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TIMELINESS OF FINANCIAL REPORTING AND CORPORATE GOVERNANCE: THE PORTUGUESE CASE

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Biographic note

Mariana Gonçalves Jorge was born in Zurich, Switzerland, in August 1995. In 2017 she enrolled in the Master's degree in Economics at the School of Economics and Management of the University of Porto (FEP-U. Porto). As part of the Master's degree, she did a curricular internship at Sonae IM, integrating the financial control department.

Acknowledgments

Abstract

Corporate governance and the timing of financial reports are important features in assuring transparency and efficiency among markets and agents. Based on agency theory, the goal of this dissertation is to analyze the relationship between corporate governance characteristics and the timing at which the Portuguese listed companies disclose their annual financial reports. Based on a panel data estimation and through an econometric model of a 341 firm-year observations sample for the years 2007-2015, the results suggest that the board size, the ownership concentration and having the annual report audited by a Big-4 audit firm are statistically significant in the analyses of the relationship between these variables and the financial reporting lead-time. Firms with larger corporate boards tend to have a larger financial reporting lead-time, firms with higher ownership concentration are more promptly reporters, as well as firms audited by Big-4 audit firms.

Resumo

O governo das sociedades e a data a que as empresas Portuguesas cotadas em bolsa publicam os seus relatórios anuais assumem um papel importante em assegurar a transparência e a eficiência entre os mercados e os agentes. Tendo por base a teoria da agência, o objetivo desta dissertação consiste em analisar qual a relação entre as principais características do governo das sociedades e o momento em que as empresas cotadas em bolsa em Portugal divulgam os seus relatórios financeiros anuais. Com base numa estimação de dados em painel e através de um modelo econométrico para os anos de 2007-2015, os resultados deste estudo sugerem que o tamanho dos quadros administrativos, o nível de propriedade e o facto de serem auditadas por uma Big-4 são estatisticamente significativos na análise da relação entre estas variáveis e a data de publicação. Empresas com mais diretores nos seus quadros de administração tendem a adiar a divulgação dos seus resultados e empresas com elevados níveis de propriedade são repórteres mais pontuais, assim como as empresas que são auditadas por uma Big-4.

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1. Introduction

Accounting information has central attributes, such as relevance and reliability, that are useful for decision making (Financial Accounting Standards Board, 2010). What makes timeliness an important component of the quality of financial information is the need to keep the decision-makers informed in a way that the information does not lose its aptitude to influence their decisions (Financial Accounting Standards Board, 2010). Then, timeliness can be seen as an important feature of financial reports: it reduces information asymmetry, mitigates insider trading leaks, reduces possible opportunities to speculate about the firm's financial position and performance and promotes the efficient functioning of the economy (Fakhfakh Sakka & Jarboui, 2016; Huang, Dao, & Sun, 2017).

The importance of timeliness is recognized by securities regulators around the world by imposing financial reporting deadlines for publicly listed firms (Brown, Beekes, & Verhoeven, 2011). Delays in making decisions result, most of the times, in costs to the decision maker and/or to those affected by the decision (Brown et al., 2011).

Healy and Palepu (2001) state that, by providing relevant information to outside investors, financial reporting and disclosure are crucial for the running of an efficient capital market and have an important role to guarantee transparency. This role is highlighted by certain corporate governance practices that ensure high quality of financial reports (Habib & Jiang, 2015).

The importance of corporate governance in capital markets is reinforced by agency theory as a fundamental feature in fighting agency costs that arise from the split between ownership and control (Habib & Jiang, 2015).

Although the literature gives valuable insights on the consequences and causes of different ways of financial disclosure, little is known about what motivates managers to make decisions regarding the timing (Sengupta, 2004). There are different views in what makes managers to share certain information.

N. C. Brown, Christensen, and Elliott (2012) claim that the main intention is to better inform investors and not manipulate the market. For example, Abdelsalam and Street (2007) find evidence that there is a relationship between timeliness of financial reports and corporate governance practices: firms with higher proportion of non-executive directors on boards are more promptly reporters.

Thus, this study will focus on the analysis of the impact of corporate governance characteristics on the timing of financial reports' disclosure. The main question to be analyzed is how does specific corporate governance characteristics influence managers' disclosure decisions regarding timeliness.

Although there is a vast material about financial reports' quality and corporate governance practices (Ciftci, Tatoglu, Wood, Demirbag, & Zaim, 2019; Cunha & Rodrigues, 2018; Habib & Jiang, 2015; Haniffa & Cooke, 2002; Major & Marques, 2009), the relevance of this topic arises from the analysis of its influence on timeliness that firms included in the sample disclose their financial statements, since in the literature little was found regarding this subject.

Using a sample of Portuguese listed companies, the main objectives of the present work will lie on the analysis of two aspects. First, the timeliness of disclosure of annual financial statements by the companies included in the sample. Second, the extent to which some characteristics of corporate governance are associated with differences in terms of timeliness. This latter aspect is examined by way of the estimation of an econometric model.

This study adds to the literature by examining the scarcely explored topic of timeliness of financial report in the Portuguese capital market and by providing empirical evidence of the influence of specific corporate governance mechanisms on the presence of transparency among market agents.

The econometric model by way of which some factors influencing the timeliness of financial reporting are examined, has as a dependent variable the number of days between financial year-end and the date when the financial information is disclosed (TIME) and has as explanatory variables some of the main corporate governance characteristics. We also control for other factors that potentially explain the dependent variable.

To achieve these objectives, this dissertation is organized as follows: section 2 presents a brief description of the Portuguese setting; section 3 is regarding the theoretical framework, where are approached the main corporate governance mechanisms and the factors that influence timeliness; in section 4 is presented the development of the hypotheses to be analyzed; section 5 provides the developed model and the description of the sample; section 6 reports the empirical results found and the respective discussion; finally, section 7 presents the main conclusions, limitations of this study and provides insights for future research.

2. The Portuguese setting

The Portuguese capital market is particularly interesting to study, as it is known as having a corporate governance system characterized by low investor protection, high ownership concentration (Vieira, 2016) and weak legal enforcement (Lourenco, Branco, & Curto, 2018). Analyses of corporate practices in such a setting may result in findings distinct from the ones obtained in contexts in which outside investors are well protected by the legal system (Lourenco et al., 2018; Vieira, 2016).

To avoid selective disclosure and according to the Decree Law No. 357-A/2007[1], the firms listed in the Portuguese Stock Exchange (Euronext Lisbon) are required to disclose their annual financial information within four months after the end of the financial year. In fact, all listed firms in Europe have been required to report their financial statements according to International Financial Reporting Standards (IFRS) since 2005 (Major & Marques, 2009). Therefore, if a firm needs to inform potential investors about possible variations on the price information to a third party in the progress of its business, this must be done in a way that the receivers of information are alert that they cannot deal in the firm's securities before the important information is made public (Al-Hawamdeh & Snaith, 2005).

Besides being required to release their financial information without delay, the Portuguese listed firms are required to publish the annual financial statements and a management report to be submitted to the assembly of shareholders (Lourenco et al., 2018). The annual financial report of each listed firm is available on the website of the Portuguese Securities Market Commission (CMVM) and includes the board of directors' report, the balance sheet, the profit and loss account, a cash flow statement and the opinion of the audit committee (Lourenco et al., 2018).

Complementing the financial information, listed firms have also to publish a report detailing on whether they comply with the recommendations contained in the Corporate Governance Code or not (Cunha & Rodrigues, 2018).

CMVM makes public a list of recommendations and firms either make the suggested disclosures in their annual reports, or, if they do not comply, they need to explain why are they are not in compliance with the recommendations (Major & Marques, 2009).

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[1] Decree Law No. 357-A/2007 of 31 October 2007, Diário da República No. 210/2007, 2nd Supplement, Series I, *Ministério das Finanças e da Administração Pública*, Lisbon.

Major and Marques (2009) find evidence that Portuguese listed firms that follow CMVM recommendations are associated with higher levels of firm performance, indicating an important linkage between financial and managerial accounting.

3. Theoretical Framework

3.1. Agency theory

The increasing existence of agency problems within the firms has led many authors to recall the agency theory. This theory defines an agency relationship as a contract under which the principal (the owner) engages the agent (the manager) to perform some service on his/her behalf (Jensen & Meckling, 1976). However, the agent's interests usually differ from those of the principal and this separation of ownership and management, combined with the existence of information asymmetries, encourages the agent to have an opportunistic behavior (Lourenco et al., 2018).

In most agency relationships, it is impossible for the principal to guarantee that the agent will make, from his point of view, optimal decisions without incurring monitoring and bonding costs causing a significant deviation from the path of principal's welfare optimization (Jensen & Meckling, 1976).

Agency theory has been the basis to the most corporate governance studies regarding disclosure (Abdelsalam & Street, 2007; Cunha & Rodrigues, 2018; Fakhfakh Sakka & Jarboui, 2016; Habib & Jiang, 2015). This theory emphasizes the part that corporate governance takes in monitoring and controlling boards' decisions, reducing agency costs and increasing disclosure transparency (Cunha & Rodrigues, 2018; Fakhfakh Sakka & Jarboui, 2016).

In the case of Portugal, the capital market is characterized as having a majority of small and medium enterprises and a strong ownership concentration (Cunha & Rodrigues, 2018). When the agent and the principal roles overlap and there is no intermediary of the principal's decisions, the supervising of management practices can be more efficient and may enable incentives to more aligned, since managers and controlling shareholders are often the same people and have one common interest: to create value for the firm in the medium and long term (Cunha & Rodrigues, 2018).

3.2. The role of corporate governance

In recent years, corporate governance has been subject of much debate and the main interventions in corporate governance matters have been a reaction to crisis situations, where the main goal is to reestablish trust and confidence among the markets (Cunha & Rodrigues,

2018). For example, following the recent global financial crisis that resulted in the collapse of several markets around the globe, many where the concerned parties that were demanding answers to the simple question "*Where was Lehman's Board?*" (Terjesen, Sealy, & Singh, 2009). Although the media had covered the possible failure of the directors board regarding the bank's bankruptcy, researchers have payed more attention to board composition, highlighting the importance of corporate governance in management practices (Terjesen et al., 2009).

According to Brown et al. (2011), corporate governance characteristics can be seen from two different perspectives: internal and external. The internal ones are defined as the set of corporate governance structures that are controlled by the company's shareholders and the board of directors, while, on the other hand, external governance is defined as the set of exogenous factors such as, for example, the firm's legal system and the laws which it ought to follow, the financial accounting standards, the rules and protocols that characterize the capital markets, among many others (Brown et al., 2011).

Habib and Jiang (2015) also classify corporate governance into two mechanisms: internal and external. The internal mechanism is usually associated with the board of directors, while external mechanisms are characterized by competitiveness in the markets, the role of equity markets in magnifying the efficacy of corporate governance policies, external auditing and managerial labor market (Habib & Jiang, 2015). Corporate governance can also be seen as a set of mechanisms which seeks to protect potential investors from harmful behavior by insiders (Habib & Jiang, 2015).

An effective corporate governance assumes an important role in capital markets because it makes it possible to guarantee a high quality of financial disclosures for efficient resource allocation and economic growth (Habib & Jiang, 2015). The importance of this role has been increasing and is strengthened by agency theory, where the division between ownership and control leads to conflicts generated by dispersed shareholders and professional managers (Habib & Jiang, 2015). This theory is still one of the main theories used in the studies regarding accounting practices (Lourenco et al., 2018) and is seen as the foundation theory for corporate governance studies (Habib & Jiang, 2015).

Inside the company, the board of directors, that characterizes the peak of the decision-making process, is responsible for supervising and assessing senior management's actions within the company (Beekes, Pope, & Young, 2004). Once the inside directors' careers are

linked to the CEO, the role of monitoring management's actions tends to decrease, especially on the outside board members (Beekes et al., 2004).

Outside directors also play a significant role in the matter, given that they assume an important role in situations where the managers' and shareholders' interests do not match (Beekes et al., 2004). Thus, this supports the hypothesis that outside directors play a vital part when it comes to protect shareholders' capital in circumstances where the interests of outside owners and managers diverge (Beekes et al., 2004).

Indeed, outside directors are able to decrease the probability of financial fraud and to increase the efficiency in earnings management (Ajinkya, Bhojraj, & Sengupta, 2005). Furthermore, outside directors, who are supposed to protect the shareholders' interests, can strengthen the firm value by providing experienced and monitoring services (Fakhfakh Sakka & Jarboui, 2016). Companies with more outside directors are expected to disclose their earnings statements early and tend to have their mandatory financial reports more monitored (Ajinkya et al., 2005; Dah & Jizi, 2018; Uribe-Bohorquez, Martínez-Ferrero, & García-Sánchez, 2018).

In capital markets, agents can find opportunistic behavior when managers have motivations to deceive shareholders by disclosing financial information that does not represent the true underlying performance of the business (Habib & Jiang, 2015). Consequently, there are formal incentives and control mechanisms, namely the internal and external mechanisms mentioned above, that seek the protection of outside shareholders against any kind of unprincipled reporting behavior (Habib & Jiang, 2015). These mechanisms are likely to help reconcile the owners and managers' different interests as well as to increase firm value, by ensuring a better performance or bound wealth allocation among shareholders and mangers (Fakhfakh Sakka & Jarboui, 2016).

Regarding what motivates managers' disclosure decisions, it is assumed that, even when facing an efficient capital market, managers have advantage in terms of financial information knowledge when compared to outside investors (Healy & Palepu, 2001) leading to believe that they may have strategic behaviors to achieve their goals and to pursue their own personal interests.

But this strategical behavior does not always come with negative impacts on the interests of investors. Managers who anticipate making capital markets transactions choose to provide voluntarily financial information in order to decrease de information asymmetry, the cost of capital and, thereby, reduce the companies' costs of external funding (Healy & Palepu, 2001).

Another component of corporate governance to take into account is gender diversity. The presence of women on boards is one of the main subjects discussed nowadays, when debating corporate governance practices and when considering their influence on firm performance (Abad, Lucas-Pérez, Minguez-Vera, & Yagüe, 2017).

From a sociological and psychological perspective, the presence of women on boards could influence the dynamics of board deliberations and this may have positive effects on the information processing (Abad et al., 2017). This happens because, when comparing to male board members, women generally have better social and communication skills, which may improve decision-making processes by encouraging the board to deliberate different viewpoints (Abad et al., 2017). Besides providing a richer information environment, women can direct the board to strategic actions to identify better investment opportunities for the firm (Poletti-Hughes & Briano-Turrent, 2019).

When it comes to boards composition, there are several countries that have been adopting legislation to further gender diversity. In 2003, Norway was one of the first countries to impose a law that requires public companies to fill at least 40% of board positions with women (by 2008) (Joecks, Pull, & Vetter, 2013). Spain also indorsed a law proposing that boards should be filled with a 40% quota of female board members by 2015 (Joecks et al., 2013).

In Portugal, the existence of inequalities between women and men in decision making processes has motivated the Portuguese government to promote the parity law, by implementing the Law No. 62/2017[2]. According to this rule, all Portuguese listed companies must have filled their board of directors with at least 33,3% of women by 2020.

It is important to put into practice this kind of measures since men and women differ in many aspects. Women are more risk averse than men, they tend to be less aggressive when it comes to management decisions and therefore are able cultivate value within the firms by providing new perspectives (Joecks et al., 2013). This may suggest that women being sub represented in boards are not contributing with their full potential and skills.

For example, the bankruptcy of the Lehman Brothers had led to man theories that also enforce the importance of women in management, including *"The Lehman Sisters hypothesis"*

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[2] Law No. 62/2017 of 1 August 2017, Diário da República No. 147/2017, Series I, *Assembleia da República*, Lisbon.

(Ben-Amar, Chang, & McIlkenny, 2017). This theory argues that the banking crisis that followed the bank's bankruptcy would not have the impact it had, if the board of directors had more women (Ben-Amar et al., 2017).

Even if women can effectively add value to the firm and consequently increase management efficiency, it is important to understand how the presence of women on boards is related to agency costs. According to agency theory, agency costs are defined as the costs associated with conflict of interests between agents and owners (Jurkus, Park, & Woodard, 2011). Jurkus et al. (2011) find evidence that firms that have a higher proportion of women on boards present lower agency costs.

Gender diversity can provide the boards with members who bring to it different features, distinct experiences, skills and aptitudes which is expected to increase board effectiveness of its critical functioning management control and supervision, as a result of the improved quality of board debates and better management of the firm's disclosure (Abad et al., 2017; Ben-Amar et al., 2017).

Female directors are more active on corporate boards, by providing greater insight and closer monitoring (Abad et al., 2017). They may also be more sensible to different subjects and, therefore, more able to ask questions that would not be asked by male directors (Abad et al., 2017).

Thus, the presence of women on corporate boards enhances its independence and improves its efficiency, favoring the reduction of agency conflicts (Abad et al., 2017).

In this study, it will be analyzed the proportion of women's evolution on boards from 2007 to 2015 and how it can influence the timing at which the Portuguese firms disclose their financial information.

3.3. The timeliness of financial reporting

Besides corporate governance and voluntary disclosure being important elements of financial reports, timeliness is also seen as a necessary part of financial information disclosure and it has received increased attention by accounting regulators and listing authorities worldwide, once it enhances the capital market efficiency, by building continued investor sureness and allowing an informed valuation of their business performance and assets (Abdelsalam &

Street, 2007; Ezat & El-Masry, 2008; Lourenco et al., 2018; S. Owusu-Ansah & Leventis, 2006).

For example, in emerging markets, timeliness of financial reporting assumes a particular importance because information in these markets is significantly limited and has a lengthier time lag (S. Owusu-Ansah & Leventis, 2006). Hence, the fact that timeliness is able to improve the decision-making process and it can lower the information asymmetry in these markets motivates researchers to study the determinants of timely reporting (S. Owusu-Ansah & Leventis, 2006). These studies are a major contribution to emerging capital markets' regulators to formulate new policies to increase the allocational efficiency of their markets (S. Owusu-Ansah & Leventis, 2006).

Blanco, García Lara, and Tribó (2014) find evidence that firms that are committed to ensure transparency, have better quality earnings and subsequently increased levels of disclosure with more segments. Complementing this argument, Givoly and Palmon (1982) provide indications that bad news tend to be delayed and find evidence that the market reacts in different ways to the timing they are released. These authors state that, when there is a delay on the report disclosure, there is an increase of uncertainty in the markets related to choices for which financial statements provide information (Givoly & Palmon, 1982).

Guillamon-Saorin and Sousa (2014), Healy and Palepu (2001) and Begley and Fischer (1998) argue that the level of voluntary disclosure is determined by its benefits and costs, since managers' decisions concerning disclosure can be associated to stock compensations. The possibility to add value to the company and to pursue growth opportunities are an indicator of exclusive information and are an indication of the existence of lucrative investments (Guillamon-Saorin & Sousa, 2014), making managers behave strategically when exposing good and bad news.

In order to discourage competitors from entering the market, these growth opportunities incentive managers to withhold relevant information and to usually disclose the good news sooner than the bad news (Guillamon-Saorin & Sousa, 2014).

Consistent with a good news early, bad news late hypothesis, some managers experience a benefit from delaying the financial information disclosure that exceeds the cost (Bagnoli, Kross, & Watts, 2002; Begley & Fischer, 1998). However, the benefits and costs associated to delaying are likely to have changed in the last decades. In earlier studies, such as Chambers

and Penman (1984), the main explanations for delaying the disclosure of bad news are the ability to reverse the poor performance and to prepare possible responses to criticism, once they have more time (Begley & Fischer, 1998).

Begley and Fischer (1998), who consider that there has been a change regarding benefits and costs, use more current data and conclude that this change is related to the increase of insurance premiums that auditors, directors and officers owned, during the 1980s. Also, the change in the litigation environment may have altered the relation between timing of earnings releases and the news in those releases (Begley & Fischer, 1998). This happened because, first, litigation encourages corporations to anticipate the release of bad news through voluntary disclosures and, second, because lawsuits follow a stock price run up that is followed by a subsequent decline (Begley & Fischer, 1998).

The timing at which the financial information is released, whether it is bad news or good news, has impact on capital markets. If the reports tend to be delayed, investors decrease the prices in a way that is consistent with the pattern "*a day late, a penny short*" (Bagnoli et al., 2002). Market assimilates more information in earnings as the announcement date approaches, highlighting the importance of the information that is provided to market participants (Sengupta, 2004).

This proves that investors react to missed report dates and that the timing of earnings announcements can be used to enhance the comprehension of how market agents behave, given the information disclosed (Bagnoli et al., 2002).

Timeliness also influences the returns in stock markets. According to Chambers and Penman (1984), there is a relationship between reporting delays and variations on returns at release date for reports of relatively small firms which stand good news. Firms that release their statements within the acceptable period and which carry good news are related to higher price reactions than other firms that tend to delay (Chambers & Penman, 1984). These authors also find that price effects are larger in firms that publish the reports earlier than expected than in firms that release later. Further and consistent with previous findings, the authors above mentioned corroborate that unpredictably early reports are associated to good news, in contrast to late reports.

To better understand the managers' intentions, Graham, Harvey, and Rajgopal (2005) conducted a survey that asks CFOs to describe their decisions related to financial reports and voluntary disclosure and found that CFOs defend the need to have credibility with the

market. In order to have this, both good and bad news must be disclosed in a timely way. Part of the respondents claim that they chase an opportunity to save the company from releasing bad news by delaying the earnings announcements. In this way, CFOs can study and interpret the information before making an impact in the market (Graham et al., 2005).

When managers have more privileged information shortly before the financial disclosure occurs, CEOs tend to adopt a voluntary disclosure strategy in order to maximize the gains associated to their actions (Aboody & Kasznik, 2000). This indicates that there is information asymmetry in capital markets and some participants can take advantage of the knowledge limitations of other agents.

In developed economies, households savings are absorbed by entrepreneurs and firms to fund their businesses. However, matching these savings to business investment opportunities in an efficiently way is not an easy task. This happens because, given the information disparity, managers are better informed than savers about the value of their own business investment opportunities which leads to recurrent overvaluations of their value (Chen, Cheng, & Gao, 2005; Healy & Palepu, 2001). These assumptions are in agreement with agency theory.

Facing these examples, the presence of information asymmetry between early and late earnings announcements in capital markets incentives problems that obstruct the efficient allocation of resources in the economy (Chen et al., 2005). Therefore, institutions and regulatory agencies, that aim to guarantee the credibility in disclosure between managers and potential investors, issue requirements and recommendations regarding the timely disclosure of firms' annual reports (Abdelsalam & Street, 2007; Ezat & El-Masry, 2008; Healy & Palepu, 2001).

Then, corporate governance assumes an important role in capital markets, now more than ever. Knowing that in the last decades there has been a big growth of financial innovations among the markets, the duty to protect the potential investors from other agents' strategic behavior is a subject to discuss and goes through corporate governance.

Besides corporate governance, voluntary disclosures, the quality and the timing of financial reports can assure the transparency between agents and can contribute to a possible increase of efficiency in capital markets. It is important, however, to have in mind that voluntary disclosures do not always come followed by good intentions. The lack of credibility is related

to voluntary disclosures of information on the company's performance that result in resource misallocation between agents.

In a world were markets are not perfect and where regulation does not work as expected, managers trade-off between making accounting choices and disclosures to reduce information asymmetry, by releasing their knowledge advantage of firm's expected earnings to potential investors (Healy & Palepu, 2001).

4. Development of the hypotheses

This study examines the relationship between corporate governance characteristics and the timeliness of financial reports disclosure, for a sample of Portuguese companies listed on the Portuguese Stock Exchange for the years 2007-2015, while controlling for other factors.

Regarding the operationalization of the dependent variable in this study, timeliness is defined as the number of days between the end of the financial year and the date that managers release their reports. To denote timeliness we use the term "*lead-time*", as the studies found in the literature: Lourenco et al. (2018); Stephen Owusu-Ansah (2000); S. Owusu-Ansah and Leventis (2006). Therefore, TIME, described as the financial reporting lead-time, was computed for each firm included in the sample by counting the number of days that elapsed between its financial year-end and the date its annual financial reports are made available at CMVM Information Disclosure System.

In light of the theoretical framework presented in the previous sections, the six hypotheses developed are presented in the following sections.

4.1. Board Independence

Fama and Jensen (1983) believe that corporate boards are effective when there is a split between executive and non-executive members. Haniffa and Cooke (2002) also emphasize the importance of non-executive directors in enhancing the boards' decisions and actions effectiveness, avoiding the existence of opportunistic behavior.

According to agency theory, the non-executive members assume an important role in fighting against agency problems and act as judges in disagreements among executive managers, by monitoring and controlling the actions of executive directors (Fama & Jensen, 1983; Haniffa & Cooke, 2002).

It is also important to highlight that outside members tend to have incentives to develop reputations as experts in the decision making process and, therefore, are more likely to protect investors interests (Fama & Jensen, 1983).

Regarding the financial information disclosure, board composition can assume an important role because if non-executive directors are indeed interested in protecting investors' interests,

it is expected that they will increase the level of disclosure, guaranteeing transparency and efficiency (Haniffa & Cooke, 2002).

Uribe-Bohorquez et al. (2018) provide support that board independence has a positive impact on firms' performance, and this impact is strengthened when firms operate in contexts with a greater extent of law and enforcement. In agreement with these findings, Dah and Jizi (2018) support a positive influence of board independence on firms' disclosures. Furthermore, these authors' results show that the participation of non-executive directors on boards affect positively the firms' disclosure levels and risk management.

Thus, the following hypothesis is formulated:

H1: *There is a negative association between board independence and the financial reporting lead-time.*

4.2. Role Duality

In this study, role duality is defined as CEO being also the chairman (Abdelsalam & Street, 2007).

The supporters of agency theory argue that, in order to guarantee the success of management's performance and reduce agency conflicts, there must be a distinction between these two roles (Haniffa & Cooke, 2002).

The combination of both chairman and CEO can result in a high concentration of power and pursue of wealth, foster managerial entrenchment, compromising the board's independence with negative consequences for the firm (Aktas, Andreou, Karasamani, & Philip, 2019; Fakhfakh Sakka & Jarboui, 2016). Also, the combination of these two roles deprive the firm of having a monitoring role in board meetings and in selecting board members (Abdelsalam & Street, 2007).

Cunha and Rodrigues (2018) find empirical evidence that when the CEO and the chairman are the same person in Portuguese listed firms, the board's supervisory role gets weaker and the level of disclosure decreases. This result is in agreement with the findings presented by Duru, Iyengar, and Zampelli (2016), Aktas et al. (2019); Shrivastav and Kalsie (2016), where CEO duality has a negative impact on firm performance and on firm value.

Thus, the following hypothesis is formulated:

H2: *There is a positive association between role duality and the financial reporting lead-time.*

4.3. Board Size

Besides board independence and role duality, the number of directors on the firm's board is also an important factor to have into account in that it may influence strategic decisions within the firm.

From an agency theory perspective, board size can reduce the agency conflicts inherent in the corporate governance practices, being an important corporate governance mechanism for monitoring and advising management (Cunha & Rodrigues, 2018; Mohapatra, 2017), but this concept can be associated with advantages and disadvantages.

A large board usually incurs coordination problems, making the its monitoring role less efficient (Fakhfakh Sakka & Jarboui, 2016), and resulting in a slower decision-making process (Cunha & Rodrigues, 2018). However, this monitoring role can be efficient if the diversity in the board provides critical resources and eliminate environmental uncertainties (Fakhfakh Sakka & Jarboui, 2016). Companies tend to have larger boards due to the arising complexity of management activities (Cunha & Rodrigues, 2018). Guo and Kga (2012) provide empirical evidence that the board size has an impact on firm performance.

Cunha and Rodrigues (2018) find evidence that companies with a larger board tend to have higher levels of disclosure and Ciftci et al. (2019), Mohapatra (2017); Rashid (2018) present results that support the hypothesis of firms with larger boards performing better.

Regarding the relationship between timeliness and board size, Fakhfakh Sakka and Jarboui (2016) and Ezat and El-Masry (2008) find that board size is a significant variable and has a negative impact on financial reporting lead-time, making companies with larger boards more promptly reporters.

Thus, the following hypothesis is formulated:

H3:   *There is a negative association between board size and the financial reporting lead-time.*

4.4. Ownership Concentration

According to agency theory, ownership is seen as a crucial determinant of highly effective better corporate governance practices (Fakhfakh Sakka & Jarboui, 2016) and less information asymmetry once the higher the ownership concentration, the lower the separation of ownership and management (Cunha & Rodrigues, 2018; Haniffa & Cooke, 2002).

Concentration and dispersion of ownership is seen as an important variable that helps to explain financial information disclosure's behavior (Haniffa & Cooke, 2002). Ciftci et al. (2019) defend that ownership concentration is usually associated with better firm's performances and with better corporate governance practices.

This happens because firms with higher levels of ownership have less sophisticated internal controls and incur significant agency costs (Quick, Schenk, Schmidt, & Towara, 2018).

Also, the authors Ishak, Muhammad Sidek, and Rashid (2010) provide strong evidence that companies with high ownership concentration present shorter financial reporting lead-time when it comes to disclosure.

In this study, ownership concentration is defined as the percentage of shares held by qualifying shareholders (with more than 5% of the outstanding shares of the publicly traded corporation).

Thus, the following hypothesis is formulated:

H4: *There is a negative association between ownership concentration and the financial reporting lead-time.*

4.5. Women on the Board

From an agency theory perspective, the presence of women in top management positions tends to decrease agency costs and has a positive impact on firm performance (Jurkus et al., 2011). In fact, gender-diverse boards allocate more effort to monitoring and improves governance (Adams & Ferreira, 2009).

The fact that women show more concern about social responsibility matters than men and tend to be associated with higher levels of voluntary disclosure (Ben-Amar et al., 2017; Fernandez-Feijoo, Romero, & Ruiz-Blanco, 2014) leads to believe that the firms with boards that have higher proportion of women disclose their financial information earlier than the ones with lower proportion of women. One possible explanation for these statements is the fact that women are usually associated with more different professional experiences and perspectives when compared to men, making more informed and strategic decisions to detect better investment opportunities for the company (Poletti-Hughes & Briano-Turrent, 2019).

Therefore, female presence on boards goes beyond ethical concerns being also important from a business viewpoint (Poletti-Hughes & Briano-Turrent, 2019).

There is evidence that gender-diverse boards have beneficial effects on stock markets (Abad et al., 2017) and have a positive impact on firm performance (Julizaerma & Sori, 2012; Jurkus et al., 2011),

Thus, the following hypothesis is formulated:

H5: *There is a negative association between proportion of women on boards a and the financial reporting lead-time.*

4.6. Big-4 Audit Firms

Financial reporting is destinated to ultimately present reliable information about the firm's financial position and performance that is crucial when market agents intend to make economic decisions (Bajra & Čadež, 2018). However, as stated in the previous sections, the financial reports do not always comply with its main mission in guaranteeing transparency and can often be distorted or fraudulent (Blanco et al., 2014). From an agency theory perspective, the main purpose of the audit is to decrease the conflicts that arise from the separation between management and ownership, by limiting concealed actions by the firm's managers (Quick et al., 2018).

The existence of audit committees came to fight the lack of transparency and financial reporting quality, by oversighting the reports, monitoring the accounting practices, regulatory compliance and risk management (Bajra & Čadež, 2018). According to the agency theory perspective, it is argued that the existence of an audit committee enhances corporate governance system and should protect investors' interests from immoral behaviors (Zhou, Owusu-Ansah, & Maggina, 2018).

However, the definition presented above can be tricky in the corporate governance context and this happens for two reasons: first, the definition of financial reporting quality is very subjective; second, the role to ensure the transparency and to be legally responsible for financial reporting belongs to the managers and not to the audit committee (Bajra & Čadež, 2018).

In this study, the goal is to analyze the relationship between the timeliness of financial reporting and being audited by a Big-4 audit firm, since Big-4 audit firms are widely viewed as producing higher quality audits than their non-Big-4 counterparts (Quick et al., 2018).

Bajra and Čadež (2018) find evidence that the presence of an audit committee is positively correlated with financial reporting quality and the authors S. Owusu-Ansah and Leventis (2006) present results proving that firms' audited by the former Big-5 audit firms have shorter financial reporting lead-time.

Cunha and Rodrigues (2018) complement these findings with results showing that Portuguese listed companies that are audited by a Big-4 audit firm have higher levels of disclosure.

Thus, the following hypothesis is formulated:

H6: *There is a negative association between being audited by a Big-4 audit firm and the financial reporting lead-time.*

5. Research Design

5.1. Model and variables

Based on a sample of the firms listed in the Portuguese Stock Exchange (Euronext - Lisbon), the goal of this work is to examine the influence of corporate governance characteristics on the timing of financial reports' disclosure using panel data techniques to estimate an econometric model, for the years 2007-2015 that comprises 341 firm-year observations.

In order to test the hypotheses formulated in section 4, the following econometric model was shaped:

$$
\begin{aligned}
TIME_{it} = \beta_1 &+ \beta_2 BSIZE_{it} + \beta_3 BINDEP_{it} + \beta_4 DUALITY_{it} + \beta_5 OWN_{it} \\
&+ \beta_6 WOMEN_{it} + \beta_7 BIG4_{it} + \beta_8 FAMILY_{it} + \beta_9 ROA_{it} \\
&+ \beta_{10} SIZE_{it} + \beta_{11} ANALYST_{it} + \beta_{12} AGE_{it} + \beta_{13} RISK_{it} \\
&+ \beta_{14} CONS_{it} + \beta_{15} SERV_{it} + \varepsilon_{it}
\end{aligned}
\tag{5.1}
$$

Where:

TIME is the number of days between the financial year-end and the date when the financial information is made available at CMVM Information Disclosure System;

BSIZE is the number of total directors;

BINDEP is the proportion of non-executive directors to total directors;

DUALITY is coded for "1" if the CEO is also the chair of the board and, and "0" otherwise;

OWN is the percentage of shares held by qualifying shareholders (with more than 5% of the outstanding shares of the publicly traded corporation);

WOMEN is the proportion of women on boards to total directors;

BIG4 is coded "1" if the firm is audited by a Big-4 audit firm and "0" otherwise;

FAMILY is coded for "1" if the firm is a family firm and "0" otherwise;

ROA is the return on assets;

SIZE is the natural logarithm of the firm's total assets as of the end of the year;

ANALYST is the number of analysts in the company making fiscal year earnings forecasts;

AGE is the number of years since the firm is listed in the Portuguese Stock Exchange;

RISK is the firm's beta risk around announcement days;

CONS is coded for "1" if the firm is in the construction sector and "0" otherwise;

SERV is coded for "1" if the firm is in the services sector and "0" otherwise;

ε is the error term.

5.2. Sample selection and data

The corporate governance characteristics were hand collected from the corporate governance reports that each Portuguese listed firm publishes, according to CMVM regulation. Additionally, to analyze the relationship between these characteristics and the timing, timeliness, which will be considered as the dependent variable, will be expressed, as mentioned in the previous sections, as the number of days between the end of the financial year and the date that managers release their reports. The data regarding this variable was hand collected from CMVM website in its Information Disclosure System.

In light of the theoretical framework and the hypotheses developed in this study, the corporate governance characteristics incorporated in the model are the board independence, the role duality, the board size, the ownership concentration, the proportion of women on boards and if the firm has its annual financial reports audited by a Big-4 audit firm or not.

Once corporate governance is not the single element influencing the timeliness of reporting, there are some control variables that are important to have into account when designing the model.

Given that firms in specific industries face particular conditions that may influence their disclosure practices, the sector in which the firm is inserted (construction or services) is included as a control variable (Lourenco et al., 2018). The number of years since the company is in the Portuguese Stock Exchange is also considered, since a reduction in reporting time is expected to occur as the experience in producing and releasing financial reports increases (Cunha & Rodrigues, 2018; Lourenco et al., 2018). Analysts in companies is also considered, given that it expected to be positively associated with the level of voluntary disclosure and may influence the directors to disclose their financial reports earlier (Abdelsalam & Street, 2007).

Return on assets is associated with favorableness of the news and the risk is related to attempts to capture risk premiums that early announcements bring to the market (Lourenco et al., 2018). Ezat and El-Masry (2008) find empirical evidence the firm size has an influence on timeliness, since large companies may be more able to access financial markets if they disclose more information. Therefore, the firm size is a firm is also considered. Family firms is also an important variable to consider, as Lourenco et al. (2018) provide evidence that there is a relationship between family firms and timeliness.

All control variables were collected from Thompson Worldscope Database and the I/B/E/S database.

6. Empirical results and discussion

6.1. Descriptive analysis

Table 1: Dependent variable's descriptive statistics

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015
Mean	90	95	94	95	95	95	91	91	94
Std. Deviation	19.76	21.42	19.43	19.50	22.31	21.27	20.82	24.79	24.07
Maximum	121	120	121	121	121	121	120	121	121
Minimum	57	50	57	56	58	52	51	55	55

As shown in table 1, on average, Portuguese listed companies disclose their financial reports within four months after the end of the financial year, complying with CMVM regulatory requirements. The mean of the dependent variable, TIME, lies between 90 and 95 days, ranging from 50 and 121 days, through the 9 years of observations.

Based on the statistics presented in table 1, it is possible to confirm that the Portuguese listed firms included in the sample comply with CMVM regulatory requirements, by disclosing their annual financial reports within four months after the end of the fiscal period.

Table 2 reports the correlation coefficients between the variables included in the model and its main descriptive statistics: mean and standard deviation. According to these results, firms disclose their financial reports on average 93 days after the end of the financial year. It is also possible to state that the Portuguese boards have, on average 10, directors and approximately half of the members of Portuguese boards are non-executive directors. Approximately 33% of the CEOs of the firms included in the sample are also the Chairman, playing a duality role.

Shifting the attention to the dependent variable, it is negatively correlated with the board size. The same is to the case with board independence.

Being audited by a Big-4 audit firm is strongly and negatively correlated with the dependent variable. According to the results presented in table 2, almost 90% of the firms included in the sample have their financial statements and respective reports audited by a Big-4 audit firm, highlighting the relevance of this variable in corporate governance practices.

Role duality, ownership and women do not present a statistically significant correlation with the dependent variable.

When analyzing the control variables, the number of analysts making fiscal year earnings forecasts is a variable that presents a strong and negative correlation with TIME. Family firms also have a statistically significant and negative correlation with the dependent variable, as well as the firms' size. In fact, half of the firms included in the sample are family firms. The firms' beta risk around announcement days and the firms inserted in the construction sector do not have a statistically significant correlation with the dependent variable, but firms in the services sector have a relevant and negative correlation with TIME.

It is interesting to scrutinize the correlation between explanatory variables that are investigated in this study. Board size and ownership are positively correlated with the firms' size. Ownership also presents a positive correlation with the number of analysts. There is a negative, yet strong, correlation between firms in services sector and being audited by a Big-4 audit firm.

Table 2: Pearson correlation coefficients and descriptive statistics

Variables	Mean	Std. Deviation	TIME	BSIZE	BINDEP	DUALITY	OWN	WOMEN	BIG4	FAMILY	ROA	SIZE	ANALYST	AGE	RISK	CONS	SERV
TIME	93.26	21.17	1														
BSIZE	9.75	5.25	-0.16***	1													
BINDEP	0.47	0.24	-0.24***	0.47***	1												
DUALITY	0.33	0.47	0.01	-0.31***	-0.01	1											
OWN	0.68	0.18	0.09	-0.28***	0.05	0.16***	1										
WOMEN	0.07	0.10	0.02	-0.13**	-0.09	0.12**	0.15***	1									
BIG4	0.87	0.33	-0.42***	0.18***	0.15***	0.06	-0.27***	0.13**	1								
FAMILY	0.50	0.50	-0.25***	-0.22***	0.10*	0.12**	0.31***	0.24***	0.19***	1							
ROA	0.04	0.05	-0.28***	0.11**	0.17***	0.09	-0.05	-0.01	0.19***	-0.01	1						
SIZE	14.02	1.98	-0.37***	0.68***	0.16***	-0.34***	-0.47***	-0.08	0.42***	-0.09*	0.16***	1					
ANALYST	6.84	7.61	-0.42***	0.56***	0.22***	-0.20***	-0.44***	-0.14***	0.34***	-0.18***	0.22***	0.73***	1				
AGE	15.35	6.85	0.17***	0.04	0.05	-0.03	0.20***	0.07	-0.23***	0.16***	-0.15***	0.04	-0.12**	1			
RISK	1.20	0.56	-0.01	0.28***	0.09*	-0.23***	-0.32***	-0.08	-0.06	-0.05	-0.14**	0.27***	0.07	0.11**	1		
CONS	0.07	0.26	-0.04	0.01	0.04	-0.13**	0.08	0.12**	0.04	0.17***	-0.06	0.06	-0.004	-0.14***	0.27***	1	
SERV	0.20	0.40	0.36***	-0.24***	-0.19***	0.03	0.16***	-0.11**	-0.71***	-0.27***	-0.19***	-0.51***	-0.4***	0.02	0.002	-0.14***	1
N	341	341	341	341	341	341	341	341	341	341	341	341	341	341	341	341	341

Where TIME is the number of days between the financial year-end and the date when the financial information is disclosed, BSIZE is the number of total directors, BINDEP is the proportion of non-executive directors to total directors, DUALITY is coded for "1" if the CEO is also the chair of the board and, if otherwise it is coded as "0", OWN is the percentage of shares held by qualifying shareholders, WOMEN is the proportion of women on boards to total directors, BIG4 is coded "1" if the firm is audited by a Big-4 audit firm and "0" otherwise, FAMILY is coded for "1" if the firm is a family firm and "0" otherwise, ROA is the return on assets, SIZE is the natural logarithm of the firm's total assets as of the end of the year, ANALYST is the number of analysts making fiscal year earnings forecasts, AGE is the number of years since the firm is listed in the Portuguese Stock Exchange, RISK is the firm's beta risk around announcement days, CONS is coded for "1" if the firm is in the construction sector and "0" otherwise, SERV is coded for "1" if the firm is in the services sector and "0" otherwise. *, ** and *** tell if the variables are significant at 0.1 ($p<0.1$), 0.05 ($p<0.05$) and 0.01 ($p<0.01$) levels respectively.

Source: Own elaboration (using Eviews v10).

6.2. Regression results

Since the sample is an unbalanced panel data set with 47 cross-section units and 9 years of observations, an econometric model was estimated based on a panel data framework.

When facing a panel data set that covers a combination of cross-sectional dimensions and time series, it is typically assorted by three different methods: random effects model; fixed effects model; and pooled OLS model (Verbeek, 2008).

When estimating by random effects, the model is assumed to have a set of effects that affect the dependent variable but are not included as explanatory variables and, therefore, are covered by a random error term (Verbeek, 2008). On the other hand, fixed effects assume that intercept terms vary over the individual units indicating the existence of a correlation between the regressors and individual effects (Verbeek, 2008). Pooled OLS is a simple linear regression using an ordinary least squares estimator (Greene, 2000).

The presence of autocorrelation in the model has negative consequences for OLS estimator, invalidating its inference (Verbeek, 2008). To check whether there is autocorrelation in the model or not, the Durbin-Watson test was computed (see table 5). The statistic value is 0.9425 and is comprised between 0 and 2. This proves the existence of a positive autocorrelation between different time observations for each firm, making OLS not the best estimator.

It is important to bear that the model (5.1) specified in section 5.1. is constituted by several dummy variables that are relevant for the analysis, implying that its removal may lead to unreliable conclusions. Estimating the model (5.1) by fixed effects method requires the removal of these dummy variables and, therefore, this option is also discarded.

To decide which estimator to use, pooled or random effects, a Lagrange Multiplier (LM) test for the random effects was computed: the Breusch-Pagan test. Under this test's null hypothesis the variance of the random effects is zero (Greene, 2000). Under the null hypothesis, LM is distributed as chi-squared with one degree of freedom (Greene, 2000). According to this test's result, the null hypothesis is rejected (see table 5) meaning that an estimation by pooled effects leads to non-consistent results. Then, the model was estimated by random effects.

In general, the results obtained by estimating model (5.1) by random effects, have a relatively good quality as suggested by the F- statistics and the R-squared measures (see table 5).

Table 3: Regression results

Variables and model statistics	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
Intercept	158.426	124.441	151.043	146.662	135.089	146.490	157.434	159.808	130.435	183.631	160.363
BSIZE	0.850**	0.023	0.914***	-	0.823**	0.898**	1.025***	0.865**	0.597*	0.745**	0.835**
BINDEP	2.182	8.670*	-	8.558*	0.754	1.591	2.001	1.678	4.630	1.436	4.246
DUALITY	0.709	0.119	-	-1.290	-0.350	-1.147	-0.828	-1.089	-0.039	-1.560	-0.126
OWN	-21.161***	-13.181**	-18.587***	-20.870***	-	-20.332***	-23.740***	-22.666***	-19.518***	-18.749***	-18.588***
WOMEN	-6.780	-4.791	-	-7.838	-7.741	-9.951	-9.139	-7.641	-7.105	-6.102	-3.793
BIG4	-14.406**	-29.359***	-12.846**	-15.429**	-13.030*	-	-15.091**	-14.126**	-15.895**	-13.818*	-18.730***
FAMILY	-10.878***	-	-9.586**	-12.211***	-12.458***	-11.088***	-	-10.798***	-11.348***	-7.951**	-10.176***
ROA	-37.818**	-	-36.751*	-37.912**	-44.474**	-36.354*	-35.918*	-	-39.222**	-39.167**	-44.428**
SIZE	-2.365*	-	-2.548*	-1.086	-1.750	-2.709*	-2.688*	-2.570*	-	-5.169***	-1.930
ANALYST	-1.151***	-	-1.075***	-1.104***	-1.071***	-1.137***	-0.988***	-1.169***	-1.386***	-	-1.217***
AGE	0.495**	-	0.424*	0.485**	0.378*	0.623***	0.437*	0.566**	0.440*	0.589**	-
RISK	-5.467	-	-	-4.898	-3.447	-5.417	-5.375	-5.423	-6.689*	-3.639	-4.401
CONS	8.382	-	-	7.796	5.921	11.485*	6.597	9.329	8.114	9.744	4.781
SERV	-2.743	-	-	-2.332	-2.670	4.666	1.509	-2.126	-0.433	-0.164	-4.717
Overall R^2	0.374	0.117	0.370	0.356	0.361	0.349	0.317	0.356	0.358	0.309	0.354
N	341	341	341	341	341	341	341	341	341	341	341

Where TIME is the number of days between the financial year-end and the date when the financial information is disclosed, BSIZE is the number of total directors, BINDEP is the proportion of non-executive directors to total directors, DUALITY is coded for "1" if the CEO is also the chair of the board and, if otherwise it is coded as "0", OWN is the percentage of shares held by qualifying shareholders, WOMEN is the proportion of women on boards to total directors, BIG4 is coded "1" 1 if the firm is audited by a Big-4 audit firm and "0" otherwise, FAMILY is coded for "1" if the firm is a family firm and "0" otherwise, ROA is the return on assets, SIZE is the natural logarithm of the firm's total assets as of the end of the year, ANALYST is the number of analysts making fiscal year earnings forecasts, AGE is the number of years since the firm is listed in the Portuguese Stock Exchange, RISK is the firm's beta risk around announcement days, CONS is coded for "1" if the firm is in the construction sector and "0" otherwise, SERV is coded for "1" if the firm is in the services sector and "0" otherwise. *, ** and *** tell if the variables are significant at 0.1 (p<0.1), 0.05 (p<0.05) and 0.01 (p<0.01) levels respectively.

Source: Own elaboration (using Eviews v10).

The results of the estimation by random effects are presented in table 3. In column R1 is shown the regression with all the variables included in the model (5.1). Column R2 includes only the variables comprised in the development of the hypotheses presented in section 4. Column R3 incorporates only the explanatory variables that are seen as statistically significant in the model, with recourse to the results shown in R1. To verify whether there are simultaneously effects within the explanatory variables on the dependent variable, 8 more regressions were estimated and are presented in columns from R4 to R11. These columns show the regression results after dropping individually the statistically significant variables in the model.

Board size is found as statistically significant in the estimation results, irrespective of the explanatory variables' different combinations (R3-R11), but presents a different relationship with the dependent variable from what was expected. The increasing number of directors on boards seems to have a positive impact on TIME, which means that when the firms' board increases by one director, the firm's financial reporting lead-time increases by approximately 1 day, *ceteris paribus*. This does not give support to the hypothesis H3 (*there is a negative association between board size and the financial reporting lead-time*) formulated in section 4.3., contrasting with the results presented by the authors Fakhfakh Sakka and Jarboui (2016), Cunha and Rodrigues (2018), Ciftci et al. (2019), Zhou et al. (2018) and Rashid (2018). One possible reason for this result is the increasing difficulty of coordinating all decisions and of the board's monitoring job, given the high number of decision-makers on the board.
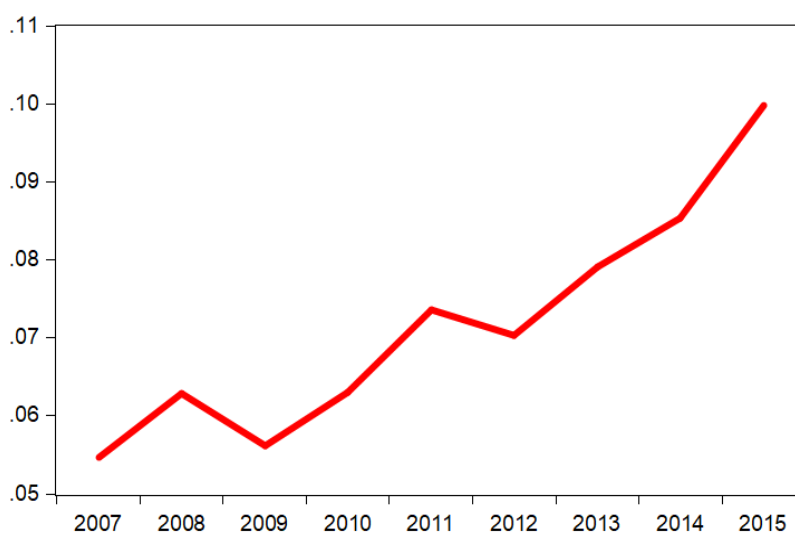
The hypothesis H4 (*there is a negative association between ownership concentration and the financial reporting lead-time*) is strongly supported by these findings, where a negative relationship between ownership and the dependent variable is found. In Portuguese listed firms, when the percentage of shares held by qualifying shareholders increases by 1%, firms anticipate the release of their financial statements by approximately 21 days, *ceteris paribus*. This can be explained by the pressure that is put on auditors and managers to elaborate the report relatively fast and with a distinct quality (Fakhfakh Sakka & Jarboui, 2016), indicating that high ownership concentration decrease the information asymmetry among market agents. Contrasting with these results, Cunha and Rodrigues (2018) found evidence that ownership concentration has a negative impact on the level of disclosure in Portuguese listed firms.

Regarding H1 (*there is a negative association between board independence and the financial reporting lead-time*), there is no evidence that the proportion of non-executive directors influences the firms'

financial reporting lead-time. This result is not consistent with the findings of existing literature (Abdelsalam & Street, 2007; Ajinkya et al., 2005; Haniffa & Cooke, 2002) and is not consistent with the authors García-Meca and Sánchez-Ballesta (2010)'s statement that board independence promotes transparency and seeks shareholders' protection. However, when removed the variable BSIZE from the estimated model (R4) and when removed all the control variables (R2), board independence is statistically significant in the model at 10% ($p < 0.1$).

Role duality is not found as significant, irrespective of the explanatory variables' different combinations (R1-R11), having no influence on timeliness and, therefore, not supporting H2 (*there is a positive association between role duality and the financial reporting lead-time*). These results go against the findings of Abdelsalam and Street (2007); Aktas et al. (2019); Cunha and Rodrigues (2018); Fakhfakh Sakka and Jarboui (2016); Shrivastav and Kalsie (2016).

Figure 1: Average proportion of women on boards per year, 2007 - 2015

Source: Eviews v10 program (data hand collected from firms' corporate governance reports)

The hypothesis H5 (*there is a negative association between proportion of women on boards a and the financial reporting lead-time*) is not supported when estimated the model, no matter what combination of the explanatory variables is made (R1-R11). Although the proportion of women does not influence timeliness, it is important to verify that there has been a clear evolution of the proportion of women on boards in Portugal between 2007 and 2015. This increase is significant between 2009-2011 and 2012-2015, as shown in figure 1. This significant increase can be an anticipation of the law later implemented as mentioned in

section 3.2., where firms started to pursue gender equality among corporate boards. But Portugal still has a long way to go when it comes to promote gender equality. By 2015, only 4 Portuguese listed companies had their boards with at least 33,3% women.

The regression results of the present study also suggest that the Portuguese listed firms audited by a Big-4 audit company (BIG4) are early reporters, giving support to hypothesis H6 (*there is a negative association between being audited by a Big-4 audit firm and the financial reporting lead-time*) at a significance level of 5% (p<0.05). S. Owusu-Ansah and Leventis (2006) also find evidence that supports these results, consistent with the hypothesis that audit quality increases the credibility and quality of information and reduces the agency costs that are attached to the annual reports disclosed by these firms (Bajra & Čadež, 2018; Lourenco et al., 2018; Quick et al., 2018; Zhou et al., 2018).

Regarding the control variables, FAMILY is proved to be a significant variable. This result was highly expected, since the Portuguese capital market is characterized by a high proportion of family firms (Lourenco et al., 2018; Vieira, 2016).

ROA has been used in the literature as a firm performance measure being an important variable to have into account (Major & Marques, 2009) and, therefore, was included in the model as a control variable as well. In this study, ROA is proved to be statistically significant at a significance level of 5% (R1), where firms with higher returns on assets disclose their financial statements earlier. SIZE appears to be significant at 10% (p<0.10) (R1) and ANALYST is significant at a level of 1% (p<0.01) (R1). The high number of analysts seems to be associated with the firm's visibility (Lourenco et al., 2018). The firms with a high number of analysts tend to keep a certain reputation by having a high number of analysts, choosing to provide more information and to be prompt reporters (Lourenco et al., 2018). The variables ROA and ANALYST are statistically significant irrespective of the different combinations of the independent variables (R1-R11).

AGE has a positive influence on the dependent variable at a level of 5% (p<0.05) and its significance in the model means that firms that are listed in the Portuguese capital market for a longer time have larger financial reporting lead-time. This variable is also statistically significant in all different regressions estimated (R1-R11).

According to these regression results, the variables RISK, CONS and SERV do not influence the timing at which the financial reports are released. There is no evidence that firms inserted

in different sectors (construction or services) present time differentials regarding financial reporting lead-time.

According to these results, there are, in fact, corporate governance characteristics in the Portuguese listed firms influencing timeliness, showing relevance when studying agency conflicts. Firms with smaller boards are more promptly reporters, as well as firms with high levels of ownership and firms which have their financial statements audited by Big-4 audit firms.

7. Conclusion

The main goal of this dissertation is to analyze how specific corporate governance characteristics influence the timeliness of financial reporting in Portugal.

In a world where the transparency has an increasing importance in capital markets, the timeliness of financial reports becomes an important insight when analyzing the firms' managers behavior. Corporate governance also plays an important role on the increase of efficiency, not only within the firms, but also in capital markets. In fact, corporate governance has lately been associated with interventions as a reaction to crisis, as a way of restoring confidence and credibility in the markets (Cunha & Rodrigues, 2018).

Having the agency theory as the theoretical background of this dissertation and based on the Portuguese listed firms for the years 2007-2015, a panel data estimation through random effects techniques has led to several results. This study suggests that the board size has a positive impact in the timeliness of financial reporting. In other words, when the number of directors in a firm's board increases, the firm has a larger financial reporting lead-time, contrasting with the results found in the literature Fakhfakh Sakka and Jarboui (2016), Cunha and Rodrigues (2018), Ciftci et al. (2019), Zhou et al. (2018). Larger boards tend to make the coordination between the board members more challenging and possibly leading to conflicts (essentially caused by differences in interests).

There was also found empirical evidence that proves that the higher the percentage of shares held by qualifying shareholders, the more promptly are released the financial statements, proving that the ownership concentration has an impact on the financial reporting lead-time. But, when it comes to the level of disclosure, Portuguese listed firms with high levels of ownership concentration disclose less information regarding their corporate governance (Cunha & Rodrigues, 2018). This is important when analyzing the weight of ownership concentration in capital markets because, although timeliness is an important feature of transparency and efficiency, the level of disclosure also has an important role.

According to this study results, the ownership concentration is proved to be relevant in decreasing information asymmetry between market agents and to increase transparency in the market, by influencing the firms to be promptly reporters.

Regarding the influence of the type of audit firm on the financial reporting lead-time, the empirical evidence of this study provides support to the hypothesis that firms audited by a

Big-4 audit firm are more promptly reporters. This is consistent with results presented by Bajra and Čadež (2018), Zhou et al. (2018), Lourenco et al. (2018); S. Owusu-Ansah and Leventis (2006). This finding can be explained by the increased quality of financial reporting that the Big-4 audit firms assure, given the inherent reputation of these audit firms. In Portugal, approximately 90% of the listed firms have their financial statements audited by these type of audit firms, between 2007 and 2015.

However, no evidence was found that the board independence, the role duality and the proportion of women influence the financial reporting lead-time. These findings contrast with the results of Ben-Amar et al. (2017); Ciftci et al. (2019); Fernandez-Feijoo et al. (2014); Haniffa and Cooke (2002). There are also control variables that are non-significant in the present analysis as well, such as the number of years listed in the Portuguese Stock Exchange, the sector in which the firm operates (whether in construction sector or services sector), and the firm risk.

In spite of not influencing the financial reporting lead-time, the proportion of women has an interesting evolution in Portugal, for the period studied. There has been a significant increase between 2009-2011 and 2012-2015, given that in the recent years there has been an increase in public pressure for gender equality in boardrooms in developed economies (Poletti-Hughes & Briano-Turrent, 2019). However, in Portugal firms are still little sensitive to this subject when compared most developed countries. By 2015, only 4 Portuguese listed firms had at least 33,3% of women in their boards.

Therefore, there are two main contributions that are worth to claim from this study:

First, this study gives empirical evidence of the Portuguese listed firms' behavior regarding the timing they decide to release their financial statements. According to this study's results, all firms included in sample comply with CMVM regulatory requirement of disclosing their annual financial reports within 4 months after the end of the fiscal period.

Second, this study provides empirical evidence on how corporate governance influences firms' decisions regarding the financial reporting lead-time. It adds new features to the literature regarding the Portuguese case: the importance of the board size, the relevance of the ownership concentration and the type of audit firm responsible for auditing the annual reports.

It is also important to note that the present study provides distinct insights regarding the evolution of the role of women on corporate boards, especially in the case of Portugal. The literature review regarding corporate governance and agency theory on which this dissertation was based, does not take into account the possible influence that the proportion of women can have in corporate boards and do not provide the evolution of this variable on its samples (Ciftci et al., 2019; Cunha & Rodrigues, 2018; Habib & Jiang, 2015; Haniffa & Cooke, 2002; Major & Marques, 2009).

Finally, this study delivers a relevant entail in terms of capital markets regulation: there is a possible connection between the board size and timeliness, where the increasing number of directors on firms' boards is associated to larger financial reporting lead-time in the Portuguese capital market. It is possible that, in the Portuguese context, there is a threshold above which as the number of directors increases, the coordinating conflicts in decision-making process also increase, decreasing the board's monitoring role efficiency.

Thus, recalling the agency theory, this dissertation reinforces the role of corporate governance characteristics in firms' management decisions, more specifically in terms of timeliness. Moreover, these findings are in accordance with the main agency theory's assumptions.

7.1. Limitations and future research

For future research it is important to try to overcome some of these study's limitations.

This study focus only on the Portuguese case and, therefore, it cannot be generalized. Each country has its own regulatory requirements and has its own mechanisms when it comes to corporate governance and capital markets. The Portuguese capital market is typically characterized has having a high ownership concentration, as mentioned in the previous sections, and a low investor protection, contrasting with other countries that may have a more/less developed legal system and higher/lower levels of investors protection.

Second, the sample used to estimate the model is quite small, when compared to the studies found in the literature. Although the number of firms in the Portuguese Stock Exchange is small when compared to other European countries, future studies may consider larger periods and may incorporate deeper insights about the role of women on corporate governance.

The fact that the variables board independence, role duality and the proportion of women are not statistically significant in this study, contrasts with the findings provided by the literature (Abdelsalam & Street, 2007; Ajinkya et al., 2005; Cunha & Rodrigues, 2018; Fakhfakh Sakka & Jarboui, 2016; Haniffa & Cooke, 2002). Therefore, the relevance of these variables should not be discarded and future studies may consider these variables with different methodological approaches.

Finally, agency theory has few insights regarding the role of women, and considering that the proportion of women in corporate boards is in much debate nowadays, it may have significant impacts on firms' performance and on corporate governance practices. Although in this study this variable is not statistically significant, future studies may also consider deeper insights on this subject, by including more variables regarding the presence of women on boards and/or using different estimation techniques.

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Annexes

Table 4: Summary of variables' definitions and measurements

Variables			Measures	Source
Dependent Variable	**Timeliness of Financial Reporting**	**TIME**	Number of days between the financial year-end and the date when the financial information is disclosed	Hand collected from CMVM Information Disclosure System
Main explanatory variables	**Board Size**	**BSIZE**	Number of total directors	Hand collected from firms' corporate governance reports available at CMVM website
	Board Independence	**BINDEP**	Proportion of non-executive directors to total directors	
	Role Duality	**DUALITY**	Coded for "1" if the CEO is also the chair of the board and, if otherwise it is coded as "0"	
	Ownership Concentration	**OWN**	Percentage of shares held by qualifying shareholders	
	Proportion of Women	**WOMEN**	Proportion of women on boards to total directors	
	Big-4 audit firm	**BIG4**	Coded "1" if the firm is audited by a big 4 audit firm and "0" otherwise	
Control Variables	**Family firms**	**FAMILY**	Coded for "1" if the firm is a family firm and "0" otherwise	Thompson Worldscope Database and I/B/E/S database
	Return On Assets	**ROA**	Ratio of net income to total assets	
	Firm Size	**SIZE**	Natural logarithm of the firm's total assets as of the end of the year	
	Analysts in the firm	**ANALYST**	Number of analysts making fiscal year earnings forecasts	
	Age	**AGE**	Number of years since the firm is listed in the Portuguese Stock Exchange	
	Firm risk	**RISK**	Firm's beta risk around announcement days	
	Construction sector	**CONS**	Coded for "1" if the firm is in the construction sector and "0" otherwise	
	Services sector	**SERV**	Coded for "1" if the firm is in the services sector and "0" otherwise	

Source: Own elaboration.

Table 5: Random effects estimations: dependent variable - TIME

Variables	Hypotheses	Model 2007-2015
BINDEP	*H1: There is a negative association between board independence and the financial reporting lead-time.*	2.1819 (0.6769)
DUALITY	*H2: There is a positive association between role duality and the financial reporting lead-time.*	0.7086 (0.7602)
BSIZE	*H3: There is a negative association between board size and the financial reporting lead-time.*	0.8499** (0.025)
OWN	*H4: There is a negative association between ownership concentration and the financial reporting lead-time.*	-21.1613*** (0.0024)
WOMEN	*H5: There is a negative association between proportion of women on boards a and the financial reporting lead-time.*	-6.7804 (0.5368)
BIG4	*H6: There is a negative association between being audited by a Big-4 audit firm and the financial reporting lead-time.*	-14.4062*** (0.0404)
Control Variables	**FAMILY**	-10.8782*** (0.0030)
	ROA	-37.8179** (0.0476)
	SIZE	-2.3648* (0.0898)
	ANALYST	-1.1511*** (0.0000)
	AGE	0.4947** (0.0296)
	RISK	-5.4666 (0.1069)
	CONS	8.3817 (0.2121)
	SERV	-2.7432 (0.6555)
Years x Firms	**N**	341
Goodness-of-fit	**R-squared**	0.3745
	F-statistic (p-value)	6.1557 (0.0000)
Pooled vs Random Effects	**Breusch-Pagan test**	80.5095 (0.0000)
Autocorrelation test	**Durbin-Watson test**	0.9425

Source: Own elaboration (using Eviews v10).

Notes: ***, ** and * tell if the variables are significant at 0.1 (p<0.1), 0.05 (p<0.05) and 0.01 (p<0.01) levels respectively; highlighted cells show the statistically significant estimates and the probability values are in parentheses.