

**STOCK MARKET REQUIREMENTS AND THE DISCRETIONARY
DECISION OF ADOPTING AN AUDIT COMMITTEE. THE SPANISH REIT
MARKET AS A CASE OF STUDY**

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Abstract

European Union is on a debate about relaxing the market requirements for listed firms in order to attract companies to trade on stock markets. In this context, we study the role of audit committees (AC) in the going public process of 51 Real Estate Investment Trusts (REITs) in the Spanish market BME Growth between 2013 and 2022. We focus on this market as it is the unique in Spain where the adoption of an AC is voluntary for these firms. Specifically, we examine the effectiveness of the existence of AC as a signal of firm quality and as a monitoring instrument of the quality of the information contained in the prospectus. The results show that the initial return at listing is higher in REITs with AC and that the earnings forecasts included in the prospectuses are less optimistic for these REITs.

Keywords: audit committee, initial return, earnings forecast, REIT, Spanish market.

1. Introduction

European companies, and specifically Spanish firms, are highly dependent on self-financing and bank financing (Cambón and Canadell, 2018). One of the alternatives to this dependence is the possibility of equity financing in the stock markets. Nevertheless, some of the main challenges that companies encounter in accessing capital markets are the regulatory requirements that hinder firms accessing the European stock markets and the initial and subsequent incorporation costs. The European Union (EU), aware that firms require a favourable environment to be able to meet their financing needs, including access to capital markets, has launched a number of alternatives with the aim to make capital markets more attractive to EU companies and to facilitate access to capital for SMEs. An example of this is the creation of a new category of Multilateral Trading Facility (MTF) called "SME Growth Market" contained in Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments, better known as MIFID II (European Parliament, 2014). In this context the EU continues to analyse whether further simplification of some of the listing incorporation requirements for companies to access capital markets would be necessary to encourage them. One of the latest proposals is the so-called Listing Act.¹ From our point of view, the study of this

process of requirement simplification is mandatory in order to evaluate its consequences on companies, investors and markets.

In this context, the Spanish Alternative Stock Market (BME Growth) for REITs is a good case of study to evaluate this simplification of requirements as these companies are the only ones listed on the Spanish stock exchange for which it is not mandatory to set up an audit committee (AC) as they are not considered entities of interest according to the Spanish Audit Law. This discretionary decision provides a unique opportunity that is not available in other markets where this requirement is mandatory.

Specifically, we study the role of having an audit committee as a signal of firm quality and as a monitoring device of the quality of the information contained in the prospectus in the listing process of REITs in the Spanish Alternative Stock Market (BME Growth). Our sample comprises admissions made on this market during the period from November 2013 to December 2022.²

The results show a different behaviour depending on the existence or not of the AC, where the initial return at the time of listing is higher in REITs with AC, and the earnings forecast included in the prospectuses are less optimistic in these REITs. On the contrary, we do not find a significant stock market reaction to the first annual post-listing earnings announcement. Therefore, our results suggest that the discretionary decision from REITs of adopting an AC or not is not neutral in the going public process.

The paper is organised as follows. Section 2 describes the role of the audit committee in the Spanish market and the characteristics of the market in which REITs are listed. The theoretical framework and hypotheses are described in section 3. Sections 4 and 5 describe the sample and the methodology used, respectively. The results obtained are shown in section 6. Section 7 concludes.

2. The audit committee in Spain and the characteristics of going public in the Spanish Alternative Stock Market (BME Growth).

Regarding audit committees, during the 1970s a number of measures were implemented in the US to encourage listed companies to set up an AC. In Europe, however, large companies did not set up AC until the 1990s, following the publication of different codes of good corporate governance. Over time, various institutional and professional organisations have advocated the creation of AC, especially in listed companies. In Spain, the Olivencia Code (Olivencia Code, 1998), a code of "good practices" for the boards of directors of listed companies, which they followed on a voluntary basis, proposed the creation of AC and identified as essential missions the review of the internal control system, the evaluation of the company's accounting verification system and the guarantee of the independence of

the external auditor. The Olivencia Code had an enormous influence on the governance system of Spanish companies, and in the years immediately following its issuance a significant number of large listed companies adopted the recommendation to create an AC. But it was with the Financial System Reform Law in 2002 (Reino de España, 2002) that listed companies were obliged to establish an AC from 2003 onwards. However, this obligation applied to companies listed on an official secondary market (or regulated market) and therefore did not include companies incorporated in a Multilateral Trading Facility such as BME Growth (see section 1 for further details). It was with Law 22/2015 (Reino de España, 2015) when a modification was included on this regard and catalogued the MAB (currently BME Growth) growth companies as companies of public interest having, therefore, the obligation to constitute an AC, however it left REITs out of this application.

This is why the REITs listed on BME Growth are a good case of study on the effectiveness of the existence of an AC as a sign of the quality of the company and as an instrument for monitoring the quality of the information contained in the prospectus, since these companies are the only ones listed on the Spanish stock exchange for which it is not mandatory to set up an AC as they are not considered entities of interest according to the Spanish Audit Law and therefore this discretionary decision offers a unique opportunity that is not available in other markets where this requirement is mandatory.

With regard to the sample analysed, it is worth noting that over the last decades we have attended to the regulation of the real estate investment sector in different countries around the world, including Europe and Spain. As a result, this has promoted the growth, both in number and size, of Real Estate Investment Trusts (REITs). The amendment of the legislation concerning REITs in Spain in 2012 made some of the requirements for these vehicles more flexible in order to enhance what had been a totally inoperative system up to that time. Spanish Law 16/2012 (Reino de España, 2012) introduced the possibility for REITs to be admitted on a Multilateral Trading Facility (MTF), and not only on a regulated market. As a result, in February 2013 a specific segment dedicated to REITs was created in the Spanish Alternative Stock Market (*Mercado Alternativo Bursátil* - MAB), the Spanish MTF, which is now called BME Growth (see footnote 2). In this regard, of the 84 REITs existing in the Spanish market as of 31 December 2022, 80 were incorporated within BME Growth as opposed to the 4 admitted to the Spanish regulated market, more widely known as *Mercado Continuo* or *SIBE*.

BME Growth has a far more flexible regulation than the *Mercado Continuo* in terms of admission, information and trading requirements, without foregoing an adequate level of transparency (see Table 1).

Table 1. Main requirements for the admission, information and trading of REITs in BME Growth.

ADMISSION	
<i>Minimum share capital</i>	There is no minimum.
<i>Previous placement</i>	Initial Public Offering (IPO), Secondary Offering or direct listing.
<i>Free Float</i>	It shall be necessary for shareholders to hold <5% of the share capital, i.e. a number of shares that corresponds to at least either i) an estimated market value of €2 million, or ii) 25% of the shares issued by the company.
<i>Initial informative documentation</i>	Prospectus filed with the National Securities Markets Commission (CNMV) or Informational Document on Admission to the Market (IDAM) with detailed information about the company, its business and perspectives. Historical financial information: for the last 2 years with the audit report for each year. ^(a) Companies that do not have 24 consecutive months of audited information must present forecasts for the current year and the following year. The board of directors must approve these forecasts and disclose them to the market, detailing any directors' votes against. Accounting Standard: EU company: IFRS or national accounting standards. Non-EU Member State: IFRS or US GAAP.
<i>Lock-up</i>	Only mandatory if the company has been active for less than two years. The main shareholders, directors and executives shall commit to not selling shares during the year following the admission of the company, except for sale offer (public or not).
<i>Other agents</i>	Appointment of Registered Advisor and Liquidity Provider.
INFORMATION	
<i>Financial information</i>	Frequency: Half-yearly. Remission to the Market: within four months after the end of the first six months or the end of the accounting period of each financial year. ^(b) Accounting Standard: EU company: IFRS or national accounting standards. Non-EU Member State: IFRS or US GAAP. Auditors' review required: Full audit for annual financial information and limited review for half-yearly information. ^(c)
<i>Valuation</i>	REITs shall publish the results of a valuation of their real estate assets on an annual basis. This valuation must be carried out by an independent expert using internationally recognised criteria, identifying the expert and the valuation method used. Remission to the Market: in the same period as the other annual information.
<i>Degree of compliance with forecasts</i>	Issuers that included business forecasts in their prospectuses at the time of listing, or which subsequently released such forecasts, shall include updates on the degree to which these forecasts are being met, when filing their annual accounts.
<i>Company's organizational structure and internal control system</i>	Information on the company's organizational structure and internal control system to comply with the reporting obligations established by the market (every year, together with the publication of financial information).
<i>Market Abuse Regulation</i>	Full implementation under the supervision of the CNMV. Publication of inside information (relevant information until May 2020) and other relevant information for investors in accordance with the provisions of Spanish Securities Markets Law (Reino de España, 2023)

TRADING

Trading type and system Electronic, via the SIBE-SMART. Single-price setting or fixing (multilateral trading) and block trading (bilateral trading).

Source:

Own elaboration based on Bolsas y Mercados Españoles (2020a, 2020b, 2020c).

^(a) Until 1 November 2019 companies were required to include 3 years with the audit report instead of 2 (amendment introduced by Circular 1/2019 of 29 October (Bolsas y Mercados Españoles, 2019)).

^(b) The deadline for submitting half-yearly information was three months until the financial information corresponding to the first half of 2016 (amendment introduced by Circular 7/2016 of 5 February (Bolsas y Mercados Españoles, 2016)).

^(c) The obligation regarding the limited review of half-yearly accounts was required for the first time in respect of the financial information for the first half of 2016 (amendment introduced by Circular 7/2016 of 5 February (Bolsas y Mercados Españoles, 2016)).

Likewise, in order to enter the market, there is no obligation to make an Initial Public Offering of shares (IPO) if, prior to the entry, the requirement concerning the minimum free floating capital set out above in Table 1 is met (Bolsas y Mercados Españoles, 2020a). In this respect, until now, all REITs in this market have been incorporated by direct listing. In these cases, the price taken as the initial price for admission (reference price) does not come from a placement, but it is determined by the board of directors of the REIT based on the valuation of the company carried out by an independent expert (appraiser) (Bolsas y Mercados Españoles, 2020a). In some cases, however, a private placement of shares occurs prior to listing for trading. If said placement complies with the requirements established in Circular 1/2020 of BME Growth (Bolsas y Mercados Españoles, 2020a), the reference price for the initial trading of the company's shares on the market will be the price of the aforementioned placement.

Finally, one of the characteristics of the market under study that must be taken into account in our analysis is that it is a market with reduced liquidity compared to other more mature markets, despite the existence of the figure of the Liquidity Provider (Castaño et al, 2022). This fact prevents a rapid and complete incorporation of public information into the market (price discovery).

3. Theoretical framework and hypotheses

In order to meet the objective of this study on the effectiveness of the existence of the AC as a signal and as a control of the quality of the information provided in the prospectus, we have divided the literature review into (i) the analysis of the effect of the Audit Committee on the initial return; and (ii) the assessing of what is the effect of the Audit Committee on the quality of the earnings forecasts disclosed in the listing prospectus.

3.1. Audit committee and underpricing

The increase in the price of the shares at the initial time of listing, or underpricing, is one of the most interesting topics in the financial literature and there is a significant body of academic literature on

the theories explaining underpricing based on information asymmetry, agency theories, behavioural explanations, ownership-control relationship, signalling theories, institutional factors, etc. It is worth noting that most of this literature refers to Initial Public Offerings (IPO).

Previous studies have demonstrated that existing shareholders attempt to communicate to investors the quality of their firm by choosing from a set of signals such as, among others, ownership retention (Grinblatt and Hwang, 1989; Leland and Pyle, 1977), auditor reputation (Bairagi and Dimovski, 2011; Beatty, 1989; Dimovski et al. 2017; Titman and Trueman 1986) and underwriter reputation (Carter and Manaster, 1990; Chen and Lu, 2006; Ling and Ryngaert, 1997). Recent studies suggest that board structure can also be used as a signal of issuer firm quality (Certo et al., 2001; Filatotchev and Bishop, 2022). In Spain, Álvarez-Otero and Lopéz-Iturrigana (2018) analyse the influence of the board of directors and the ownership structure on the valuation of IPOs in the Spanish capital market during the period 1998-2013. However, the board of directors has more generic functions, with its committees performing more specific functions. Specifically, the AC has the potential to play an important oversight role, especially with regard to the quality of information (financial and non-financial) that is communicated to the markets through the prospectus in the specific case of going public. Given that the AC is the component of the governance structure most closely related to the production and disclosure of information, its creation is likely to be used by existing shareholders as credible signals of the quality of their company and the quality of the information it provides. Because of the limited knowledge that investors have about companies that go public, they must place substantial reliance on the prospectus produced by the new issuer. The presence of an AC helps to ensure that the information communicated prior to the issue is credible and that the company's management will continue to provide quality information even after the listing. If the signal is effective, investors are likely to demand a lower level of underpricing. It should also be noted that as the AC exercises the supervisory function of the board of directors over financial reporting, in this supervisory function the effect of this committee on the company's performance could also be explained by agency theory. Therefore, if the presence of an AC increases the quality of earnings forecast (Bédard et al., 2004; Klein 2002), it should reduce the underpricing demanded by investors.

In our case of study, the fact that Spanish REITs go public by listing, rather than by IPO, changes the perspective from which to look at the market reaction on the first day of trading. In this sense, the initial performance we associate with higher market demand rather than higher underpricing. Thus, in a context where audit committees are voluntary in the market under analysis, existing shareholders may

use the creation of an AC as a mechanism in the company's quality signalling strategy and we therefore formulate the following hypothesis:

- *H1. The presence of an audit committee is positively associated with a higher initial return.*

3.2. Audit committee and earnings forecast

An underlying hypothesis in the use of the AC as a signal is that the committee has a positive effect on the quality of financial reporting. Previous evidence shows that ACs are positively associated with financial reporting quality (Bédard et al., 2004; Klein, 2002; McMullen, 1996).

Thus, although information quality is difficult to measure in general, it is even more so in the case of going public. The most used measures of the effect of AC independence on the quality of financial reporting in the 13 analysed by Pomeroy and Thornton (2008) are the level of discretionary accruals in the accounting numbers and the abnormal market returns associated with the release of accounting information. However, it is not possible to use both measures in companies for which prior financial information is scarce and whose shares have not been previously traded. Therefore, and following Bédard et al. (2008), we use the accuracy of the earnings forecast included in the listing prospectus as a measure of the quality of the disclosed information.³ Given the role of the AC as a supervisor of the financial reporting preparation process, we expect that the presence of an AC in the REIT's governance structure will result in higher quality earnings forecast and therefore we hypothesize the following:

- *H2. The presence of an audit committee is associated with a less optimistic earnings forecast included in the prospectus.*

3.3. Audit Committee and estimation of announcement-period abnormal returns

Under the hypothesis of intermediate efficiency in financial markets, stock prices must reflect all the public information available at all times, including, therefore, that transmitted through the financial statements. Since the early work of Beaver (1968) and Ball and Brown (1968), the informative content of the earnings announcement together with the intermediate hypothesis of efficiency has been widely contrasted in the different markets. If the realising of the earnings provides information do not expected about the company's future cash flows or the timing of these flows, it is expected that at the time of announcement there will be a change in the price level of the stocks.

Assuming that the effect on prices will be given by the earnings surprise, related to the above hypothesis, we expect that:

- *H3. The first annual report after the listing released by the REIT will have a greater effect on the prices of those companies that do not have an AC.*

4. Sample

In order to compose the final sample used in this study, we started out with all the REITs that had been listed in BME Growth since the creation of the particular segment for REITs on 15 February 2013 until 31 December 2022. During this period, there have been 101 REITs admissions. From this initial sample, we have discarded those companies that have not traded on the first day or have only done so through block trading, as the latter is not considered as an official closing price. As a result, the sample was reduced to 53 REITs. Finally, we have eliminated two more companies from the initial sample because they are considered outliers with respect to the initial-day return (IR).⁴ Hence, the final sample consists of 51 REITs.

Data on market admissions, financial information and other information about the REITs were hand-collected from the Informational Document on Admission to the Market (IDAM) and the relevant facts available on the BME Growth website. The stock market data are from the Bolsas y Mercados Españoles Group and from the Thomson Reuters Datastream database.

5. Methodology

5.1. Audit Committee, initial return and earnings forecast. Univariate analysis.

We have measured the initial return of the shares of REITs going public by the return on the first trading day, Initial-day Return (IR_i), obtained as the relative difference between the closing price of REIT i on the first day of trading (P_{ic}) and the reference price (P_{ir}) as shown in expression (1).

$$IR_i = (P_{ic} - P_{ir})/P_{ir} \quad (1)$$

Following Bédard et al. (2008), we calculate the earnings forecast bias (EF_i) by comparing the earnings forecast with its realization as shown in expression (2), where $FORECAST_i$ are the earnings prediction included in the prospectus and $ACTUAL_i$ is the first annual report after the listing

$$EF_i = \left(\frac{FORECAST_i - ACTUAL_i}{|FORECAST_i|} \right) 100 \quad (2)$$

By examining the sign of the mean of earning forecast bias (positive or negative), we can conclude whether the REIT is optimistic or conservative (pessimistic) about its earnings forecast (i.e., whether the earnings are overestimated or underestimated). The manager is optimistic (the earnings are overestimated) if the mean of earning forecast error is positive and is pessimistic (the earnings are underestimated) if the mean of earnings forecast error is negative (Bédard et al., 2008).

In order to test if the mean (median) of the cross-section of the *IR* and the *EF* is equal to zero we have used a parametric test based on the conventional *t* statistic in the case of the mean. In addition, in order to make our results more robust, we employ the bootstrap methodology (Efron, 1982; Wehrens et al., 2000), which generates the empirical distribution of the *t* under the null hypothesis, thereby relaxing the hypotheses of normality, seasonality and temporal independence of the observations. With regard to the median, we use the Wilcoxon signed rank test.

5.2. Audit Committee, initial return and earnings forecast. Multivariate analysis.

In order to test hypothesis H1 we examine the relationship between the initial return (IR) and the existence of an audit committee (AUDITCOM). To isolate the effect of the committee on initial return, we control for other variables that influence the initial return of REITs' when going public based on (i) Characteristics (SIZE, AGE, AUDITOR, EXECUTIVES, DEBT, IGBMRET, PROPERTY, MANAGEMENT) widely used in the literature (Ascherl and Schaefer, 2018; Brobert, 2016; Castaño et al., 2023; Chan et al., 2013; Dimovski et al., 2017; Ling et al., 2020; Ooi et al., 2018; Paulus et al. 2021; Saengchote and Charoenpanish, 2021); (ii) the specific characteristics of the market and the fact that the going public occurs through direct listing (REFERENCE PRICE, PPP, STANDARD) (Castaño et. al, 2023). We test the hypotheses with the cross-sectional regression model defined in expression (3). The variables are shown in Table 2.

Table 2. Definition of variables

Variable	Definition
AUDITCOM	Dummy variable that equals to one if the REIT has an audit committee prior to the listing and zero otherwise.
SIZE	Market capitalization on the listing day (number of shares by reference price), in millions of euros.
AGE	Age of the issuing company from the constitution date to the listing day.
AUDITOR	Ranking of the auditor based on the number of listings in which the agent has participated. ^(a)
EXECUTIVES	Percentage of shares, directly and indirectly, retained by shareholders in executive positions according to IDAM information.
DEBT	Total debt to total assets ratio (both from the latest annual audited accounts or interim financial information subject to a limited review by its auditor, published in the IDAM).

IGBMRET	Buy-and-hold return of the Madrid Stock Exchange General Index (IGBM) computed 30 days prior to the listing.
PROPERTY	Dummy variable equal to one if the property strategy followed by the REIT is diversified and zero if the property strategy followed by the REIT is specialized. Following Brounen and Eichholtz (2002), REITs having more than 80% of their total assets in one property type are regarded as specialized.
MANAGEMENT	Dummy variable equal to one if the management of the company is internal and zero if the management is external.
REFERENCE PRICE	Dummy variable equal to one if the reference price determined by the board of directors of the REIT is equal to or less than the equilibrium price determined by the appraiser and zero otherwise.
PPP	Dummy variable equal to one if the REIT has performed a private placement of shares (up to six months) before going public and zero otherwise.
STANDARD	Dummy variable equal to one if the accounting standard used in the financial information is the national accounting standard (<i>Plan General Contable</i>) and zero if it is the International Financial Reporting Standards.

^(a) For more details on the ranking see Castaño et al. (2023).

Table 3 and 4 offer a summary statistics of the sample. Overall, we find that the REITs in the sample, compared to other studies on this type of companies such as Ascherl and Schaefer (2018), Dimovski et al. (2017) or Dimovski and Ratcliffe (2011) are young, small companies with a medium level of leverage and with a low percentage of shares held by executives. We also observe that stock market conditions in Spain during the sample period could be described as bearish. When we split the sample by AC, we find that REITs with AC are much larger and older than those without AC.

Table 3. Summary statistics for the variables.

	N	Mean	Std. dev.	Min.	Median	Max.
SIZE (million €)	51	148.04	286.53	5.91	57.18	1,838.56
AGE (years)	51	4.31	7.15	0.19	2.17	42.27
AUDITOR	51	0.586	0.375	0.05	0.63	1.00
EXECUTIVES (%)	51	23.02	29.40	0.00	7.14	98.72
IGBMRET (%)	51	-1.96	5.13	-15.42	-0.26	5.98
DEBT (%)	51	31.27	23.53	0.00	33.93	79.14
<i>Dummy variables</i>		<i>Num. Dummy 0</i>			<i>Num. Dummy 1</i>	
AUDITCOMIT	51	43			8	
PROPERTY	51	38			13	
MANAGEMENT	51	42			9	
REFERENCE PRICE	41	16			25	
PPP	51	30			21	
STANDARD	51	9			42	

Notes:

The variables are described in Table 2.

Table 4. Summary statistics for the variables. Segmentation of the sample according to whether or not there was a committee audit.

	FULL SAMPLE			AUDITCOM			NONAUDITCOM		
	N	Mean	Median	N	Mean	Median	N	Mean	Median
SIZE (million €)	51	148.04	57.18	8	463.68	226.90	43	89.32	50.00
AGE (years)	51	4.31	2.17	8	11.60	5.31	43	2.95	2.14
AUDITOR	51	0.586	0.63	8	0.49	0.55	43	0.60	0.63
EXECUTIVES (%)	51	23.02	7.14	8	20.79	3.83	43	23.43	7.88
IGBMRET (%)	51	-1.96	-0.26	8	-0.59	-0.56	43	-2.21	-0.26
DEBT (%)	51	31.27	33.93	8	32.24	35.23	43	31.09	33.93

Notes:

The variables are described in Table 2.

We test the hypothesis H1 with the following cross-sectional regression model:

$$IR_i = \alpha + \sum_{j=1}^m \beta_j X_{ij} + \varepsilon_i, \quad (3)$$

where IR_i is the Initial-day Return of company i calculated in accordance with expression (1) and X_{ij} are the independent variables that correspond to the selected variables defined in Table 2.

Similarly, to test hypothesis H2, we analyse the relationship between earnings forecast bias and the existence of an audit committee (AUDITCOM) through expression (4).

$$EF_i = \alpha + \sum_{j=1}^m \beta_j X_{ij} + \varepsilon_i, \quad (4)$$

where EF_i is the earnings forecast bias of company i calculated in accordance with expression (2) and X_{ij} are the independent variables that correspond to the selected variables defined in Table 2, except for the RETIGBM variable.

In order to minimise the influence of extreme values on expressions (3) and (4), the natural logarithms of the variables SIZE (LN SIZE), AGE (LN AGE) and DEBT (LN (1+DEBT)) have been used (Brobert, 2016; Brounen and Eichholtz, 2002; Ling and Ryngaert, 1997).

Each regression model has been estimated by cross-sectional Ordinary Least Squares (OLS), applying the methodology proposed by White (1980) to obtain a robust estimation of the parameters in the presence of heteroscedasticity. Additionally we have used the bootstrap procedure (Fox, 2008), as we have a small sample size. For the same reason, we considered appropriate not to include more than

7 explanatory variables in the same model in the case of expression (3) and 5 in the case of expression (4). To analyse the absence of multicollinearity among the regressors, we have used Spearman's *Rho* correlation coefficient among the different variables of each model and we have also used the Variance Inflation Factor (VIF).

5.3. Audit Committee and estimation of announcement-period abnormal returns

We use as the annual earnings event date (day t_0) the trading day when the first closing price is available after the official communication to the market.^{5,6} Once the event day is defined, we analyse the abnormal stock price reaction to the earnings announcement in a two-day window centred on the event day (t_0-2 , t_0+2). The evidence from Arcas (1994), Brous et al. (2001) and Shivakumar (2000), among others, suggest a low market response after the earnings announcement. In addition, the low liquidity of this market (see Castaño et al., 2022) lead to non-synchronous trading when using of daily data. As a consequence, we use a longer earnings announcement period (t_0-1 , t_0+30).

Conventional event study methodology uses the CAPM (or any other multifactor model) in order to estimate abnormal returns around the event day. In such methods, estimating 'uncontaminated' risk factors requires a long estimation period ('uncontaminated' interval or estimation window) to ensure that the estimated risk parameters are independent of the effect of the event. In our case of study, we have to deal with the aforementioned problem of low market liquidity that, eventually, may distort the estimation of the abnormal returns. In order to overcome this problem, we follow Draper and Paudyal (2006) and examine the significance of abnormal returns in a cross-section estimation using the CAPM model that we show in expression (5).

$$R_{i\tau} - R_{f\tau} = \alpha_{\tau} + \beta_{\tau}(R_{m\tau} - R_{f\tau}) + \gamma_{\tau}AUDITCOM_i + \varepsilon_{i\tau}, \quad (5)$$

where R_i is the REIT i return, R_f is the return on *Letras del Tesoro* (Spanish Treasury Bill) and R_m is the return on a value-weighted market index (specifically the IBEX Small Cap (SMALL INDEX) and the FTSE EPRA NAREIT Spain index (EPRA INDEX)) and $AUDITCOM_i$ is a dummy variable that takes value 1 if REIT i has an audit committee and zero otherwise. The subscript τ refers to the event windows (t_0-2 , t_0+2) and (t_0-1 , t_0+30).

Each regression model has been estimated by cross-sectional Ordinary Least Squares (OLS), applying the methodology proposed by White (1980) to obtain a robust estimation of the parameters in

the presence of heteroscedasticity. Additionally we have used the bootstrap procedure (Fox, 2008), as we have a small sample size.

For estimation purposes R_i , R_f and R_m are measured both as buy and hold returns (BHR) and cumulative returns (CR) for the two event windows under analysis. Therefore, $R_{i\tau}$ in expression (5) is computed as the buy and hold return (cumulative return) over the event window of τ days as in expression (6) ((7)).

$$R_{i\tau} = \left[\prod_{t=s}^{s+\tau-1} (1 + R_{it}) \right] - 1 \quad (6)$$

$$R_{i\tau} = \sum_{t=s}^{s+\tau-1} R_{it} \quad (7)$$

where R_{it} is the simple daily return of the REIT firm i on day t and s is the first day of the window under study.⁷

Consequently, a significant α in expression (5) will indicate an abnormal return in response to the earnings announcement meanwhile a significant γ will indicate a differential behavior of those REITs with an AC. The analysis of abnormal returns during the above windows reveals the value of the information content of earnings announcements.

6. Results

6.1. Audit Committee, initial return and earnings forecast. Univariate analysis

Table 5 shows the results obtained regarding the initial return and earnings forecast both for the full sample and those obtained by dividing the sample into the REITs that have an audit committee (AUDITCOM) and those that have not (non-AUDITCOM). We find a significant mean IR of 1.58% and a positive and significant median as well. Our results are in line with those obtained by Castaño et al. (2023) in their analysis of the initial return for REITs that went public on the BME Growth during the period 2009-2019 and within the wide range of underpricing reported in previously REIT studies as shown in Castaño et al. (2023). It is also close to that of 1.71% obtained by Londerville (2002) in the Canadian REIT market, that of 1.20% observed by Dimovski and Brooks (2006) in the Australian REIT market and the figure of 2.02% obtained by Ascherl and Schaefer (2018) for REITs in the European market. In Panel A of Table 5, we also see that the average return of the subsample with AC (2.49%) is higher than the sample without AC (1.41%), being both statistics significant. Regarding the earnings forecast (Panel B of Table 5), examining the sign of the mean of the earnings forecast bias for the full

sample we can conclude that REITs are optimistic about their earnings forecast. By splitting the sample we observe that the same happens in the case of REITs without AC as the mean is positive and significant. However, in the case of REITs with AC the opposite happens, as the negative sign of the mean shows that the earnings forecast is pessimistic (or less optimistic) and future earnings are underestimated, but in this case the mean is not significant.

Table 5. Initial-day return and earnings forecast. Segmentation of the sample according to whether or not there was an audit committee.

	FULL SAMPLE	AUDITCOM	NON AUDITCOM
Panel A: INITIAL-DAY RETURN (IR)			
Mean	***1.58 ^a	**2.49 ^a	***1.41 ^a
Median	***1.00	**1.712	***1.00
Maximum	7.69	7.69	6.00
Minimum	-4.34	0.00	-4.34
Standard deviation	2.08	2.79	1.91
Sample size (N)	51	8	43
Panel B: EARNINGS FORECAST (EF)			
Mean	*11.77 ^c	-9.19	*13.45 ^b
Median	0.00	-9.19	0.00
Maximum	100.00	1.72	100
Minimum	-29.68	-20.11	-29.68
Standard deviation	33.62	15.43	34.28
Sample size (N)	27	2	25

Notes:

Figures in %, except sample size.

***, **, * significant at the 1%, 5% and 10% levels, respectively.

^{a, b, c} significant at the 1%, 5% and 10% levels, respectively, using the bootstrap methodology.

6.2. Audit Committee, initial return and earnings forecast. Multivariate analysis.

The results obtained for the seven estimated regression models for initial return and earnings forecast bias are shown in Table 6 and Table 7, respectively. The *F*-statistic allows us to confirm that there is a significant linear relationship between the initial-day return and earnings forecast and the variables taken together. In no model does the Variance Inflation Factor (*VIF_i*) exceed a value of 5, so there are no multicollinearity problems between the variables.

Table 6. Results of OLS regression models of audit committee and initial return.

	M1	M2	M3	M4	M5	M6	M7
Intercept	0.022	0.008	0.023	***0.030 ^b	*0.021 ^c	0.021	0.025
AUDITCOM	**0.025 ^b	*0.018 ^c	*0.025 ^c	**0.023 ^c	**0.021 ^c	*0.025 ^c	**0.023 ^c

LNSIZE	-0.005		-0.005	-0.003	-0.003	-0.005	-0.004
LNAGE				-0.070			
LNDEBT		*-0.034		-0.021	-0.022		-0.029
AUDITOR			-0.002				
EXECUTIVES	**0.001 ^b	*-0.002 ^c	*-0.001 ^c			**0.001 ^c	**0.001 ^b
IGBMRET				*0.112 ^c			
PROPERTY						0.001	
MANAGEMENT					-0.008		
REFERENCE PRICE	**0.011 ^b	*0.010 ^c	**0.011 ^c	**0.012 ^c	*0.011 ^b	**0.011 ^b	**0.012 ^b
PPP	**0.017 ^b	***0.020 ^a	**0.016 ^b	*0.013 ^c	**0.016 ^b	**0.016 ^b	***0.018 ^a
STANDARD	0.006	0.010	0.006			0.006	0.006
N	41	41	41	41	41	41	41
Adjusted R ²	20.16%	21.38%	17.83%	22.21%	15.30%	17.84%	23.10%
F-test statistic	5.20***	2.78**	4.83***	3.12**	3.07**	4.45***	4.16**
VIF	[1.06-1.99]	[1.07-1.20]	[1.08-2.01]	[1.17-1.68]	[1.10-1.64]	[1.10-2.16]	[1.11-2.10]

Multiple linear regression models estimated by cross-sectional Ordinary Least Squares (OLS). Dependent variable is the initial-day return. Heteroscedasticity has been corrected using White's methodology. The variables are described in Table 2.

Adjusted R²: adjusted determination coefficient.

VIF: Variance Inflation Factor. Maximum-minimum values are reported.

***, **, * significant at the 1%, 5% and 10% levels, respectively.

^{a, b, c} significant at the 1%, 5% and 10% levels, respectively, using the bootstrap methodology.

We find in Table 6 that our variable of interest AUDITCOM is positive and statistically significant in all the models (accepting our first hypothesis H1). This result is contrary to the existing literature where either there is no relationship between the existence of an AC and the initial return (Bédard et al., 2008) or the relationship between the two variables is negative (Kao and Chen, 2020). These results could be explained by the context in which the going public take place without an IPOs. Thus, companies with an AC have a greater guarantee and confidence of the financial information published both in the listing prospectus and that which will be published in the future, and investors are therefore more interested in them, which will lead to an increase in demand for their shares and therefore to an increase in the price on the first day of trading.

Among the control variables, in line with the results obtained by Castaño et al. (2023), in Table 6 we obtain empirical evidence that the stock market conditions prior to the listing (RETIGBM), the proportion of shares held by executive positions (EXECUTIVOS), whether the REIT has conducted a previous private placement (PPP), and the fact that the members of the board of directors of the REIT fix the reference price for the beginning of trading based on the equilibrium price determined by the appraiser (REFERENCE PRICE) all have a significant relationship with the initial return.

Regarding the variables related to *ex-ante* uncertainty about firm value (SIZE, AGE and AUDITOR), we observe in Table 6 that they are not significant in any of the seven models, suggesting that this is not a determinant factor in the case of Spanish REITs. This result contrasts with the existing literature, as in several empirical studies these variables related to *ex ante* uncertainty are usually significant (Ascherl and Schaefer, 2018; Bairagi and Dimovski, 2011; Dimovski et al., 2017; Paulus et al., 2021), nevertheless the results are similar to those obtained in the analysis carried out by Castaño et al. (2023) on this market. The variables DEBT, STANDARD, MANAGEMENT and PROPERTY (the latter two characteristic of this type of investment vehicle) are not significant either, so there would be no relationship between the level of leverage, the accounting standard used, the way the REIT is managed and the type of investment strategy it has and the initial return (contrary to the results obtained by Bédard et al. (2008), Brobert (2016) and Chan et al. (2013)).

Table 7 presents the results of the test of hypothesis H2 on the relationship between our variable of interest (AUDITCOM) and the quality of managers' earnings forecasts included in the prospectus.

Table 7. Results of OLS regression models of Audit Committee and earnings forecast bias.

	M1	M2	M3	M4	M5	M6	M7
Intercept	*53.486 ^c	**61.751 ^a	*49.208 ^c	*28.258 ^b	**43.99 ^b	**39.702 ^b	**53.966 ^b
AUDITCOM	***-45.867 ^b	**-.39.896 ^b	**-.35.188 ^c	*-28.019 ^c	***-36.502 ^c	*-29.769 ^c	***-39.585 ^a
LNSIZE		-3.967	-5.513				
LNAGE						-17.460	
LNDEBT	*-65.994 ^b	*-61.381 ^b		*-72.149 ^b	*-52.411 ^c		*-57.599 ^b
AUDITOR	*-36.332 ^b	**-.35.566 ^b	*-40.305 ^c		**-.38.466 ^b	**-.45.866 ^b	**-.38.196 ^b
EXECUTIVES					0.138	-0.344	-0.142
PROPERTY	16.582	17.956	14.755	20.290		6.779	
MANAGEMENT				-9.984			
PPP			10.748		6.213		
STANDARD	-4.268	0.010				0.006	-5.662
N	27	27	27	27	27	27	27

Adjusted R ²	27.59%	29.43%	17.43%	12.03%	24.84%	26.01%	24.12%
F-test statistic	2.89**	2.51*	2.42*	2.40*	3.43**	3.75**	6.03***
VIF	[1.09-1.30]	[1.04-1.17]	[1.02-1.16]	[1.01-1.43]	[1.06-1.20]	[1.04-1.23]	[1.12-1.31]

Multiple linear regression models estimated by cross-sectional Ordinary Least Squares (OLS). Dependent variable is the earnings forecast bias. Heteroscedasticity has been corrected using White's methodology.

The variables are described in Table 2.

Adjusted R²: adjusted determination coefficient.

VIF: Variance Inflation Factor. Maximum-minimum values are reported.

***, **, * significant at the 1%, 5% and 10% levels, respectively.

a, b, c significant at the 1%, 5% and 10% levels, respectively, using the bootstrap methodology.

The results obtained in the seven regression models estimated for the earnings forecast bias suggest that the presence of an AC has an effect on the earnings forecast bias. Its negative sign indicates that in REITs with an AC the earnings forecast is pessimist (or less optimistic), thus fulfilling our second hypothesis (H2). Our results are contrary to those obtained by Bédard et al. (2008) in the study of 246 IPOs in the province of Quebec (Canada) where the presence of an AC seems to have any effect on the optimism or pessimism of the forecast.

Among the control variables, we find that the level of leverage (LNDEBT) of the REITs influences the earnings forecast bias. Thus, companies with higher leverage have greater supervision and monitoring so their forecasts should be more accurate and, therefore, their bias of the forecast is lower as in Mnif (2010). On the other hand, the negative and statistically significant sign of the variable AUDITOR leads to that companies with a more prestigious auditor show a less optimistic forecasts and are more conservative. These results are contrary to the evidence provided by Bédard et al. (2008), Jelic et al. (1998) and Mnif (2010) as they found that this variable was not significant.

The rest of the control variables do not have a significant relationship in accordance with the results obtained by Bédard et al. (2008) and Mnif (2010) in the case of AGE and by Bédard et al. (2008) and Jelic et al. (1998) in the case of SIZE and contrary to Jelic et al. (1998) and Mnif (2010) where they found that the variable AGE and SIZE, respectively, was significant and therefore had an impact on earnings forecast bias.

6.3. Audit Committee and estimation of announcement-period abnormal returns

We observe in Table 8 that the market does not react to the earnings announcement, neither in the case of the BHR nor in the case of the CR, regardless of the market portfolio proxy used. This lack of reaction occurs whether we analyse the 5-day window (Panel A of Table 8) or the 32-day window (Panel A of Table 8). Likewise, it is observed that in no case is there a different behaviour of the REITs

that have an AC compared to those that do not have an AC, since the AUDITCOM variable is not significant in any case, contrary to what was expected in our third hypothesis (H3). We consider that this situation is caused by the lack of liquidity in the market, since, as pointed out in Castaño et al. (2022), it is a market with a very low liquidity.

Table 8. Results of OLS regression models of Audit Committee and earnings forecast bias.

VARIABLES	PANEL A: 5-DAY WINDOW				PANEL A: 32-DAY WINDOW			
	BHR		CR		BHR		CR	
Intercept	-0.001	-0.002	-0.001	-0.002	-0.009	-0.008	-0.010	-0.008
AUDITCOM	0.004	0.004	0.004	0.004	0.011	0.004	0.012	0.005
SMALL INDEX	0.029							
EPRA INDEX		0.056						
SMALL INDEX			0.029					
EPRA INDEX				0.058				
SMALL INDEX					*0.342 ^c			
EPRA INDEX						***0.158 ^a		
SMALL INDEX							*0.361 ^c	
EPRA INDEX								***0.151 ^a
Sample size (N)	51	51	51	51	51	51	51	51
R ²	0.016	0.045	0.016	0.046	0.099	0.060	0.082	0.046

Regression models estimated by Ordinary Least Squares (OLS). Heteroscedasticity has been corrected using White's methodology. Dependent variables are the buy and hold return (BHR) and cumulative return (CR) for the two event windows under analysis (both defined in section 5.3).

R²: determination coefficient.

***, **, * significant at the 1%, 5% and 10% levels, respectively.

^{a, b, c} significant at the 1%, 5% and 10% levels, respectively, using the bootstrap methodology.

7. Conclusions

In a context in which the European Union is studying various measures aimed at promoting the use of stock exchanges as a source of financing for companies, among which is the easing of the requirements demanded of companies for their incorporation and subsequent trading on the stock exchanges, this study analyses the effectiveness of the existence of an audit committee as a sign of the quality of the company and as a monitoring device and the quality of the information contained in the prospectus in the listing of REITs on the Spanish BME Growth market. This market is the only case in Spain where it is not mandatory to set up an audit committee, a fact that provides a unique opportunity to analyse its effectiveness as it is a discretionary decision of the companies and not a legal requirement. Specifically, we analyse the REIT admissions made on BME Growth during the period from November 2013 to December 2022.

Our results suggest that the discretionary decision to form an audit committee by REITs is not neutral in the direct listing process given that in REITs with an audit committee the initial return is higher and the forecasts contained in their prospectuses are less optimistic than in cases where there is no

audit committee. The only case where this decision does not affect is in the market reaction to the first annual post-listing earnings announcement.

These results have an important practical implication as they provide specific data for regulators on the role played by the companies' audit committee in the process of going public. This question may be very useful in the context of the regulatory changes that are being carried out in Europe and Spain on admission processes.

A future line of research that we consider interesting is the analysis of how the decision of whether or not to establish an audit committee affects the performance of BME Growth REITs over the long term.

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- ¹ The Listing Act is a series of proposed amendments to a range of regulations (prospectus regulation, market abuse regulation (MAR), the Market in financial instruments Regulation (MIFIR), Market in financial instruments Directive (MIFID) and Listing Directive) with the aim of alleviating the administrative burden for companies of all sizes, in particular SMEs, so that they can better access public funding by listing on stock exchanges. For further details see https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13238-Listing-Act-making-public-capital-markets-more-attractive-for-EU-companies-and-facilitating-access-to-capital-for-SMEs_en)
- ² From the establishment of the market until October 2020 this market was called *Mercado Alternativo Bursátil* (MAB) and the REITs were listed in the segment called MAB-SOCIMI. In October 2020 this market was renamed BME MTF Equity and Spanish REITs have been listed since then in the so-called BME Growth segment of BME MTF Equity.
- ³ The presentation of earnings forecasts in the prospectus is voluntary except for those REITs that do not have 24 consecutive audited months, in which case it is mandatory.
- ⁴ For the calculated mean and standard deviation of the initial-day return (IR_i), extreme values have been considered as being those that exceed three times the standard deviation of the target variable.
- ⁵ Note that it is possible that the earnings announcement was issued when the market is already closed.
- ⁶ The earnings announcement refers to the first annual report after the listing that coincide with the same information that has been used to calculate the EF variable.
- ⁷ $R_{f\tau}$ and $R_{m\tau}$ computation is analogous to $R_{i\tau}$.