



Master Thesis

Determinants of corporate social responsibility disclosure: empirical evidence from Bulgaria

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ABSTRACT

The study examines the impact of determinant such as profitability, leverage, size, company visibility and foreign ownership on the level of CSR disclosure of Bulgarian listed companies. It contributes to the existing literature in several ways. First, it uses a quantitative analysis to test the determinants of CSR disclosure in Bulgaria for the first time. Second, it is based upon four theories, stakeholder, legitimacy, agency and signaling theory, which are also tested in the context of Bulgarian companies. Third, it considers the importance of the environment, in which companies operate, for their willingness to engage in CSR activities and disclose CSR information. Data on determinants is obtained from Orbis database and annual reports, while data on CSR disclosure is obtained from annual reports, corporate websites or CSR reports. The determinants are tested by means of an Ordinary Least Squares (OLS) regression analysis on a sample of 51 Bulgarian listed firms. The empirical results show that profitability has a significant positive impact on the level CSR disclosure of Bulgarian listed firms. In addition, some support is found for a positive and significant relationship of debt, size and foreign ownership with CSR or its subtypes social or environmental disclosure. Contrary to expectations, the regression results do not provide support for company visibility as a determinant of CSR disclosure.

Keywords: Corporate social responsibility (CSR), CSR reporting, disclosure, determinants, stakeholder theory, legitimacy theory, agency theory, signaling theory, Bulgaria, listed companies

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1. Introduction

The global attention to corporate social responsibility (CSR) activities and to the concept itself has increased remarkably over the past few decades. Many of the companies considered as providers of progress arose criticism for causing some social and environmental issues and thus became the focus of public attention (Reverte, 2009). Consequently, more and more corporations have started to implement CSR practices, which together with the raised concern of the society and the media over these problems have led to an increased CSR disclosure in companies' annual reports (Tilt, 2016). Furthermore, in recent years there has been a growing academic interest in CSR reporting. However, most of these studies concentrate on the disclosure practices of firms in industrialized developed countries and still less research has been done on the reporting of CSR in developing countries.

In this regard, the major objective of this study is to provide deeper insights into the CSR disclosure practices of companies operating in Bulgaria, which is considered an emerging economy according to the IMF World Economic Outlook report (IMF, 2016). In particular, the study aims to identify some determinants of the level of CSR disclosure by analyzing the information corporations provide on their websites, in their annual reports or additional CSR reports. Hereof, in this section, the CSR and the CSR disclosure concepts are presented, followed by an introduction into the research problem and a discussion on the academic relevance. In the end, the structure of the study is outlined.

1.1. CSR and CSR disclosure

Since CSR is not a novel concept, there are many definitions of the term in the literature, as the initial one stems from the 1950s. In his book "Social Responsibilities of the Businessman", Bowen (1953), who is also called the "father of corporate social responsibility" (Carroll, 1999), refers to it as "the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society". Here the focus is on the individuals as decision makers and the macro-social effects of CSR (Lee, 2008).

The first significant attempts of scholars to define the term began in the 1960s and 1970s (e.g. Davis, 1960; Frederick, 1960; Walton, 1963; Johnson, 1971; Steiner, 1971). This period is marked by a conceptual shift in CSR. According to Davis (1973), the social responsibility goes beyond the managerial level and the organization should be referred to as an institution, which should adopt social values in its decision-making processes in order to avoid public disapproval. Carroll (1979; 1991), whose definition of CSR is adopted in this study, makes another major contribution to the CSR theory by proposing a comprehensive framework, which encompasses four different aspects of social responsibility: economic, legal, ethical and discretionary. In the 1980s, scholars focused mainly on the CSR as a *process* (Jones, 1980), on the corporate social performance (CSP) model as a theory including CSR, and developed

further Carroll's (1979) three-dimensional model of corporate social responsibility, corporate social responsiveness and social issues by changing it into a pattern of principles, processes and policies (Wartick & Cochran, 1985).

In the following decades up to nowadays, major topics of academic interest concerned corporate social performance (CSP), business ethics, stakeholder theory, sustainability, and corporate citizenship (Carroll, 2008). Empirical research rather than theorizing became the focus of scholars' attention. According to Wang et al. (2016), the research on CSR can be generally classified into three categories: antecedent, outcome and process. Within the scope of the first one fall studies that explore the determinants of companies' commitment to CSR, to the second category belong articles examining the consequences from the implementation of CSR and the last one includes these studies that analyze the process of decision making and CSR implementation (Wang et al., 2016). Regarding the determining factors for CSR performance, Campbell (2007) argues that the economic and institutional conditions are crucial for companies to behave in socially responsible ways. Other determinants might be firm size, competitive advantage and self-regulation within the financial industry (Chih et al., 2009). Researchers examined also the effect of CSR or CSP on other variables, including financial performance (e.g. McGuire et al., 1988; Griffin & Mahon, 1997; Surroca et al., 2010; Barnett & Salomon, 2011), consumer behavior (e.g. Sen & Bhattacharya, 2001; Olsen et al., 2006), shareholder value (Godfrey et al., 2009), employees (Collier & Esteban, 2007) and organizational commitment (Brammer et al., 2007; Turker, 2009).

Another topic of increasing research interest refers to the determining factors of CSR disclosure. Gray et al. (1987) define CSR disclosure as "the process of communicating the social and environmental effects of an organization's economic action to particular interest groups within society and to the society at large". The reporting of CSR information is important for enhancing the transparency of companies, developing corporate image and it provides useful information for investment decision-making (Aribi & Gao, 2010). Many studies examining the determinants of CSR disclosure have been conducted in the contexts of particular countries: Germany (Gamerschlag et al., 2011), Spain (Reverte, 2009), China (Yao et al., 2011), Bahrain (Juhmani, 2014), Portugal (Branco & Rodrigues, 2008), Thailand (Wuttichindanon, 2016), New Zealand (Hackston & Milne, 1996) etc. However, in these studies, the researchers arrive at contradictory results, since in different countries and conditions different factors affect the level of social disclosure of the companies there.

1.2. Research problem

CSR gained more attention in Bulgaria during the last decade, partially as a consequence of the National Strategy for CSR, which has been developed by the Bulgarian Ministry of Labour and Social Policy (MLSP) with the support of the United Nations Development Programme. In general, it entails major goals that have to be achieved towards the establishment and affirmation of socially responsible practices in the country (Matev et al.,

2009; Gyoshev, 2012). Another important objective that has to be achieved according to the Strategy is the reinforcement of the CSR disclosure tendency and thereby the achievement of greater transparency and awareness of the society and the organizations (MLSP, 2009).

A survey on the CSR practices of companies operating in Bulgaria conducted by an independent agency for marketing and social research found that major impetus for a socially responsible behavior of the firms is the positive public image they could achieve as a result of it (Alpha Research, 2006), which was later again confirmed by Slavova (2015a). This finding emphasizes the significant role of CSR disclosure, which might facilitate the positive representation of Bulgarian companies in the society by introducing information about the activities that they undertake on social and environmental issues. In her empirical study, Slavova (2015a) concludes that CSR disclosure practices are still not significantly popular among smaller firms, but are rather prevalent among subsidiaries of international enterprises. In addition, she assumes that most Bulgarian companies are not aware of the benefits from revealing CSR information. In this regard, this study aims to identify which internal factors encourage Bulgarian firms to expose CSR information in their reports or websites and to provide new insights into the CSR literature about Bulgaria. Since firm characteristics are very important determinants of disclosure practices (Gamerschlag et al., 2011), the impact of some firm-specific factors like profitability, leverage, size, company visibility and foreign ownership on the level of CSR disclosure will be examined. Accordingly, the following research question is formulated:

Which firm-specific factors determine the level of CSR disclosure by companies operating in Bulgaria?

1.3. Academic and practical relevance

The CSR concept and the relevant to it practices of companies operating in Bulgarian market have been subject of various studies. Some of the most prominent studies of CSR in Bulgaria have been carried out by Slavova (2013; 2015a; 2015b; 2015c). These are devoted mainly to the current state, the development and practices of CSR in small and medium enterprises (SMEs) and the public policies related to CSR. Slavova (2015b; 2015a) emphasizes the positive attitude of business in Bulgaria towards CSR practices and stresses that an increasing number of enterprises implement CSR. Other authors have focused on the historical and current development of the CSR concept in Bulgaria, the associated with it initiatives, policies and legislation, the implementation of CSR activities and the impact of non-governmental organizations (Gyoshev, 2012; Zahariev, 2014; Simeonov & Stefanova, 2015; Tsanov, 2016). In her article, Ribarova (2011) analyzes the implementation of CSR policies and practices in terms of labor market and the firms' relations to trade unions. She concludes that major aim of implementing CSR initiatives by companies are the good public relations.

With regards to the determining factors of CSR performance, in his study Dimitrov (2010) deals rather with external environmental and institutional factors, such as internationalization and globalization, sources of profitability, intellectual capital, technology, continuous change, political, economic and energy crises, etc. Another study on the determinants of implementing CSR examines six major factors: stakeholders' interests, stakeholders' requirements, embedded management systems, partnership in performing CSR, obstacles to the implementation of CSR activities and regulatory incentives for implementing CSR activities (Stefanova, 2016).

Nevertheless, there is still an existing research gap regarding the determinants of CSR disclosure by Bulgarian firms. In this respect, this study aims to add to the existing literature by examining several firm-specific factors that might play a determining part in the disclosure of CSR information by firms operating in Bulgaria. Moreover, a quantitative analysis on the determinants of CSR disclosure in Bulgaria is conducted for the first time so far. The research is based on four theories, stakeholder, legitimacy, agency and signaling theory, which are also tested in the context of Bulgarian companies. In this respect, this study contributes to the literature by also taking account of the importance of the environment, in which companies operate, for their willingness to engage in CSR activities and, correspondingly, to disclose CSR information. Since this study is an antecedent one, its practical relevance in management's decision-making process is rather limited.

The study examines the impact of determinant such as profitability, leverage, size, company visibility and foreign ownership. The empirical results show that profitability has a significant positive impact on the level CSR disclosure of Bulgarian listed firms. In addition, some support is found for a positive and significant relationship of debt, size and foreign ownership with CSR, social or environmental disclosure. Contrary to expectations, the regression results do not provide support for company visibility as a determinant of CSR disclosure.

1.4. Thesis structure

This study consists of seven chapters and several sections. Chapter 2 discusses Carroll's (1979; 1991; 2016) definition of CSR as well as four additional CSR concepts. Then the impact of CSR on economic performance, employees and consumers is explained. Further, the theoretical framework of the research as well as existing empirical evidence on CSR disclosure is reviewed. Empirical evidence on different firm-specific determinants of CSR disclosure are also discussed. In the end of Chapter 2, empirical evidence on CSR implementation in Bulgaria is presented and the country context as well as its relevance to CSR activities are explained. In Chapter 3, the hypotheses are formulated and the studied determinants are presented. Chapter 4 explains the methodology, while Chapter 5 describes the sample selection and data sources. Then, the study results are presented and discussed in Chapter 6. Reached conclusions and limitations of the study are described in Chapter 7.

2. Literature review

This chapter provides an overview of the theoretical background of this research and discusses previous literature related to CSR disclosure and its determinants. First, the concept of CSR developed by Carroll (1979; 1991; 2016), which serves as a foundation when studying CSR disclosure level in Bulgaria, is discussed. In the second section, other CSR concepts are briefly explained. Then, the impact of CSR on economic performance, employees and consumers is discussed and empirical evidence on different firm-specific determinants of CSR disclosure is presented. Further, theories adopted in prior research are described and possible determinants derived from these theories in the existing literature are identified. In the last section some country-specific factors affecting CSR and/or CSR disclosure are explained for a better comprehension of the environment, in which companies operate and CSR practices are implemented.

2.1. Carroll's framework of CSR

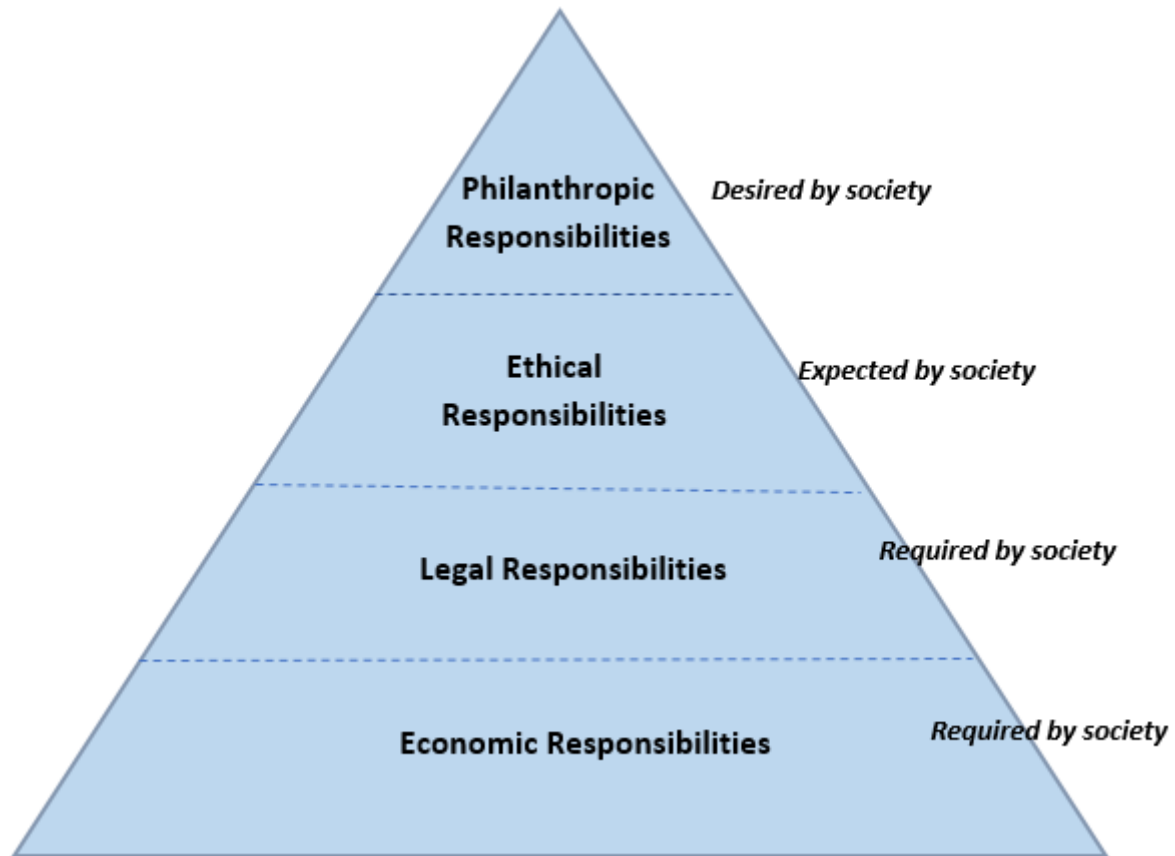
One of the most popular and sustainable frameworks in the literature on CSR has been proposed by Carroll (1979). His construct has been used primarily in America, but it was later discussed also in European (Crane & Matten, 2004) and in a developing country context (Visser, 2008). Carroll's four-part definition implies that CSR comprises four major responsibilities that the business has towards the society: economic, legal, ethical and discretionary (philanthropic) (Carroll, 1979; 1991). With this definition, Carroll (1991) depicts the four components of CSR in the form of a pyramid, where the economic component forms the ground layer on which the other components rest: legal responsibilities constituting the second layer, followed by ethical and at the top by philanthropic responsibilities (*Figure 1*). In that respect, the concept of CSR in terms of its implementation by Bulgarian companies is based on Carroll's (1979; 1991) CSR pyramid construct.

Economic responsibilities relate to the generation of profits, being competitive and the maintaining of high efficiency (Carroll, 1991). In this manner, the companies would meet their fundamental responsibility as economic units in society (Okpara & Idowu, 2013). Economic responsibilities are required by the society because only economically successful firms can contribute to it by creating jobs or by producing useful goods and services. According to Carroll (2016), the economic component underpins the legal, ethical and philanthropic responsibilities, because without economic success the company would not be able to provide other responsibilities.

The next layer of the CSR pyramid refers to *legal responsibilities* of business. It is required that the business operates and functions under some ground rules, which include laws and regulations established by local, federal and state governments (Carroll, 1991). As defined by Carroll (2016), legal responsibilities "reflect a society's view of "codified ethics" in that they articulate fundamental notions of fair business practices". In addition, socially responsible

firms are expected to provide goods and services that meet the legal requirements. In general, the legal responsibilities aim to guarantee business' compliance with some ethical requirements, including consumer safety, employee safety, environment protection etc. (Carroll, 2016).

Figure 1: Carroll's Pyramid



Source: Adapted from Carroll (2016)

With regards to *ethical responsibilities*, the business is expected to operate in a manner that is in line with societal mores and ethical norms even though they are not codified into law (Carroll, 1991). According to Carroll (1991; 2016), ethical responsibilities include those standards, norms or practices that represent a concern for what consumers, employees, shareholders and the society consider as fair or consistent in terms of the protection of stakeholders' moral rights. The ethical and legal responsibilities are in active interaction with each other, since the legal ones are based on ethical grounds. Moreover, the ethical responsibilities incite the expansion of the legal responsibility category and at the same time put higher expectations on business to perform at levels that are above the required by law (Carroll, 1991).

Finally, companies are expected or desired to be good corporate citizens. Thus, they have to act in a way that corresponds to *philanthropic responsibilities*, which stand on the top of the pyramid. These responsibilities include all forms of business giving - financial contributions

(e.g. to the community, education, arts etc.), product and service donations, volunteerism by employees and management, among others. According to Carroll (2016), most businesses engage in philanthropy just to demonstrate their good corporate citizenship and thus to improve their reputation. The major difference between the ethical and philanthropic responsibility categories is that the operating of companies in a philanthropic responsible way is not necessarily expected by the society in an ethical or moral sense. Therefore, philanthropy is considered voluntary or discretionary, although the society will always expect that the business provides it (Carroll, 1991; 2016).

The Pyramid model has met also some criticism. In his study on the application of Carroll's framework in the African context, Visser (2006) points out that the model lacks a conceptual clarity and has a "limited instrumental value". He also criticizes the omission of the environmental responsibilities of business, which are key areas of concern nowadays. By supporting Crane & Matten's (2004) criticism that the model does not address the possible consequences and appropriate actions in case that two or more responsibilities come into conflict, Visser (2006) underscores its static character and inability to capture the complexity of CSR in practice. Carroll (2016) answers the major points of criticism by stating that the Pyramid is expected to be considered as a dynamic and adaptable framework, which focuses on long-term obligations of not only of present, but also of future stakeholders. With regards to the omitted environmental aspect, according to Carroll (2016), it is typically covered by the ethical responsibilities and is codified in the laws (i.e. legal responsibilities). Thus, the essential environmental responsibilities are part of the framework, though not explicitly mentioned.

Major advantage of the four-part framework is that it is a multi-layered concept encompassing four crucial dimensions or levels of the CSR, while considering their interrelationships as a whole. In this regard, the CSR requires the simultaneous fulfillment of the company's economic, legal, ethical and philanthropic responsibilities. Thus, the Pyramid of CSR should be considered as an integrated whole and not as a hierarchy. For the purposes of this study, Carroll's (1991) definition will be adopted, according to which the CSR business should strive to realize profit, obey the law, operate in an ethical fashion and be a good corporate citizen at the same time. Moreover, the fourth aspect, philanthropy, has been historically one of the most essential elements of CSR definitions. In addition, the framework has proven as an applicable construct in different socioeconomic contexts. Carroll's construct is useful for this study because it recognizes the company as a body that interacts with the society and with the context in which it operates. Although the focus of this research is on the internal determinants of disclosure, the operational context of a company should not be completely ignored.

2.2. CSR concepts: disclosure, reporting, quality and performance

This section aims to define and differentiate a few CSR concepts related to the topic of this study. These are namely CSR disclosure and reporting, CSR disclosure quality and CSR performance.

CSR disclosure vs. CSR reporting

Clarifying the meaning of both terms CSR disclosure and CSR reporting is crucial to this paper, since they are the cornerstone of this research. According to definitions provided by Cambridge Dictionary (online), disclosure refers to “the act of making something known”¹ and reporting is “the act by a company of giving an official report, for example about its accounts or activities”². In this regard, CSR disclosure relates in general to the process of revealing CSR information, while CSR reporting concerns rather the communication channels of disclosure. Following this logic, Gamerschlag et al. (2011) define CSR disclosure as the information that a company discloses about its environmental impact and its relationship with its stakeholders by means of relevant communication channels. Thus, CSR disclosure can be understood as a basic component of the CSR reporting process. In this context, de Villiers & Alexander (2014) explain CSR reporting as the disclosure of social and environmental information in annual reports and on websites, which is mostly voluntary. According to Michelin et al. (2015), CSR disclosure is provoked by companies’ sense of accountability to stakeholders and their aim to improve transparency, which results in CSR reporting practices. These practices include the preparation of stand-alone reports, the use of reporting guidelines and assurance of the information disclosed aiming to enhance the information quality, ensure its reliability and enhance the stakeholders’ engagement process. Lock & Seele (2016) argue that CSR reporting comprises both codes of conduct and online reporting and is one of the most effective instruments for communicating CSR information. Elias & Epstein (1975), who provide one of the initial definitions of CSR reporting, refer to it as the reporting on particular aspects of the social activities, performance or impact of a business organization. However, they also argue that there is no common accepted definition of CSR reporting as a concept due to its dynamic nature.

CSR reporting quality

Since CSR reporting is mostly voluntary and companies are not obliged by law to disclose CSR information, it is also not strictly regulated and there is not a unified framework that companies should follow when preparing their reports. Indeed, there are some standards (e.g. ISO 26000) or organizations (e.g. Global Reporting Initiative) aiming to assist and guide companies in conducting CSR practices and reporting on them. However, as noted by Sethi et al. (2017), they do not provide any tool to ensure the uniform quality of the reported

¹<https://dictionary.cambridge.org/de/worterbuch/englisch/disclosure>

²<https://dictionary.cambridge.org/dictionary/english/reporting>

information or to verify it. Thus, the quality of CSR reporting varies. It is primarily associated with both the quantity and comprehensiveness of the disclosed CSR information (Michelon et al., 2015; Beretta and Bozzolan, 2004). In an effort to capture the complexity of the concept, Michelin et al. (2015) develop a multidimensional framework, consisting of three reporting practices (use of stand-alone reports, assurance and reporting guidance) along with three dimensions (content, type of information and managerial orientation) but find that companies that use these practices do not necessarily provide a higher quality of CSR information. According to Brammer & Pavelin (2008), quality should reside in the way in which the disclosed information transforms stakeholders' knowledge of the company's corporate strategy and environmental impact in particular. They find that the quality of environmental disclosure depends primarily on the firm size and the sector in which the firm operates, whereas larger companies and those in industries most closely related to environmental concerns tend to have higher quality of their reports. In a study on Chinese listed companies, Li et al. (2013) discover that firm performance is positively associated with the quality of CSR disclosure, as those firms that perform well are more likely to report on their CSR practices. On the other hand, Odriozola & Baraibar-Diez (2017) argue that CSR disclosure is valuable when recipients give credibility to the information they are receiving, and credibility can be ensured when CSR reports achieve a certain level of quality. In this regard, Lock & Seele (2016) draw the conclusion that standardization and content matter most for quality of reporting in terms of credibility, while external factors such as the reporting format, company size, industry's environmental impact and regulatory context have secondary impact, at best.

CSR performance

In order for companies to report on CSR, they first need to demonstrate their social and environmental involvement through the implementation of CSR practices. However, exercising CSR activities is not a homogeneous process adopted in a uniform manner by all companies, since the incentives, motivations and strategies among companies may differ considerably (Wang et al., 2018). Hence, similar to CSR reporting quality, CSR performance of firms also varies contingent upon different internal as well as external factors. Torrecchia (2015) defines CSR performance as “the result of the actions taken by an organization in order to improve its impact on society as a whole”. She suggests that CSR performance is a “measure” of the firm's overall performance, financial and non-financial. Wang et al. (2018) discover that companies with good CSR performance tend to publish more informative CSR reports. However, the other way around, good quality of CSR disclosure does not necessarily imply good CSR performance, since the accuracy of reporting can be hardly controlled by parties outside the company (Hahn & Kühnen, 2013).

2.3. Impact of CSR

In order to understand the motives of companies to engage in CSR activities, the impact of CSR on firm's financial performance, employees and consumer behavior is discussed in this section.

2.3.1. Financial performance

The relationship between CSR and financial performance has been the focus of an extensive empirical research (e.g. Ullmann, 1985; McGuire et al., 1988; Griffin & Mahon, 1997; Waddock & Graves, 1997; Lin et al., 2009; Surroca et al., 2010; Barnett & Salomon, 2012; Beck et al., 2018). The results of the studies are rather heterogeneous and inconclusive. Ullmann (1985) suggests that the contradictory findings may result from differences in the research methodology and measurements of social and economic performance. Rodriguez-Fernandez (2015) likewise argues that the reason for the mixed results are the absence of a general method that serves as measure for comparative studies, and the lack of a rigorous method of measuring return on CSR.

In an effort to address these issues, Rodriguez-Fernandez (2015) tests the bidirectional relationship between CSR and financial performance of Spanish listed companies by using a Social Behavior Index, which includes four distinct social variables (Global Reporting Initiative (GRI) participation, Dow Jones Sustainability Index (DJSI) firm inclusion, Good Corporate Governance (CG) recommendations compliance, and Global Compact (GC) signee) as equal weighted components combined in a single value. She finds positive relationships in both directions, indicating that CSR activities improve financial performance and that better financial performance leads to greater engagement in CSR, thereby supporting the findings of Waddock & Graves (1997), who describe the bidirectional relation between these two variables as "virtuous circle". According to them, the positive effect of financial performance on CSP supports the theory that if slack resources are available, their allocation into social activities would lead to better CSP. Thus, better financial performance could be considered as a predictor of better CSP. In the reverse positive relationship, Waddock & Graves (1997) find support to the theory that good management, i.e. attention to CSP domains, improves relationships with major stakeholder groups, which results in better overall performance. These results are in line with McGuire et al. (1988), who find a positive association between CSR and financial performance, as measured by return on assets (ROA), and suggest that CSR affects company's financial performance through its influence on stakeholders. McGuire et al. (1988) argue that the management of firms, which are perceived by stakeholders as more socially responsible, may have better reputation, which would enable an exchange of costly explicit charges for less costly implicit claims. Thus, these firms may have better financial performance compared to companies that are perceived as less socially responsible by the stakeholders.

Based on the theoretical argument that a company's ability to benefit from social responsibility depends upon its stakeholder influence capacity (SIC), Barnett & Salomon (2012) discover that the relationship between CSR and corporate financial performance is U-shaped, meaning that companies with low CSP have higher financial performance than companies with moderate CSP, but companies with high CSP have the highest financial performance. According to Barnett & Salomon (2012), the company's ability to offset its costs from CSR practices through its improved relationship to stakeholders and thus to profit from CSP depends on the company's level of SIC. The SIC concept has been developed by Barnett (2007), who defines it as "the ability of a firm to identify, act on, and profit from opportunities to improve stakeholder relationships through corporate social responsibility." Firms with weak social performance, and accordingly, insufficient SIC, do not capitalize any benefits and therefore the costs create a negative relationship between CSP and financial performance. On the other hand, as firms increase SIC through higher levels of social performance, they become better able to gain and profit from improved stakeholder relations. Thus, Barnett & Salomon (2012) conclude that companies with the highest CSP generally have the highest financial performance.

Other studies also find a positive relationship between CSR and financial performance (Lin et al., 2009; Beck et al., 2018; McGuire et al., 1988; Ameer & Othman, 2012). Lin et al. (2009) examine companies listed on the Taiwan stock exchange market by considering the importance of research and development (R&D) expenditures. The authors suggest that R&D investments and CSR are highly correlated because both are related to product and process innovation. Moreover, the empirical evidence confirms that R&D investment positively affects profitability (Lin et al., 2009). They find a positive relationship between CSR and financial performance, especially over the long-term. Similarly, Wang & Bansal (2012) discover that a long-term orientation positively impacts the relationship between CSR activities and financial performance. Furthermore, they suggest that a long-term orientation increases the benefits that accrue from CSR engagement, because it allows the companies to realize economic returns of CSR through developing responsible products, creating more stable relations with stakeholder, risks insurance and reducing managerial distractions from CSR activities. Wang & Bansal (2012) highlight the importance of engaging in actual CSR activities, because without them, only CSR beliefs, attitudes and advertising may not have a significant effect on financial performance.

Others have found neutral (McWilliams & Siegel, 2000), indirect (Surocca et al., 2011), no relationship (Alexander & Buchholz, 1978) or negative relationship (Wang & Bansal, 2012) between CSR and financial performance. In their study, McWilliams & Siegel (2000) also highlight the importance of including R&D as well as industry factors in a model that aims to test the relationship between CSR and financial performance. Their results confirm that CSR and R&D are highly correlated. Moreover, when intensity of R&D investment by the company is included in the model, CSR is found to have a neutral impact on profitability.

McWilliams & Siegel (2000) explain this by the fact that many firms that engage in CSR practices tend to make parallel strategic investments in R&D while pursuing a differentiation strategy.

Surroca et al. (2011) find that there is an indirect relationship between CSR and financial performance, which is mediated by the company's intangible resources. These relate to innovation resources, human capital, reputation and culture. Like Waddock & Graves (1997), Surroca et al. (2011) hypothesize a virtuous circle, where engaging in CSR may generate intangibles which, in turn, may lead to better financial performance. On the other hand, good financial performance increases slack resources available for investments in intangibles that can positively affect CSR.

Some researchers suggest that CSR may have a negative impact on financial performance and argue that engaging in socially responsible initiatives involves additional costs, leads to distraction of managers or agency problems, which may put the company at an economic and competitive disadvantage compared to other companies that are less socially responsible (Wang & Bansal, 2012). Wang & Bansal (2012) find a negative relationship between CSR activities and financial performance of new ventures, which they explain by the assumption that young company age may diminish some positive effects of CSR and intensify some negative effects, which would then result in overall negative economic returns. The authors argue that new ventures need time to create value and obtain benefits from CSR activities and investments as well as to reduce additional costs and managerial distractions related to CSR activities.

2.3.2. Consumers

Prior research has also dealt with the impact of CSR on consumers' perceptions, expectations and attitudes (Olsen et al., 2006; Öberseder et al., 2013), their purchase intentions and evaluation of the company and its products (Sen & Bhattacharya, 2001; Lee & Shin, 2009; Brown & Dacin, 1997; Palihawadana et al., 2016) as well as consumers' satisfaction (Rivera et al., 2016; Chung et al., 2015).

According to Olsen et al. (2006), consumers' expectations related to CSR have risen over the past decade. Based on empirical evidence, the authors note that firms with poor CSR engagement experience consequential negative effects such as consumer boycotts or damaged brand image. Thus, consumers expect companies to be involved in CSR initiatives and reward them in return for their efforts through their purchase behavior (Olsen et al., 2006). However, Olsen et al. (2006) discover that when there is a low fit between CSR practices and corporate objectives, CSR may have a detrimental effect on consumers' attitudes, perceptions of corporate credibility and their purchase intentions. In line with this, through the analysis of 30 in-depth interviews with managers and consumers, Öberseder et al. (2013) find that consumers perceive CSR as a marketing ploy when a company's CSR activities conflict with

its core business. Therefore, companies attach most importance to those CSR domains that pertain to their core business and industry, namely investors, customers, employees and suppliers. In comparison, consumers perceive as core CSR domains customers, employees and the environment.

With regards to CSR impact on consumers' evaluation and purchase intentions, Brown & Dacin (1997) reveal that CSR associations exert influence on consumers' product evaluations mainly through their overall evaluation of the company, as positive CSR associations may enhance product evaluations. In line with this, Palihawadana et al. (2016) discover that consumers' perceptions of CSR have positive effect on product evaluations, while Lee & Shin (2009) confirm that consumers' awareness of CSR practices is positively associated with their purchase intention. Nevertheless, negative CSR associations have greater influence on consumers' evaluations than positive CSR associations, even when negativity is the result of omission rather than commission (Brown & Dacin, 1997; Sen & Bhattacharya, 2001). According to Sen & Bhattacharya (2001), "the positive effect of CSR initiatives on consumers' company evaluations is mediated by their perceptions of self-company congruence and moderated by their support of the CSR domain". Overall, consumers' support of a certain CSR domain seems to be a major factor determining their sensitivity to a firm's CSR practices. Lee & Shin (2009) find that purchase intentions of South Korean consumers are mostly influenced by CSR activities related to social contributions and contributions to local communities, while CSR practices related to environmental protection have little or no effects on consumers' purchase intentions. Furthermore, the impact of CSR on consumers' purchase intentions can be indirect when CSR associations form a corporate context for product evaluations (Brown & Dacin, 1997), or direct when CSR activities in certain CSR domains are in accordance with consumers' CSR-related beliefs (Sen & Bhattacharya, 2001). Yet, only a minority of consumers uses CSR as a purchasing criterion (Mohr et al., 2001).

Empirical evidence also suggests that CSR influences consumers' satisfaction and loyalty. According to Rivera et al. (2016), satisfaction might be a key measure of CSR performance. By means of an online survey conducted in China, Chung et al. (2015) find a positive relationship between CSR and customers' satisfaction, which in turn positively affects customers' loyalty. In addition, the researchers test whether different CSR factors may improve customers' satisfaction and loyalty or not, and discover that for Chinese, consumer protection is the most important factor of CSR, while, corresponding to Lee & Shin's (2009) results, environmental contribution is the least important factor. Rivera et al. (2016) conduct two different studies to examine under what conditions CSR exerts an influence on consumer satisfaction. They find a positive link between CSR and customer satisfaction in general. In addition, CSR initiatives related to professional trainings for employees and the environment have a direct positive impact on consumers' satisfaction, while CSR corporate communication initiatives, by contrast, affect negatively consumers' satisfaction. Rivera et al. (2016) explain the latter finding by the need of companies to provide more detailed information about their

CSR practices, which is aligned with consumers' perceptions, and to increase awareness of their CSR engagement among customers and employees, and not just generally communicate CSR corporate policy.

2.3.3. Employees and organizational commitment

Since employees are key stakeholders, who directly contribute to the success of the company, understanding the impact of CSR on employees may cast light upon the potential effects of CSR on companies in general (Bauman & Skitka, 2012). Therefore, this section discusses the influence of CSR on employee engagement and organizational commitment as well as on attracting and retaining employees.

Turker (2009) tests the effect of CSR on the organizational commitment of 269 business professionals working in Turkey. The results indicate that CSR is a significant predictor of organizational commitment. These findings are also confirmed by Gupta (2017), who shows a positive relationship between CSR and organizational commitment as well as employee engagement. Further, Mory et al. (2017) discover that internal CSR has a significant impact on employees' affective organizational commitment, i.e. the level of employees' emotional connection to their organizations, which in turn has a mediating impact on normative organizational commitment, i.e. the connection of employees with their organizations based on norms and liabilities. In a similar vein, D'Aprile & Talò (2015) show that CSR influences organizational commitment indirectly through the mediating function of organizational sense of community. They also find support to the hypothesis that the employees' perception of the importance of organizational sense of belongingness plays an essential role in strengthening the relationship between CSR and organizational commitment. According to Bashir et al. (2012), employees prefer to be involved with companies, which are highly engaged with CSR activities. In addition, they conclude that CSR activities have a positive influence on employees' attitude towards the company, which leads to higher degree of organizational belongingness and job satisfaction. This, in turn, may boost organizational productivity (Bashir et al., 2012).

Further, Flammer & Luo (2015) examine whether companies engage in CSR to enhance employee engagement and mitigate adverse behavior at the workplace. The results show that higher unemployment insurance (UI) benefits increase employees' incentives to engage in adverse behavior. Accordingly, in case of higher UI benefits companies tend to engage more actively in employee-related CSR to improve employee engagement and counter the possibility of adverse behavior (Flammer & Luo, 2015). Glavas (2015) also studies the relationship between CSR and employee engagement as mediated by authenticity and perceived organizational support. The results indicate that authenticity positively and significantly mediates the impact of CSR on employee engagement, while perceived organizational support does not significantly mediate the link between CSR and employee engagement. Moreover, Glavas (2015) discover that when CSR is not included in

one's job design such as volunteering, it undermines the relationship between CSR and employee engagement.

Previous literature suggests that CSR has an influence on attracting and retaining employees. Turban & Greening (1997) demonstrate that firms engaging in CSR activities have more positive reputations and are perceived as more attractive employers, which provides these companies with competitive advantage over their rivals. On the other hand, Albinger & Freeman (2000) discover that CSR has a positive effect on employer attractiveness only for potential employees with high levels of job choice. Yet, this again suggests that CSR provides companies with competitive advantage through their ability to attract the most competitive employees. With regards to employees' retention, Bashir et al. (2012) argues that CSR practices motivate employees and leave positive effect on their performance as well as on the rate of retention of the companies performing CSR activities. Similarly, Bode et al. (2015) show a positive relationship between employees' participation in corporate social initiatives and employee retention. In this regards, Cychota et al. (2016) suggest that employee volunteerism as part of CSR enhances employee satisfaction and leads to employee retention, while it also improves corporate reputation and strengthens connections with external stakeholders. Bauman & Skitka (2012) explain that CSR is a tool through which firms can address four psychological employees' needs, namely security, self-esteem, belongingness, and a meaningful existence, and thus improve the relationship with their employees. The authors point out that different CSR activities may address different psychological needs, which then again could lead to different outcomes. Nevertheless, a wide range of CSR practices may serve as a source of positive distinctiveness that can help attract and retain employees (Bauman & Skitka, 2012).

2.4. Theoretical perspectives and empirical evidence on CSR disclosure

The theoretical framework used in the literature on determinants of CSR disclosure is still manifold, as there are various theories that provide different perspectives on corporate reporting (Reverte, 2009). In order to analyze the factors that determine corporations' CSR disclosure, scholars employed legitimacy theory, stakeholder theory, agency theory and signaling theory, among others. This suggests that none of the theories completely explains or predicts the determinants of CSR reporting. Owing to that, the application of a multi-theoretical approach to CSR reporting is supported by many researchers (e.g. Cormier et al., 2005; Islam and Deegan, 2008; Ortas et al., 2015) and is adopted also in this study. This would allow us also to examine which theory best explains the CSR reporting determinants in Bulgaria. For this purpose, the legitimacy theory, stakeholder theory, agency theory and signaling theory are next reviewed and discussed.

2.4.1. Legitimacy theory

Legitimacy theory has broad application to different corporate strategies, especially to those associated with the public reporting of organizational information (Deegan, 2006), and consequently has become increasingly cited in the literature on CSR disclosure practices. The theory presupposes that organizations continuously aim to ensure that they operate within the bounds and norms of their respective societies (Dowling & Pfeffer, 1975; Brown & Deegan, 1998). Lindblom (1994) defines legitimacy as a condition or status, which exists when the organization's value system is consistent with the value system of the larger social system to which the organization belongs. Further, Suchman (1995) develops a more comprehensive definition, according to which legitimacy is *"a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions"*. According to Dowling & Pfeffer (1975), as quoted by Brown & Deegan (1998), Monfardini et al. (2013), Alexiou (2017), organizational legitimacy is basically the result of, on the one hand, the process of legitimation achieved by the focal organization, and on the other hand, the activities affecting relevant norms and values taken by other groups and organizations.

Legitimacy theory rests upon the notion that business operates in a society via a 'social contract' between the business and those affected by its operations (Guthrie & Parker, 1989; Brown & Deegan, 1998). In order to obtain legitimacy from the society and in return for the acceptance of its objectives, rewards and ultimate survival, corporations are expected to comply with the terms of the contract and to execute various socially desirable activities (Guthrie & Parker, 1989). These terms, however, are not fixed, and may change over time, which could lead to so-called "legitimacy gaps". They occur when the actual performance of the company is inconsistent with the expectations of "relevant publics" or stakeholders and are considered a threat to legitimacy (Brown & Deegan, 1998; Van der Laan, 2009). The maintenance of legitimacy is crucial for the existence of an organization, as it is considered a resource upon which it relies for its survival (Deegan, 2006). Thus, this would require the organization to be responsive to the changing expectations from the society and to adopt relevant strategies in order to "fill" these gaps. In this regard, companies would try to ensure that their actions in respect of human, social and environmental consequences respond to those changes in order to meet these expectations, otherwise they will be penalized by the society.

Social disclosure is a good example of a strategy, which could be adopted by a company aiming to narrow the mismatch between how it wishes to be perceived and how it actually is (Campbell, 2000), which is also in line with Dowling & Pfeffer's (1975) suggestion that legitimacy can be obtained through communication, among other means. Moreover, Deegan (2006) points out that for organizations wishing to be legitimate, *"it is what society collectively knows or perceives about the organization's conduct that shapes legitimacy"*. In accordance with this, Guthrie & Parker (1989) argue that, with CSR disclosure, the

organization hopes to justify its existence and to legitimize its corporate actions. A number of studies analyze corporate disclosure practices through the lens of legitimacy theory (e.g. Aldosari & Atkins, 2015; Branco & Rodrigues, 2008; Brown & Deegan, 1998; Campbell, 2000; Jitaree, 2015; Juhmani, 2014; Lightstone & Driscoll, 2008; Mahadeo et al., 2011; Reverte, 2009; Yao et al., 2011).

Empirical evidence

Brown & Deegan (1998) examine the relationship between print media coverage given to different industries' environmental issues and the degree of corporate environmental disclosures in order to discover whether the relationship can be explained through legitimacy theory and media agenda-setting theory. According to media agenda-setting theory, the media agenda shapes the public priorities (Brown & Deegan, 1998). In line with legitimacy theory, the authors hypothesize that the management of an organization will respond to a threat to its legitimacy resulting from a public concern over its environmental effects by increasing the level of corporate environmental disclosures. The results confirm the legitimization motive in the majority of studied industries. Campbell (2000) analyzes annual corporate reports of British retailer Marks and Spencer for the period 1969-1997 to provide insight into the reasons for the variability in the amount of social disclosure. The researcher detects some trends in the corporate reports that might be explained to some extent by the legitimacy theory. Campbell (2000) argues also that the included statements on environment by the company from 1989 onwards might indicate a consistency with legitimacy theory and that the company might have made some disclosures with regard to self-justification or in order to obtain societal support.

With regards to more recent studies on developed countries, Lightstone & Driscoll (2008) analyze voluntary corporate disclosures of Canadian public companies in order to examine the means by which companies can symbolically control their legitimacy through reporting practices. They find that high-risk companies try to maintain or obtain legitimacy by selectively publishing information and by using equivocal language. Branco & Rodrigues (2008) compare CSR disclosure on the Internet and in annual reports by Portuguese listed companies in 2004 and analyze the factors influencing the reporting practices. They discover that through social disclosure companies demonstrate that their activities are in compliance with social and ethical criteria in order to build reputation and to legitimize their actions to the stakeholders. Thus, Branco & Rodrigues (2008) find support for the notion that a combination of legitimacy theory and resource-based perspectives provide an explanatory basis for CSR disclosure by Portuguese listed companies. In a study on the determinants of CSR disclosure ratings by Spanish listed companies, Reverte (2009) uses a multi-theoretical approach consisting of agency, legitimacy and stakeholder theories. Within this framework, the researcher finds that Spanish companies disclose CSR activities mainly to be seen acting in accordance with the expectations of stakeholders on how companies should operate. Therefore, Reverte (2009) concludes that legitimacy theory, as captured by those variables

related to public or social visibility, seems to be the most appropriate theory for explaining CSR reporting practices of Spanish listed companies.

Legitimacy theory has been applied also in the context of developing countries. Yao et al. (2011) use legitimacy theory in their study on determinants of CSR disclosure in China, where they analyze the annual reports of more than 800 listed companies on the Shanghai Stock Exchange in 2008 and 2009. The findings indicate that corporate managers in China use CSR reporting as a mean of obtaining legitimacy and thus support the application of legitimacy theory as most suitable for the investigation disclosure determinants. Similarly, Juhmani (2014) investigates the level of social and environmental disclosure practices on websites of companies listed on the Bahrain Stock Exchange in the light of legitimacy theory. He discovers a positive relationship between the degree of CSR disclosure and Bahraini firms' financial leverage. According to Juhmani (2014), the finding supports the idea that, a high dependence on debt would lead to a greater engagement of companies in social activities and to a higher level of disclosure, so that creditors' expectations are met. This, again, corresponds to the basic principles of legitimacy theory. In line with this, Barakat et al. (2015) confirm the assumption that larger and more profitable companies tend to disclose more in order to legitimize their operations, as they find a positive relation between CSR disclosure and firm's size and profitability in their research on Palestinian and Jordanian firms. At the same result arrive also Dissanayake et al. (2016), who suggest that legitimizing behavior is a crucial factor for companies in Sri Lanka with regards to CSR disclosure.

In sum, legitimacy theory has been broadly applied in studies on CSR disclosure, and based on its assumptions it has been found that companies tend to use corporate social reporting to obtain legitimacy by the society. In the reviewed literature, positive relationships between high leverage, company size, high risk profile, profitability, on the one side, and social reporting, on the other side, have been detected and explained by means of legitimacy theory. Thus, it can be concluded that the theory provides a useful foundation for explaining the determinants of CSR disclosure.

2.4.2. Stakeholder theory

According to Freeman (2010), the stakeholder approach refers to groups and individuals who can have an impact on the organization, and to the managerial conduct in response to them. Freeman & Reed (1983) provide two definitions of "stakeholders", a wide and a narrow one, but point out that from the corporate strategy viewpoint, the concept should be regarded in the wider sense. Thus, stakeholders are considered "any identifiable group or individual who can affect the achievement of an organization's objectives or who is affected by the achievement of an organization's objectives", i.e. shareholders, employees, government agencies, unions, competitors etc.

Ullmann (1985) develops a three-dimensional model, which aims to explain and analyze the correlations between social disclosure and social and economic performance within a single conceptual framework based on Freeman's (1984) stakeholder concept. The first dimension, stakeholder power, embodies the theoretical foundation of the model. Accordingly, companies are likely to satisfy the demands of stakeholders when stakeholders' resources are essential to the organization and thus, a positive relationship between social performance and stakeholder power can be expected (Ullmann, 1985). The second dimension is the company's strategic posture as to how key decision makers respond to social demands. Ullmann (1985) argues that in companies with active posture managers aim to achieve optimal levels of interdependence between their company and important stakeholders by influencing the relationship between both. The third dimension, company's past and current economic performance, is important in terms of corporate social responsibility because it has an impact on the organization's financial ability to become involved in CSR programs and disclosure (Ullmann, 1985) and thus corresponds to Carroll's (1991) economic responsibility. Ullmann (1985) concludes that an organization will use social activities and social disclosure as means to influence its relationship with its stakeholders.

In his study, Roberts (1992) tests Ullmann's (1985) conceptual framework in terms of CSR disclosure. For this purpose, he employs measures of the three dimensions, stakeholder power, strategic posture towards social responsibility and economic performance, in order to predict levels of CSR disclosure. The results, which indicate a significant relationship between the measures and CSR disclosure, provide evidence that stakeholder theory is an appropriate theoretical basis for studying CSR reporting. Moreover, the results support the argument that CSR disclosures may be considered by management as a mean to meet some creditor stakeholder expectations (Roberts, 1992).

Donaldson & Preston (1995) distinguish three aspects of stakeholder theory: descriptive accuracy, instrumental power and normative validity, which require different types of evidence and argument and have different implications. Following the descriptive approach, the company is considered "as a constellation of cooperative and competitive interests possessing intrinsic value" (Donaldson & Preston, 1995). The focus here is put on how companies deal with stakeholder interests. The instrumental aspect of the stakeholder theory aims to study the link between stakeholder management and the achievement of different corporate performance objectives such as profitability, growth, stability etc. In addition, the authors argue that the core of the theory is normative, according to which stakeholders interests have an intrinsic value. The normative approach tries to explain the activities of the management by linking them to some moral or philosophical basis and to answer the question of why companies should deal with stakeholder interests (Fontaine et al., 2006). Despite the differences between the three approaches, the researchers conclude that they are "mutually supportive" (Donaldson & Preston, 1995). Donaldson & Preston (1995) indicate also a fourth branch of the theory, a managerial one, which refers to the activities, approaches and

structures that form stakeholder management. Accordingly, stakeholder management requires the interests of all relevant stakeholders to be considered but it does not suggest that all of these stakeholders have to be evenly involved in all actions and decisions.

Gray (2001) puts an emphasis on the accountability aspect of the stakeholder theory, which he explains as disclosing information about a responsibility to the stakeholders after determining what one is responsible for. This requires identification and prioritization of those stakeholders that have “right” to the information. Mitchell et al. (1997) propose that stakeholders can be identified and categorized based on their *power* to influence the company, the *legitimacy* of their relation with it and the *urgency* of their claim on the company. In prior study, Gray et al. (1997) argue that the aim of social reporting is to remedy power asymmetries between organizations and their stakeholders. However, it is assumed that the organization would act first in correspondence with its own initial interests and is thus expected to provide only social information that would not harm these interests (Gray et al., 1997; Gray, 2001). Therefore, social reporting would have social value only when the interests of stakeholders are incorporated in those of the company (Gray, 2001).

Deegan & Unerman (2006) propose another subdivision of the stakeholder theory, according to which it can be divided into an ethical (normative) branch and a managerial branch. According to the authors, social reporting is rather a responsibility than demand driven, since accountability involves two main responsibilities: taking on some actions and reporting about them. Following the normative aspect of the theory, all stakeholders have to be equally treated despite the differences in power levels, and all have the right to information. In line with Ullmann’s (1985) stakeholder power dimension, the managerial aspect, according to Deegan & Unerman (2006), implies that the management would take into account only the interests of the most powerful stakeholders, i.e. those who are in control of the most essential resources for the company. In this context, the management is expected to disclose social and environmental information with which it would gain support or approval by these stakeholders.

Empirical evidence

According to van der Laan (2009), who analyzes the role of legitimacy and stakeholder theory in explaining managerial motivation for CSR disclosure, the rationale of stakeholder theory is suitable when explaining solicited corporate social disclosure, as her study is based on Donaldson & Preston’s (1995) descriptive aspect. In addition, van der Laan (2009) states that companies that comply with requests for corporate social disclosures from fund managers would have greater access to capital. This corresponds to capital needs theory, which suggests that companies tend to disclose information that will make providers of funding more confident in them and which would in turn decrease the cost of capital (Erin et al., 2018; Elfeky, 2017). Stakeholder theory also relates to the resourced-based perspective, according

to which companies are motivated to achieve good relationships with stakeholders through CSR disclosure in order to achieve better economic results (Branco & Rodrigues, 2008).

Kent & Chan (2003) examine whether Ullmann's (1985) three-dimensional model of stakeholder theory could explain the quantity and quality of CSR disclosure in annual reports of Australian listed companies. According to the study results, except for economic performance, the other two dimensions (stakeholder power, which is measured by shareholder, regulator and lobby groups, and strategic posture, as measured by content of the mission statement and existence of environmental or social responsibility committees) are significant in explaining social disclosures. Moreover, the researchers find that size can significantly predict disclosure practices. In the same vein, Eljido-Ten (2004) also adopts Ullmann's (1985) approach to discover the determinants of environmental disclosure by Malaysian companies. In this study as well, no significant relation is found between economic performance and the degree of disclosure. Based on the results, Eljido-Ten (2004) suggests that main determinants for the management to provide corporate environmental disclosures is the level of environmental concern, which is a measure of strategic posture, and the government power to sanction companies, which relates to stakeholder power.

Another study on the determinants of CSR reporting seeking to test Ullmann's (1985) model is that of Decock Good (2002). The author tests the relationship between CSR disclosure of French companies and Ullmann's (1985) dimensions, and finds partial support for the framework. In particular, shareholder pressure in terms of media pressure and trade unions together with strategic posture in the form of structures set up by the company for its social activities are significantly related to social disclosure. Thus, Deckock Good (2002) discovers that companies who have been the subject of negative media publications and companies, where many employees are trade union members, tend to become more involved in social activities than other companies. Moreover, the establishment of a dedicated structure by the company in an effort to meet societal expectations is linked to improved social commitment and thus has an impact on the degree of CSR disclosure.

In their research on the determinants of CSR disclosure quality across Taiwanese companies, Chiu & Wang (2015) adopt the dynamic model of stakeholder relations introduced by Mitchell et al. (1997), along with Ullmann's (1985) dimensional framework. They find that global supply chain, foreign listing and ownership dispersion measuring stakeholder power, the existence of independent CSR department, which is a strategic posture variable, as well as the control variables firm size and media visibility, are significantly correlated with the quality of CSR disclosure. Similarly to previous studies, Chiu & Wang (2015) conclude that the relation between economic performance, as measured by profitability (return on equity) and leverage (debt-to-equity ratio), and disclosure quality is insignificant.

The use of stakeholder theory is widely supported in the literature on CSR reporting. Moreover, Ullmann's (1985) three-dimensional framework seems to be the most frequently

used model in the above reviewed studies on corporate social disclosure from a stakeholder perspective. Major similarity in the outcome of these studies is that most of them do not find a significant relation between economic performance indicators and disclosure level or quality. In contrast, a significant link is usually detected between many of the stakeholder power and/or strategic posture variables and CSR disclosure.

2.4.3. Agency theory

Another theory used for explaining motivations for CSR disclosure is agency theory. It studies the agency relationship between a manager, called agent, and the shareholders, or principals, and the issues emerging from it. Jensen & Meckling (1976) define the agency relationship as a “contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent”. The existence of information asymmetry and divergence of interests between the agent and the principal lead to incurring of agency costs. These costs consist of 1) monitoring costs, which aim to restrict the agent’s aberrant activities; 2) bonding costs, which are incurred by the agent and which aim to ensure that he will not act in a way that would harm the principal; and 3) residual loss, which emerges when the agent’s decisions deviate from those decisions that would maximize the welfare of the principal (Jensen & Meckling, 1976).

The concept of information asymmetry is particularly important when studying CSR disclosure. It is assumed that the information between the agent and the principal is unevenly distributed so that the first has more access to internal information than the latter. Healy & Palepu (2001) propose several means for mitigating the problem of information asymmetry in an agency relationship. Optimal contracts between managers and shareholders oblige managers to regularly disclose relevant information that would enable shareholders to assess whether the company is managed in compliance with their own interests. Other means for solving the agency problem are setting up of a board of directors, which would monitor and control managers, and the use of information intermediaries.

Empirical evidence

Cormier et al. (2005) consider agency theory as an appealing framework when studying the determinants of corporate environmental disclosure by German companies. The researchers state that the concept of the company in agency theory “as a nexus of contracts between various economic agents who act opportunistically within efficient markets is consistent with environmental disclosure being useful in determining managerial compensation contracts, debt contractual obligations (e.g. in natural resources firms) or implicit political costs”. Nevertheless, Cormier et al. (2005) take into account the fact that the focus in the theory is on monetary or wealth considerations among agents who operate in informationally efficient markets, which reduces the range of relevant environmental reporting as well as its intended

purpose, since many potential users of this information may not be present in these markets at all. On the other hand, a number of studies have shown that different factors determining CSR reporting can be derived from agency theoretical framework, such as ownership structure, leverage level, company size and overall quality of corporate governance (e.g. Jensen & Meckling, 1976; Naser et al., 2006; Reverte, 2009; Hackston & Milne, 1996; Juhmani, 2014; Ortas et al., 2015; Sukcharoensin, 2012), and tested in studies on CSR disclosure practices.

According to Barako et al. (2006), who examine the determinants of voluntary disclosure practices of companies listed in Kenya from an agency theory perspective, resolving the issue of opacity is advantageous for managers because it would reduce the agency costs borne by them and could encourage other investors to invest in the company. Thus, agents would also have the incentive to voluntarily disclose information. Similarly, Ness & Mirza (1991) assert that managers use corporate annual reports to disclose information through which they are seen to be acting in shareholders' interests in order to lower the agency costs. They apply agency theory to examine the relationship between corporate social disclosure and the oil industry, and find that managers of companies operating in this industry give special importance to environment-related reporting, since it is assumed in the agency theory that social disclosure would increase their welfare. Following this logic, de Villiers & Marques (2016) suggest that agents are expected to disclose CSR information in such a way that would ensure positive outlook for the company's future with regards to cash flow and risk. Moreover, the researchers argue that the focus will be put on positive CSR information, while the previously known negative CSR will be used only to show that risks are properly handled.

Likewise, Ortas et al. (2015) examine the financial factors affecting the degree of corporate environmental disclosure in a large sample of 3931 companies operating in 51 industries around the world by using a multi-theoretical framework. They find that companies in regulated industries would actively disclose environmental information in order to reduce agency costs. Furthermore, they conclude that environmental disclosure is related to companies' debt, which supports Jensen & Meckling (1976) claim that agency costs increase as the firm debt increases, and that firm size can explain the level of corporate environmental reporting. This corresponds to the findings of Naser et al. (2006) that the variation in CSR disclosure practices increases as a function of company's size. This confirms the suggestion that larger companies incur higher agency costs. In their study, Naser et al. (2006) test the rationale of different theories in the CSR reporting context by examining the annual reports of Qatari listed companies and find partial support for the tenets of agency theory.

Hackston & Milne (1996), who examine the social environmental disclosure practices of companies in New Zealand and some potential determinants of social reporting, also discover that company size and industry are significantly associated with the extent of social and environmental disclosure. Moreover, a study on the determinants of voluntary CSR disclosure of Thai listed companies conducted by Sukcharoensin (2012) concludes that there is a positive and significant relationship between CSR disclosure and dispersed ownership

structure of companies, since more dispersed ownership structure may provide more possibilities of opportunistic managerial behavior and conflicts of interest between principal and agents. Thus, the high level of disclosures would aim to reduce the agency problem and information asymmetries, which is also consistent with Belkaoui & Karpik's (1989) suggestion that social performance disclosure is negatively correlated with monitoring and contracting costs.

Taken together, the results of these studies are consistent with the suggestions of agency theory. Moreover, it could be argued that agency theory provides a solid basis for studying the determinants of CSR reporting. The reviewed literature indicates several major factors derived from the rationale of agency theory, which affect corporate social disclosure. These are industry, company size, debt level and ownership structure.

2.4.4. Signaling theory

According to Connelly et al. (2011), signaling theory is applicable when explaining a behavior between two parties, such as individuals or organizations, who have access to different information. In this situation usually one party, the sender, has to decide whether and how to share or signal this information to the receiver, who should then decide how to interpret it. In general, signaling theory addresses the problems of information asymmetry and explains how these problems can be solved (Morris, 1987), as it has been initially developed to illustrate the information asymmetry issue in labor markets (Spence, 1973). Signaling theory and agency theory deal with the same accounting issues and share a number of similarities, according to Morris (1987), who analyzes the link between both theories. He finds that indeed there is a substantial overlap between the theories and that they are largely consistent.

In their article, Connelly et al. (2011) briefly describe the signaling theory and its basic constructs: signaler, signal, receiver and feedback. They define *signalers* as insiders who have a privileged perspective through their access to private information about the quality of an individual, product or organization. *Receivers*, on the other hand, are outsiders who lack that information but would like to receive it, since it enables profitable decision taking. With regards to *signals*, Connelly et al. (2011) argue that deliberate disclosure of positive information which reveals positive individual or organizational aspects is central to signaling theory. *Feedback* or countersignals, which the receiver sends back to the signaler, help the latter to achieve more efficient signaling. Connelly et al. (2011) review the applicability of signaling theory in various management research contexts such as entrepreneurship, human resources and organizational behavior, and strategic management. For the purposes of this study, however, the evolvement of signaling theory will be followed mostly in the context of its use in explaining disclosure practices.

Empirical evidence

Ross (1979) is probably the first scholar who has applied signaling theory to the question of voluntary disclosure. In his study, signaling theory explains the functioning of voluntary contracts between managers and outside shareholders, which aim to prevent misuse of important information by the management, and the incentives for signaling this information to the market. Following Ross (1979), the wealth of management is linked to this of the company. Thus, managers would signal positive information to the receivers in an effort to increase firm value and, accordingly, their own compensation. Ross (1979) further suggests that there is a hierarchy of companies from best to worse, as they are categorized depending on the respective change in their value resulting from a public disclosure of their internal information. The companies with the worst information at the bottom of the hierarchy would usually prefer to hide it. Yet, it is not in their interest to offer the same guarantees for having positive news like the companies with better position in the hierarchy and, after all, they would signal the worst information to the market. In the same vein, Seligman (1985) suggests that in terms of signaling theory, hiding information would be a signal to the market that the unpublished news are unfavorable, which would create a strong incentive for companies to disclose.

Another study on information disclosure through the lens of signaling theory is conducted by Verrecchia (1983), who analyzes how the existence of disclosure-related costs provides an explanation for why a manager of a risky asset exercises discretion in disclosing information to traders who have rational expectations about his motivation. In this model, the disclosure-related costs are referred to as proprietary costs, which are associated with revealing unfavorable information. The signal is the information about the true liquidating value of the risky asset, which is affected by some noise, or in this case, the proprietary costs. Yet, the noise expands the variety of possible interpretations of concealed information and thus, traders are unable to unambiguously classify it as ‘bad news’. In general, the manager would decide to either release or withhold this signal depending on its effect on the asset’s market price. Thus, Verrecchia (1983) introduces in this model a so-called equilibrium threshold level of disclosure, which he describes as “a point below which a manager’s motivation to withhold information is consistent with traders’ conjecture as to how to interpret that action”.

Campbell et al. (2001) apply signaling theory along with agency theory in their study on the purpose of mission statements of FTSE 100 companies and the theoretical grounds that lead to their disclosure. The authors point out that in terms of corporate reporting, signaling theory implies that companies that consider themselves “better” than their competitors would signal this to the market in order to build better reputation and to attract investments. Therefore, according to this study, signaling through mission statement disclosure is considered a favorable attribute. Similar to Verrecchia (1983), Campbell et al. (2001) consider the issue of disclosure-related costs. The researchers believe that disclosing mission statements involves

mostly non-proprietary costs and thus suggest that companies should intensify their disclosures.

A more recent study on CSR reporting by Mahoney (2012) analyzes two possible reasons for Canadian companies to release CSR standalone reports based on signaling and legitimacy theory. The author tests whether companies use CSR reports in order to be perceived by stakeholders as socially and environmentally friendly or to signal their social and environmental commitment. According to Mahoney (2012), signaling theory suggests that standalone CSR reporting signals that the company is a good corporate citizen, since it reduces the information asymmetry associated with the company's CSR practices. In addition, the author assumes that the publishing of a standalone CSR report itself could be considered a signal for good corporate behavior since "bad" corporate citizens are less likely to publish a CSR report because of the higher costs incurred compared to "good" companies. The results, namely that companies disclose CSR information in standalone reports to signal their engagement in CSR practices, are consistent with signaling theory. In her study on determinants of corporate voluntary disclosure in Egypt, Elfeky (2017) finds that profitable companies tend to disclose more extensively in order to signal their quality and value and thus to benefit from an increase in their stock price, which is also in line with signaling theory.

Overall, signaling theory provides another thought-provoking perspective on CSR disclosure, which explains above all the incentives for corporate disclosure. Accordingly, managers would include information on CSR practices in corporate reports in order to obtain financial benefits. These would be the result of the better reputation of the company signaled by the social reporting and thereby, the attracted investments. In addition, companies with good economic performance apt to disclose more, as the empirical evidence shows. However, compared to the other theories, signaling theory is rather rarely used in studies on CSR reporting. Therefore, it would be interesting to test its applicability in this study.

2.5. Firm-specific determinants of CSR disclosure: empirical evidence

A considerable amount of literature has examined different firm-specific factors affecting CSR disclosure. Since much of the previous research findings are inconsistent and contradictory, there is still insufficient clarity as to which determinants have positive, negative or any impact at all on the corporate decisions regarding CSR reporting. This section provides an overview of some of the studies dealing with some firm-specific determinants of CSR disclosure.

2.5.1. Profitability

Profitability or economic performance of companies has been a subject of interest in many studies examining the effects of various factors on CSR reporting worldwide (e.g. Reverte, 2009; Roberts, 1992; Li et al., 2013; Gamerschlag et al., 2011; Rover et al., 2016; Welbeck et al., 2017; Gunawan, 2013; Elfeky, 2017; Dyduch & Krasodomska, 2017). Most of the studies

suggest a positive relationship between profitability and the level or quality of social and environmental disclosure. Based on different theoretical grounds, some scholars argue that profitability is a necessary condition for a company to be able to take social and environmental actions beyond its economic demands and to reveal these to its stakeholders (Roberts, 1992; Hackston & Milne, 1996; Decock Good, 2002; Reverte, 2009; Eljido-Ten, 2004). As indicated in the literature, companies with good economic performance may report on CSR in order to legitimize their existence (Dyduch & Krasodomska, 2017; Barakat et al., 2015), reduce political costs (Gamerschlag et al., 2011), obtain personal interests such as better reputation or higher compensations for management (Elfeky, 2017), avoid regulation (Li et al., 2013) or to demonstrate financial wealth to shareholders in an effort to obtain better conditions for an eventual capital raise (Ortas et al., 2015; Rover et al., 2016), among other reasons. However, the empirical research on this topic arrives at mixed results. Whereas some studies discover a positive relationship between CSR disclosure and economic performance (e.g. Gunawan, 2013; Barakat et al., 2015; Ortas et al., 2015; Tagesson et al., 2009; Roberts, 1992; Elfeky, 2017; Li et al., 2013), others fail to find a significant link between the two variables (Hackston & Milne, 1996; Dissanayake et al., 2016; Juhmani, 2014; Mahadeo et al., 2011; Welbeck et al., 2017; Rover et al., 2016; Da Silva Monteiro & Aibar-Guzman, 2010). In contrast, Net et al. (1998) find that companies tend to disclose more environmental information in their annual reports during unprofitable years in order to obtain legitimacy. Baldini et al. (2018) also discover a negative significant relationship between firm profitability and environmental, social, and governance disclosure.

2.5.2. Leverage

Firm leverage is another determinant, which has gained attention in the empirical literature on CSR disclosure. Within the context of agency theory, previous studies emphasize that companies with higher levels of debt tend to disclose more social information in order to reduce agency costs and thus the cost of capital (Jensen & Meckling, 1976; Dyduch & Krasodomska, 2017; Ortas et al., 2015; Sukcharoensin, 2012; Rover et al., 2016). On the other hand, Brammer & Pavelin (2008) put the focus on the impact of debt level on the companies' relation to creditors. They argue that a low degree of leverage ensures that creditor stakeholders will apply less pressure to limit managers' discretion over strategic decision-making regarding activities that are not directly related to the financial success of the company, such as disclosure. According to Roberts (1992), the higher the debt level on which a company relies to fund its capital projects, the higher the degree to which managers are expected to respond to creditors regarding the firm's role in CSR activities. Based on stakeholder theory, other scholars assume that companies with higher degree of leverage are viewed as riskier and thus need to report more CSR information to their investors and creditors in order to reduce information asymmetry and gain credibility (Li et al., 2013; Naser et al., 2006; Rover et al., 2016). However, there is still no consensus as to whether the level of debt has a positive or negative impact on CSR reporting and the results are rather mixed.

While some scholars find a positive relationship between the degree of leverage and CSR disclosure (Coluccia et al., 2016; Roberts, 1992; Juhmani, 2014; Naser et al., 2006; Ortas et al., 2015), other discover that debt level has a negative impact on the level of CSR disclosure (Sukcharoensin, 2012; Li et al., 2013). In addition, some studies conclude that there is no significant relationship between this determinant and the CSR reporting (Brammer & Pavelin, 2008; Cormier et al., 2005; Dyduch & Krasodomska, 2017; Reverte, 2009; Rover et al., 2016).

2.5.3. Firm size

Many studies suggest that firm size is a determinant of CSR disclosure, as most of them have reported a positive relationship between the size of a company and the extent of CSR disclosure (e.g. Chiu & Wang, 2014; Gunawan, 2013; Tagesson et al., 2009; Baldini et al., 2018; Muttakin & Khan, 2014; Da Silva Monteiro & Aibar-Guzman, 2010; Cormier et al., 2005; Yao et al., 2011; Coluccia et al., 2016; Patten, 2011; etc.). The researchers assume several major reasons for the positive size-disclosure relationship. First, larger companies tend to be more visible and exposed to greater attention from relevant publics or stakeholders, and are thus more susceptible to regulatory pressure or stakeholder scrutiny (Brammer & Pavelin, 2008; Da Silva Monteiro & Aibar-Guzman, 2010; Gamerschlag et al., 2011; Rover et al., 2016). As a result, larger firms would disclose more social and environmental information in order to avoid regulation and reduce the potential political costs, which they are facing. Furthermore, some authors suggest that larger companies use CSR reporting as a tool for legitimating their existence and behavior (Bonsón & Bednárová, 2015; Coluccia et al., 2016; Cormier et al., 2005; Gamerschlag et al., 2011; Dowling & Pfeffer, 1975; Ortas et al., 2015). Another reason for a positive impact of size on CSR reporting is that larger firms usually have more financial means necessary to engage in CSR activities. In addition, they are able to spend more financial resources on preparing and reporting CSR information or can disclose it at lower costs (Coluccia et al., 2016; Da Silva Monteiro & Aibar-Guzman, 2010; Dyduch & Krasodomska, 2017). Size is suggested to be positively associated with CSR reporting also because larger companies usually have a greater impact on the society and a larger group of stakeholder, which might be concerned with the CSR programs of the company (Hackston & Milne, 1996; Reverte, 2009; Rover et al., 2016; Cormier et al., 2005). However, not all studies on CSR disclosure have found a support for a positive relation between firm size and social reporting. For example, Bonsón & Bednárová (2015) find that size does not affect CSR reporting in a sample of Eurozone companies. Juhmani (2014) and Wuttichindanon (2017) also do not discover a significant link between CSR reporting and size in Bahrain and Thailand, respectively.

2.5.4. Company visibility

Company visibility, as measured by firm's media exposure, has also received attention in the empirical literature. The majority of studies report a positive relationship between visibility

and CSR (e.g. Chiu & Wang, 2014; Yao et al., 2011; Branco & Rodrigues, 2008; Cormier et al., 2005; Reverte, 2009; Gamerschlag et al., 2011). Media exposure of companies raises their visibility and makes them subjects of public attention, scrutiny and political actions (Reverte, 2009; Gamerschlag et al., 2011; Branco & Rodrigues, 2008). As a result, visible firms are put under greater pressure to disclose information about their activities and performance (Brammer & Pavelin, 2008). Under legitimacy theory, researchers suggest that CSR disclosure is an answer to both public pressure and media exposure, through which companies legitimize their behavior to their stakeholders and acquire a socially responsible reputation (Cormier et al., 2005; Yao et al., 2011; Branco & Rodrigues, 2008). Within the context of stakeholder theory, Brammer & Pavelin (2008) argue that CSR disclosure made through media exposure reduces information asymmetries between the company and its stakeholders. However, they find no significant relationship between CSR disclosure and firm's propensity to disclose environmental information. According to Gamerschlag et al. (2011), highly visible companies are supposed to disclose more CSR information to lower potential political costs than less visible companies, which is in line with political cost theory. It suggests that managers would try to avoid additional costs imposed by the political or societal environment, in which the firm operates, by disclosing information on their CSR performance (Gamerschlag et al., 2011).

2.5.5. Firm age

Previous studies have tested the impact of firm age on CSR disclosure and arrived at mixed results. The suggestion that older firms disclose more social information has been supported by the results in the studies of Roberts (1992), Welbeck et al. (2017) and Gunawan (2013). The major arguments in favor of a positive relationship imply that older companies have a reputation to be maintained and longer history of engagement in CSR practices (Roberts, 1992). In addition, they are usually more visible to the public and thus attract more attention from regulators (Li et al., 2013). Older companies may be also willing to legitimize and influence their longer existence (Welbeck et al., 2017). As noted by Coluccia et al. (2016), firms with longer history have better consolidated their control and reporting structure and can afford to improve other information systems such as adding CSR information to the ordinary reports. Older companies may be less price-sensitive compared to younger firms and may have more issues to report about (Barakat et al., 2015). On the contrary, Barakat et al. (2015) and Dissanayake et al. (2016) note that more established companies may face a lower level of legitimacy threat and would not need to disclose additional social information to stakeholders, as they have already achieved legitimacy. Similarly, Li et al. (2013) suggest that as a firm becomes older, its need to justify its existence becomes weaker. These implications are supported by Yao et al. (2011), who find a negative relationship between the age of Chinese companies and their level of CSR disclosure. Some of the studies, however, do not find a significant association between the two variables (e.g. Coluccia et al., 2016; Juhmani, 2014; Sukcharoensin, 2012; Li et al., 2013; Dissanayake et al., 2016).

2.5.6. Ownership types and board composition

Other firm-specific determinants relate to firms' ownership and board composition. For example, the degree to which ownership is dispersed across many investors or concentrated in the hands of a few large shareholders may have an influence on firms' disclosure policy (Roberts, 1992; Ullmann, 1985; Brammer & Pavelin, 2006; Gamerschlag et al., 2011). According to Cormier et al. (2005), companies with concentrated ownership may not be responsive to the public investors' information costs incurred in the absence of disclosure since large investors usually have access to the information they need. On the other hand, within the context of agency theory, Coluccia et al. (2016) suggest that firms with dispersed ownership are more sensitive to external pressure to increase the level of disclosure in order to get support from minority shareholders, who otherwise could not obtain this information due to information asymmetry. In this regard, some studies report a negative relationship between ownership concentration and the level of CSR disclosure (Brammer & Pavelin, 2006; Coluccia et al., 2016; Cormier et al., 2005; Chiu & Wang, 2014; Gunawan, 2013; Gamerschlag et al., 2011). State ownership is another determinant that may affect CSR disclosure. Studies about China reveal that state-owned companies have clear incentives to report more on CSR since they receive more public attention, need to legitimize their behavior and are subject to more stringent regulations (Li et al., 2013; Zeng et al., 2012). Empirical evidence for other countries besides China like Thailand, India, Malaysia or Sweden suggests that state-owned firms have a higher CSR disclosure level than non-state-owned companies (Mishra & Suar, 2010; Sukcharoensin, 2012; Wuttichindanon, 2017; Ghazali, 2017; Tagesson et al., 2009). These results are in line with Wang et al. (2012), according to which government plays a crucial role in companies' reporting on CSR.

Further, the empirical evidence suggests that companies with foreign ownership are likely to be affected by the environmental and social norms and culture of the foreign investors or parent company. In this regard, Lynn (1992) predicts that foreign ownership may significantly influence the CSR disclosure of companies and the study results confirm this assumption. In a similar vein, Dyduch & Krasodomska (2017) find a positive relationship between foreign capital share and the level of CSR disclosure in Poland. They assume that a foreign company from a country with developed CSR structures might impose its own CSR practices on divisions in countries with less established CSR systems. Moreover, subsidiaries of foreign companies from environmentally sensitive countries would be more willing to report on CSR compared to local companies (Da Silva Monteiro & Aibar-Guzman, 2010). According to Cormier et al. (2005), companies with foreign ownership are expected to improve their CSR reporting quality since it is a value-added service for foreign shareholders, who may more difficultly obtain information about the company. Nevertheless, Cormier et al. (2015) and Da Silva Monteiro & Aibar-Guzman (2010) do not find significant results.

Board size has also been considered in the empirical literature as a factor, which may influence CSR disclosure. According to Barakat et al (2015), a firm with more board

members may give higher attention to CSR practices and reporting. Some studies find positive relationship between size of board of directors and the level of CSR disclosure (Barakat et al., 2015; Wang, 2017; Buniamin et al., 2008), while others do not find a significant association (Elfeky, 2017; Dyduch & Krasodomska, 2017). Moreover, Barakat et al. (2006) test the effect of additional aspects related to corporate governance and find a positive link between CSR disclosure and board audit committee but insignificant relationship between CSR reporting and the existence of a board governance committee or board independence. The impact of board diversity on CSR disclosure has also been examined in various studies. Consistent with stakeholder theory, Harjoto et al. (2015) argue that board diversity helps companies to meet the needs of their stakeholders. In a study on 1,489 US companies, they discover that board diversity is associated with stronger CSR performance and that more diverse boards monitor more effectively CSR performance than less diverse boards. These findings are supported, among others, by Hoang et al. (2018), who examine the impact of board diversity on CSR disclosure of Vietnamese listed companies, and Harfsi & Turgut (2013), who demonstrate a positive relationship between diversity-in-boards and social performance in a sample of S&P 500 firms. Furthermore, board diversity as a term encompasses various dimensions such as board members' gender, age, tenure, expertise, ethnicity, education or cultural background, each of which may influence CSR (Harjoto et al., 2015; Harfsi & Turgut, 2013; Li et al., 2017; Post et al., 2011).

2.5.7. Other determinants

Other determinants of CSR disclosure, which have also been investigated in the empirical literature, include investments in R&D (Ortas et al., 2015, Padgett & Galan, 2010), growth opportunity (Rover et al., 2016), reputation (Zeng et al., 2012), market capitalization (Naser et al., 2006), risk (Robert, 1992; Cormier et al., 2005; Mahadeo et al., 2011), cross-listing (Baldini et al., 2018; Gamerschlag et al., 2011) and consumer proximity (Branco & Rodrigues, 2008).

2.6. CSR in Bulgaria

This section aims to present some major findings of empirical studies dealing with different issues related to CSR in Bulgaria, as well as to provide some insights into the historic, economic, political, cultural and social context of the country.

2.6.1. Empirical insights

Incentives for companies to implement CSR

There is a relatively small body of literature that is concerned with the topic of CSR in Bulgaria. Several empirical studies cover various topics related to the CSR practices, issues and challenges in Bulgaria. Some authors, for example, address the motivations and goals of Bulgarian companies to implement CSR. A study conducted by research agency Alpha

Research (2006) on behalf of the UN Global Compact and Bulgarian Charities Aid Foundation reveals that in most of the firms, the personal motivation of the manager is leading when it comes to the forms, course, amount of sums and the ways of carrying out charitable and socially responsible activities. In this regard, one of the two major reasons for managers to engage in CSR activities is related to their wish to make something good that will remain after them. As the study results show, managers share the view that successful business development supports societal development, as they put the strongest emphasis on employees' care and social assistance activities (Alpha Research, 2006). The second major incentive, according to the survey, stems from the desire for a good corporate image and reputation in the eyes of stakeholders and the public. Correspondingly, Dimitrov (2006), who conducted an online survey among managers and employees in private companies in Bulgaria in an effort to investigate the reasons for launching corporate philanthropic programs, discovers that major goal of the philanthropic programs for 36.8% of the surveyed persons is to enhance the company's reputation and/or brand image. In addition, the second most given reason with 31.6% is to differentiate themselves from competitors, while helping employees to build skills and capabilities is the third most cited incentive with 10.5%. These results are in line with signaling theory, according to which larger companies would signal their good social practices through CSR disclosure in order to improve their corporate reputation. Further, the findings are consistent also with stakeholder and legitimacy theory. Companies with good reputation resulting from CSR activities may improve their relationships with external stakeholders sensitive to social or environmental issues, which could allow cost savings and thereby ensure competitive advantage (McGuire, 1988). Supporting employees as internal stakeholders in building skills and capabilities as part of CSR may lead to two major positive effects: better attitude of employees towards the company and better firm performance resulting from the work of more qualified employees. In addition, through achieving good corporate image in terms of CSR, firms are better able to legitimize their activities. Hence, the results of both studies indicate that the Bulgarian business is increasingly recognizing the benefits from implementing CSR programs, both for the business and the society.

Implementation of CSR initiatives

Over the past decade, most research in CSR in Bulgaria has put the focus on the analysis of the different CSR initiatives adopted by Bulgarian companies and their implementation (e.g. Bankova, 2014; Slavova, 2015a; Slavova, 2015c; Dimitrov, 2010; Bakardjieva, 2015). According to Slavova (2015a), the number of CSR initiatives taken by companies is constantly increasing, as they take different forms, and the business in Bulgaria has a positive attitude towards CSR implementation. Moreover, Bakardjieva (2015) suggests that Bulgarian firms are making efforts to overcome the level of voluntary social initiatives and comply with internationally recognized CSR standards (e.g. ISO 26 000, ISO 14000, AA1000) as evidenced by the significant number of companies considering compliance or already

complying with these standards. On the other hand, the integration of CSR into the organizational culture is at different stages in Bulgarian companies, as the majority of analyzed firms are still in the early stages of adopting a CSR culture (Slavova, 2015b). CSR values are especially integrated into the organizational culture of large companies, which are subsidiaries of transnational corporations.

Both, Slavova (2015a) and Bankova (2014), who base their studies on Kotler & Lee's (2011) classification of types of CSR initiatives, discover that the most prevalent form of CSR implemented by companies operating in Bulgaria is corporate philanthropy, which is mostly characterized by financial donations or establishing of scholarship. Donations are most often targeted at sponsoring the organization of cultural and sports events as well as social projects, or at supporting the settlement of environmental and educational issues (Bankova, 2014; Dimitrov, 2010). A comparative study conducted by Iamandi & Constantin (2012) on the CSR involvement of companies in supporting art and culture initiatives in Romania and Bulgaria reveals that promoting the development of art and culture within the local communities as part of CSR practices in this area is a top priority for the Bulgarian companies. Nevertheless, CSR in this field is still low developed in both countries. In addition, donations of services as well as voluntarism for the local communities as forms of corporate philanthropy are less popular in Bulgaria (Bankova, 2014; Slavova, 2015a). Slavova (2015a) asserts that there is a tendency towards a transition from traditional donations to more strategic forms of CSR, as many of the companies aim at achieving greater popularity and a tactical visibility of their activity through the sponsorships or other forms of donations. On the contrary, Dimitrov (2010) argues that the effectiveness of the philanthropic initiatives is evaluated as successful in meeting the preliminary defined goals, but less successful in dealing with the concerns of the stakeholders with the biggest impact. The researcher therefore concludes that CSR practices are still not considered and implemented as an efficient strategic tool by the managements of the studied companies. In the same vein, Iamandi & Constantin (2012) conclude that CSR participation in art and culture should gain more attention from companies, since it provides a new strategic business opportunity for achieving competitive advantages.

Corporate social marketing, as another type of CSR activity, relates to the development and implementation of campaigns aiming to change people's behavior in order to achieve improvements in different social areas. This type of CSR is less popular among the companies in Bulgaria. Bankova (2014) discovers that the firms have mainly implemented such initiatives in the field of health and environmental protection. These are mostly related to the main products produced by the firms concerned and are influenced by their core business activities (Bankova, 2014; Slavova, 2015a). Similarly, the cause-related marketing as a form of a social initiative is still rarely applied, but it can be expected to be used more actively in the future because of the many benefits the companies receive through the implementation, as Slavova (2015a) indicates.

Slavova (2015a) and Bankova (2014) briefly address the implementation of socially responsible business practices as another type of CSR initiative. In Bulgaria, these practices are primarily oriented towards environmental issues and aim at redressing environmental damage. For this purpose, the companies adopt new technologies for environmental protection, i.e. they work towards improving the efficiency of the production processes in order to reduce waste and emissions, increase energy savings, etc. Other socially responsible practices include selection of suppliers, raw and packaging materials based on environmental criteria as well as ensuring full transparency of products (Slavova, 2015a). With regards to initiatives aimed at employees' well-being, Bankova (2014) detects socially responsible programs to support employee welfare only in two of the studied companies. Conversely, Bakardjieva (2015) notes that Bulgarian companies undertake various voluntary socially responsible initiatives such as professional training, supplementary pension and health insurances, transport to the workplace, medical services, etc.

In another major study, Slavova (2015c) offers a comprehensive analysis on the competitive advantage that Bulgarian firms engaging in CSR activities gain as a result. By performing a web content analysis of the corporate websites of 175 companies and an empirical study of the Bulgarian business, Slavova (2015c) discovers that many firms in Bulgaria implement CSR practices in such a way that the firms' economic and social objectives converge. Moreover, 19 out of the 65 companies, which provide CSR information on their websites, participate in different CSR initiatives, which are related to their aims, values and strategy. As a result, these firms achieve an increase of their competitive advantage. Similarly, in her study on CSR initiatives of 130 Bulgarian public companies, Bakardjieva (2015) argues that the companies are highly valuing the importance of CSR for promoting their competitiveness and sustainable growth. However, Slavova (2015c) notes that very few of the business representatives think that CSR involvement can lead to an improved economic performance, an increase in investors' interest or to a decrease in operating costs. Moreover, 11% do not see any benefits in CSR activity. Slavova (2015c) concludes that for corporate philanthropy to increase competitive advantage, a balance between shareholders' profits and the corporation's expectations to demonstrate responsibility to the society is needed.

CSR reporting

CSR reporting by Bulgarian companies is still not a popular topic of research. Probably, this could be explained by Slavova's (2015a) finding that CSR reporting is in a very early stage of development and it is mostly evident among the relatively large companies and the branches of foreign multinational companies. The researcher suggests that one of the major reasons is that many of the companies in Bulgaria still do not understand or disregard the advantages of CSR disclosure. As Gyoshev (2012) points out, CSR reports enable interested parties to assess the costs incurred, the efforts of companies in CSR and the effectiveness of their CSR activities. This leads to a greater trust of shareholders and stakeholders in the company as well

as to an enhanced reputation. The prepared CSR reports under the standards of AA1000 and GRI must be validated by independent auditors. Spassova et al. (2007) have provided a more comprehensive study on CSR disclosure in Bulgaria. They conducted a survey among the 40 largest listed companies in Bulgaria in order to analyze their reporting practices in three major areas: corporate governance, environmental policy and social policy. The survey results reveal that majority of studied firms disclose more information on corporate governance than on environmental and social policy. Accordingly, only 27.5% and 42.5% of the companies report in their annual reports or websites about at least one of the aspects of environmental or social policy. The authors suggest that the lower social and environmental disclosure levels compared to corporate governance result from the better familiarity of the firms with the corporate governance principles adopted by the Organization for Economic Cooperation and Development (OECD). Another interesting finding is also that the surveyed companies use websites more often compared to annual reports as a communication channel when reporting on compliance with social and environmental standards (Spassova, et al., 2007).

Problems and solutions

Much of the literature on CSR in Bulgaria is concerned with the problems and challenges related to the effective implementation of CSR (e.g. Zahariev, 2014; Slavova, 2015a; Ribarova, 2011; Matev et al., 2009; Lyubenova, 2014, Slavova, 2014). According to Zahariev (2014), the majorities of companies do not develop a long-term implementation strategy of CSR practices. Moreover, there is no clear idea what a socially responsible business should be in Bulgaria. Considering that CSR is a relatively new concept in the country, it is not surprising that the CSR actions are still fragmented, without a common vision, and are rather depending on the entrepreneur's individual preferences. Zahariev (2014) further argues that there are no effective incentives for socially responsible companies. He finds that two-thirds of companies prefer to engage in CSR on their own. This finding is supported by Slavova's (2015a) empirical study, which reveals that 74.5% of companies in Bulgaria prefer to carry out CSR initiatives themselves, 22.9% in partnership with other companies and only 1.6% in partnership with non-governmental organizations. The researcher notes that these partnerships are rather short-term rather than long-term. With regards to trade unions, it is notable that employers tend to avoid them when preparing and implementing their CSR strategy (Ribarova, 2011), although the unions are very motivated to support introducing the CSR ideas in Bulgaria and are very useful associates in the area (Matev et al., 2009).

In order for these problems to be solved to some extent, Zahariev (2014) proposes three key measures: conducting a public discussion and supporting events aiming to find a clear economic model, which should be followed by all companies; providing the necessary infrastructure to support CSR behavior, and creating mechanisms to promote socially responsible business. In addition, he emphasizes the need for an increase in the management

literacy of the population, which can be achieved through a responsible cooperation between business, NGOs, schools, universities and public authorities. Gyoshev (2012), on the other hand, stresses the leading role that the media could have as a social corrective in the processes of CSR. The media should focus their efforts on raising public awareness of bad corporate practices to help minimize negative environmental, social and economic effects, on the one hand, and on the other hand, it should also present the good CSR practices in order to create a stimulating effect for the other companies.

Some of the scholars dealing with CSR in Bulgaria have highlighted various challenges of undertaking CSR programs in Bulgaria. They all agree that there is still a lack of awareness of the CSR concept and its benefits among managers and the society (Matev et al., 2009; Slavova, 2014; Lyubenova, 2014). The market and social factors that provoke socially responsible behavior are insufficiently developed (Slavova, 2014). Moreover, there is also a lack of major state structure as well as developed economic and financial instruments of public policy in support of CSR (Lyubenova, 2014; Slavova, 2014). According to Matev et al. (2009), there is a need in training experts and specialists who will incorporate CSR in companies' strategies.

Concluding remarks

The evidence presented in this section suggests that CSR in business and policy is still in an early development stage. There is an increasing interest of entrepreneurs in adopting CSR principles and engaging in CSR activities, but this is mostly the result of reputational concerns. It seems that CSR is still seen as a public relations tool rather than as an opportunity to create shared value. Corporate philanthropy is the most popular form of CSR practices among the companies operating in Bulgaria. This is probably due to the historical roots that philanthropy has in the society. Furthermore, the majority of Bulgarian firms are not aware of the benefits from CSR disclosure and they rarely report on their socially responsible activities. In this regard, very little research has been devoted to the topic of CSR reporting by Bulgarian companies. Still, there are some problems and challenges that need to be addressed on a business and national level.

Table 1 Empirical insights into CSR in Bulgaria: overview

Author(s)	Major findings
<i>Incentives for engaging in CSR activities</i>	
Alpha Research (2006)	<ul style="list-style-type: none"> - Owners'/Managers' personal motivation - Good reputation
Bakardjieva (2015)	<ul style="list-style-type: none"> - Competitive advantage - Sustainable growth
Dimitrov (2006)	<ul style="list-style-type: none"> - Enhance company reputation and/or company brand - Differentiate from competitors - Build employee and/or leadership capabilities and skills

Implementation of CSR initiatives	
Bakardjieva (2015)	<ul style="list-style-type: none"> ● CSR practices are not one-sided but dispersed in the core dimensions of CSR - economic, social and environmental: <ul style="list-style-type: none"> - Vocational training - Supplementary pension insurance - Acts under the Law on Safe Working Conditions - Transport to the workplace - Food - Medical services - Holidays for employees and their families - Providing kindergarten ● Companies begin to comply with internationally recognized CSR standards (ISO 26 000, ISO 14000, AA1000)
Bankova (2014)	<ul style="list-style-type: none"> ● Corporate philanthropy: <ul style="list-style-type: none"> - Money donations (cultural events, social projects, sports and health) - Establishing a scholarship - Donating services - Voluntary work for local community (rather unpopular) ● Corporate social marketing: <ul style="list-style-type: none"> - Health - Environmental protection ● Cause-related marketing (unpopular) ● Socially responsible business practices: <ul style="list-style-type: none"> - Improving (production) processes related to environmental protection - Creating programs to support employee welfare
Dimitrov (2006)	<ul style="list-style-type: none"> ● Corporate philanthropy programs: <ul style="list-style-type: none"> - Environment - Culture and arts - Civic, public affairs - Education - Health, social services ● However, CSR practices are still not considered and implemented as an efficient strategic tool by managers.
Iamandi & Constantin (2012)	<ul style="list-style-type: none"> ● Promoting development of art and culture within the local communities as part of CSR practices in this field is a top priority for Bulgarian companies
Slavova (2015a)	<ul style="list-style-type: none"> ● Corporate philanthropy is the most prevalent form of CSR implemented by companies in Bulgaria; tendency towards strategic philanthropy. ● CSR initiatives: <ul style="list-style-type: none"> - Sponsorships - Donations (products, financial) - Social marketing - Environmental protection

Slavova (2015c)	<ul style="list-style-type: none"> • CSR practices: convergence of firms' economic and social objectives • Implementation of CSR initiatives related to firms' aims, values and strategies -> increase of competitive advantage
CSR reporting	
Gyoshev (2012)	<ul style="list-style-type: none"> • CSR reporting raises company valuation, strengthens shareholders' and stakeholders' confidence in it and enhances company's reputation in the society. • Prepared CSR reports under the standards of AA1000 and GRI must be audited by independent auditors.
Slavova (2015a)	<ul style="list-style-type: none"> • CSR reporting is in a very early stage of development • CSR reporting is mostly evident among relatively large companies and branches of foreign multinational companies
Spasova et al. (2007)	<ul style="list-style-type: none"> • Most firms disclose more information on corporate governance than on environmental and social policy • Lower social and environmental disclosure levels compared to corporate governance result from the better familiarity of the firms with the corporate governance principles • Websites are used more often compared to annual reports as a communication channel when reporting on CSR
Problems and solutions	
Lyubenova (2014)	<ul style="list-style-type: none"> • Problems: <ul style="list-style-type: none"> - Lack of administrative capacity - Lack of state structure, which collaborates with business, civil society, media and academic community - Global challenges - Insufficient dissemination of CSR - Unawareness of the CSR concept; myths and realities for the benefits from CSR - Distrust of society - Prejudices in business - Pseudo-CSR practices
Matev et al. (2009)	<ul style="list-style-type: none"> • Problems: <ul style="list-style-type: none"> - Lack of systemized implementation of CSR - Employee qualification and retaining • Solutions: <ul style="list-style-type: none"> - Developing a National Strategy on CSR - Promotion of CSR among managers - Raise awareness within the society about the benefits of CSR - Development of CSR strategies by research institutes, universities and the NGOs - Including teaching and training in CSR in universities programs
Ribarova (2011)	<ul style="list-style-type: none"> • Problems: <ul style="list-style-type: none"> - Ignoring trade unions when preparing or implementing CSR policies - Forcing employees to participate in CSR practices despite their unwillingness to organise themselves, violations of labor law

	<ul style="list-style-type: none"> ● Solutions: <ul style="list-style-type: none"> - Observing labor law - Providing conditions for workplace representation
Slavova (2014)	<ul style="list-style-type: none"> ● Problems: <ul style="list-style-type: none"> - Insufficient knowledge of the concept of CSR and the benefits from different forms of CSR initiatives - Poorly developed market and social factors to provoke socially responsible behavior; - Insufficiently well-developed economic and financial instruments of public policy supporting CSR in Bulgaria
Slavova (2015a)	<ul style="list-style-type: none"> ● Problems: <ul style="list-style-type: none"> - Lack of partnerships in conducting CSR initiatives ● Solutions: <ul style="list-style-type: none"> - Involving more parties (e.g. government, business, NGOs, academic community) in the process of developing socially responsible business behavior in Bulgaria
Zahariev (2014)	<ul style="list-style-type: none"> ● Problems: <ul style="list-style-type: none"> - Many companies do not develop a long-term implementation strategy of CSR practices - CSR actions are still fragmented, without a common vision, and dependent on the entrepreneur's individual preferences - Lack of effective incentives for socially responsible companies ● Solutions: <ul style="list-style-type: none"> - Conducting a public discussion and supporting events aiming to find a clear economic model, which should be followed by all companies - Providing the necessary infrastructure to support CSR behavior - Creating mechanisms to promote socially responsible business - Increase in management literacy of the population through a responsible cooperation between business, NGOs, schools, universities and public authorities

2.6.2. CSR in Bulgarian context

The contextual background of a country affects directly and indirectly the companies operating there and thus can have an impact on their CSR activities and reporting practices. In this respect, in order to gain a proper understanding of the determinants of CSR disclosure, it is useful to discuss the context, in which CSR activities are implemented. Although this research focuses on firm-related motivations for disclosure, the external or contextual factors are also considered. Therefore, the historic, economic, political, cultural and social aspects in Bulgaria in relation to CSR and CSR disclosure are reviewed.

Historical evolution

The global attention to CSR practices and to the concept itself has increased remarkably over the past few decades. However, the idea, according to which corporations should carry

responsibilities and make positive contributions to the rest of society, is not new. The roots of this concept can be recognized in the United Kingdom and the United States already in the 19th century. The idea behind social responsibility was characterized especially by philanthropy, i.e. company expenditures on societal causes (Carroll, 2008), as these practices were regional and rather irregular than systematic (Tsanov, 2016).

Over the same period, the concept of social responsibility developed similarly in the Bulgarian society. In the 1800s, when Bulgarians were still under Ottoman rule, they maintained their national consciousness with systematic resistance. As part of this resistance and as a result of their dedication to Bulgarian education, religion and history, Bulgarian communities and single wealthy persons raised donations to build churches and schools during the Bulgarian National Revival in the 18th and 19th century (Marcheva & Loumbeva, 2010). In addition, community cultural and charity centers were established, which aimed to support the education and welfare of Bulgarian society. After the Liberation of Bulgaria in 1878, the philanthropy developed even stronger. At the end of the 19th and the beginning of the 20th century, well-recognized leaders on the top of the state administration and wealthy entrepreneurs popularized philanthropy as a social virtue (Simeonov & Stefanova, 2015). Thus, in the period until 1944, CSR was manifested initially in the form of donations. Many universities, theaters and monasteries were established with the help of generous financial aid from patriotic entrepreneurs, who have realized that they should not only make profits but also act in favor of the society (Gyoshev, 2012). The state also had an important role in the development of philanthropy. In the Kingdom of Bulgaria (1908-1944), the necessary legislation was gradually created and the government became committed to introducing a number of socially responsible activities as well as to overseeing the existing charitable organizations. On the eve of World War II, a system of political control over associations was introduced, which also concerned charitable funds and organizations. As a result, state authorities had to monitor the political credibility of those, who participate in charities and associations (Stoyanova, 2011).

The Communist regime (1948-1989) in the country was marked by massive nationalization of private businesses, large private properties and collectivization of agriculture (Tsanov, 2016). During the one-party government, the totalitarian state did not accept any autonomous spheres of independent public activity. All existing charity organizations were closed down and their resources have been directed to the state budget (Gyoshev, 2012). This led to an amalgamation of the economic, political and social domains, whereby the government served as an absolute shareholder, manager and stakeholder of companies (Simeonov & Stefanova, 2015). It created the notion in society that social responsibility is a duty of the state and the politicians only. Thus, during this period the CSR as it is understood nowadays actually did not exist.

In the 1990s, the concept of corporate social responsibility has gradually emerged through the years, but it was initially introduced by foreign corporations entering the Bulgarian market.

The transition from centrally planned towards market economy generated favorable conditions for the development of CSR practices in Bulgaria (Simeonov & Stefanova, 2015). The Bulgarian state continued to play an important role in the application of socially responsible practices and of CSR principles. The Council of Ministers, the relevant ministries and other government bodies have been making efforts to support the development of good social practices of companies through legislative activities. A number of laws were adopted aiming to facilitate and initiate such practices. Turning point for CSR was the admission of the country to the European Union and the following adoption of National Strategy for CSR in 2009 (Tsanov, 2016), which aimed to create and consolidate favorable environment for implementation of CSR (Ministry of Labor and Social Policy, 2009).

Political context

The significant role of governments as drivers of CSR has been subject of discussion since the early 1990s (Albareda et al., 2009). Nowadays, many European governments engage increasingly in shaping and encouraging CSR activities and sustainability through the adoption of various public policies for CSR (Steurer, 2010). These CSR policies may take the form of financial incentives (e.g. subsidies, carbon trading, or R&D programs that create new technologies); they may contribute to increasing consumer awareness (e.g. information campaigns), ensuring credibility (e.g. eco-labels), or influencing prices (e.g. taxation) (Slavova, 2013). In case that public CSR policies aim to influence stakeholder decisions, these can be focused on the country's activities (e.g. sustainable public procurement) or can try to improve transparency and accountability (e.g. requirement for CSR reports) (Slavova, 2013). The factors that promote the adoption CSR policies and incentives by the governments can be classified as local, i.e. political-economic institutional context, and global, i.e. global initiatives (Brown & Knudsen, 2012), as the combination of both creates the rationale for national CSR policies.

After the fall of the Communist regime, the new Bulgarian Constitution from 1991 affirmed the transition of the country from socialism towards capitalism. The transition was marked by change of governments and political instability, which is still evident nowadays. The slow process of privatization and implementation of market reforms, the lack of civil society as well as business culture did not favor the development of CSR in Bulgaria in the 1990s (Dimitrov, 2010). During that time, most companies were primarily concerned with their own survival, while the government did not seem interested in promoting CSR (Simeonov & Stefanova, 2015).

In the early 2000s, the CSR development in Bulgaria was characterized by the implementation of the first CSR initiatives introduced by several multinational companies entering the Bulgarian market. In 2003, the Bulgarian network of the United Nations (UN) Global Compact was launched, which is a voluntary initiative aiming to promote the adoption of sustainable and socially responsible policies and the reporting on their implementation by

companies³. A year later, a National Round Table for Introduction of Social Standards in Bulgaria was set up, at which five state institutions have taken part along with industry organizations, NGOs and trade unions⁴. Nevertheless, the accession of the country in the EU in 2007 was a key moment for the development of CSR. In Bulgaria, the introduction of public CSR policies is primarily driven by external factors, mainly EU initiatives, since the actions of the public sector in the CSR area can be mainly related to Bulgaria's membership in the EU. Like other member states, Bulgaria follows the framework of CSR initiatives set by Brussels (Slavova, 2013). These initiatives resulted in the development of a National Strategy for CSR 2009 - 2013 by the Ministry of Labour and Social Policy, which is the first explicit form of a government policy manifested in the field of CSR, and in its adoption by the government on 15 November 2009. The Strategy demonstrates the active position of the state that aims to create a favorable environment for the development and implementation of socially responsible practices and to provide prerequisites for the active voluntary participation of all stakeholders: state institutions, business, social partner organizations, NGOs, academic circles, the media and others (Ministry of Labor and Social Policy, 2009). The five major goals determined in the Strategy for CSR are:

- 1) *Raising stakeholder awareness on the nature and implementation of CSR*, i.e. organizing forums on CSR practices, encouraging the development and implementation of CSR policies and initiatives.
- 2) *Creating and strengthening the capacity of stakeholders' expertise in the field of CSR*, i.e. development and implementation of educational programs, strengthening the administrative capacity of the structures to coordinate the implementation of the strategy.
- 3) *Promoting the creation of a legal and institutional environment supporting the implementation of CSR*, i.e. assessment of the need for development of the regulatory framework, development and implementation of a mechanism for institutional coordination of CSR activities.
- 4) *Enhancing transparency in implementing socially responsible initiatives*, i.e. promoting the accountability of socially responsible initiatives.
- 5) *Enhancing the responsibility of businesses to protect the environment*, i.e. integrating preventive environmental instruments with corporate policies.

Besides, a detailed CSR Strategy Implementation Plan has been developed that aims at promoting good corporate practices and reporting of socially responsible initiatives. A CSR Council under the chair of the Minister of Labor and Social Policy has been launched, which focuses on the creation of an optimal institutional and business environment for the implementation of CSR initiatives. Moreover, the MLSP grants a national award for socially

³<https://www.unglobalcompact.org/>

⁴<http://csr.bilsp.org/presentations/bg/Presentation%20NKM-Sofia-18-19%20June%202009.pdf>

responsible enterprises - small, medium and large. The aim of this initiative is to honor and promote the remarkable contribution of responsible companies to the society by supporting areas such as education, ecology, employee development and many others, as well as encouraging other companies to adopt and implement social projects.

Cultural context

Another factor that affects the CSR activities and CSR reporting of companies is the national cultural context (Williams & Pei, 1999). As Davis (1973) points out, managers operate under a set of cultural norms that determine their behavior. Much research has been devoted to investigating the relationship between national cultures and corporate reporting practices. For example, Newson & Deegan (2002) reveal that CSR disclosure, and certain CSR disclosure themes in particular, seem to be highly influenced by the social, political, and cultural environment of the country, where the reporting company is located. In addition, Orij (2010) finds a significant relationship between national cultures and CSR disclosure levels in large companies from 22 countries based upon Hofstede's five cultural dimensions (Hofstede, 1991). Opstrup (2013) comes to the conclusion that there are significant differences in CSR reporting practices in France and Denmark, which can be justified by differences in cultures. In a cross-cultural comparison of 20 countries, Once & Almagtome (2014) find that corporate environmental disclosure levels relate to national culture, again by applying Hofstede's model. Since there is much evidence in the literature indicating that the socio-cultural environment is important factor when studying CSR disclosure level, the cultural aspects of Bulgaria that might influence the reporting level of companies there will be also reviewed. For this purpose, the scores of Bulgaria on each cultural dimension will be taken from Hofstede's online Country Comparison Tool⁵ and related to CSR disclosure based on the findings of previous empirical studies.

After decades of comprehensive research, Hofstede's national cultural model has evolved into a six dimensional framework of national culture, consisting of Power Distance, Uncertainty Avoidance, Individualism vs. Collectivism, Masculinity vs. Femininity, Long Term vs. Short Term Orientation and Indulgence vs. Restraint (Hofstede et al., 2010). The model provides scores from 0 to 100 on the dimensions for 76 countries⁶, and thus allowing for cross-cultural comparison. On the first dimension, *power distance index (PDI)*, which relates to the extent to which the less powerful members of a society accept and expect that power is distributed unequally (Hofstede & de Mooij, 2010), Bulgaria scores high compared to other countries. A study conducted by Gallego-Alvarez & Ortas (2017) on the impact of national cultural differences on corporate environmental sustainability reporting (CESR) practices finds that there is a negative relationship between power distance and the level of CESR. According to Orij (2010), companies in countries with high level of PDI have a lower CSR disclosure level

⁵<https://www.hofstede-insights.com/product/compare-countries/>

⁶<https://www.hofstede-insights.com/models/national-culture/>

than countries, which score low on the PDI dimension. Once & Almagtome (2014) also find that high degree of PDI is associated with low level of corporate environmental reporting. However, according to Garcia-Sanchez et al. (2013; 2016), the power distance dimension does not influence the CSR disclosure.

With regards to *uncertainty avoidance index (UAI)*, which is associated with “the extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations” (Hofstede & de Mooij, 2010), Bulgaria’s score of 85 points is comparatively very high. In such cultures, people try to minimize the possibility of unstructured situations by strict behavioral codes, laws and rules (Hofstede, 2011). According to Gray (1988), who studies the relationship between cultural characteristics and accounting systems, strong uncertainty avoidance culture is associated with preference for secrecy, i.e. restriction of information disclosures, in order to “avoid conflict and competition and to preserve security”. In his study, Williams (1999) finds that firms operating in social environments with a strong level of uncertainty avoidance are reluctant to voluntarily disclose environmental and social information and thus provided support for Gray’s (1988) suggestion. Williams (1999) further explains that secrecy may be preferred because of a fear that disclosures could threaten the financial security of the company.

Considering the third dimension, individualism vs. collectivism, Bulgaria’s culture tends to be relatively collectivistic, with a score of 30 points. Individualism/Collectivism relates to the degree to which people feel independent/interdependent as members of a larger whole⁷. Again, following Gray (1988), secrecy is consistent with a preference for collectivism, since members of collectivistic societies are concerned mostly with those closely involved with the company rather than external stakeholders. Adnan et al. (2010) also point out that Chinese society, which scores similarly on the individualism/collectivism dimension, tends to disclose voluntarily less information. On the contrary, García-Sánchez et al. (2013) reveal that companies in collectivistic societies have greater impetus to disclose social and environmental information to their stakeholders in order to facilitate their decision-making processes.

The fourth cultural dimension, masculinity vs. femininity, refers to the distribution of emotional roles between women and men (Hofstede, 2011). With a rating of 40 points, Bulgaria is considered a relatively feminine society. In such societies, leading values are caring for others and quality of life. Gray (1988) suggests that “*more caring societies where more emphasis is given to the quality of life, people and the environment, will tend to be more open especially as regards socially related information*”. According to van der Laan Smith et al. (2005), companies in feminine cultures are more likely to feel external pressure to provide disclosure because this type of societies are more stakeholder oriented. Moreover, CSR disclosure in feminine societies is expected to be better with respect to quality and extent

⁷<http://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6d-model-of-national-culture/>

compared to masculine societies, because the focus there is mainly on social goals (Adnan et al., 2010).

The long term vs. short-term orientation (LTO) dimension refers to “the extent to which a society exhibits a pragmatic future-orientated perspective rather than a conventional historic or short-term point of view” (Hofstede & de Mooij, 2010). With a score of 69, Bulgaria has a long-term oriented culture with a more pragmatic approach. People in pragmatic societies tend to adapt traditions easily to changing conditions. Thrift and perseverance are important goals (Hofstede, 2011). Once & Almagtome (2014) find that there is a significant relationship between the level of corporate environmental reporting and LTO. In line with this, Gallego-Alvarez & Ortas (2017) discover that companies in pragmatic cultures are more committed to CESR and to environmental preservation and related sustainability issues, respectively.

The last dimension added to the model is indulgence vs. restraint (IND), where indulgence is related to a society that allows relatively free satisfaction of desires related to enjoying life. Restraint, on the other hand, refers to a society that controls gratification of needs and follows strict social norms (Hofstede, 2011). Bulgaria scores low on this dimension, which indicates a strongly restraint culture. According to Halkos & Skouloudis (2016), countries with high scores of LTO and indulgent cultures seem to foster CSR. However, with regards to CSR disclosure, Gallego-Alvarez & Ortas (2017) discover a negative relationship between indulgence and CESR and argue that companies in indulgent societies are less prone to disclose information to their stakeholders. In addition, the authors explain that these societies are less likely to demand companies to report their potential impacts on the natural environment. Thus, it can be assumed that, by being opposite, restraint societies are more inclined to expect from business to disclose its social performance.

In sum, the national culture of Bulgaria is characterized by high PDI and UAI, as the society tends to be feminine, collectivistic, pragmatic and restraint, referring to Hofstede’s model. Accordingly, the results on three of the dimensions indicate an environment where lower levels of disclosure can be expected, while the results on the other three dimensions suggest that companies in this type of culture tend to disclose more. Nevertheless, the findings in the literature about the relationship between these cultural dimensions and the CSR reporting are contradictory. There is a lack of uniformity in terms of the interpretation of the different cultural attributes and their possible impact on corporate social disclosures. Still, the insights into the cultural factors of Bulgaria are valuable and may be helpful when interpreting the results of the current study with regards to the internal determinants of CSR reporting.

Economic context

The economic conditions of developing countries have a great impact on the business operating there and on the decision-making, which can also influence the social reporting practices of companies (Tilt, 2016). Nevertheless, the economic performance as an external

factor has been rarely considered in the literature on CSR disclosure. According to a study conducted by Dong et al. (2007) on the interdependency effects of firm-level and country-level factors on the differences in disclosure for firms operating both within one country and in different countries, the economic development of a country has a significant impact on corporate reporting differences. In line with this, Dissanayake et al. (2016) find that the economic environment seems to be a significant aspect influencing how sustainability disclosure develops in Sri Lanka.

An overview of the economic context of Bulgaria will be provided by considering some major economic indicators, which are used for determining the economic environment⁸. These are the unemployment rate, growth rate of gross domestic product (GDP) and inflation rate. In order to gain a better comprehension of the economic situation in the country and its development over time, the indicators' data for the period 2013 to 2016 is observed. In addition, a brief overview of the corporate sector is given.

The employment, respectively unemployment rate, in a country is considered an indicator of the well-being of its economy and has a direct impact on the business there. According to the definition provided by the International Labour Organisation (ILO), unemployed are all persons of working age, who simultaneously meet three criteria: 1) without work at all during the reference period; 2) available for work; and 3) seeking work⁹. The unemployment rate is calculated by dividing the number of unemployed persons by the total number of persons in the labor force, which is the sum of all employed and unemployed people, and is then expressed as a percentage of the labor force^{10, 11}. Figure I.1 in Appendix I depicts the unemployment rate in Bulgaria for the period from 1 January 2013 to 31 December 2016. In 2013, the percentage of unemployed varied between 10% and 12%, reaching a highest level for the relevant period of slightly above 12% in the first quarter of 2014. Since that time, a significant downward trend with slight fluctuations in the unemployment rate can be observed, as by the end of 2016 it came to about 8%. Nevertheless, youth unemployment is another challenge for the economy and business. Following the United Nations' (2013) definition of youth, the youth unemployment rate refers to the unemployed persons aged 15-24, again expressed as a percentage of the labor force of the same age. According to Figure I.2 in Appendix I, which presents the youth unemployment rate in Bulgaria for the same period, the level of unemployed young persons is considerably higher. In the first year of the reference period, the highest rate of youth unemployment can be detected ranging between 26% and 29%. Then, the rate gradually decreases over the period and reaches about 20% by the end of 2016. One of the major reasons for the level of youth unemployment in Bulgaria indicated in the report by the Institute for Market Economics (2014) is the lack of practical

⁸ <https://www.investopedia.com/terms/e/economic-conditions.asp>

⁹ <http://www.ilo.org/ilostat-files/Documents/description.UR.EN.pdf>

¹⁰ Ibid.

¹¹ <https://www.investopedia.com/terms/u/unemploymentrate.asp>

experience and of professional contacts among young people, which creates difficulties in finding the first job. In this regard, companies in Bulgaria, which are engaging in CSR activities, might participate in work experience programs or initiatives by actively cooperating with the government and educators in order to facilitate the transition of young people from school to work. On the other hand, the business itself feels the negative impacts of high unemployment, such as decreased consumer's purchasing power, rising criminality or potential loss of skilled labor force¹². Thus, it would be in the interest of companies to contribute to its reduction.

The next indicator of the economic health and performance of a country is the gross domestic product (GDP), which is defined as *“the total value of all final good and services produced for the marketplace during a given period, within the nation's borders”* (Hall & Lieberman, 2012). A decrease in GDP usually indicates an economic recession, while an increase in GDP marks economic growth. The annual economic growth is measured by means of GDP growth rate, which compares the change in nation's real GDP from one year to another expressed as a percentage. Figure I.3 in Appendix I presents the annual GDP growth rate in Bulgaria. As of 2013, there is a clear upward trend. Since the middle of the reference period, Bulgarian economy increased at an annual rate of 3% to 4%, as the rise is mainly driven by consumption (Ministry of Finance, 2015; 2016). In general, economic growth is a good sign for business, because it positively influences profits and ensures more business confidence.

Inflation is the third economic indicator, which would help us to gain better insights into the state of the economy during the reference period. It refers to an increase in prices of goods and services over a period of time¹³. Conversely, it can be also understood as the loss of value of the country's currency. The inflation rate shows the level at which the prices are changing in terms of percentage. The period 2013 to 2016 in Bulgaria (Figure I.4 in Appendix I) is marked largely by negative inflation rate, or deflation, which indicates a decrease of prices. According to Nikolova (2015), economist from the Institute for Market Economics, there are three major reasons for the deflation in Bulgaria during that period: regulated electricity prices, international grain prices and international oil prices. In this case, however, the deflation is not a consequence of shrinking consumption, which is also shown by the GDP data, and the economy is not in a deflationary spiral.

Corporate context

The corporate sector of a country is a substantial part of its economy. In Bulgaria, the sector has developed considerably after the state's transition to a market economy. According to the latest available data by the National Statistical Institute (NSI)¹⁴, there were approximately 339,000 active companies in the country as of 2015, about 41% of which are in the retail

¹²<https://www.investopedia.com/financial-edge/0811/the-cost-of-unemployment-to-the-economy.aspx>

¹³<https://www.investopedia.com/university/macroeconomics/macroeconomics6.asp>

¹⁴https://infostat.nsi.bg/infostat/pages/reports/result.jsf?x_2=432

industry. The second largest share (ca. 11.75%) of companies operates in the area of professional activities and scientific research and is followed by firms engaged in manufacturing with a share of 9.1%. Data by the European Central Bank's Statistical Data Warehouse¹⁵ reveals that the number of publicly traded companies on the Bulgarian Stock Exchange (BSE) was only 358 in 2016, which corresponds to a share of ca. 0.1% of all active companies. With a market capitalization of about BGN 9.682 billion in 2016, Bulgarian stock market counts as relatively small. According to Bulgaria's Public Offering of Securities Act, companies listed on the BSE are obliged to regularly disclose information. This can be regulated (e.g. financial statements, insider information, notification for alteration in the shareholdings) or unregulated (e.g. general shareholders' meeting, notification for acquisition or sale of own shares, information related to redemption or transfer etc.)¹⁶. In this regard, disclosing CSR information in Bulgaria is voluntary and not required by law. The requirements on disclosure by private companies only relate to the reporting of financial statements, as the national accounting standards are in compliance with the International Financial Reporting Standards (IFRS).

Social environment

Following Adams (2002), other general contextual factors influencing the CSR disclosure practices are the social circumstances. Although papers often refer to the "social environment" in which studied companies operate, there is not a generally accepted definition, which precisely clarifies what is implied by the term (Tilt, 2016). The social context is often interrelated with the political, economic or cultural factors since they cover a plenty of aspects, which may sometimes overlap. For the purposes of this study, three social aspects will be briefly discussed, which have not been considered in this paper so far, namely corruption, poverty and human development index (HDI).

According to the Corruption Perceptions Index 2016 by Transparency International, with a score of 41 points Bulgaria ranks 75th out of 176 countries and is thus the most corrupt country in the European Union¹⁷. Corruption is widespread at many levels in the country - in the judicial system, police sector, public procurement, land administration, tax and customs administrations, public services (GAN Business Anti-Corruption Portal, 2015), which creates an uncertain and unfavorable business environment. The high corruption level is a major challenge for the business, which has also been confirmed in the latest Global Competitiveness Report 2016–2017 published by the World Economic Forum (2016). There, corruption is determined as the most problematic factor when doing business in Bulgaria. Similar are the Flash Eurobarometer (European Commission, 2014) results with regards to the business' attitudes towards corruption, where 51% of Bulgarian companies consider it a

¹⁵ http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=181.SEE.A.BG.USE0.LST.E.Q

¹⁶ <http://www.bse-sofia.bg/?page=InformationTypes>

¹⁷ <https://www.transparency.org/country/BGR#chapterInfo>

problem. The fight against corruption is specified in the 10th Principle of the UN Global Compact, which states that “*Businesses should work against corruption in all its forms, including extortion and bribery.*”¹⁸ Thus, companies are urged to develop respective programs to address all forms of corruption and to join peers, governments, UN agencies and civil society in order to achieve a more transparent global economy.

Another social issue in Bulgaria is the widespread poverty. According to a data on poverty and social inclusion by the National Statistical Institute (NSI, 2016), the number of Bulgarians living in poverty increased to 22.9% in 2016, meaning that about 1.6 million people there live with less than €1891 per year. In addition, more than a third of the population (40.4%) was at risk of poverty or social exclusion in 2016. However, poor population leads also to lower purchasing power and results in decreasing consumption, which has an adverse effect on the business in Bulgaria (Simeonov & Stefanova, 2015). Thus, it is beneficial for companies operating there to contribute to poverty alleviation with their CSR activities. Moreover, according to the Global Reporting Initiative (GRI, 2016), corporate sustainability reporting can also facilitate poverty reduction by helping companies to optimize their strategies and actions. Through the implementation of reporting standards, it would be also possible to measure the impacts on poverty more precisely.

For a better comprehension of the national social context and development, a third measure, Bulgaria’s HDI, will be briefly examined. The HDI is a measure, which is used for the assessment of progress in three fundamental dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living (UNDP, 2016). According to the Human Development Report on Bulgaria, the country’s HDI value for 2015 was 0.794, which corresponds to the high human development category and the country ranks 56th out of 188 countries and territories. In the period 1990 to 2015, the HDI value increased by 13.4% (UNDP, 2016). In general, over the years there is a positive trend with regards to the human development in Bulgaria. Nevertheless, the country’s average score is still below the average of 0.891 for the European Union. Thus, there are still areas that can be improved, such as the knowledge level for example, which is measured by the average number of years of education among the adult population. This issue may be addressed by companies through traineeship programs as part of their CSR activities.

Concluding remarks

The operational environment in Bulgaria offers rather favorable conditions for companies wishing to engage in CSR. The historical perspective on CSR in the country reveals that philanthropy, also as an aspect of CSR, is deeply rooted in the society. Based on that, it can be assumed that Bulgarian companies implementing CSR practices may be mostly engaged in philanthropic actions such as donations, investments in communities and other charitable

¹⁸ <https://www.unglobalcompact.org/what-is-gc/mission/principles>

activities. Although relatively late compared to Western countries, the state is also taking measures to promote CSR practices. This is demonstrated especially through the adoption of the National Strategy for CSR 2009 – 2013, which aims to encourage CSR reporting, among other things. The economy in Bulgaria in the period between 2013 and 2016 is characterized by growth and stability. However, the high level of youth unemployment is still a significant issue. Along with the state and the non-governmental sector, the business can also contribute to the solution of this problem. With regards to the reviewed social factors, there is also much room for implementing CSR practices. Hofstede's cultural indicators about Bulgaria related to CSR disclosure cannot unambiguously determine whether they would have a positive or negative impact on the levels of reporting by the companies there. Nevertheless, the results of this research could give some indication of the relationship between the cultural context and the disclosure levels.

2.7. Conclusion

The purpose of this chapter was to provide deeper insights into the CSR concept and its definition adopted in this study, the external factors, which might affect the implementation of CSR practices and disclosure in the country, and into the theoretical background used in prior studies on CSR disclosure. It can be concluded that CSR is a multi-faceted concept encompassing four major responsibilities of companies towards the society: economic, legal, ethical and philanthropic. The historical evolution of the concept in the studies country shows that the present idea of CSR in Bulgaria is not a discovery but rather a reinvention, as corporate philanthropic practices have deep roots in the Bulgarian society. In this regard, the country-specific factors indicate rather a favorable environment for CSR practices and disclosure. In Bulgaria, there is a political commitment promoting CSR activities and reporting. The economic and social conditions in the country show that there is still much that can be improved in these areas and that CSR activities are necessary and useful to the society. With regards to the theoretical background of the research, adopting a multi-theoretical approach seems to be most appropriate when studying the firm-specific determinants of CSR reporting. As shown in Table 2, which sums up some part of the research on corporate disclosure determinants, the most-frequently used theories are indeed legitimacy theory, agency theory and stakeholder theory. Despite its rare use in this research area, signaling theory was also included because it would be interesting to examine whether its use can find support in this study. Based on the reviewed theories, it can be concluded that companies might disclose CSR information in order to legitimize themselves and their actions (legitimacy theory); to obtain approval by their stakeholders (stakeholder theory); to reduce agency costs (agency theory) and to signal good reputation with the aim of obtaining financial benefits (signaling theory). In addition, various determinants of CSR disclosure were identified.

Table 2 Literature review: determinants of CSR disclosure

Author(s)	Year(s)	Country	Theory	Determinants of disclosure
<i>Developed economies</i>				
Bonsón & Bednárová (2015)	2012	Eurozone	LT, STT	Country of origin [+]*, Industry [+], Dow Jones Sustainability Index [+], Profit [0], Size [0]
Brammer & Pavelin (2008)	2000	UK	STT	Size [+], Media exposure [0], Industry (environ. issues) [+], Profitability [0], Leverage [0], Ownership dispersion [-], Environmental performance [0]
Branco & Rodrigues (2008)	2003-2004	PT	RBP, LT	Size [+], Media exposure [+], International experience [0], Consumer proximity [+]*, Environmental visibility [0]
Brown & Deegan (1998)	1981-1994	AU	LT, MAST	Media attention [+], Negative media attention [+]
Buniamin et al. (2008)	2005	MY	LT, STT	Board independence [0], CEO duality [0], Management ownership [0], Board size [+]
Coluccia et al. (2016)	2006-2009	IT	LT, STT, AT	Size [+], Industry [+]*, Economic performance [0], Age [0], Leverage [+]*, Foreign markets [+]*, Public shareholders [+], Ownership dispersion [-], Audit [-], Legislation [0]
Cormier et al. (2005)	1992-1998	DE	IT, LT, AT, STT	Risk [+], Reliance on capital markets [+], Trading volume [0], Concentrated ownership [-], Foreign Ownership [0], Market return [0], Leverage [0], Media exposure [+], Assets age [+], Size [+], SEC registrant [+]
Da Silva Monteiro & Aibar-Guzman (2010)	2002-2004	PT	LT, STT	Size [+], Industry [0], Financial performance [0], Stock market listing [+], Foreign parent company [0], Environmental certification [0]
Decock Good (2002)	1993-1996	FR	STT	Media pressure [+], Trade unions [+], CSR structure [+]*, Economic performance [0], Pressure from intern. organizations [0], Pressure from creditors [0]
Dyduch & Krasodomska (2017)	2014	PL	LT	Number of employees [0], Net sales [+], Profitability [0], Leverage [0], Industry environmental sensitivity [+], Board size [0], Women on the board [0], Foreigners on the board [0], Foreign capital share [+], Company's activity abroad [0], Inclusion in Respect Index portfolio [+], Inclusion in the largest review of socially responsible business activities in Poland [0], Auditor type [0], Duration of stock exchange listing [-]
Gamerschlag et al. (2011)	2005-2008	DE	PCT	Company visibility [+], Profitability [+]*, Size [+], Dispersed ownership [+], US cross-listing [+], Industry [+]
Hackston & Milne (1996)	1992	NZ	AT, LT, STT	Size [+], Profitability [0], Industry [+]
Harjoto et al. (2015)	1999-2011	USA	STT	Board diversity [+], Size [+], ROA [+], Advertising ratio [+], Capital expenditure ratio [+], Volatility stock returns [-], Institutional ownership [0]
Lynn (1992)	1989	HK	-	Industry [+], Foreign ownership [+]

Ness & Mirza (1991)	1984	UK	AT	Oil industry [+]
Reverte (2009)	2005-2006	ES	AT, STT, LT	Media exposure [+], Size [+], Industry [+], Profitability [0], Debt [0]
Roberts (1992)	1984-1986	USA	STT	Political action committee contributions [+], Leverage [+], Public affairs staff [+], Foundation sponsorship [+], Average growth in ROE [+], Systematic risk [-], Age [+], Industry [+], Ownership dispersion [0]
Tagesson et al. (2009)	2006-2007	SW	LT, ST, IT	Size [+], Industry [+], Financial performance [+], State ownership [+], Ownership concentration [0]
<i>Developing economies</i>				
Barakat et al. (2015)	2011	PS, JO	IT, LT	Legal system [+], International auditor [+], Board size [+], Board audit committee [+], Size [+], Profitability [+], Board independence [0], Board governance committee [0], Age [0], Industry [0]
Chiu & Wang (2014)	2010-2011	TW	STT	Global supply chain [+], Capital markets [+], Ownership dispersion [+], CSR department [+], ROE [0], Debt [0], Size [+], Media visibility [+]
Dissanayake et al. (2016)	2011-2012	LK	STT, LT	Size [+], Age [0], Industry [+]*, Profitability [0]
Elfeky (2017)	2012-2016	EG	LT, SIGT, AT, STT, CNT	Size [+], Debt [+], Profitability [+], Board size [0], Independent directors [+], Duality in position [0], Block-holder ownership [-], Auditor type [+]
Elijido-Ten (2004)	1999-2002	MY	STT	Shareholder power [0], Government power [+], Creditor power [0], Environmental concern [+], Economic performance [0]
Gunawan (2013)	2003-2006	ID	LT	Size [+], Industry [+], Financial performance [+], Age [+], Ownership concentration [-], Auditors' influence [+], Company status [+]
Juhmani (2014)	2012	BH	LT	Size [0], Profitability [0], Debt [+], Age [0], Audit firm size [+]
Li et al. (2013)	2008-2009	CN	STT	Firm performance [+], Size [+], Leverage [-], Age [0], State ownership [-]
Mahadeo et al. (2011)	2004-2007	MU	LT, STT	Size [+], Profitability [0], Risk [+]
Muttakin & Khan (2014)	2005-2009	BD	LT	Family ownership [-], Size [+], Export-oriented industry [+], Industry [+]
Naser et al. (2006)	1999-2000	QA	LT, STT, AT, PET, AA	Growth in assets [+], Dividends paid [0], Debt [+], Individual investor [0], Government ownership [0], Institutional investor [0], Majority shareholders [0], Market capitalization [+]
Rover et al. (2016)	2008-2010	BR	DBD	Size [+], Debt [0], Profitability [0], Growth opportunity [+]*, Performance [0], Industry [+], Origin of control [+], Auditing [+]*, Sustainability [+]*, Internationalization [+]*, Pollution control [+]*
Sukcharoensin (2012)	1993-1999	TH	AT, LT, PET	Corporate governance rating [+], State ownership [+], Dispersed ownership [+], Debt [-], Age [0], ROA [0],
Welbeck et al. (2017)	2003-2012	GH	LT	Industry [+], Size [+], Age [+], Profitability [0], Ownership type [0], Auditor type [0]

Wuttichindanon (2017)	2014	TH	STT, AT	Government ownership [+], Size [0], Age [0], Profitability [0], Debt [0]
Yao et al. (2011)	2008-2009	CN	LT	Size [+], Media exposure [+], Ownership concentration [+], Institutional shareholding [+], Age [-]
Zeng et al. (2012)	2006-2008	CN	IT	Size [+] Industry [+], Ownership (private vs. government owned) [+], Reputation [+], Size [+]
<i>Multinational study</i>				
Baldini et al. (2018)	2005-2012	42 countries	LT, IT	Size [+], Leverage [+], Profitability [-], Sales growth [-], Market-to-book ratio [+], Cross-listing [+]*, Analysts coverage [+], Legal framework [-]*, Corruption [-], Labor protection [+]*, Unemployment rate [+], Social cohesion [-+], Equal opportunities [-+], CSR law [+], Market capitalization to GDP [+]
Ortas et al. (2015)	2010	59 countries	LT, AT, SIGT, PCT	Size [+], Debt [+], ROA [+]*, R&D spending [+], Market return [+], Market capitalization [+], Cyclical sector [+], Non-cyclical sector [0]
Patten (1991)	1985	-	LT	Size [+], Industry classification [+], ROA [0]

[0] - insignificant or missing correlation; * - partial significance; **MAST** - Media Agenda-Setting Theory; **CNT** – Capital Needs Theory; **RBP** – Resource-based perspective; **PET** – Political Economy Theory; **AA** – Accountability Approach; **DBD**– Discretionary-Based Disclosure; **LT** – Legitimacy Theory; **AT** – Agency Theory; **STT** – Stakeholder Theory; **SIGT** – Signaling Theory; **PCT** – Political Cost Theory; **IT** – Institutional Theory

3. Hypotheses development

In order to test the theories adopted in this study, several hypotheses are developed and presented in the following sections.

3.1. Profitability

Based on stakeholder theory, Ullmann (1985) emphasizes the importance of companies' economic performance, which constitutes a prerequisite for their ability to meet social demands and to engage in costly CSR programs. Consistent with this assertion, Roberts (1992) tests the applicability of stakeholder theory in explaining CSR disclosure and discovers that companies with relatively strong economic performance in the past, as measured by growth in return on equity, are more likely to have high current levels of social disclosure. This result corresponds also with the notion of Bowman & Haire (1976) that profitability of companies allows them to spend part of the resources for social concerns. In this regard, a firm with good economic performance should be able to meet the stakeholders' demands for information. Similarly, legitimacy theory suggests that companies that are more profitable would have a greater incentive to legitimize themselves and their actions by investing in CSR programs and reporting about them (Barakat et al., 2015), as they want to be perceived as environmentally and socially responsive. Moreover, profitable companies are interested in CSR disclosing because it signals to their stakeholders and the society that they are good corporate citizens, as implied by signaling theory. According to Inchausti (1997), shareholders will be interested in providing 'good news' to the market in order to prevent undervaluation of their stocks. Although prior empirical evidence shows contradictory results, the presumption of a positive profitability-disclosure link prevails. Taking into account the existing theoretical discourse, as well as Carroll's (2016) idea that a firm's economic performance is fundamental for its CSR activities, the following hypothesis is formulated:

H1: *Profitability is positively related to CSR disclosure level.*

3.2. Leverage

Within the context of agency theory, Jensen & Meckling (1976) argue that agency costs of debt increase as the firm debt increases. In general, managers in highly leveraged companies tend to have a risk-taking behavior. Moreover, it is possible that managers transfer wealth to the detriment of creditors (Jensen & Meckling, 1976; Ortas et al, 2015). Thus, creditors would impose restrictions, such as loan covenants, on managers, which may lead to additional agency costs. Since agency costs are borne by managers, they would have the incentive to avoid potential conflicts with bondholders and thus to reduce the costs. One way of reducing agency costs is through disclosing information, which would then resolve the issue of information asymmetry (Ortas et al., 2015; Barako et al., 2016). Accordingly, managers of companies with higher levels of financial leverage are inclined to voluntarily disclose more information in order to meet creditors' requirements and remove suspicions of aberrant

actions. Moreover, following Ness & Mirza (1991), it could be suggested that managers may use corporate annual reports to disclose information through which they are seen to be acting in creditors' interests. Roberts (1992) points out that creditors control the funding that may be essential for the continued existence of a company. Therefore, under stakeholder theory, if creditors seem to be concerned with social or environmental issues, the company would commit more actively to social activities and disclosure in order to satisfy them. Correspondingly, higher dependence on debt financing would suggest a higher level of corporate disclosure in an effort to respond to creditors' expectations on these issues (Roberts, 1992). The empirical evidence, however, again obtains mixed results. Despite the mixed results and based on the theoretical notions of agency and stakeholder theory, we suggest that highly leveraged Bulgarian companies would tend to report more on CSR in order to reduce costs. Therefore, the following hypothesis will be tested:

H2: Leverage has a positive effect on CSR disclosure level.

3.3. Firm size

In line with the rationale of stakeholder theory, the empirical evidence suggests that larger companies have a greater impact on the society and are more likely to become subject to scrutiny from stakeholder groups since they are more visible (Reverte, 2009; Juhmani, 2014) and more vulnerable to unfavorable responses among them (Branco & Rodrigues, 2008). In addition, larger companies usually have a higher number of stakeholders who might require information on their CSR activities (Hackston & Milne, 1996; Brammer & Pavelin, 2004). Thus, larger companies tend to disclose social information in order to satisfy the demands of their diverse stakeholders (Welbeck et al., 2017) and to gain their approval and support. Similarly, larger firms, which are engaged in various activities and which affect noticeably the environment where they operate, are more likely to engage in legitimizing behavior in order to ensure their societal existence (Dowling & Pfeffer, 1975; Barakat et al., 2015). One possible strategy that can be adopted for legitimizing companies' activities is CSR disclosure (Guthrie & Parker, 1989). Thus, in accordance with legitimacy theory, larger companies might disclose higher levels of CSR information as a mean of obtaining legitimacy from the society. From the lens of signaling theory, Branco & Rodrigues (2008) argue that larger, more visible companies would use CSR disclosure as a signal of better social performance in an effort to improve their corporate reputation. In addition, larger companies incur higher agency costs (Jensen & Meckling, 1976) and usually require additional external funds, which might lead to conflicts between agents, principals and other stakeholders (Inchausti, 1997). Thus, larger firms are also more likely to disclose information in order to reduce agency costs and information asymmetry. Accordingly, the four theories adopted in this study provide a justification of a positive link between firm size and disclosure level. Hence, the following hypothesis is formulated:

H3: Firm size is positively associated with CSR disclosure level.

3.4. Company visibility

Media can play a crucial role in shaping community perceptions about a company's operations and encouraging social movements (Decock Good, 2002; Brown & Deegan, 1998; Reverte, 2009). Moreover, media attention increases the firm's visibility and makes it to a subject of additional public attention and scrutiny (Branco & Rodrigues, 2008; Reverte, 2009). Under legitimacy theory, corporate management must act in accordance with the bounds and expectations of society in order to preserve legitimacy. In the event of changing societal perceptions, a legitimacy gap may occur which threatens the legitimate existence of the company. Hence, the management must adopt a strategy, often in the form of social disclosure, to react to these changes. Brown & Deegan (1998) claim that in the case of negative media exposure companies tend to disclose more and positive information in order to counteract the potential implications. In terms of stakeholder theory, media visibility is one of the factors affecting the relationship between companies and their stakeholders. According to Brammer et al. (2014), higher levels of media visibility are likely to cause greater pressure from social and political stakeholders who expect social responsiveness from the company. Consistent with this, Decock Good (2002) states that media exposure not only increases society's demands from the company but also the probability of demands by the stakeholders. Cormier et al. (2005) thus consider media exposure as a proxy of public pressure. In line with stakeholder theory, CSR disclosure is regarded as a corporate reaction to external pressures. Thus, consistent with the concepts of legitimacy and stakeholder theory, the following hypothesis is formulated:

H4: Company visibility is positively associated with CSR disclosure level.

3.5. Foreign ownership

From an agency theory perspective, Cormier et al. (2005) suggest that companies with a large proportion of foreign owners face more often the problem of information asymmetry. Therefore, the authors note that foreign-owned companies are expected to improve their CSR reporting quality since it is a value-added service for foreign shareholders, who may more difficultly obtain information about the company. Thereby, firms with foreign owners would want to reduce potential agency costs. Further, stakeholder theory implies that firms are dependent on their stakeholder groups (Freeman, 1983). Thus, disclosures to stakeholders, or foreign owners, can be used as an instrument of influencing their perceptions (Brammer & Pavelin, 2004). It is then efficient for the company to voluntarily provide more comprehensive CSR information. Many companies operating in Bulgaria are subsidiaries of foreign companies. Thus, it can be expected that some of the sample companies adopt disclosure practices that comply with the policies of the parent company (DiMaggio & Powell, 1983). Moreover, foreign companies particularly in Europe and America have longer

recognized the concept and practice of CSR disclosure (Istianingsih, 2015). Consistent with the theoretical and empirical evidence, the following hypothesis is formulated:

H5: *Foreign ownership of firms is positively associated with CSR disclosure level.*

3.6. Conclusion

Table 3 presents an overview of the developed hypotheses, the studied determinants and theories.

Table 3 Hypotheses

Hypothesis	Determinant	Theory	Expected sign
H1	Profitability	Stakeholder theory, Signaling theory, Legitimacy theory	+
H2	Leverage	Agency theory, Stakeholder theory	+
H3	Firm size	Legitimacy theory, Stakeholder theory, Agency theory, Signaling theory	+
H4	Company visibility	Legitimacy theory, Stakeholder theory	+
H5	Foreign ownership	Agency theory, Stakeholder theory	+

4. Research design

This chapter aims to describe the methodology applied in this study. For this purpose, some research methods used in previous studies on the same topic are outlined and the particular methods applied in the current paper are identified. Further, the dependent, independent variables as well as control variables are specified and their measurements explained.

4. 1. Research methods

In order to test the relationship between various contextual or firm-specific factors and CSR disclosure, prior studies follow mainly a quantitative research strategy. This type of strategy entails the collection and analysis of numerical data as well as a deductive research approach to the relationship between theory and data (Bryman & Bell, 2011). Quantitative research is particularly suitable for testing hypotheses and causality (Muijs, 2004), and it therefore satisfies the objectives of the current study.

Quantitative data analysis includes univariate analysis, bivariate and multivariate analysis methods. *Univariate analysis* is the simplest model, which relates to the analysis of a single variable at a time (Bryman & Bell, 2011). Major aspects of the univariate analysis include frequency distribution, measures of central tendency (e.g. mean, median, mode) and measures of dispersion (e.g. standard deviation). This form of analysis is usually the initial step when conducting a statistical analysis and is adopted in most of the business studies, including those on corporate social disclosure, respectively (e.g. Cowen et al., 1987; Cormier et al., 2005; Chih et al., 2009; Andrew et al., 1989; Naser et al., 2006; Gamerschlag et al., 2011; Branco & Rodrigues, 2008; Decock Good, 2002; etc.).

Bivariate analysis, on the other hand, aims to explore the relationship between two variables simultaneously (Kühnel & Krebs, 2010). There are various bivariate analysis methods depending on the type of research variables. In the literature on CSR disclosure, the Pearson correlation coefficient (Pearson's r) is probably the most applied method for studying the level of relationship between two variables and for detecting multicollinearity (e.g. Juhmani, 2014; Elfeky, 2017; Gamerschlag et al., 2011; Hackston & Milne, 1996; Naser et al., 2006; Roberts, 1992; Chiu & Wang, 2015; etc). In addition to Pearson's r , Hackston & Milne (1996) use Spearman's rank correlation coefficient (Spearman's ρ) to test the level of association between the measures of social disclosure and the measures of firm size and profitability. This technique is usually applied when one variable is ordinal and the other is interval/ratio (Bryman & Bell, 2011). Another method of bivariate analysis, which is frequently used in research on CSR disclosure is the t-test (e.g. Hackston & Milne, 1996; Mahoney, 2012; Reverte, 2009; Branco & Rodrigues, 2008; Aribi & Gao, 2010; Wuttichindanon, 2017), which determines the difference between the means of two samples (Kühnel & Krebs, 2010).

The third type of quantitative data analysis, *multivariate analysis*, entails all statistical methods that analyze three or more variables at a time (Hair et al., 2010). One of the most common multivariate techniques used in studies on CSR disclosure is multiple regression (e.g. Cowen et al., 1987; Juhmani, 2014; Branco & Rodrigues, 2008; Tagesson et al., 2009). It involves the examination of one dependent and two or more independent variables. This method aims to predict the value of the dependent variable through the values of the independent variables (Hair et al., 2010), or in this case, the level of CSR disclosure determined by the values of different firm-specific factors.

4.2. Multiple regression techniques

In general, there are different techniques for conducting multiple regression analysis. Very common in business and management studies is *ordinary least squares (OLS) regression*. OLS is a linear modelling technique, where the relationship between the dependent variable Y and the independent variable(s) X is presented by means of a line of best fit, where X predicts Y at least to some extent (Moutinho & Hutcheson, 2011). The line of best fit provides “the smallest squared difference on average between the predicted values of Y and the actual values of Y” (Scherbaum & Schockley, 2015). Comparing the actual and predicted values of the dependent variable allows for determining the model fit. Moreover, the deviations, or residuals, of the values indicate how well the model predicts each observation (Moutinho & Hutcheson, 2011). However, some major limitations of this technique are that it is sensitive to outliers and does not resolve the issue of reverse causation. Some of the studies examining the determinants of corporate social disclosure with OLS regression are those of Patten (1991), Cormier et al. (2005), Elfeky (2017), Hackston & Milne (1996), Gamerschlag et al. (2011), Sukcharoensin (2012), Elijido-Ten (2004), Naser et al. (2006), Roberts (1992) etc. In order to explore the determinants of corporate environmental disclosure in Germany, Cormier et al. (2005) conduct country-specific OLS regressions for two separate periods, where dependent variable is a standardized environmental disclosure score and independent variables are proxies for economic, public pressures and control variables. In another research focused on CSR disclosure in German companies, Gamerschlag et al. (2011) apply OLS regressions to examine the determinants of three CSR disclosure levels: total CSR disclosure, environmental disclosure and social disclosure. Naser et al. (2006) and Sukcharoensin (2012) perform OLS regressions in models testing the relationship between a CSR disclosure index and the explanatory variables in developing countries context.

Logistic regression is another type of regression applied in studies examining the determinants of CSR disclosure. Logistic regression has a categorical (non-metric) dependent variable with values assigned to separate groups, as it aims to predict the probability of an observation belonging to one of these groups (Hair et al., 2010). This regression type is relatively simple but offers a relatively low prediction accuracy (Park et al., 2017). Roberts (1992) conducts a logistic regression by using measures of stakeholder power, economic performance and strategic posture towards social responsibility in order to estimate the

variations in CSR disclosure levels with values of 0 standing for “poor”, 1 for “good” and 3 for “excellent. Wuttichindanon (2017) performs logistic regression to test the relationship between firm-specific factors and report choice companies make when disclosing social information as a dichotomous dependent variable.

Probit regression, similarly to logistic regression, examines categorical dependent variables. Although both models seem to be quite alike, there are some major differences. For example, probit regression is based on standard normal distribution of error terms, while logistic regression assumes a logistic function (Hoffmann, 2016; Liu, 2015). In addition, odds ratios interpretations are only possible for logistic regression (Smithson & Merkle, 2013). According to Vogt (2011), some drawbacks of logit and probit regression models are the unobserved heterogeneity in the categories of predictor variables and the residual variation. In addition, there is yet no suitable equivalent of R-squared as in OLS. Chih et al. (2009) examine by means of probit regression whether companies’ engagement in CSR is influenced by financial and institutional factors, including measures of financial performance, competition, legal environment and economic environment, among others. The authors classify the studied companies into two groups depending on whether they are listed in the Dow Jones Sustainability World Index (CSR Group) or not (non-CSR Group). Accordingly, the dependent variable in their model takes the value of 1 if the firm belongs to the CSR Group and 0 if the firm belongs to the non-CSR Group. Gamerschlag et al. (2011) apply probit regression to test the probability that a company provides a separate CSR report, assigned the value of 1, or not (with value of 0) contingent upon measure of company visibility, profitability, size, shareholder structure and relationship to US stakeholders.

Other regression methods applied in research on social disclosure determinants include *quantile regression* (e.g. Ortas et al., 2015), *pooled regression analysis* (e.g. Cormier et al., 2005), *panel data regression* (Mahoney, 2012; Inchausti, 1997), *random effect panel regression* (Welbeck et al., 2017) and *stepwise regression* (Inchausti, 1997). Quantile regression refers to a method, which models conditional quantiles as functions of predictor variables without making distributional assumptions (Hao & Naiman, 2007; Olsen et al., 2012). It is considered as a more flexible alternative to the OLS model (Le Cook & Manning, 2013), when the assumptions of the latter are not met. As stated by Koenker & Gilbert (1978), who first introduced the model, the regression median is viewed to be more efficient than the least squares estimator in distributions for which the median is more efficient than the mean. However, quantile regression requires sufficient data and is computationally more intensive (Rodriguez & Yao, 2017).

Pooled regression, as applied by Cormier et al. (2005), combines time-series and cross-sectional data for the modeling. While times-series data refers to observations made at multiple points in time, cross-sectional data is collected at one point in time and made up of observations from individuals, groups, companies or other units (Pal & Prakash, 2017). Panel data regression is very similar to the pooled time-series cross-sectional regression since it also

observes units over time. However, panel data consists of observations on the same units, while pooled regression may use different samples from the same group, population etc. As already noted, Welbeck et al. (2017) use a random effect panel regression because, in contrast to a fixed effects model, it allows the inclusion of time-invariant variables as explanatory variables. In addition, this approach assumes that unobserved units' effects or variation across units are random and uncorrelated with the predictor variables included in the model (Torres-Reyna, 2007). The application of a random effect panel regression allows for making inferences beyond the particular sample used in the model.

Another method applied in the CSR disclosure literature is stepwise regression. Inchausti (1997) uses a stepwise regression with a forward selection procedure to explore which of the independent variables can better explain the dependent variable. For this purpose, the researcher takes the independent variable with the highest partial correlation coefficient and tests, whether it should be entered into the model based on a pre-specified criterion, such as F-tests or t-tests. The same procedure is conducted with the variable with the second highest partial correlation, and so forth. The test stops as soon as the t-tests or F-tests show that the last entered variable is insignificant (Wang & Lain, 2003). The stepwise regression is a suitable approach when there is a large number of potential independent variables. However, one disadvantage is that it presupposes a single "best" subset of independent variables (Krishnaswamy et al., 2006).

4.3. Method used in this study

For the purposes of this study, first, descriptive statistics will present the measures of central tendency and measures of dispersion of the data. During the bivariate analysis, Pearson's r will be used to check for multicollinearity between the predictor variables via a correlation matrix. Usually, correlation values higher than 0.90 indicate a substantial collinearity (Hair et al., 2010). Then, the sample will be divided into two subsamples depending on the level of CSR disclosure of each unit and a t-test is performed to examine and compare the means of the two groups for each dependent variable. The coefficient of determination, R-squared, is taken into account as it assesses the prediction accuracy of the regression model. It measures the amount of total variance in the predicted variable explained by the predictor variable (Neelankavil, 2015). The values of R-squared range from 0, standing for no prediction, to 1, which indicates perfect prediction of the model (Hair et al., 2010). In line with previous studies (Patten, 1991; Cormier et al., 2005; Hackston & Milne, 1996; Gamerschlag et al., 2011; Naser et al., 2006; Roberts, 1992), and since the assumptions of OLS regression are met, this method will be applied to test the formulated hypotheses of this study. In addition and in contrast to other regression methods, OLS regressions seems to be the most appropriate approach given the choice of variables, sample and data, which will be discussed next. Thus, the following equation is designed:

$$CSR\ disclosure_{it} = \beta_0 + \beta_1 Profitability_{it} + \beta_2 Leverage_{it} + \beta_3 Size_{it} + \beta_4 Company\ visibility_{it} + \beta_5 Foreign\ ownership_{it} + \beta_6 Industry\ sensitivity_{it} + \beta_7 Age_{it} + \varepsilon_{it}$$

4.4. Dependent variable

Since the aim of this study is to explore the determinants of CSR disclosure of companies operating in Bulgaria, *level of CSR disclosure* is the dependent variable. Due to its equivocal nature, the concept of CSR is measured by different means such as CSR ratings (Paredes-Gazquez et al., 2016), indices (Hopkins, 2005), content analyses or surveys (Galant & Cadez, 2017). However, written form of CSR disclosure in companies' annual reports or web pages presupposes the use of content analysis, which is indeed the most prevalent method for measuring CSR disclosure in the literature dealing with this matter (e.g. Gamerschlag et al., 2011; Naser et al., 2006; Chiu & Wang, 2015; Hussainey et al., 2011; Andrew et al., 1989; Hackston & Milne (1996) etc.).

Content analysis is a research method for making valid and replicable inferences by coding and interpreting texts with regards to their meanings, intentions and contexts of use (Krippendorff, 2018; Bhattacharyya, 2018). This method aims to quantify content based on predetermined categories and criteria (Bryman & Bell, 2015). Thus, it allows the conversion of qualitative data into quantitative data. In addition, this technique is highly flexible and can be applied for analysis of large amounts of data (Bryman & Bell, 2015). It also enables the longitudinal analysis of a topic. Brown & Deegan (1998) conduct a content analysis in five different periods between 1981 and 1994 to test the relationship between media coverage to industries' environmental implications and the level of corporate environmental disclosure in annual reports of Australian companies. Similarly, Welbeck et al. (2017) perform a content analysis of annual reports over a 10-year period to examine the determinants of environmental disclosure by companies in Ghana. Some of the limitations of this method are that generalizability may be threatened if the examined documents no longer exist or are unavailable. Another potential problem may arise in the coding process, which almost always involves some interpretation by the coders. In addition, content analysis alone cannot explain causal relationships (Bryman & Bell, 2015).

In line with previous literature, content analysis is applied in this study to measure the level of CSR disclosure of companies operating in Bulgaria since we are interested in disclosed CSR information in corporate reports and web sites. Content analysis requires the identification of units of analysis and units of coding. In this research, the units of analysis are corporate webpages and reports, where CSR information can be detected. The units of coding refer to those parts of the unit of analysis that can be meaningfully interpreted with respect to CSR disclosure and are divided into two categories, environmental disclosure and social disclosure, depending on the CSR topics to which they relate. Pre-defined keywords serve as units of coding. Consistent with other studies (Tagesson et al., 2009; Welbeck et al., 2017; Reverte, 2009; Gamerschlag et al., 2011), the coding units, or keywords, in this study are selected

based on some of the CSR indicators issued by the Global Reporting Initiative (GRI), which provides the first and most widely adopted standards for sustainability reporting since 1997¹⁹. Furthermore, some of the keywords reflect the legal (e.g. “compliance”, “employee safety”, “forced labor”, “child labor”), ethical (“environmental protection”, “recycling”, “employee training”, “sustainability”, employment of minorities”) and philanthropic (“charitable activities/donations”, “investment in community”) responsibilities as identified by Carroll (1979; 1991). A total of 29 items have been selected, 10 of which cover subjects of environmental disclosure and 19 refer to issues of social disclosure. A table with the categories and the list of coding units can be seen in Appendix II.

Major weakness of using keywords for content analysis is that the context, in which they are used, is often ignored by the researcher. Moreover, it is possible that some words (e.g. “labor”) are detected in a context, which does not relate to CSR. Thus, in order to improve the validity and reliability of the analysis, both words and phrases are used as coding units and the whole sentences or paragraphs are considered. Although this is a time-consuming process, it aims to reduce the probability that irrelevant keywords are being added into the analysis. On the other hand, the use of keywords and phrases in a computer-aided content analysis simplifies the data collection process from sources with large content.

Following Gamerschlag et al. (2011), the total level of CSR disclosure consists of the amounts of environmental and social disclosure:

$$CSRTOT = CSRENV + CSRSOC.$$

Thus, three dependent variables are produced, which allows for three separate tests and for comparison of their results. In this regard, it can be explored whether the same determinants of disclosure apply when providing only environmental or only social information compared to total disclosure.

In contrast to other studies that measure CSR disclosure level based on word count (Gamerschlag et al., 2011; Juhmani, 2014; Campbell et al., 2001; Welbeck et al., 2017; Aribi & Gao, 2010), for the purposes of this study a CSR coding scale is developed. A coding scale would make certain that irrelevant or unnecessary information does not fall within the two categories of CSR disclosure (Cormier et al., 2005), while using word count can be deceptive and may lead to unreliable results because the meaning of the words and the context are mostly not considered (Welbeck et al., 2017). In this regard, the relevance of each detected keyword is assessed by reading the entire sentence or paragraph of the text, where it is mentioned. Accordingly, 1 point is assigned for every mention of a single item only in a context, which relates to the CSR context. This means that the same keyword detected 5 times for example will correspondingly receive 5 points. Since this study deals with level of CSR disclosure rather than quality, covering different CSR topics and comprehensiveness of the

¹⁹ <https://www.globalreporting.org/Information/about-gri/Pages/default.aspx>

disclosed CSR information are not decisive for the calculation of the CSR rating. The CSRTOT rating of each company consists of the points collected for both CSRENV and CSRSOC.

4.5. Independent variables

This study has five independent variables, which are presented and discussed in this section, namely profitability, leverage, company's size, company's age, media attention and leverage.

Profitability

Various measures of profitability have been used in the literature about CSR disclosure. For example, Hussainey et al. (2011) use *return on investment* (ROI), the ratio of net profit to cost of investment, as an indicator of profitability of companies in Egypt. Dyduch & Krasodomska (2017) use *return on sales* (ROS), EBIT related to net sales, as a measure of profitability of Polish companies, while Gamerschlag et al. (2011) adopt *return on invested capital* (ROIC), or net operating profit after tax (NOPAT) to invested capital, as a profitability indicator. Nevertheless, most common measures of firm profitability remain *return on assets* (ROA) (e.g. Hackston & Milne, 1996; Reverte, 2009; Patten, 1991; Jitaree, 2015; Branco & Rodrigues, 2008; Ching et al., 2017; Barakat et al., 2015; Welbeck et al., 2017; Elfeky, 2017; Tagesson et al., 2009; Chiu & Wang, 2015) and *return on equity* (ROE) (e.g. Cowen et al., 1987; Hackston & Milne, 1996; Patten, 1991; Roberts, 1992; Jitaree, 2015; Ching et al., 2017; Tagesson et al., 2009). ROA, which is the ratio of earnings before interest and tax (EBIT) to total assets, is used to measure company profitability in this study.

Another key measure of profitability is *return on capital employed* (ROCE), which is employed in this study together with ROA. ROCE, the ratio of EBIT to capital employed, measures how efficiently a company uses its capital to generate profits (Baptista, 2018) and is considered one of the best measures of profitability when evaluating the overall performance of a company (Marr, 2012). ROCE is identical to ROIC but while “capital employed” implies only shareholder's equity and long-term debt, “invested capital” refers to the entire investor capital required for the operations of the company without distinguishing what the capital source is. In this regard, ROCE measures the efficiency of business operations and is rather important from company point of view. Usually, the higher the ROCE value is, the more efficiently the company uses its capital. ROCE is used for a sensitivity analysis.

Leverage

In line with prior studies (e.g. Ching et al., 2017; Dyduch & Krasodomska, 2017; Branco & Rodrigues, 2008), the *long-term debt to total assets* ratio is used as a measure of firm leverage. This ratio presents the percentage of assets that the firm would need to liquidate to redeem its outstanding long-term loans. Other studies adopt the *long-term debt to book value of equity* ratio (e.g. Chiu & Wang, 2015; Cormier et al., 2005; Reverte, 2009; Elfeky, 2017; Hussainey et al. (2017), which enables the assessment of risk level related to long-term debt obligations,

as a higher ratio signals a larger long-term debt record. This measure is used for a sensitivity analysis.

Size

Size is the next independent variable, which seeks to test the third hypothesis. In CSR-related research, total asset value, total sales, number of employees, market capitalization or an index ranking (e.g. Fortune 500) are among the most common indicators that serve as proxies of firm size. Naser et al. (2006), for example, use market capitalization, while Reverte (2009) and Wuttichindanon (2017) use the natural logarithm of the same measure. Brammer & Pavelin (2004) and Chiu & Wang (2015) rely on the value of total assets in their studies. Yao et al. (2011) Barakat et al. (2015), Welbeck et al. (2017) Elfeky (2017) use as a proxy the natural logarithm of total assets. Gamerschlag et al. (2011) measure company's size by the number of employees and the amount of total assets. Hackston & Milne (1996) use market capitalization, sales, and total assets values as indicators of firm size. This study adopts total assets and total sales as proxies of firm size. However, in order to reduce skewness and kurtosis, the natural logarithms of the measures are used in the statistical analysis.

Company visibility

In order to measure the company visibility as expressed by media exposure, this study adopts the method of Branco & Rodrigues (2008) and Reverte (2009), who count the number of newspaper articles containing the company name as a keyword on the webpages of the newspapers. The online versions of Bulgarian economic and finance newspapers "Capital" and "Investor" are used as sources of the articles. A search is conducted for each company by using the search facilities of the newspapers websites adjusted for the reference period 1 January 2016 to 31 December 2016 and the results were then counted. Other studies measure company (media) visibility by means of various news databases such as Factiva (Brammer & Pavelin, 2008), the Australian Business Index (ABIX) (Brown & Deegan, 1998) or ABI/Inform database (Cormier et al., 2005). In line with these studies, this paper uses the database LexisNexis Academic to create a second measure of company visibility for a sensitivity analysis. However, this time only news in English are taken into account. Due to the large discrepancies in the levels of firm visibility across the sample and the higher skewness and kurtosis, the natural logarithms of both measures are used in the regression analysis.

Foreign ownership

In the original model of the regression analysis, this study uses a dummy variable to measure foreign ownership, since the share of non-foreign-owned companies in the sample is large. The variable is set to equal "1" when a company has foreign owners and "0" if it is fully domestically-owned. As another proxy of foreign ownership, Dyduch & Krasodomska (2017) use the actual percentage of foreigners on the company's board to measure the independent variable "foreigners on the board". This measure is used in this study for sensitivity analysis.

4.6. Control variables

This study has two control variables, which may have an influence on CSR disclosure.

Industry sensitivity

Many studies dealing with the determinants of CSR disclosure find that the industry in which a company is active may affect its CSR disclosure practices (Patten, 1991; Welbeck et al., 2017; Bonsón & Bednárová, 2015; Roberts, 1992; Reverte, 2009). Patten (1991) and Roberts (1992) suggest that companies in industries that attract much attention would have an incentive to promote a positive social image, which presumes a positive relationship with CSR disclosure. The industries that come under greater public scrutiny are usually more environmentally sensitive. According to prior studies, these industries include oil, chemicals, forest and paper products (Patten, 1991) as well as mining, steel and other metals, electricity, gas distribution, and water industries (Reverte, 2009). In order to control for the effects of industry sensitivity on CSR disclosure level in Bulgaria, the examined companies are first assigned to six major categories by combining industries codes of the Standard Industrial Classification (SIC) for a simplicity. This is necessary because of the small sample size of the study and is in line with Waddock & Graves (1997), who combine SIC codes and thus create broader industry divisions. The newly created industry categories are 1) Manufacturing industry; 2) Wholesale & Retail industry; 3) Mining& Construction industry; 4) Finance, Insurance, & Real Estate industry; 5) Agriculture, Forestry & Fishing industry; 6) Transportation, Communications, Electric, Gas, Sanitary & other Services. Following Patten (1991) and Reverte (2009), the manufacturing industry, which includes chemicals production among others, as well as mining and construction industry, which entails metals, oil and gas related activities, are considered more sensitive industries in this study because of their larger environmental impact. The industry sensitivity is measured by a dummy variable, which is set to equal “1” when a sample company operates in one of the more sensitive industries, and “0” if the company is identified with a less sensitive industry.

Age

Age is often considered as a determinant of CSR reporting in the empirical literature. Under stakeholder theory, Roberts (1992) suggests that firm age is related to the level of CSR disclosure and finds that they are significantly and positively related. Cormier et al. (2015) discover a positive and significant relation between asset age and CSR disclosure. Furthermore, Welbeck et al. (2017) find that older companies in Ghana tend to disclose more CSR information compared to younger companies because they are more cautious about their reputation. Correspondingly, Juhmani (2014) and Barakat et al. (2015) state that older firms with longer societal existence tend to demand relatively more legitimacy from the society and are thus more likely to engage in CSR performance in order to enhance their reputation and legitimize their operations. In general, companies with a longer history of operations would have more issues to report about compared to younger firms (Yao et al., 2011; Barakat et al.,

2015). Therefore, based on legitimacy theory, it is supposed that older companies would report more about their CSR commitment in order to obtain legitimacy and positively influence their continuous existence. The used measure of age in the literature may depend on the studied sample. For example, in studies where only listed companies are of interest, the number of years since the firms have been listed is taken into account (e.g. Yao et al., 2011; Jitaree, 2015; Zeng et al., 2012). However, the emphasis in this research is on all companies operating in Bulgaria. Therefore, consistent with previous studies (e.g. Juhmani, 2014; Wuttichindanon, 2017; Roberts, 1992; Barakat et al., 2015; Welbeck et al., 2017; Eljido-Ten, 2004), age of companies is measured in years from the date of their incorporation until the reference period.

Table 4 below provides an overview of the dependent and independent variables as well as of their measurement methods.

Table 4 Description of variables

Variable	Name	Measure and description
<i>Dependent variables</i>		
Total CSR disclosure index	CSRTOT	CSR rating: total amount of detected CSR keywords (environmental + social)
Environmental disclosure index	CSRENV	Total amount of detected <i>environmental</i> keywords
Social disclosure index	CSRSOC	Total amount of detected <i>social</i> keywords
<i>Independent variables</i>		
Profitability	ROA	Return on Assets using EBIT to total assets
	ROCE	Return on Capital Employed using EBIT to total assets
Leverage	DEBT_A	Book value of debt to book value of assets
	DEBT_E	Long-term debt to book value of equity
Firm size	ASSETS ^a	Natural logarithm of a firm's total assets
	SALES ^a	Natural logarithm of a firm's total sales
Company visibility	MED ^a	Natural logarithm of total number of articles, in which a firm is mentioned
	MEDD ^a	Natural logarithm of total number of articles in LexisNexis, in which a company is mentioned
Foreign ownership	FOWN	Dummy variable: 1 for "foreign-owned firms", 0 for "non-foreign-owned firms"
	FBOARD	Actual percentage of foreigners on the company's board
<i>Control variables</i>		
Industry sensitivity	IND	Dummy variable: 1 for "sensitive industry", 0 for "non-sensitive industry"
Firm age	AGE	Number of years since incorporation until 2016

Notes: ^aLog transformed variable.

5. Sample and data

This chapter presents the sample selection criteria and process as well as the data sources of the variables in this study.

5.1. Sample selection

The focus of this study is on listed companies operating in Bulgaria. This country was chosen because a research gap still exists regarding the topic of CSR disclosure and because providing CSR information is still voluntarily there. This allows the comparison of the incentives for CSR disclosure between companies sharing the same operational context. Following the legal framework in Bulgaria, companies listed on the Bulgarian Stock Exchange (BSE) are obliged to publicly disclose financial and corporate information on their websites and in their annual reports on a regular basis determined by law. In addition, these companies are required to follow the principles of the Bulgarian National Code for Corporate Governance, which aims to strengthen the competitiveness of Bulgarian companies and to make the country more appealing to foreign investors through good corporate governance practices²⁰. According to this Code, corporate boards should maintain effective relations with the stakeholders, which involves disclosing information on CSR, among other things²¹. In addition, public companies have a higher number of stakeholders compared to privately held companies, which again raises the issue of information asymmetry as discussed in the previous sections. By taking these considerations into account, it could be expected that companies listed on the BSE would disclose higher levels of CSR information and were therefore selected as units of this analysis.

The target firms had to meet several selection criteria in order to be included in the final sample. First of all, the focus is on companies, which have disclosed CSR information either on their websites or in corresponding reports, or both. Therefore, a manual search for disclosed CSR information was conducted on firms' webpages and annual reports. Initially, the study aimed at examining CSR disclosure mainly in annual reports. However, companies in Bulgaria rarely disclose CSR information in their annual reports or CSR information was detected in a very few annual reports. As a result, following these criteria would have constrained significantly the sample size. Therefore, CSR information provided on corporate websites was also examined and corporate websites were used as a source of CSR disclosure. Moreover, the observed annual or CSR reports, when available, were also accessible on the webpages. In this regard, only firms with a functioning website as of 2016 were included in this research. However, subsidiaries, which shared the same website with their parent company, were manually excluded during the sample selection process, since the provided CSR information refers rather to the holding company. In addition, only companies with available financial and ownership data for the reference period 1 January – 31 December 2016

²⁰ <http://www.bse-sofia.bg/?page=CodeGovernance&language=en>

²¹ http://download.bse-sofia.bg/Corporate_governance/CGCode_EN-2012.pdf

were taken into account. Overall, the main sampling strategy consists of seven steps, i.e. included were active (1) listed companies as per 2016 (2) that are registered in Bulgaria (3), have available websites (4) and financial accounts for 2016 (5), as well as available ownership data (6), and which are not public authorities or non-profit organizations (7). After applying the selection criteria on Orbis, the major source of corporate information in this study, a list of 252 companies that form the sampling frame appeared. From these 252 companies that have been manually observed, only 51 or ca. 20% provide CSR information on their webpages or/and in their annual reports. Thus, the final sample of this analysis consists in total of 51 companies, which meet all criteria. This sample represents 14% of the 358 firms listed on the BSE in 2016.

Table 5 Sample composition

Industry	Foreign ownership		Total
	Yes	No	
<i>Sensitive</i>	9	17	26
Manufacturing industry	8	15	23
Mining & Construction industry	1	2	3
<i>Non-sensitive</i>	11	14	25
Wholesale & Retail industry	1	4	5
Finance, Insurance, & Real Estate industry	3	4	7
Agriculture, Forestry & Fishing industry	1	0	1
Transportation, Communications, Electric, Gas, Sanitary & other Services	6	6	12
Total			51

As shown above in Table 5, 26 of the companies belong to sensitive industries and 25 to non-sensitive, as most companies operate in the manufacturing (23 firms) and services industries (12 firms). In addition, 20 firms are foreign-owned. The greatest share of companies with foreign shareholders operates in the manufacturing industry, and thus in a sensitive industry.

5.2. Data collection

Major source of financial, ownership and industry data required to measure the independent and control variables in this study is Orbis, which is a database with information on about 300 million companies worldwide²². Orbis is selected not only because it is available to students of the University of Twente but also because it provides comprehensive information on financial indicators, ownership structure and company reports. In case of missing values, data from annual reports is used when available. As mentioned in the previous section, the CSR variables are measured by using data from corporate websites and annual reports, where information on CSR activities has been exposed. With regards to annual or CSR reports, CSR information has been considered only from the reference year 2016, while the data provided on corporate websites is often from unspecified time periods.

²²<https://www.bvdinfo.com/en-gb/our-products/data/international/orbis>

6. Results

This chapter aims to present and discuss the results of the statistical analysis. The descriptive statistics are described in the first section. Then, a correlation matrix of the independent variables is presented and the t-test results are discussed in the second section, while the results of the OLS regression are provided in the third section.

6.1. Descriptive statistics

Table 6 provides the descriptive statistics of the dependent and independent variables for the entire sample. In order to reduce skewness and to ensure that data is normally distributed, outliers have been detected by using the outlier labeling rule technique (Hoaglin & Iglewicz, 1987) and then omitted. According to this technique, the interquartile range (IQR), which is the difference between the upper quartile (Q3) and the lower quartile (Q1) of a data distribution, is multiplied by a factor of 2.2. The resulting number is then deducted from Q1 (added to Q3) and the values lower (higher) than the result are considered outliers. In this respect, the numbers of observations of the independent variables vary from 38 to 51 cases due to the omission of outliers or missing data, as in the case of LEV. As shown in Table 6, the total level of CSR disclosure (CSRTOT) of Bulgarian listed companies varies between a minimum of 1 mention of a CSR-related keyword up to a maximum of 66 mentions, with an average level of 17.88 mentions. The median value is 13 and thus lower than the mean, which indicates that the data is skewed to the right. The minimum scores of environmental (CSRENV) and social disclosure (CSRSOC) are both zero, which means that some companies have disclosed information only on environmental issues, while others have provided information only on social issues. In addition, Bulgarian companies tend to report on average somewhat less on environmental topics, with an average score of ca. 8 and maximum score of 39, than on social topics with ca. 10 mentions on average and a maximum of 46. The median values of CSRENV (6) and CSRSOC (8) are also lower than the means, which again shows that the data is skewed. Therefore, the natural logarithms for the three levels of CSR disclosure will be used in the regression analyses.

The independent variables referring to measures of firm performance reveal that ROA has a mean value of .03, indicating that for each invested USD in assets Bulgarian companies generate 3 cents of profits. With .06, ROCE has a higher average value, which means that companies utilize their invested capital on average more efficiently than their assets. The negative values for both ROA (-.14) and ROCE (-.26) show that some firms even incur financial losses. Compared to the ROA values of companies in other developing countries such as Thailand with a mean score of .082 (Jitaree, 2015), Brazil with an average of .052 (Ching et al., 2017) and Ghana with .069 (Welbeck et al., 2017), Bulgarian listed companies are somewhat less profitable despite the favorable economic conditions in the country. In terms of leverage, the average level of DEBT_A is .1, and of DEBT_E it is .08. These values are again considerably lower in comparison to the debt levels of companies in other

developing countries (e.g. Chiu & Wang, 2014; Elfeky, 2017; Juhmani, 2014; Naser et al., 2006; Wuttichindanon, 2017). Taken together, Bulgarian companies are characterized by low profitability as well as low degree of debt financing. Based on the notions of stakeholder theory, companies that are less profitable and indebted would have fewer incentives to disclose CSR information to meet demands of their stakeholders.

Table 6 Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Median	SD
CSRTOT	51	1	66	17.88	13	14.72
CSRENV	51	.00	39	8.02	6	8.02
CSRSOC	51	.00	46	10.04	8	9.92
ROA	48	-.14	.18	.03	.02	.07
ROCE	50	-.26	.4	.06	.05	.12
DEBT_A	46	.00	.4	.1	.06	.11
DEBT_E	38	.00	.43	.08	.03	.1
ASSETS (\$ million)	46	.82	172.52	47.36	26.13	48.64
ASSETS ^a	46	14.28	19.95	17.17	17.18	1.25
SALES (\$ million)	46	.01	184.76	33.34	11.93	47.43
SALES ^a	46	9.21	19.97	16.17	16.38	2.13
MED	50	.00	93	19.12	7.5	24.47
MED_D	46	.00	503	77.56	8	130.03
FOWN	51	.00	1	.41	.00	.49
FBOARD	47	.00	.83	.14	.00	.24
IND	51	.00	1	0.53	1	0.5
AGE	47	9	102	37.57	25	24.46

Notes: ^aLog transformed variable. For description of variables see Table4.

With regards to firm size, the descriptive statistics reveal that the average amount of total assets is USD 47.36 million, with a range from USD .82 million to USD 172.52 million, while that of total sales is USD 33.34 million, ranging from a minimum of USD .01 million to a maximum of USD 184.76 million. The minimum and maximum values of both size variables indicate a wide variability in sales and assets, which is also shown by the high standard deviations, namely USD 40.15 million for total assets and USD 31.56 for total sales. Therefore, the natural logarithms of both measures are used in the regression analysis.

The average company visibility (MED), as measured by media exposure in Bulgarian newspapers, was 19 articles in 2016. This is much lower compared to the media visibility of companies in Spain (Reverte, 2009), Germany (Gamerschlag et al., 2011) or Portugal (Branco & Rodrigues, 2008), which are measured with the same approach. The other measure of company visibility (MED_D), which presents the number of hits when searching for the firms' names on the database LexisNexis, shows much higher visibility of Bulgarian listed companies, as the average number of articles is 90.8. This discrepancy in results may be mainly due to the fact that the database detects mentions in a much wider variety of news

sources. However, both measures of visibility have high standard deviations (24.47 for MED and 130.03 for MED_D) and minimum and maximum values of .00 and 93 (MED) or 503 (MED_D), which indicate a wide spread of the values in the distributions. Moreover, the medians of 7.5 (MED) and 8 (MED_D) articles reveal that half of the companies have a relatively low level of media visibility and that the data distribution is highly skewed to the right. Thus, here again log transformations of both variables will be conducted.

The descriptive statistics further show that the foreign ownership dummy variable FOWN has a mean of .41 and a median of .00, which reveal that less than half of companies have foreign investors, as already presented in Table 5. The high standard deviation (.49) presents here as well a very high variability in the values. The other measure of foreign ownership (FBOARD) indicates that on average 14% of firms' board members are foreigners, which again demonstrates a very low presence of foreign involvement. The average age (AGE) of Bulgarian companies until the reference period is 37.57 years, ranging from a minimum of 9 years to a maximum of 102 years. Thus, Bulgarian companies are on average older compared to companies in other developing countries such as Bahrain with a mean age of 29 years (Juhmani, 2014) and China with ca. 12 years (Li et al., 2013). On the other hand, the results are similar to these of companies operating in Sri Lanka with an average of 38 years (Dissanayake et al., 2016) and Ghana with 41.6 years (Welbeck et al., 2017). Since the data is skewed to the right, with a median (25) lower than the mean (37.5), the natural logarithm of age will be used in the regression analysis.

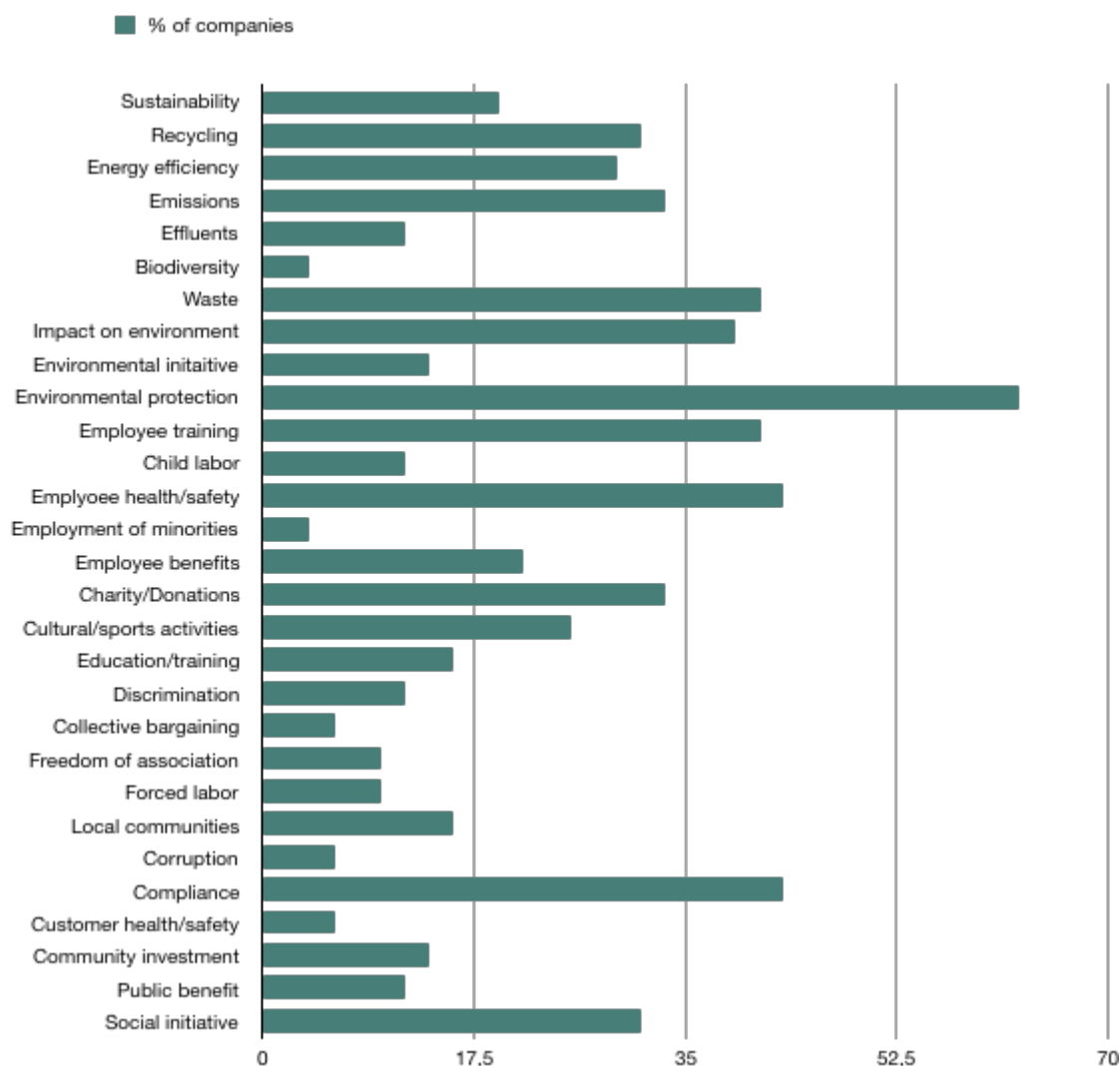
The industry dummy variable (IND) with a mean of .53 indicates that CSR firms are almost equally presented in both sensitive and non-sensitive industries. Moreover, since it is assumed that companies operating in industries that are more sensitive tend to disclose more on CSR issues than those operating in less sensitive sectors, descriptive statistics for these two sub-sample groups have been provided in Appendix III (Panels A and B). The results confirm that in fact Bulgarian companies from sensitive industries have a slightly higher level of CSRTOT with a mean of 18.59 than firms from non-sensitive industries (17.08). This applies also to the levels of CSRENV and CSRSOC, which are again higher for sensitive (8.59 and 10.33) than for less sensitive industries (7.38 and 9.77).

Further, *Figure 2* displays the coverage of CSR topics by Bulgarian companies in their websites or reports by means of a bar chart. This would allow us to better apprehend the nature of CSR disclosure in Bulgaria, and, in particular, to discover on which issues do companies put more emphasis in their reporting and which topics are less popular across firms. The first ten bars from above relate to CSRENV, while the remaining 19 bars pertain to issues of CSRSOC. As it can be seen, *environmental protection* is the most covered topic by the companies in this sample, with 63% of them reporting on it. This corresponds to the findings of Bankova (2014) and Slavova (2015a), according to which the CSR business practices of Bulgarian firms are aimed primarily at protecting the environment, mostly through improving the efficiency of the production processes, which in turn leads to less

emissions and waste. In support of these claims, *Figure 2* shows that *waste* is the second most covered environmental issue with coverage of ca. 41%, followed by *emissions* with 33% of and *recycling* with 31%. In addition, *environmental impact* is considered by 39% of firms in their reports or websites, and *energy efficiency* is covered by almost one-third of companies. Less attention receive the issues *effluents* and *biodiversity*, which are considered only by ca. 12% and 4% of the companies. On average, the environmental topics are covered by ca. 30% of firms, while social issues are considered by just 19% of the sample companies. These results are also in line with the conclusion of Alpha Research (2006) that caring for the environment is becoming a popular CSR activity, as a result of which companies receive more publicity and better image. Although the relatively high engagement of Bulgarian firms into environmental activities may be mainly the result of their reputational concerns (Dimitrov, 2010), it may be also attributable to some extent to state initiatives aiming to promote CSR, such as proclaiming good CSR practices or awarding companies (Bakardjieva, 2015). In addition, environmental protection, along with accountability of CSR practices, constitutes one of the five major goals of the National Strategy for CSR 2009 - 2013. The cultural context of the country may also be somewhat decisive. Since Bulgaria is a state with a feminine society, which has a collectivistic as well as long-term oriented culture with pragmatic approach, companies operating there are expected to attach importance to the environment (Gray, 1988;) and to disclose more information about their practices in this field (Gallego-Alvarez & Ortas, 2017). Overall, preserving the environment is recognised by a substantial part of Bulgarian companies as one of their responsibilities and as a key task related to CSR, which is also noted by Spassova et al. (2007).

With regards to subjects of social disclosure, *Figure 2* displays that 43% of companies report about their *compliance* with laws or various CSR standards, which confirms Bakardjieva's (2015) statement that a growing number of Bulgarian firms start to comply with ethical norms and standards. Other legal responsibilities, when following Carroll's (2016) definition of CSR, about which Bulgarian companies report to a much lower degree include measures against *child labor* (12%), *forced labor* (10%), *discrimination* (12%) and *corruption* (6%), as well as recognizing employees' rights of *collective bargaining* (6%) and *freedom of association* (10%). What is noteworthy about these results is that despite the high levels of corruption, which is recognized as the major challenge for the companies in Bulgaria, very few firms openly state in their reports or websites that they take measures against it and thus follow the anti-corruption principle of the UN Global Compact. Reason behind this could be that corruption is so widespread in all levels of state administration, that the business sees itself unable to fight it on its own. Besides, the business itself is sometimes forced to participate in corruption practices by state administration in order to be allowed to operate. According to a study by the Bulgarian Chamber of Commerce and Industry (2016), 46% of firms in Bulgaria have been subjected to bribery pressure from the state structure.

Figure 2: CSR coverage by Bulgarian companies



Other topics of disclosure, which receive relatively much attention, are related to the ethical responsibilities of firms and especially to the care for employees. This is not surprising, since most businesses in Bulgaria understand by CSR above all caring for the staff and their families (Alpha Research, 2006). Accordingly, 43% of studied firms report about their commitment to *employees' health and safety*, 41% reveal information about offering and conducting *employees' trainings* and ca. 22% of firms report about providing some *employee benefits*. Consistent with these results, Spassova et al. (2007) note that the concern of Bulgarian companies towards the social conditions of employees is growing in the increasingly globalized economy. The results are also in line with Bakardjieva's (2015) findings. Further, 16% of companies inform about supporting *educational and training* programs aimed at non-employees. Given the high youth unemployment rate in the country, programs that would facilitate the inclusion of unemployed young people in the labor market are of great importance to the society but also to the business. The relatively low commitment of Bulgarian companies in this area of CSR could be explained to some extent by the minor role of the non-governmental sector in stimulating businesses to channel resources, efforts

and funds to such programs (Alpha Research, 2006). In addition, the study by Alpha Research (2006) reveals that mostly large foreign companies with developed corporate policy and strategy invest in educational and training programs. Little consideration is also given to *employment of minorities*, which is reported by only 4% of firms. With respect to the philanthropic responsibilities of Bulgarian companies, *Figure 2* shows that 33% of them report about participation in *charitable activities* or about *donations* made to different causes, ca. 26% disclose that they have contributed to the funding and/or organization of *cultural or sports events*, 16% inform about CSR activities oriented towards *local communities*, and only 14% report about *investments in the local community*. Although philanthropy has a long history in Bulgarian society, the reported philanthropic engagement of companies ranks behind caring for the environment and for the employees. This may indicate a small shift in values of companies, driven by the expectations of different stakeholders. Overall, about 30% of companies report about participating in some kind of *social initiative*.

6.2. Bivariate analysis

In order to examine whether the predictor variables are highly correlated with each other and thus to test for multicollinearity, a correlation analysis will be conducted. Table 7 presents the Pearson's r coefficients of the study variables by means of a correlation matrix. With regards to the dependent variables, CSRTOT is positively and significantly correlated with the measures of financial performance, ROA ($r=.354$, $p<.01$) and ROCE ($r=.321$, $p<.05$), suggesting that more profitable firms also disclose more on CSR. In addition, there is a positive and significant correlation between CSRTOT and FOWN ($r=.416$, $p<.01$). The other coefficients in the matrix show insignificant relationships between CSRTOT and the remaining independent as well as control variables. The other dependent variable, CSRENV, is positively and significantly correlated only with ROA ($r=.305$, $p<.05$). Further, the matrix shows positive and significant correlations of the third dependent variable CSRSOC with both profitability measures ($r=.353$, $p<.05$; $r=.331$, $p<.05$), ASSETS ($r=.414$, $p<.01$), MED ($r=.3029$, $p<.05$) and FOWN ($r=.426$, $p<.05$), which indicate that companies with higher levels of social disclosure are also more visible, profitable, larger and also foreign-owned.

According to Hair et al. (2010), a correlation coefficient between two variables that is higher than $\pm.09$ indicates potential problems of multicollinearity. As Table 7 reveals, the results of all independent and control variables are below this threshold. However, the significance of coefficients may also indicate multicollinearity. In this regard, positive and significant relations are found between ROA and ROCE ($r=.875$, $p<.01$), DEBT_A and DEBT_E ($r=.802$, $p<.01$), ASSETS and SALES ($r=.530$, $p<.01$), MED and MED_D ($r=.677$, $p<.05$), FOWN and FBOARD ($r=.346$, $p<.01$). In addition, ROA is significantly and negatively correlated with DEBTA ($r=-.371$, $p<.05$), indicating that more profitable companies in Bulgaria are less indebted. Positive and significant coefficients are found between SALES and both measures of profitability ($r=.384$, $p<.05$; $r=.447$, $p<.01$). This result suggests that larger companies are also more profitable. Both size measures, ASSETS and SALES, are each

Table 7 Correlation matrix: Pearson's r

	CSRTOT ^a	CSRENV ^a	CSRSOC ^a	ROA	ROCE	DEBT_A	DEBT_E	ASSETS ^a	SALES ^a	MED ^a	MED_D ^a	FOWN	FBOARD	IND	AGE ^a
CSRTOT^a	1														
CSRENV^a	.721***	1													
CSRSOC^a	.798***	.263	1												
ROA	.354**	.305**	.353**	1											
ROCE	.321**	.170	.331**	.875***	1										
DEBT_A	.109	.161	.066	-.371**	-.265	1									
DEBT_E	.272	.226	.263	-.169	-.108	.802***	1								
ASSETS^a	.281	-.029	.414***	.101	-.064	.107	.197	1							
SALES^a	.204	-.025	.244	.384**	.447***	-.064	-.035	.530***	1						
MED^a	.165	-.125	.329**	.189	.042	.146	-.014	.710***	.556***	1					
MED_D^a	.198	-.051	.256	.070	-.065	.031	.116	.620***	.473**	.677**	1				
FOWN	.416***	.114	.426***	.053	.030	.121	.246	.320**	.319**	.100	.049	1			
FBOARD	.224	.258	-.046	-.010	-.024	.099	.187	.280	.082	-.092	.009	.346***	1		
IND	.078	.208	-.051	.039	.029	-.279	.000	-.132	.040	-.362**	-.119	-.109	.003	1	
AGE^a	.148	.201	.000	-.093	-.173	.050	.160	-.252	-.190	-.266	.051	-.236	-.219	.306**	1

Notes: ^aLog transformed variable. For description of variables see Table4.*** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

significantly and positively correlated with MED ($r=.710$, $p<.01$) and MEDD ($r=.586$, $p<.01$) as well as with FOWN ($r=.320$, $p<.05$; $r=.319$, $p<.05$). On the other hand, media visibility, as measured by MED, is negatively correlated with industry sensitivity IND ($r=-.362$, $p<.05$), but positively correlated with firm age ($r=.306$, $p<.05$). This indicates that companies in sensitive industries are less presented in the media and are in general older than companies in non-sensitive sectors. This is also found by the descriptive statistics presented in Table III, Panels A and B (Appendix III).

Since some coefficients indicate high correlations, it is further tested whether there is a multicollinearity problem by calculating the VIFs and tolerance values of all independent variables, which is in line with previous studies (Gamerschlag et al., 2011, Roberts, 1992; Reverte, 2009). The values are presented in Table 8. According to Hair et al. (2010), VIF lower than 10 is acceptable. As shown in Table 8, the independent variables of the original model have VIF values lower than 10.

Table 8 Multicollinearity diagnostics

Variables (all)	Tolerance	VIF	Variables (original model)	Tolerance	VIF
ROA	.001	1364.447	ROA	.687	1.456
ROCE	.001	901.618	DEBT_A	.644	1.553
DEBT_A	.019	54.021	ASSETS ^a	.270	3.697
DEBT_E	.029	34.241	MED ^a	.246	4.059
ASSETS ^a	.030	33.586	FOWN	.688	1.498
SALES ^a	.049	20.344	IND	.708	1.412
MED ^a	.014	68.971	AGE ^a	.572	1.749
MED_D ^a	.020	49.310			
FOWN	.258	3.874			
FBOARD	.059	16.982			
IND	.124	8.034			
AGE ^a	.349	2.868			

Notes: ^aLog transformed variable. Dependent variable: CSRTOT; For description of variables see Table 4.

Table 9 presents the results of a *t*-test, which compares the means of two sub-samples for each dependent variable. The aim of these tests is to examine whether any significant differences exist between the means of the independent variables for companies with high and with low

CSR rating. Based on the level of total CSR disclosure, the sample is split up into three equal groups, consisting of 17 companies each, or ca. 33% of the sample. The high CSR group includes those companies with the highest CSR rating, while the low CSR group consists of the firms with the lowest rating. The results of the *t*-test are presented in Panel A. Panel B presents the results of an additional *t*-test performed with a sample, which is split up into two groups based on the median. In line with Reverte (2009), the first sub-sample in each panel includes all CSR disclosure values higher than the median, while the second sub-sample consists of all CSR disclosure values lower than the median.

Table 9 Differences in independent variables between high and low CSR groups

Panel A: 33% of companies with highest and 33% with lowest CSR rating

Variable	High CSR group	Low CSR group	Mean difference	T-value
<u>CSRTOT</u>				
ROA	.064	-.01	.054	3.506
ROCE	.106	-.015	.091	3.525
DEBT_A	.131	.097	.034	.793
DEBT_E	.129	.026	.103	2.755 ***
ASSETS ^a	17.385	15.845	1.540	1.440
SALES ^a	16.459	15.844	.615	.823 **
MED ^a	2.944	2.435	.509	.910
MED_D ^a	2.794	2.148	.646	.942
FOWN	.588	.235	.353	2.173 **
FBOARD	.186	.049	.135	1.882***
IND	.588	.471	.117	.671
AGE ^a	3.437	3.254	.183	.748
<u>CSRENV</u>				
ROA	.051	-.004	.047	2.526
ROCE	.102	.035	.067	1.527
DEBT_A	.117	.105	.012	.286
DEBT_E	.102	.039	.063	1.713
ASSETS ^a	17.018	17.177	-.059	-.350
SALES ^a	16.244	16.364	-.120	-.184 **
MED ^a	2.189	2.947	-.758	-1.406**
MED_D ^a	2.640	3.206	-.566	-.717
FOWN	.471	.353	.118	.681
FBOARD	.233	.102	.131	1.409 **
IND	.588	.294	.294	1.754
AGE ^a	3.409	3.036	.373	1.600

<u>CSRSOC</u>				
ROA	.049	.007	.042	1.689
ROCE	.106	.023	.083	2.044
DEBT_A	.126	.079	.047	1.170
DEBT_E	.104	.018	.086	2.461 ***
ASSETS ^a	17.962	16.411	1.551	4.554
SALES ^a	17.099	15.522	1.577	2.382 *
MED ^a	3.392	1.945	1.447	2.645 *
MED_D ^a	3.645	1.770	1.875	2.907
FOWN	.765	.176	.589	4.126
FBOARD	.189	.102	.087	.979
IND	.471	.647	-.176	-1.022
AGE ^a	3.279	3.437	-.158	-.633

Panel B: Groups formed based on median

Variable	High CSR group	Low CSR group	Mean difference	T-value
<u>CSRTOT</u>				
ROA	.041	.005	.036	1.875
ROCE	.091	.017	.074	2.171
DEBT_A	.127	.078	.049	1.524
DEBT_E	.115	.040	.089	1.834 ***
ASSETS ^a	17.293	16.950	.343	.959
SALES ^a	16.212	16.109	.103	.163 **
MED ^a	2.659	2.315	.345	1.056
MED_D ^a	3.168	2.727	.441	.700
FOWN	.500	.320	.180	1.302 *
FBOARD	.168	.117	.051	.731
IND	.654	.400	.254	1.840
AGE ^a	3.437	3.361	.076	.369
<u>CSRENV</u>				
ROA	.048	-.004	.052	2.801
ROCE	.089	.019	.070	2.077 *
DEBT_A	.117	.089	.028	.843
DEBT_E	.120	.031	.089	2.611 ***
ASSETS ^a	17.122	17.096	.026	.071
SALES ^a	16.176	16.153	.023	.036

MED ^a	2.255	2.797	-.542	-1.104
MED_D ^a	2.801	3.109	-.308	-.487
FOWN	.462	.360	.102	.726
FBOARD	.185	.092	.093	1.351 **
IND	.615	.440	.175	1.249
AGE ^a	3.463	3.339	.124	.605
<u>CSRSOC</u>				
ROA	.036	.009	.027	1.347
ROCE	.081	.028	.053	1.529
DEBT_A	.116	.094	.022	.650
DEBT_E	.122	.029	.093	2.746 ***
ASSETS ^a	17.587	16.693	.894	2.672
SALES ^a	16.321	15.996	.325	.513 ***
MED ^a	2.922	2.111	.811	1.688
MED_D ^a	3.635	2.256	1.379	2.319
FOWN	.615	.200	.400	3.258 ***
FBOARD	.189	.091	.098	1.449 **
IND	.539	.520	.019	.129
AGE ^a	3.422	3.375	.047	.227

Notes: ^aLog transformed variable. For description of variables see Table4. *** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

As Panel A reveals, companies with higher levels of CSROTOT and CSRSOC have also significantly higher mean values of DEBT_E and SALES compared to those that disclose less. On the contrary, companies that tend to report more on CSRENV have lower mean values of SALES. In addition, companies in the high CSRENV group are less presented in the media in contrast to those in the high CSRSOC group, which have higher average visibility. Panel A further shows significant mean differences between the high CSRTOT group and low CSRTOT group in terms of foreign ownership, as measured by FOWN and FBOARD, indicating that companies with higher total disclosure level tend to be foreign-owned or with higher share of foreigners on their boards. Similarly, there is a significant difference in the mean value of FBOARD between companies with higher and lower CSRSOC rating.

Panel B shows that companies in the high CSRTOT group have significantly higher mean values of DEBT_E and SALES, which suggests that firms with higher total level of CSR disclosure have higher debt levels and are larger. With regards to environmental disclosure (CSRENV), Panel B reveals significant mean differences for ROCE, DEBT_E and FBOARD. Hence, it can be assumed that firms that disclose more on environmental issues are more profitable, have more foreigners on their boards but are also more leveraged. Further, Panel B shows significant mean differences of DEBT_E between companies in the high and low CSRSOC groups. Here again the result suggests that companies with higher rating of social

disclosure have higher debt levels. In addition, firms in the high CSRSOC group have significantly higher mean scores of SALES, FOWN and FBOARD, indicating that companies that disclose more on social issues are also larger, foreign-owned and with more foreigners on their boards.

6.3. Regression analysis

The results of the OLS regression analyses are presented and explained in this section. The hypotheses are tested one by one in different models for each type of CSR disclosure. Table 10 displays the results. In order to test the robustness of the regression results, three additional regression analyses are performed. The results are presented in Appendix IV, Appendix V and Appendix VI.

6.3.1. Profitability

Hypothesis 1 suggests that profitable companies tend to report more on CSR activities. As presented in Table 10, Model 1 was designed to test this hypothesis for CSRTOT, CSRENV and CSRSOC. The regression coefficients of the independent variable ROA for all three levels of disclosure are positive and significant ($b=4.340$, $p<.05$; $b=4.650$, $p<.05$; $b=3.496$, $p<.10$), which means that each unit increase of ROA would cause an increase of the dependent variables by 4.340 (CSRTOT), 4.650 (CSRENV) and 3.496 (CSRSOC) units. Model 9, which includes all independent variables, shows again significant and positive coefficients for all three dependent variables ($b=4.501$, $p<.10$; $b=4.945$, $p<.05$; $b=4.912$, $p<.10$). The positive and significant effects of ROA hold true when analyzing the remaining models in Table 10.

With regards to model fit, the adjusted R^2 values in Model 1 are .118, .130, and .055. This indicates that the model has a low explanatory power, as ROA explains only between 5.5% and 13% of the variations in the dependent variables. The overall model fit, as displayed in Model 9, varies between .173 for CSRENV and .239 for CSRTOT and is thus better than the fit of Model 1. However, compared to the overall model fit of previous studies (e.g. Gamerschlag et al., 2011; Coluccia et al., 2016; Inchuasti, 1997; Naser et al., 2006; Barakat et al., 2015, etc.), Model 9 of the current OLS regression has a relatively lower explanatory power.

In order to examine if earlier financial performance leads to higher levels of CSR disclosure and thus to control for reverse causality, other models have been constructed, which incorporate a lagged ROA variable with values from the year 2015. The results are shown in Appendix IV. Model 1 was designed to test the impact of earlier profitability on CSR disclosure level and reveals that it has significant and positive effect on the level of CSRTOT ($b=4.195$, $p<.05$) and CSRENV ($b=5.878$, $p<.05$) only. The results of the other models are consistent, as the positive and significant effect of lagROA on CSRTOT and CSRENV holds true for all models in Appendix IV.

Appendix V displays the results of an additional OLS regression analysis, which aims to test the robustness of the results by replacing ROA with the other measure of profitability, ROCE. Model 1, which is the first model designed to test the relationship between ROCE and the levels of CSR disclosure, shows that profitability has again positive and significant impact on CSRTOT ($b=2.425$, $p<.05$) and CSRSOC ($b=2.528$, $p<.05$) but insignificant on CSRENV ($b=1.908$, $p>.10$). However, when considering the values of adjusted R^2 , Model 7 is the model with the best fit, where significant and positive results are found for the three CSR disclosure variables ($b=5.346$, $p<.01$; $b=6.96$, $p<.01$; $b=4.743$, $p<.05$). Overall, positive and significant effects dominate in all models.

For a further robustness test, additional OLS regression analysis is conducted for companies operating only in sensitive industries. The results are presented in Appendix VI. Model 1, which is constructed to test the first hypothesis, reveals that ROA is significantly and positively related to CSRTOT ($b=5.195$, $p<.05$) and CSRENV ($b=5.000$, $p<.05$) but insignificantly to CSRSOC ($b=4.537$, $p>.10$). In Model 7, which is the full model, the impact of ROA on all dependent variable is insignificant. However, the adjusted R^2 values of the model are negative or very low, which indicates a lack of explanatory power. Reason for this might be the low number of observations and the significant collinearity between some of the independent variables. Nevertheless, Model 4 has the highest adjusted R^2 values compared to the other models. This model shows positive and significant relationships between ROA and all three levels of disclosure ($b=6.685$, $p<.01$; $b=6.656$, $p<.10$; $b=5.316$, $p<.10$).

Taken together, the empirical results confirm hypothesis 1 for total CSR disclosure, meaning that previous and current profitability leads to higher level of CSR disclosure. This is in line with the findings of Elfeky (2017), Tagesson et al. (2009), Barakat et al. (2015) and Harjoto et al. (2015), among others. Further, the hypothesis is also supported with regards to environmental and social disclosure despite the slight inconsistencies of the results. Reason for these divergences could be that profitable companies put an emphasis on different CSR areas, dependent upon their major activities and industry, in which they are active, as some tend to report mostly about their environmental engagements, while other companies put more emphasis on social disclosures.

6.3.2. Leverage

In order to test the second hypothesis, which suggests that debt is positively associated with the level of firms' CSR disclosure, Model 2 in Table 10 was designed, where ROA is excluded due to multicollinearity with DEBT_A. The analysis shows that DEBT_A, measured as the ratio of long-term debt to assets, has an insignificant effect on all levels of CSR disclosure. Due to the negative or very low values of adjusted R^2 in model 2, additional analysis including ROA has been conducted. Model 3 shows that DEBT_A has positive and significant impact on CSRTOT ($b=2.164$, $p<.10$) and CSRENV ($b=3.390$, $p<.05$) and insignificant on CSRSOC ($b=1.377$, $p>.10$). In addition, positive and significant regression

coefficient is found for CSRENV ($b=3.868$, $p<.05$) in Model 4, which has an adjusted R^2 of .276. Still, insignificant coefficients prevail in all other models, including Model 9.

In order to examine the robustness of these findings, Model 2 in Appendix V was constructed, where DEBT_A is replaced by DEBT_E, i.e. long-term debt to equity ratio. In line with the main analysis, Model 2 shows statistically insignificant values for DEBT_E. Analyzing the remaining models in Appendix V, the coefficients of DEBT_E remain insignificant. When analyzing the results for companies in the sensitive industries only, Model 2 in Appendix VI displays again insignificant effects of debt on the three dependent variables. However, when the other models are considered, DEBT_A is positively and significantly related to CSRENV ($b=3.549$, $p<.05$) in Model 3 and to CSRTOT ($b=3.389$, $p<.10$) and CSRENV ($b=3.591$, $p<.05$) in Model 4, which has the best fit. The statistically insignificant coefficients are prevalent in the other models, including Model 7, where all variables are tested.

Therefore, the prediction that firm leverage has a positive effect on the level of CSR disclosure is only partially confirmed. Debt is positively associated with total and environmental disclosure, but this doesn't affect social disclosure. It could be thus suggested that more indebted companies engage less in social practices than in environmental activities. Furthermore, consistent with stakeholder theory, it could be assumed that creditors of Bulgarian listed companies are more concerned with environmental than with social issues, which is why companies tend to disclose more on their environmental engagements. This is also consistent with the study by Coluccia et al. (2016), who find a positive and significant link between debt and environmental disclosure by Italian companies and who, therefore, suggest that heavily indebted firms tend to inform stakeholders about their activities in environmental matters.

6.3.3. Firm size

The third hypothesis predicts that firm size is positively associated with the degree of CSR disclosure. In order to test this hypothesis, first Model 4 in Table 10 was designed for the three levels of CSR disclosure. It can be seen that ASSETS, the natural logarithm of firms' total assets, has positive and statistically significant impact on CSRSOC ($b=.306$, $p<.05$) only. When the other models are considered, it can be seen that ASSETS has a positive and significant impact on both CSRTOT ($b=.422$, $p<.10$) and CSRSOC ($b=.568$, $p<.05$), as shown in Model 6. In Model 8, it can be seen that there is again a positive and significant relationship between ASSETS and CSRSOC ($b=.227$, $p<.05$). Insignificant coefficients for the three levels of disclosure are found in Model 9.

For a robustness test, ASSETS was replaced by SALES, which is the natural logarithm of firms' total assets. The results of the regression analysis presented in Appendix V show prevailing statistical insignificance of the coefficients. Yet, Model 3 shows that SALES has a positive and significant influence on CSRSOC ($b=.139$, $p<.10$), while Model 6 and Model 7 display negative and significant coefficients of SALES for CSRENV ($b=-.163$, $p<.05$; $b=-$

.163, $p < .05$). The latter is in contradiction to the tested hypothesis. Appendix VI presents the results of an additional OLS regression analysis for companies in sensitive industries only. Model 4, which was first constructed to test the hypothesis, shows that ASSETS, is positively and significantly related to CSRSOC ($b = .327$, $p < .10$). However, the significance does not hold true in Model 7, where all variables are included.

All in all, the results of the OLS regression analyses indicate that firm size has a positive impact on the level of social disclosure, in particular, and thus support hypothesis 3 only partially. However, the results do not remain robust, as the results of the additional regression analysis in Appendix V indicate that companies with higher sales turnover tend to report less on their environmental engagements. Reason for this discrepancy in results may be that larger companies in Bulgaria are less active in the environmental domains of CSR compared to the social ones, as CSR in Bulgaria is still implemented mostly in the form of corporate philanthropy (Slavova, 2015a; Bankova, 2014).

6.3.4. Company visibility

Hypothesis 4 states that company visibility is positively associated with the level of CSR disclosure. Model 5 shown in Table 10 was the first model designed to test the relationship between MED and the three CSR disclosure levels. As it can be seen, the coefficients of the independent variable for CSRTOT ($b = .040$, $p > .10$), CSRENV ($b = -.116$, $p > .10$) and CSRSOC ($b = .106$, $p > .10$) are statistically insignificant, as the insignificance holds true in all other models, including Model 9. Additional OLS regression analysis, the results of which are displayed in Appendix IV, aims to test whether previous media exposure of Bulgarian firms leads to higher degree of CSR disclosure. For this purpose, a lagged MED variable with values from the year 2015 was created and included in the analysis. As the regression results show, all models in Appendix IV demonstrate statistically insignificant coefficients. Thus, it can be stated that prior media visibility of companies does not have an impact on the level of CSR disclosure.

Model 4 in Appendix V was first created to examine the robustness of these results. In this OLS regression analysis, MED is replaced by MED_D, as measured by the natural logarithm of total number of articles in LexisNexis, in which a company is mentioned. As shown in Table V, all coefficients in Model 4 are statistically insignificant. Insignificant coefficients dominate also in Models 5 and 7. Only the coefficient of MED_D for CSRENV in Model 7 is statistically significant but negative ($b = -.182$, $p < .10$), which is in contradiction to the hypothesis. As another test of robustness, Appendix VI presents the impact of MED on CSR disclosure for companies in sensitive industries only. As shown in all models, where the variable is included, the coefficients of MED are statistically insignificant for all levels of disclosure.

Based on the findings of the main analysis and the robustness tests, it can be stated that the fourth hypothesis is not supported. Thus, previous and current company visibility of

Bulgarian listed companies is not positively and significantly associated with their CSR disclosure level. This finding may imply that more visible companies in Bulgaria are not subjected to much public scrutiny and thus do not perceive enough pressure from stakeholders and society to engage in CSR initiatives and report about them.

6.3.5. Foreign ownership

The last hypothesis states that foreign ownership is positively associated with CSR disclosure. Model 7 and Model 8, as shown in Table 10, are the models designed to test this hypothesis. Model 7 tests the impact of FOWN on the three disclosure levels, whereas ASSETS is excluded due to its high correlation with both MED and FOWN. It can be seen that FOWN has positive and statistically significant effect on CSRTOT ($b=.961$, $p<.01$), CSRENV ($b=.613$, $p<.10$) and CSRSOC ($b=1.020$, $p<.01$). In Model 8, where ASSETS is included and MED is excluded, the coefficients of FOWN are positive and statistically significant only for CSRTOT ($b=.761$, $p<.01$) and CSRSOC ($b=.845$, $p<.05$). When all independent variables are tested as in Model 9, the results are similar to these in Model 8. Thus, the main OLS regression analysis reveals that foreign ownership of companies is positively related to their total and social disclosure in particular.

In the first robustness test presented in Appendix V, FOWN is replaced by FBOARD, which is the actual percentage of foreigners on the company's board. Model 5 was first designed to test the influence of FBOARD on the dependent variables, as SALES is excluded again due to multicollinearity reasons. As it can be seen, all three coefficients are statistically insignificant. Similar results appear also in Model 6 and Model 7, which tests all independent variables. In order to further examine the robustness of these results, the effect of FOWN was tested in an OLS regression analysis including only companies from sensitive industries. The results presented in Model 6 of Appendix VI show a positive and significant relationship between FOWN and CSRSOC ($b=1.192$, $p<.05$), while the coefficients in Model 7 are again insignificant.

All in all, the significant and positive results of the main analysis do not remain robust. Therefore, hypothesis 5 is only partially supported with respect to total and social disclosure. Reason behind the insignificant results for FBOARD and FOWN in Appendix V and Appendix VI may be that the proportion of foreigners on the companies' boards or of foreign shareholders is relatively small, as shown in Table 6. Hence, it can be assumed that information asymmetry may not lead to substantial agency costs as in companies with higher shares of foreign board members. Therefore, firms may not find it necessary to reduce these costs through CSR disclosure. On the other hand, the positive and significant influence of FOWN on the levels of total CSR disclosure in Table 10 could indicate that Bulgarian listed companies may have adopted some reporting practices of their parent companies, as argued by Slavova (2015a), or that they may have recognized the influencing power of CSR reporting on the perceptions of their (foreign) shareholders, as implied by stakeholder theory.

Table 10 OLS regression results

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>
Intercept	1.684*** (2.646)	.654 (.870)	1.503** (2.099)	2.005*** (2.931)	.565 (.705)	1.966** (2.486)	1.401** (2.067)	.244 (.320)	1.279 (1.571)	-2.039 (-.913)	1.017 (.418)	-4.252 (-1.656)	1.222 (1.253)	1.260 (1.309)	.538 (.468)	-5.547 (-1.494)	.777 (.816)	-.266 (-.252)
ROA	4.340** (2.635)	4.650** (2.301)	3.496* (1.752)				5.563*** (3.057)	6.669*** (3.254)	5.202** (2.380)	4.793** (2.133)	6.497*** (3.099)	4.534* (2.050)	5.202** (2.280)	5.741** (2.602)	5.252* (1.969)	4.420* (1.857)	4.888** (2.155)	4.832* (1.770)
DEBT_A				.752 (.596)	1.835 (1.242)	.044 (.030)	2.164* (1.715)	3.390** (2.386)	1.377 (.909)	2.122 (1.547)	3.868** (2.588)	1.167 (.740)	1.387 (.945)	1.974 (1.391)	.892 (.520)	.881 (.525)	1.770 (1.106)	.237 (.123)
ASSETS^a										.174 (1.549)	-.071 (-.578)	.306** (2.366)				.422* (1.866)	.229 (1.062)	.568** (2.189)
MED^a													.040 (.409)	-.116 (-1.211)	.106 (.920)	-.219 (-1.193)	-.181 (-1.033)	-.275 (-1.306)
FOWN																		
IND	.112 (.450)	.433 (1.416)	-.001 (-.002)	.171 (.589)	.299 (.878)	.136 (.404)	.194 (.711)	.423 (1.378)	.139 (.424)	.287 (1.025)	.460 (1.509)	.237 (.739)				-.017 (-.041)	.038 (.095)	-.065 (-.136)
AGE^a	.217 (1.189)	.194 (.866)	.094 (.441)	.142 (.697)	.236 (.991)	-.012 (-.052)	.222 (1.138)	.218 (.993)	.096 (.409)	.326 (1.490)	.327 (1.375)	.147 (.583)	.307 (1.296)	.173 (.753)	.265 (.958)	.398 (1.386)	.432 (1.578)	.217 (.658)
Adjusted R²	.118	.130	.055	-.040	.017	-.074	.158	.216	.048	.196	.276	.171	.066	.107	.049	.120	.128	.133
N	45	45	45	42	42	42	40	40	40	35	35	35	32	32	32	28	28	28

Notes: ^aLog transformed variable. For description of variables see Table4. Unstandardized coefficients are reported. T-statistics are presented in the parentheses.*** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

Table 10 OLS regression results: continued

	Model 7			Model 8			Model 9		
	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>
Intercept	.489 (.557)	.777 (.816)	-.266 (-.252)	-1.572 (-.859)	.356 (.142)	-3.221 (-1.584)	-2.712 (-.730)	-1.312 (-.354)	-5.117 (-1.169)
ROA	4.745** (2.349)	5.592** (2.554)	4.597* (1.895)	3.359** (2.355)	3.932* (1.906)	4.020** (2.408)	4.501* (2.033)	4.945** (2.238)	4.912* (1.884)
DEBT_A	1.220 (.936)	1.777 (1.258)	.823 (.526)				.866 (.554)	1.760 (1.129)	.222 (.121)
ASSETS^a				.133 (1.383)	-.035 (-.266)	.227** (2.135)	.179 (.744)	.057 (.237)	.327 (1.151)
MED^a	.054 (.604)	-.116 (-1.198)	.131 (1.223)				-.023 (-.116)	-.042 (-.214)	-.080 (-.347)
FOWN	.961*** (3.234)	.613* (1.904)	1.020*** (2.858)	.716*** (2.975)	.372 (1.125)	.845*** (3.162)	.837* (2.066)	.592 (1.466)	.831* (1.744)
IND	.190 (.577)	.007 (.020)	.338 (.855)	.341 (1.474)	583* (1.835)	.236 (.916)	.176 (.441)	.174 (.437)	.127 (.269)
AGE^a	.399* (1.750)	.262 (1.059)	.327** (1.193)	.382** (2.171)	.397 (1.642)	.191 (.974)	.520* (1.900)	.518* (1.898)	.338 (1.048)
Adjusted R²	.299	.158	.246	.320	.159	.348	.239	.173	.210
N	32	32	32	40	40	40	28	28	28

Notes: ^aLog transformed variable. For description of variables see Table4. Unstandardized coefficients are reported. T-statistics are presented in the parentheses.*** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

7. Conclusion

7.1. Concluding remarks

CSR is a concept that has been constantly entering the corporate agenda in Bulgaria for more than a decade. In the favorable operational environment, the implementation of CSR is transitioning from a traditional, fragmented approach without a common vision (Zahariev, 2014) to a strategic approach with a long-term orientation (Slavova, 2015a). However, reporting on CSR activities is still more the exception rather than the rule, as only about 20% of the observed 252 Bulgarian listed companies have disclosed CSR information in reports or on their webpages. Reasons behind this may be the lack of knowledge about the potential benefits from CSR reporting, unawareness of reporting guidelines and principles or unwillingness of management to engage employees with preparations of CSR reports, since these do not create short-term value to the company. Still, studying the minority of disclosing listed companies could add to the empirical literature on CSR in Bulgaria.

This study aimed to examine which firm-specific factors have a significant impact on the level of CSR disclosure by Bulgarian listed companies based on four major theoretical frameworks. Five potential determinants, i.e. profitability, leverage, size, visibility and foreign ownership, have been tested for their effects on three disclosure levels. A summary of the results is presented in Table 11. The empirical results provide support to the first hypothesis, suggesting that more profitable companies tend to disclose more CSR information. This finding applies to all three levels of CSR disclosure and is consistent with prior studies, showing a positive and significant relationship. The results are also in line with the notions of stakeholder, signaling and legitimacy theory. According to legitimacy theory, highly profitable firms have the ability to implement and disclose CSR activities in order to legitimize their existence (Barakat et al., 2015). These companies are also expected to meet stakeholders' demands for information and to use CSR reporting to signal to their stakeholders and the society that they are good corporate citizens, as implied by stakeholder and signaling theory.

In addition, the results provide some support for hypothesis 2, indicating that leverage is positively and significantly associated with the levels of total and environmental disclosure. Positive but dominantly insignificant results have been found with respect to social disclosure. Consistent with stakeholder theory, companies that are highly dependent upon debt financing are expected to disclose more CSR information in an effort to respond to creditors' expectations (Roberts, 1992). In this regards, if creditors seem to be concerned with social or environmental issues, the company would commit more actively to social or environmental activities and report about them. Therefore, it could be assumed that creditors in Bulgaria attach more importance to environmental than social issues. Within the context of agency theory, it is believed that agency costs of debt increase as the firm debt increases (Jensen & Meckling, 1976) because of the suspicions of aberrant behavior of managers and

the imposed restrictions by creditors as a result, which leads to higher costs. Thus, manager of highly indebted companies would try to resolve the issue of information asymmetry and reduce these costs through voluntary disclosure of CSR activities.

In line with the theories applied in this study, the empirical results partially support hypothesis 3, indicating that larger companies have higher levels of social disclosure. Thus, large companies in Bulgaria tend to focus their reports on the social domains of CSR. They signal good social performance to the public in an effort to improve their reputation and gain a competitive advantage (Slavova, 2015c; Bakardjieva, 2015). This finding is consistent with the results of previous studies on developing countries (e.g. Chiu & Wang, 2014; Yao et al., 2011; Zeng et al., 2012; Mahadeo et al., 2011; Rover et al., 2016; Gunawan, 2013; etc.).

The results do not support hypothesis 4, according to which more visible companies have higher levels of CSR disclosure. Despite the arguments derived from legitimacy and stakeholder theory, implying that more visible companies are subject to greater public attention and tend to report more on CSR to preserve legitimacy and to react to demands and pressures from stakeholders, no significant and positive link has been found. In order to examine whether past media exposure of companies leads to more CSR disclosure, a lagged version of the variable was included in the regression analysis. Nevertheless, the results remained insignificant. Thus, hypothesis 4 could not be confirmed. This finding contradicts to the results of previous literature (e.g. Brown & Deegan, 1998; Branco & Rodrigues, 2008; Cormier, 2005; Chiu & Wang, 2014). Some reasons behind this may be that larger and more visible companies in Bulgaria do not perceive enough pressure from stakeholders and society to engage in CSR initiatives and report about them, since Bulgarian society is to a great extent still unaware of the concept of CSR (Matev et al., 2009). On a corporate level, there is also a lack of knowledge with regards to CSR. Therefore, it could be suggested that large and visible Bulgarian companies are unaware of the benefits that CSR reporting brings. Other reason behind these results might be that many large and visible companies in this sample operate in less sensitive industries and therefore may not come under great public scrutiny, compared to companies operating in more environmentally sensitive sectors.

Based on the notions of agency and stakeholder theory, it was expected that foreign-owned would disclose more CSR information in order to reduce potential agency costs and to positively affect the perceptions of (foreign) stakeholders. Significant and positive results were reached for total and social disclosure in the main analysis. However, these are not robust. In addition, insignificant link is found between foreign ownership and environmental disclosure. Hence, hypothesis 5 is only partially supported. These results may indicate that Bulgarian listed companies, which are subsidiaries of foreign companies, have adopted some practices of CSR disclosure from their parent companies. In addition, the finding that larger and foreign-owned companies in Bulgaria tend to disclose higher levels of social information supports Slavova's (2015a) conclusion that mostly large companies that are subsidiaries of foreign companies engage with CSR reporting.

Overall, this study contributes to the existing literature by examining several determinants of CSR disclosure by Bulgarian listed companies. The results show that profitability has a significant positive impact on the levels of total, environmental and social disclosure. In addition, some support is found for a positive and significant relationship of debt, size and foreign ownership with CSR, social or environmental disclosure. Contrary to expectations, the regression results do not provide support for company visibility as a determinant of CSR disclosure.

Table 11 Summary of results

Hypothesis	Expected Sign	Result		
		CSR disclosure	environmental disclosure	social disclosure
H1: Profitability	+	+	+	+
H2: Leverage	+	+	+	0
H3: Firm size	+	0	0	+
H4: Company visibility	+	0	0	0
H5: Foreign ownership	+	+	0	+

Notes: + indicates significant positive relationship; 0 indicates insignificant relationship

7.2. Limitations

Although the current study provides some relevant results, it also suffers a number of limitations. First, since the majority of Bulgarian companies do not provide any CSR information in their corporate reports or websites, the sample size is limited to only 51 companies and is relatively small compared to other studies with samples of more than 400 companies (e.g. Brammer & Pavelin, 2008; Gamerschlag et al., 2011; Li et al., 2013). Smaller sample implies a lower degree of generalizability. Nevertheless, other studies also had samples of similar size (e.g. Branco & Rodrigues, 2008; Reverte, 2009; Inchausti, 1997). In addition, the study focuses only on public companies listed on the Bulgarian Stock Exchange. Thus, the results might not be applicable to non-listed firms, on which determinants may have different effects. Another limitation is that the study is limited to Bulgaria only. It is possible that some macro effects influence the decision of firms to engage and report on CSR. Although the importance of several macro factors, such as economic and cultural context, has been highlighted, a more thorough analysis is beyond the scope of this research. Therefore, future research is needed to examine the effects of contextual factors on CSR disclosure.

Another limitation of this study is that it includes only companies that already disclose CSR information and thus studies only the impact of the determinants on the level of CSR disclosure but not on the firms' decision to report on CSR. Therefore, future research could include also non-disclosing firms in the analysis and examine by means of a logistic regression, for example, whether and which determinants have an impact on companies' decisions to disclose CSR information. Logistic regression might also be applied in a research

seeking to discover whether determinants influence companies' decisions to publish standalone CSR reports or not (Gamerschlag et al., 2011). However, since the majority of Bulgarian companies do not provide CSR information in reports, this analysis could not be incorporated in this study. Further limitation is that this study analyses the level of CSR disclosure of companies for the year 2016 only due to limited data on CSR provided by the companies. Despite the use of lagged variables, the analysis remains cross-sectional in nature. It is thus impossible to observe changes in the level of CSR disclosure of Bulgarian companies through other periods or how the effect of some determinants evolves over time. Longitudinal analysis might help to resolve this issue as well as issues concerning reverse causality, since in the CSR literature it is still unambiguous whether, for example, high profitability leads to higher levels of CSR disclosure, or vice versa. In addition, adopting keywords for the content analysis and CSR index from the GRI guidelines might entail the risk of missing out some relevant CSR aspects (Gamerschlag et al., 2011). Thus, including some additional CSR dimensions to the analysis could refine the measurement of CSR disclosure level.

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Appendix I

Figure I.1 Unemployment rate 2013 - 2016

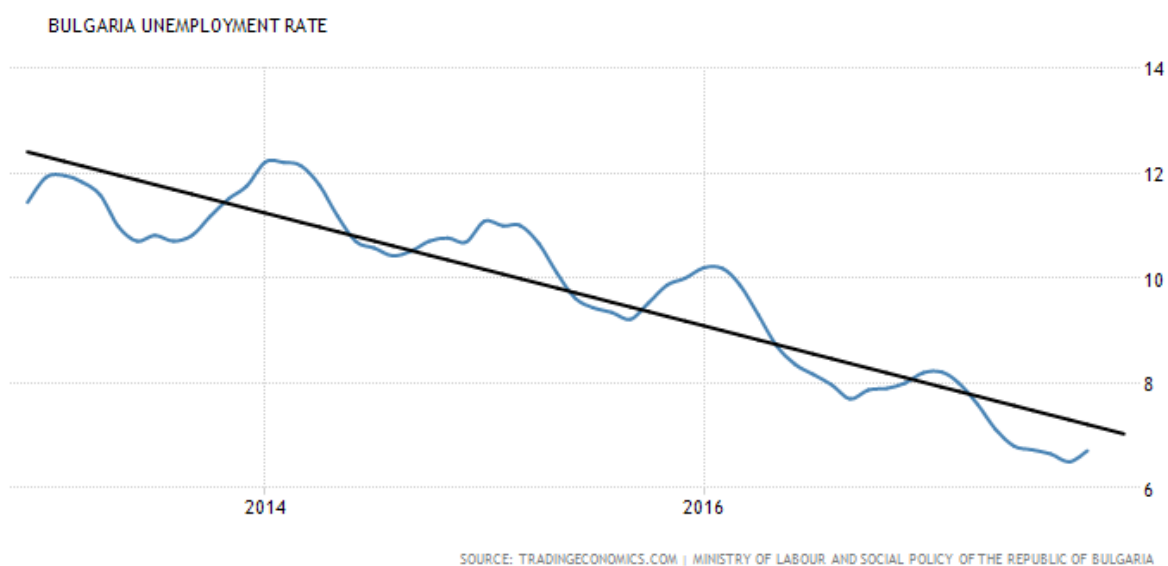


Figure I.2 Youth unemployment rate 2013 - 2016

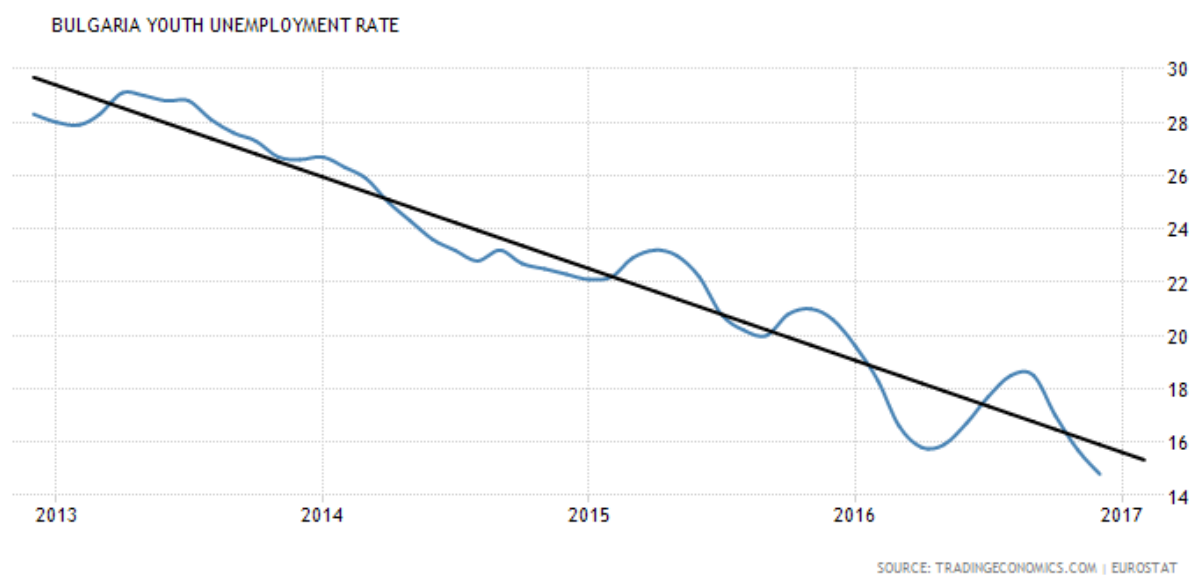


Figure I.3 Annual growth rate of GDP 2013 - 2016

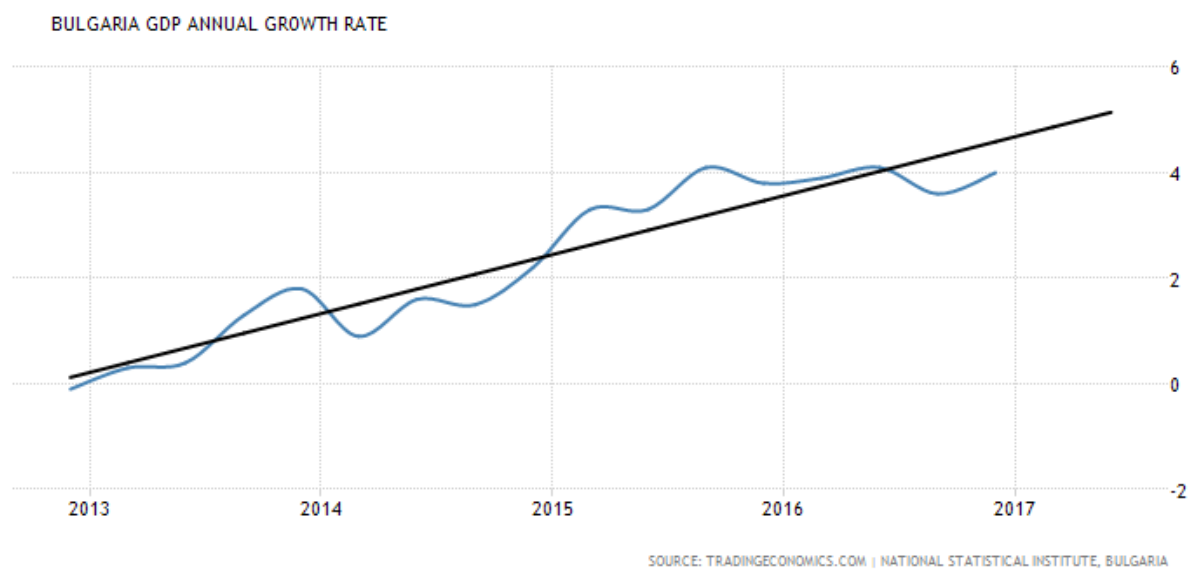
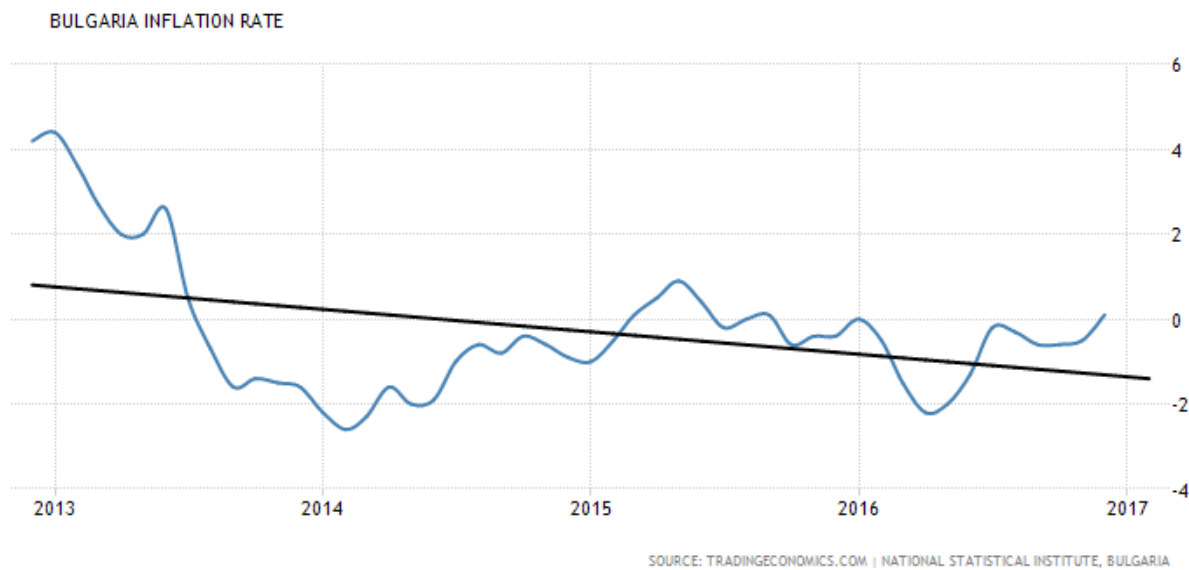


Figure I.4 Inflation rate 2013 - 2016



Appendix II CSR keywords

Categories	Environmental disclosure	Social disclosure
Keywords		
	Sustainability Recycling Energy efficiency Emissions Effluents Biodiversity Waste Impact on environment Environmental initiative Environmental protection	Employee training Child labor Employee health/safety Employment of minorities Employee benefits Charitable activities / Donations Cultural/sports activities Education/training Discrimination Collective bargaining Freedom of association Forced labor Local communities Corruption Compliance Customer health/safety Investment in community Public benefit Social initiative
Total	10	19
Weight	34,5%	65,5%

Appendix III Descriptive statistics: industries

Panel A: Sensitive industry

Variable	N	Minimum	Maximum	Mean	Median	SD
CSRTOT	27	2	66	18.59	15	14.97
CSRENV	27	.00	28	8.59	7	6.95
CSRSOC	27	.000	46	10.33	8	11.76
ROA	26	-.14	.18	.02	.02	.07
ROCE	26	-.22	.4	.6	.041	.12
DEBT_A	26	.00	.35	.08	.04	.09
DEBT_E	23	.00	.43	.08	.04	.11
ASSETS	25	.82	143.65	40.24	21.04	46.24
SALES	26	.01	184.76	33.76	13.023	52.54
MED	26	.00	92	14.12	3	21.67
MED_D	24	5	370	49	5	91.17
FOWN	27	.00	1	.17	.00	.32
FBOARD	24	.00	.83	.14	.00	.26
AGE	23	811	102	43.7	45	24.12

Panel B: Non-sensitive industry

Variable	N	Minimum	Maximum	Mean	Median	SD
CSRTOT	24	1	51	17.08	11.5	14.72
CSRENV	24	.00	39	7.38	4.5	9.19
CSRSOC	24	1	36	9.71	7.5	8.07
ROA	22	-.12	.15	.03	.02	.06
ROCE	24	-.26	.24	.05	.05	.13
DEBT_A	20	.00	.4	.14	.13	.12
DEBT_E	15	.00	.35	.08	.01	.12
ASSETS	21	3.37	172.52	55.83	37.36	51.17
SALES	20	.03	130.42	32.79	8.29	41.19
MED	24	.00	93	24.54	22.5	26.57
MED_D	22	.00	503	108.6	19	158.7
FOWN	24	.00	1	.24	.00	.35
FBOARD	23	.00	.66	.14	.00	.22
AGE	24	9	84	31.71	20	23.8

Notes: For description of variables see Table 4.

Appendix IV OLS regression with lagged ROA and MED

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7		
	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>
Intercept	2.124*** (3.753)	.920 (1.175)	1.793** (2.550)	1.549** (2.579)	.116 (.145)	1.305 (1.617)	-.148 (-.081)	3.031 (1.252)	-4.121* (-1.670)	-.490 (-.224)	3.060 (1.034)	-6.050* (-2.045)	1.782** (2.607)	1.318 (1.459)	.967 (1.042)	1.537** (2.455)	1.218 (1.321)	.665 (.764)	.117 (.054)	3.088 (1.001)	-4.121* (-1.670)
gROA	4.195** (2.387)	5.878** (2.416)	2.324 (1.064)	5.794*** (3.213)	8.134*** (3.377)	3.631 (1.499)	6.995*** (3.719)	10.202*** (4.080)	4.099 (1.608)	6.034*** (3.078)	9.283*** (3.496)	2.753 (1.037)	6.326*** (2.039)	8.985*** (3.265)	4.151 (1.467)	6.209*** (3.292)	8.937*** (3.216)	4.006 (1.527)	6.074*** (3.182)	9.285*** (3.416)	2.855** (1.037)
EBT_A				3.038*** (2.868)	3.870*** (2.736)	2.252* (1.772)	4.050*** (3.921)	5.371*** (3.910)	3.083** (2.202)	3.432*** (3.135)	4.889*** (3.297)	2.067 (1.395)	3.019** (2.673)	3.767** (2.523)	2.551 (1.662)	2.502** (2.401)	3.557** (2.316)	1.914 (1.321)	2.940** (2.634)	4.867*** (3.062)	1.455** (.9)
SSETS							.082 (.924)	-.179 (-1.515)	.292** (2.416)	.120 (1.000)	-.151 (-.925)	.421** (2.586)							.076 (.634)	-.001 (-.012)	.362 (2.000)
gMED										-.019 (-.233)	-.000 (-.004)	-.115 (-1.016)	.049 (.724)	-.116 (-1.297)	.121 (1.321)	-.014 (-.216)	-.142 (-1.458)	.043 (.474)	-.040 (-.486)	-.001 (-.003)	-.115 (-1.016)
OWN																.582** (2.591)	.237 (.714)	.718 (2.296)	.368 (1.484)	.017 (.047)	.491 (1.000)
ID	-.091 (-.391)	.267 (.823)	-.206 (-.708)	-.033 (-.143)	.202 (.656)	-.068 (-.220)	-.021 (-.099)	.107 (.372)	.032 (.110)	.159 (.854)	.287 (.904)	.141 (.443)	.120 (.471)	.218 (.649)	.133 (.385)	.093 (.404)	.207 (.610)	.100 (.312)	.112 (.488)	.287 (.881)	.262 (1.000)
gE	.129 (.764)	.128 (.547)	.068 (.323)	.195 (1.157)	.258 (1.146)	.109 (.483)	.206 (1.209)	.241 (1.065)	.164 (.711)	.125 (.533)	.106 (.420)	.226 (.895)	.071 (.387)	.017 (.069)	.078 (.312)	.144 (.850)	.046 (.186)	.167 (.712)	.190 (1.039)	.107 (.413)	.262 (1.000)
Adjusted R²	.071	.124	-.042	.320	.258	.010	.412	.432	.243	.350	.370	.212	.220	.268	.025	.360	.254	.162	.384	.340	.25
N	31	31	31	37	37	37	31	31	31	29	29	29	31	31	31	31	31	31	29	29	29

Notes: ^aLog transformed variable. For description of variables see Table4. Unstandardized coefficients are reported. T-statistics are presented in the parentheses.

*** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

Appendix V Additional regression analysis

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7		
	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>
Intercept	1.529** (2.506)	.285 (.361)	1.442** (2.021)	.985 (1.347)	-.385 (-.425)	1.036 (1.23)	-.386 (-.261)	-.079 (-.044)	-.779 (-.479)	1.112 (1.063)	-.408 (-.315)	1.392 (1.252)	2.874*** (3.022)	1.393 (1.114)	2.805** (2.320)	2.395* (1.873)	3.310** (2.220)	-.246 (-.181)	4.671** (2.565)	5.932*** (2.995)	2.684 (1.035)
LE	2.425** (2.579)	1.908 (1.567)	2.528** (2.299)	2.821** (2.630)	2.490* (1.875)	2.673** (2.178)				2.754* (1.824)	2.480 (1.327)	3.074* (1.917)	4.490*** (3.044)	4.902** (2.529)	4.692** (2.502)	4.243*** (3.443)	6.292*** (4.378)	2.888* (1.805)	5.346*** (3.5324)	6.916*** (4.192)	4.743** (2.195)
TIME				2.111 (1.632)	2.023 (1.263)	2.346 (1.585)	2.029 (1.382)	1.643 (.923)	2.381 (1.476)	2.140 (1.371)	1.568 (.811)	2.669 (1.610)	1.812 (1.397)	1.114 (.654)	2.623 (1.591)	1.268 (1.113)	.835 (.629)	1.840 (1.160)	1.132 (.854)	-.531 (-.368)	2.617 (1.386)
LES ^a							.115 (1.675)	.017 (.208)	.139* (1.843)							-.026 (-.417)	-.163** (-2.233)	.038 (.437)	-.081 (-.758)	-.244* (-2.104)	.035 (.228)
IND ^a										.118 (1.220)	.007 (.057)	.143 (1.396)	-.017 (-.198)	-.135 (-.173)	.037 (.335)				-.059 (-.666)	-.182* (-1.887)	-.003 (-.021)
WARD													.232 (.285)	.788 (.736)	-.217 (-.210)	.549 (.899)	.634 (.890)	.541 (.635)	.408 (.484)	1.463 (1.596)	-.396 (-.330)
	.067 (.276)	.285 (.914)	-.016 (-.057)	.217 (.724)	.372 (1.002)	.180 (.523)	.236 (.677)	.347 (.822)	.215 (.562)	.204 (.527)	.354 (.737)	.114 (.278)	.176 (.550)	.572 (1.357)	.071 (.174)	.119 (.426)	.406 (1.247)	.116 (.27)	.053 (.175)	.367 (1.107)	.002 (.005)
^a	.266 (1.477)	.320 (1.375)	.114 (.541)	.335 (1.505)	.423 (1.535)	(.153) (.599)	.247 (1.007)	.324 (1.089)	.069 (.256)	.177 (.572)	.436 (1.135)	-.120 (-.365)	-.192 (-.708)	.004 (.011)	-.412 (-1.194)	.088 (.425)	.109 (.454)	-.008 (-.029)	-.253 (-.977)	-.058 (-.207)	-.475 (-1.288)
Adjusted R ²	.101	.056	.049	.203	.145	.097	.066	-.009	.045	.114	-.019	.150	.289	.201	.212	.310	.394	.056	.357	.477	.164
	47	47	47	34	34	34	31	31	31	25	25	25	24	24	24	28	28	28	21	21	21

Notes: ^aLog transformed variable. For description of variables see Table4. Unstandardized coefficients are reported. T-statistics are presented in the parentheses.*** Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

Appendix VI OLS regression: sensitive industry

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7		
	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>	<i>CSRTOT^a</i>	<i>CSRENV^a</i>	<i>CSRSOC^a</i>
Intercept	1.291 (1.310)	.452 (.451)	.661 (.466)	1.352 (1.365)	-.563 (-.533)	1.098 (.836)	.750 (.812)	-.780 (-.771)	.199 (.139)	-.646 (-.275)	1.324 (.571)	-4.365 (-1.352)	1.196 (.856)	2.111* (1.768)	-.310 (-.148)	1.410 (1.063)	2.019 (1.653)	-.754 (-.384)	1.638 (.355)	3.031 (.784)	-4.563 (-.766)
T_A	5.197** (2.639)	5.001** (2.497)	4.539 (1.601)				6.421*** (3.372)	6.468*** (3.302)	5.280* (1.788)	6.685*** (3.104)	6.656* (2.088)	5.316* (1.797)	4.427 (1.638)	4.141* (1.792)	3.328 (.824)	3.897 (1.512)	4.371* (1.844)	2.287 (.646)	4.550 (1.442)	3.747 (1.325)	3.214 (.767)
ETS ^a				1.223 (.701)	2.314 (1.245)	.333 (.144)	3.163* (2.059)	3.594** (2.274)	2.184 (.917)	3.389* (2.026)	3.591** (2.179)	2.289 (.996)	2.193 (1.122)	1.477 (.884)	1.785 (.611)	.696 (.336)	2.122 (1.113)	-1.150 (-.404)	1.194 (.467)	1.724 (.752)	-.732 (-.216)
ja										.114 (.929)	-.117 (-.967)	.327* (1.935)							-.002 (-.007)	-.151 (-.508)	.257 (.585)
IN													.104 (1.101)	-.080 (-.987)	.212 (1.507)	.069 (.756)	-.065 (-.767)	.145 (1.148)	.075 (.320)	.053 (.251)	.026 (.084)
isted	.348 (1.310)	.364 (1.349)	.323 (.845)	.360 (1.341)	.622** (2.172)	.260 (.730)	.423* (.812)	.424 (1.695)	.410 (1.086)	.250 (.864)	.596* (2.088)	.109 (.273)	.286 (.829)	-.047 (-.158)	.451 (.876)	.242 (.740)	-.028 (-.092)	.365 (.813)	.163 (.349)	.197 (.471)	.125 (.202)
	.247	.230	.061	.014	.169	-.074	.378	.376	.068	.368	.443	.209	.117	.009	.052	.211	-.025	.283	-.029	-.360	.090
	21	21	21	21	21	21	21	21	21	18	18	18	17	17	17	17	17	17	15	15	15

Notes: ^aLog transformed variable. For description of variables see Table4. Unstandardized coefficients are reported. T-statistics are presented in the parentheses.***

Significance at the 1% level; ** Significance at the 5% level; * Significance at the 10% level.

