year ending 31 December 2019 as the document to analyze. This is the most recent date for which banks have issued IFRS financial statements at the time of our analysis. The IFRS financial statements for the financial year ending 31 December 2020 are not yet published. We selected the information published in the audited financial statements as this is the main tool of corporate communication for companies (Branco and Rodrigues, 2006). The second process in the content analysis is to determine the measurement unit for disclosures. Existing literature indicates that there are three different methods of

measurement, namely: words (Abraham and Cox, 2007), sentences (Amran et al., 2009) and pages (Hamid, 2004). However, some authors developed their own measurement units and related checklists (Deumes and Knechel, 2008; Hassan, 2009). The third and final process in content analysis is the development of the checklist. This process involves the selection of categories or dimensions in disclosure theme. For this study, we chose to develop our own checklist. The checklist instrument was created based on the study of the relevant literature, extensive knowledge of IFRS 16 requirements of the authors and based on the illustrative IFRS financial statements prepared by Big4 auditors, publicly available on the audit firms' official websites. The checklist includes 39 items, grouped into eight categories, as follows: Disclosures related to items of Statement of Profit or Loss and Other Comprehensive income, Disclosures related to items of Statement of Financial Position, Disclosures related to items of Statement of Changes in Equity, Disclosures related to items of Statement of Cashflow, Disclosures related to initial application, Accounting policies, Critical accounting estimates and judgments and Risk management.

The checklist created has the following characteristics:

a. Dichotomous:

A score of 1 is assigned to an item if it is disclosed in the IFRS financial statements, even if it is included in another category than the one in the checklist. Otherwise, a score of 0 is assigned. The total score (TS) for a bank is calculated as follows:

$$TS = \sum_{i=1}^m e_i$$

where:

- item e_i is 1, if the item is disclosed, 0 otherwise; and
- m is the maximum number of items ($m = 39$).

Alternatively, one can attempt to estimate a score ranging from 1 to 0. Although this solution may be considered conceptually superior, it can lead to a completely subjective evaluation (Giner, 1995).

b. Unweighted

The total score is calculated as the total and unweighted sum of the scores of each item. This approach assumes that each item is equally important for the users of financial statements and has been widely used by researchers (Cooke, 1989; Raffournier, 1995; Lopes and Rodrigues, 2007). The reasons behind choosing this method are further presented. First, unlike the weighted scoring scheme, the unweighted scoring scheme helps in enhancing the reliability and objectivity of the index, because it does not require making judgements in relation to the specific weight that needs to be given to different leases disclosure provisions. Giner (1997) articulated the idea that there is some arbitrariness inherent to the use of any weighted index. Second, there is no agreed theoretical framework to accurately assign weights to different corporate disclosures, in this case lease activities, and thus our decision to use an unweighted scoring scheme may limit the possibility

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that our index is biased towards any single or specific disclosure. Third, similar conclusions were drawn in the studies that used both weighted and unweighted indices (Firth, 1980; Adhikari and Tondkar, 1992).

The content analysis for this study was performed by a single coder. However, in order to ensure reliability, validity and consistency of the coding framework, an initial sample of 5 sets of financial statements were coded by two experienced coders. Any mistakes or inconsistencies identified independently by the two coders were discussed and corrected. A further 5 sets of financial statements were coded but the two coders did not identify any further mistakes or inconsistencies with the coding procedure.

Analysis of factors: variables and model

Following the development of the disclosure checklist, we analyzed the factors which may have an impact on a greater amount of disclosure by banks.

Dependent variable: we tested a dependence model in which the dependent variable refers to a disclosure index created by the authors, based on the IFRS 16 information disclosed by banks in their annual IFRS financial statements.

Independent and control variables: the variables proposed to test the research hypotheses are presented in Table 1.

Table 1. Independent and control variables used to test the research hypotheses

Hypothesis	Definition	Variable type (independent/control)
H1 – Size of the bank	Size of the bank, tested through the following variables: - Total_assets_eur: volume of total assets disclosed in the statement of financial position as at 31 December 2019 in thousands of EUR (integer number); - No_branches: number of branches and administrative units of the bank (integer number); - No_employees: number of employees of the bank (integer number).	Independent
H2 - Group status	International_banking_group = 1 or 0 where 1 – yes, bank is part of an international banking group and 0 – no, it is a local bank or owned by a non-banking group.	Independent

H3 - Financial auditor	auditor_big4 = 1 or 0, where 1 – yes, auditor is a Big4 company (KPMG, EY, Deloitte, PwC) and 0 – no, auditor is a non-Big4 company (Baker Tilly, Mazars, BDO).	Independent
H4 - Listed status	listed = 1 or 0, where 1 = bank is listed on a stock exchange and 0 – bank is not listed.	Independent
H5 - Country	country_other = 1 or 0, where 1 = country is Romania, 0 = country other than Romania.	Independent
Profitability	Net profit / total assets	Control
Capital ratio	Capital ratio determined according to EU Regulation no. 575/2013 on prudential requirements for credit institutions	Control
Depositors' confidence	depositors_confidence = Deposits from customers / total assets	Control
Indebtedness	Indebtedness = Due to banks / total assets	Control

Source: authors' own analysis

The data on the independent and control variables was manually collected from the annual IFRS financial statements and annual reports of the banks, available online on their official websites. All data in local currency was translated in euro, using the local currency/euro exchange rate as at 31 December 2019.

Empirical model

The hypotheses were checked empirically through simple and multiple linear regressions, developed in Python programming language, as follows:

a. Simple linear regression

In order to check the existence of univariate relationships between the variables included in the model, we defined simple linear regressions between the dependent variable, namely the total score indicating the amount of IFRS 16 disclosures, and each of the independent and control variables considered.

b. Multiple linear regression

As significant bivariate relationships are not always significant in multiple linear regression, the multiple linear regression was determined as follows:

• **Multiple linear regression 1:**

$$\begin{aligned} final_score_i &= \alpha_0 + \beta_1 LN(total_assets_eur_i) \\ &+ \beta_2 international_banking_group_i \\ &+ \beta_3 auditor_big4_i + \beta_4 listed_i + \beta_5 country_i + \varepsilon_i \end{aligned}$$

• **Multiple linear regression 2:**

$$\begin{aligned} final_score_i &= \alpha_0 + \beta_1 LN(no_branches_i) \\ &+ \beta_2 international_banking_group_i \\ &+ \beta_3 auditor_big4_i + \beta_4 listed_i + \beta_5 country_i + \varepsilon_i \end{aligned}$$

• **Multiple linear regression 3:**

$$\begin{aligned} final_score_i &= \alpha_0 + \beta_1 LN(no_employees_i) \\ &+ \beta_2 international_banking_group_i + \beta_3 auditor_big4_i \\ &+ \beta_4 listed_i + \beta_5 country_i + \varepsilon_i \end{aligned}$$

where:

- LN (total_assets_eur_i) = natural logarithm applied to the total asset indicator;
- LN (no_branches_i) = natural logarithm applied to the number of branches indicator;
- LN (no_employees_i) = natural logarithm applied to the number of employees indicator;
- i = 1, 2, ..., n;
- α, β = constant and parameters estimated by the model; and
- ε = error.

For both models, we set the critical threshold representing the level of statistical significance at 10%. Where the results were below 10%, we reported them by reference to the lowest level (1% or 5%).

4. Results and discussions

Descriptive statistics

The descriptive statistics and correlations amongst the variables studied are reflected in Table 2. On average, the banks included in the sample have a total disclosure score of 25.5 (out of maximum possible score of 39), ranging between 8 and 34. We observe pronounced inequalities in the values of the independent variables used to define the size of the bank, as follows: value of total assets ranging from EUR 9.3 million to EUR 54.8 million, number of employees ranging from 14 to 15,678 and number of branches ranging between 1 to 1,022 (the latter depends on the sales business model employed by each bank). 60% of the banks are part of an international banking group and 90% of them are audited by a Big4 audit firm (PwC, Deloitte, EY and KPMG).

We observed that the independent variables selected for size used to test H1 (namely total assets, number of employees and number of branches), are right

skewed. Thus, in order to obtain a more normalized distribution, we applied the natural logarithm formula for these variables, as it has been previously applied in other studies (Ali et. Al, 2004; Lopes and Rodrigues, 2007).

Table 2. Descriptive statistics

	country _other	listed	auditor (big4/ others)	inter natio nal_ bank branch ing_ group	no_ branch	no_ employ ees	Total _assets _eur	Capi tal _ratio	profi tabili ty	depositors confidence	inde bted ness	final_ score
count	43.0	43	43	43	43	43	43	43	43	43	43	43
mean	0.5	0.5	0.9	0.6	220.6	3,431	10,235,360	0.2	0	0.9	0.1	25.5
std	0.5	0.5	0.3	0.5	260.5	3,817.2	13,978,410	0.1	0.2	1	0.1	5.1
min	-	-	-	-	1	14	9,321	0	0.3	-	-	8
25%	-	-	1	-	32	525.5	1,188,772	0.2	-	0.7	0	23
50%	1.0	1	1	1	95	1,909	3,728,400	0.2	0	0.8	0	26
75%	1.0	1	1	1	367.5	5,709	12,305,620	0.2	0	0.8	0.1	29
max	1.0	1	1	1	1,022	15,678	54,851,630	0.4	1	7.3	0.6	34

Source: authors' own analysis

The boxplot by country, depicted in Figure 1, indicates that the banks from the Czech Republic presented, on average, the most information on IFRS 16 policies, with a total score ranging between 30 and 35. These institutions are followed by the banks operating in the Baltics countries, Hungary and Slovenia (total score ranging between 25 and 30). The lowest score is encountered in case of the Romanian banks, with most of the banks having a total score between 20 and 25. Also, the lowest total score, namely 8 points, was observed at one of the 23 Romanian banks included in the sample.

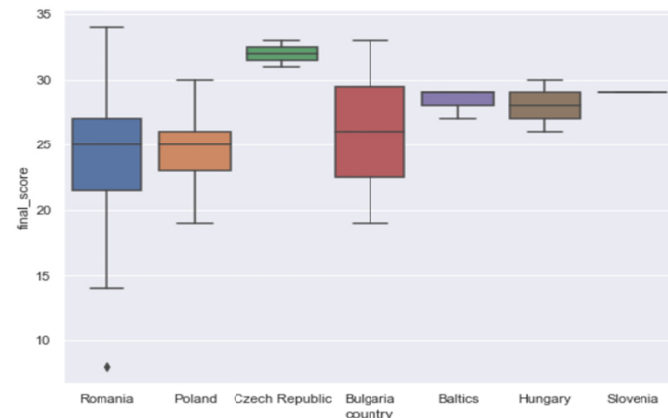


Figure 1. Final score distribution across countries

Source: authors' own analysis

Simple linear regression

Results obtained following the application of the simple linear regression are reflected in Table 3. From the independent variables proposed to test the hypotheses, two of them are statistically significant for a confidence level of 95% (the size of the bank upon the value of total assets and the audit firm Big4 or non-Big4) and other two for a confidence level of 90% (the listed status and the country where they operate). The size of the bank, the audit firm and the listed status show positive effects while the country has a negative effect on the dependent variable. Thus, four of the five defined hypotheses are validated, as follows:

- H1: There is a positive association between the size of a bank given by the value of its total assets and their IFRS 16 disclosure level. The higher value of total assets, the higher level of IFRS 16 disclosures. The idea that the size of a bank influences that disclosure level is supported by previous banking literature (Kahl and Belkaoui, 1981; Hossain, 2008; Nahar et al., 2016).
- H3: There is a positive association between the external audit firm and the level of IFRS 16 disclosure. This indicates that banks audited by Big4 audit firms presented more disclosures on IFRS 16 policies than the banks audited by second-tier audit firms. The result is in line with conclusions drawn by Nahar et al., 2016.
- H4: Banks whose shares are listed on stock exchanges presented, on average, more IFRS 16 disclosures than the other banks. Our conclusion is consistent with that of Kahl and Belkaoui, 1981; Baumann and Nier, 2004).

- H5: There is a negative association between the country in which the banks operate and the level of IFRS 16 disclosures This indicates that banks operating outside Romania presented, on average, more disclosures than the Romanian banks.

The simple linear regression based on the independent variable used to test H2, namely the subsidiary bank status in an international banking group, did not generate statistically relevant results. Furthermore, in terms of control variables, we identified that there is a negative association between the indebtedness degree of the banks and their IFRS 16 disclosure level. Thus, the higher level of indebtedness, the lower level of IFRS 16 disclosures.

Table 3. Simple linear regression results

Simple linear regression results (<i>Dependent variable = final_score</i>)				
Hypothesis	Variable	Coefficient	P-value	R ²
H1	ln_total_assets_eur	0.6702	0.028**	0.113
	ln_no_branches	0.4100	0.127	0.056
	ln_no_employees	0.5369	0.101	0.064
H2	international_banking_group	-2.2670	0.158	0.048
H3	auditor_big4	6.0769	0.022**	0.122
H4	Listed	2.9196	0.061*	0.083
H5	country_other	-2.8761	0.065*	0.080
Control variables	Profitability	-6.7625	0.177	0.044
	capital_ratio	2.3160	0.881	0.001
	depositors_confidence	-0.9901	0.210	0.038
	Indebtedness	-19.7104	0.009***	0.154

***, **, * indicates an assumed risk of 1%, 5% and respectively 10%

Source: authors' own analysis

Multiple linear regression

We analyzed the defined hypotheses using the multiple linear regression formula defined in previous section. Considering that we identified three different indicators for the size of a bank, we then determined the correlation coefficients between these variables, as shown in Table 4.

Table 4. Correlation coefficients between size variables

	total assets eur	no employees	no branches
total_assets_eur	1.000	0.900	0.636
no_employees	0.900	1.000	0.844
no_branches	0.636	0.844	1.000

Source: authors' own analysis

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Given that the selected size variables are highly correlated (correlation coefficient between 64% and 90%), in order to avoid multicollinearity, we included only one of these in each multiple regression model and assessed, based on the R2 level, which is the best indicator to define the size of a bank. Results obtained following the application of the multiple linear regressions are reflected in Tables 5.1 - 5.3. The results indicate that, in all three cases, only one hypothesis is validated, namely H3, the IFRS 16 disclosure level is influenced by the audit firm. However, given the low number of banks audited by second-tier audit firms, the results might be inadequate. Moreover, the R2 obtained for each regression is below 30%, which indicates a low correlation of the model. Therefore, we concluded that none of the defined hypotheses can be validated through the multiple linear regression model. Other researchers identified a positive relationship between the audit firm (Big4 vs. non-Big4) and the level of financial statements disclosures (Glaum and Street, 2003; Lopez and Rodrigues, 2007).

Table 5.1. Multiple linear regression results – total assets

Regression results (Dependent variable: <i>final_score</i>)							
Model	Variables	Coefficient values	Standard error	t-stat	p-value	[0.025	0.975
]	
MLR 1	intercept	13.6767	7.747	1.766	0.086	-2.019	29.373
	ln_total_assets_eur	0.3680	0.341	1.080	0.287	-0.322	1.058
	international_banking_group	-1.6495	1.551	-1.063	0.294	-4.792	1.493
	auditor_big4	6.7821	2.490	2.723	0.010**	1.736	11.828
	listed	-0.1704	3.031	-0.056	0.955	-6.312	5.971
	country_other	-2.2843	2.892	-0.790	0.435	-8.143	3.574
R-squared: 0.292							
Adj. R-squared: 0.196							

***, **, * indicates an assumed risk of 1%, 5% and respectively 10%

Source: authors' own analysis

Table 5.2. Multiple linear regression results – number of branches

Regression results (Dependent variable: <i>final_score</i>)							
Model	Variables	Coefficient values	Standard error	t-stat	p-value	[0.025	0.975]
MLR 2	intercept	19.7487	3.967	4.979	0.000 ***	11.712	27.786
	ln_no_branches	0.3003	0.251	1.195	0.240	-0.209	0.809
	international_banking_group	-1.5094	1.541	-	0.334	-4.632	1.613
	auditor_big4	7.2179	2.446	2.951	0.005 ***	2.261	12.174
	listed	-0.1763	3.005	-	0.954	-6.266	5.913
	country_other	-3.0082	2.878	-	0.303	-8.840	2.824
					1.045		
R-squared: 0.297							
Adj. R-squared: 0.202							
***, **, * indicates an assumed risk of 1%, 5% and respectively 10%							

Source: authors' own analysis

Table 5.3. Multiple linear regression results – number of employees

Regression results (Dependent variable: <i>final_score</i>)							
Model	Variables	Coefficient values	Standard error	t-stat	p-value	[0.025	0.975]
MLR 3	intercept	18.6030	4.753	3.914	0.000 ***	8.973	28.233
	ln_no_employees	0.2771	0.327	0.849	0.402	-0.385	0.939
	international_banking_group	-1.5355	1.556	-	0.330	-4.688	1.617
				0.987			

**Table 5.3. Multiple linear regression results – number of employees
(continued)**

Regression results (Dependent variable: <i>final_score</i>)							
Model	Variables	Coefficient values	Standard error	t-stat	p-value	[0.025	0.975]
MLR 3	auditor_big4	7.0665	2.477	2.853	0.007** *	2.047	12.086
	listed	-0.0061	3.051	-	0.998	-6.188	6.176
				0.002			

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country_	-2.7323	2.891	-	0.351	-8.590	3.125
other			0.945			
R-squared:	0.283					
Adj. R-squared:	0.187					

***, **, * indicates an assumed risk of 1%, 5% and respectively 10%

Source: authors' own analysis

Another observation derived from the data is that the coefficient of determination R2 is the highest in case of MLR2 (the one in which the size of the bank is derived from the number of branches). This is intuitive when referring to the relationship we analyzed (i.e. whether the level of leasing disclosures is influenced by intrinsic characteristics of the banks). IFRS 16 was developed in order to overcome comparability issues for companies having many assets rented on operating lease conditions, which is the case for banks with their branches. Thus, for a disclosure index constructed on IFRS 16 standard, we expected that the most relevant size indicator to be number of branches.

5. Conclusions

The banking system plays an important role in the modern economic world. These institutions support the creation of new capital in a country and thus help the growth process. Disclosure of meaningful and accurate information provides an important foundation for the decisions of financial statements users. Well-informed investors, depositors, creditors and counterparties are expecting strong discipline from a bank in managing its activities in a manner that is both prudent and consistent with its stated objectives.

This paper examines the factors that influence the level of IFRS 16 disclosures in the financial statements of banks operating in the CEE region. Specifically, we investigated the relationship between the size of the bank, the membership in an international banking group, the audit firm, the listing status of a bank and the country in which a bank operates and the IFRS 16 disclosure level.

The study was conducted in two stages. First, we conducted a content analysis of the IFRS financial statements prepared by a sample of banks and developed and applied a disclosure checklist. The sample includes 43 banks operating in countries from the CEE region. The checklist which includes 39 items was defined by the authors based on the study of the relevant literature, their extensive IFRS experience and illustrative IFRS financial statements published by Big4 audit firms. Second, we analyzed certain factors that may influence the disclosure of information on leasing activities of CEE banks. The research hypotheses were tested through simple and multiple linear regressions. Our findings from the application of the simple linear regression suggest that four of the five tested hypotheses are valid. The size of the bank classified upon the value of its total

assets, the audit firm and the listed status of the bank show positive effects on the IFRS 16 disclosure level, while the country variable has a negative effect. The simple linear regression based on the subsidiary bank status in an international banking group did not generate statistically relevant results. In case of the multiple linear regression, only one hypothesis was validated, namely that the IFRS 16 disclosure level is influenced by the audit firm. However, given the low number of banks audited by second-tier audit firms (only four banks out of 43 analyzed) and the low explanatory power of the model, we concluded that none of the defined hypotheses can be validated through the multiple linear regression model.

Our research makes a number of contributions to the growing body of literature on corporate disclosure. First, we contribute to the literature by employing a content analysis and developing an IFRS 16 disclosure checklist containing both mandatory and voluntary disclosure (based on best practice). Second, we extend and contribute to the IFRS literature on the most recently issued standards by the International Accounting Standards Board (i.e. IFRS 9 “Financial instruments”, IFRS 16 and IFRS 15 “Revenue from contracts with customers”). Third, there is a shortage of studies that have investigated the level of IFRS disclosures by banks. Usually, banks and other financial institutions are excluded from samples due to the specifics of the industry, which is also the case of the studies dealing with IFRS application.

Nevertheless, in line with many of the studies using the disclosure index methodology, our paper has some limitations. First, the use of an unweighted index may be regarded as a simplification, although this type of index has been widely used by researchers (Cooke, 1989; Raffournier, 1995; Lopes and Rodrigues, 2007). Second, the content analysis was carried out by a single coder. Although, we put in place safeguards to ensure the reliability and consistency of the coding framework, the coder’s personal interpretation of the information disclosed is unavoidable. Third, due to the labor-intensive nature of manual data collection, we limited our sample to a relatively smaller size and therefore, could arguably influence the generalization of our findings. In the same time, the sample size is relevant in the context of quantitative analyses, because a small sample can lead to inconclusive results for many regressions. Future research may, therefore, improve upon the current study by employing a much larger sample size. Similarly, our analysis is limited to disclosures included in the 2019 financial statements. Future studies may improve this analysis by investigating the leases disclosures in the years following the transition period.

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