Tax avoidance, corporate governance, and corporate social responsibility: The case of the Egyptian capital market

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Abstract: This paper examines the relationship between tax avoidance, corporate governance, and corporate social responsibility (CSR) disclosure. It also investigates the effect of CSR on stock market returns. Using a sample of Egyptian firms for the period 2007–2016, we provide robust new evidence that corporate tax avoidance is positively associated with CSR disclosure. We find evidence that businesses with a more sophisticated board of directors, measured by the presence of family or foreign members, provide more CSR disclosure. Finally, the findings of this study indicate that firms making higher CSR disclosures have greater stock returns, suggesting that CSR is value-enhancing. These findings have important implications for capital markets’ users and policymaker in emerging economies.

Keywords: Tax avoidance; Egypt; Corporate Social Responsibility; corporate governance
1. Introduction

Reporting on corporate social responsibility (CSR) is an emerging issue in corporate transparency. In addition to meeting the information needs of a range of stakeholders, CSR disclosure offers managers a unique opportunity to highlight the conduct and contributions of their companies regarding economic and social development. As CSR reporting is influenced by the choices, motives, and values of decision-makers, it is argued that corporate governance characteristics significantly influence CSR disclosure (Chan et al., 2014; Haniffa & Cooke, 2005; Jo & Harjoto, 2011). Thus, CSR and corporate governance are interrelated (Chan et al., 2014; Jo & Harjoto 2011). Corporate governance refers to the system of internal and external checks and balances which ensure companies are both accountable to their stakeholders and conducting their business in a socially responsible way (Solomon, 2013).

Theoretically, the evolution of CSR activities can be explained by the institutional context and theory (Ntim & Soobaroyen, 2013). According to institutional theory, organizations will adopt similar characteristics due to institutional pressures (DiMaggio & Powell, 1991). This case of isomorphism is a key element of new institutional sociology, and it assumes that organizations adopt structures and management practices considered legitimate and socially acceptable by other organizations regardless of their actual usefulness (Rodrigues & Craig, 2007). The following three mechanisms facilitate institutional isomorphic change: coercive isomorphism, mimetic isomorphism, and normative isomorphism (DiMaggio & Powell, 1991). Coercive isomorphism stems from political influence and the problem of legitimacy. It is the response to both formal and informal pressures exerted on organizations by external agencies, upon which the former are dependent. These pressures include government policy, regulation, and supplier relationship. Besides these agencies, pressure is also exerted by cultural expectations of the society within
which organizations function. Mimetic isomorphism occurs when organizations model themselves on other organizations. They copy the best practices of other organizations that are perceived to be more legitimate or successful. In normative isomorphism, organizations are subject to pressures to conform to a set of norms and rules developed by dominant professional bodies (Burns, 2000).

Although previous studies examined the incentives and benefits associated with CSR in developed countries, the motivations for CSR practice issues remain largely unexplored in emerging economies (Brooks & Oikonomou, 2018; Davis et al., 2016; Lin et al., 2017). Thus, our study aims to provide new insights on the incentives and consequences of CSR practices in an emerging market: Egypt, a developing country characterized by a secretive culture that values risk avoidance. Using a unique dataset from Egypt, the study investigates how tax avoidance and internal corporate governance mechanisms may drive CSR reporting. Specifically, we examine the congruence between tax payment and CSR policies. If firms consider tax compliance as a pivotal element of CSR, then tax avoidance can damage the image and reputation of a socially responsible firm (Lin et al., 2017). Therefore, a socially responsible firm should engage in less tax avoidance practices (Hoi et al., 2013; Laguir et al., 2015). However, prior studies provide contradictory evidence that firms engaged in tax avoidance practices increase CSR disclosure in order to offset negative perceptions associated with low tax payments (Landry et al., 2013; Lanis & Richardson, 2013; Preuss, 2010). We extend the existing studies by examining whether there is a complementary or a substitutive relationship between tax avoidance and CSR disclosure in the Egyptian context.

Additionally, it is important to examine corporate governance mechanisms, especially board of director composition and their influence on CSR (Rao & Tilt, 2016). We investigate the impact of a board’s sophistication level and diversity on the extent of CSR reporting. For example, some argue that foreign directors function as important sources for transferring the
best practices in corporate governance and CSR (Iliev & Roth, 2018). Further, the presence of family members on a board affects the firm’s view and practices concerning governance and CSR (Bloom et al., 2012; Mullins & Schoar, 2016). The recruitment of several types of board members—family, non-family, national, and foreign members—plays a significant role in bringing to the board different skills and views that affect decision-making and monitor corporate activities, in general as well as more particularly for CSR practices. Furthermore, we assess the benefits of CSR by examining the impact of CSR disclosure on stock returns in Egypt.

Using a sample of Egyptian listed firms for the period 2007–2016, we find a relationship between corporate tax policy and a firm’s CSR policy. Our results indicate that firms engaged in tax avoidance tend to increase CSR disclosure in order to develop a positive perception of ethical conduct and to improve their public and media reputation. Our findings also support the importance of internal governance mechanisms for CSR activities and reporting. We find that the CSR disclosure is significantly higher for firms with family or foreign members on the board. Finally, the results reveal that higher CSR disclosure leads to higher stock market returns, implying that CSR disclosure is associated with capital market benefits.

Our study contributes to the literature of CSR disclosure, corporate governance, and tax avoidance in several ways. First, most existing studies examine the relationship between CSR and tax reporting practices in developed markets (Davis et al., 2016; Lin et al., 2017). This research aims to enrich the limited body of research on these themes in emerging markets, such as Egypt, which has distinct institutional settings further discussed in Section 2. Therefore, we contribute to the literature on CSR disclosure by providing new empirical evidence on the relationship between tax avoidance and CSR in an emerging capital market that has increased its emphasis on CSR practices over the past decade. To the best of our
knowledge, there is no study that investigates whether CSR practices are related to tax avoidance activities in Middle East and North Africa (MENA) region, in general, or in Egypt, in particular.

Second, prior studies focus mainly on the determinants of CSR disclosure, including the effect of some corporate governance characteristics, such as board size, audit committees, combining the roles of chairman and chief executive officer (CEO) with one person - CEO duality, and board independence on the extent of CSR disclosure (Chan et al., 2014; Haniffa & Cooke, 2005; Jo & Harjoto, 2011). Moreover, little attention has been paid to the institutional explanations regarding CSR practices among organizations (Ntim & Soobaroyen, 2013). Our study contributes to the debate on board composition and its effectiveness in emerging markets. Prior studies criticize the focus on some traditional characteristic of corporate governance, such as board independence in emerging capital markets (Crowther & Jatana, 2005). We extend this literature by examining the impact of the sophistication level of board composition on CSR disclosure, measured by the presence of family and foreign members, two important board characteristics that are relatively under-investigated in emerging markets.

Third, the findings regarding the financial benefits associated with CSR remain inconclusive (Brooks & Oikonomou, 2018; Limkriangkrai et al., 2017; Lu & Taylor, 2016). Therefore, our research contributes to the literature that examines the relationship between CSR and firm performance. Fourth, in the context of emerging markets, tax avoidance and CSR reporting have received scanty attention in corporate governance literature (Khan et al., 2013). Our study is a response to the call for more research examining the context-specific nature of CSR disclosure in developing countries (Ali et al., 2017; Belal et al., 2013; Lin et al., 2017), and particularly middle east countries (Al-Abdin et al., 2018; Goby & Nickerson, 2016; Jamali et al., 2008; Jamali & Sidani, 2012). The cultural, economic, political, and
regulatory changes in Egypt makes it worthy of special attention. Thus, we provide new empirical evidence of the relationship between corporate governance, tax avoidance, and CSR reporting in the context of the Egyptian capital market, which is considered a good representative of the MENA region.

Our findings have important implications for policymakers and users by linking CSR disclosure with stock returns. We provide empirical evidence regarding the importance of sustainability indexes, such as the Egyptian environmental, social, and governance index (ESG index), in inducing firms to enhance transparency and disclosure, and thereby improving their reporting standards. This should ultimately result in improving country-level sustainability and governance practices. This, in turn, clarifies how the government’s efforts to promote ESG benefit publicly traded firms. Additionally, our results suggest that corporate tax and CSR policies are related in the sense that firms tend to cover their tax avoidance practices by increasing their CSR disclosure. Therefore, socially responsible investors should take caution as CSR disclosure may be negatively related to corporate tax responsibility. Likewise, the Global Reporting Initiative (GRI) and the Sustainability Reporting Guidelines should be extended to consider corporate tax responsibility to protect stakeholders and meet societal expectations.

The rest of this paper is organized as follows. Section 2 presents the institutional background of the Egyptian context. Section 3 presents the literature review and hypotheses development. In Section 4, we discuss the research method and data. Section 5 highlights key findings, and Section 6 presents additional analysis. We present the conclusion of our study in Section 7.

2. Institutional Background

Egypt is the most populous country in the Arab world and the third most populous country in Africa. It is a lower middle-income country with a diversified economy. The
Egyptian Stock Exchange (EGX) is one of the oldest stock exchanges in the world and the first to be established in the MENA region. Over the past two decades, Egypt has been transforming into a market-oriented economy and has recognized the need for legislative reforms to support its economic reform. Therefore, Egyptian authorities have cooperated with related international organizations to enhance market confidence by adopting best practices and international standards that support sustainable markets. Several initiatives implemented by international organizations in Egypt have made remarkable progress. However, Egypt experienced significant political upheaval after the Egyptian revolution in January 2011. Significant falls in tourism and foreign investment since 2011 have severely affected the Egyptian economy with lower growth rates compared to their pre-revolution average (The Egyptian Exchange, 2012).

As a result of a new transformational reform program begun in 2014 and support from some Gulf countries, the Egyptian economy witnessed gradual improvement, with the annual growth rate of gross domestic product (GDP) reaching 4.3% in 2015/2016, up from an average of only 2% during the 2010/11-2013/14 period. In November 2016, the International Monetary Fund approved a 3-year loan package worth $12 billion, intended to stimulate the economy and increase investor confidence. The foreign direct investment flows to Egypt increased in 2017 to $8.1 billion (World Bank, 2017; UNCTAD, 2017).

Egypt has a culture of giving, and the country’s CSR activities are influenced by its religious beliefs. In general, Egypt is known for its secretive culture, characterized by high risk-avoidance and high power-distance. There is a tendency to resist changes and avoid uncertainty. This combination of uncertainty avoidance and power distance has created a cultural system oriented to the existence of caste, where obedience to the directives of top management or leaders is reinforced by an attitude that is averse to any changes. Furthermore, the individual is subordinated to the family and the group to which it belongs. The sense of family loyalty is dominant over any other type of relationship, and nepotism is extremely
common in workplaces (Abdelfattah, 2018; Abdelsalam & Weetman, 2007; Caiazza & Volpe, 2015). Furthermore, it is uncommon for Egyptian companies to cross-list in foreign stock exchanges and thus file with foreign regulatory agencies in accordance with internationally recognized standards (Ebrahim & Abdelfattah, 2015). In such a culture, the motives, practices, and perceptions of CSR may be different from those in developed countries empirically explored in prior studies.

The stakeholder information strategy is predominantly adopted in Egypt to communicate CSR activities. Under this strategy, companies follow one-way models to inform stakeholders about their CSR activities that do not allow feedback or interaction from stakeholders (El-Bassiouny et al., 2018). Egyptian companies prefer indirect communications and disclose information about their CSR activities through intermediaries. This might be explained by the desire to avoid reputational damage that may result from any potential conflict during direct communication with stakeholders, especially after the Egyptian revolution of 2011 (El-Bassiouny et al., 2018; Darrag & Crowther, 2017).

Nevertheless, the EGX was first in the MENA region and second among the emerging economies\(^1\) to introduce the sustainability and ESG indexes. As one of the four pioneer exchanges that joined the United Nations’ Sustainable Stock Exchanges initiative in 2009, this initiative was part of the EGX’s journey of sustainability. The main objective of this initiative is to address investors’ concerns about ESG issues in Egypt. The ESG ratings are generated by Standard and Poor’s (S&P) in collaboration with the Egyptian Corporate Social Responsibility Centre, the EGX, and the credit ratings agency CRISIL. This Egyptian corporate responsibility index (ESG index) is designed to track the performance of the 100 largest listed companies on the EGX that also demonstrate leadership in environmental, social, and corporate governance.

\(^1\) Standard & Poor’s (S&P) launched the first ESG index in India in collaboration with a local company, CRISIL.
issues. These listed companies are evaluated annually with an aim of selecting the top 30 companies to be listed on the ESG index. Accordingly, the index enhances investors’ awareness regarding the 30 best performing stocks in the Egyptian market as measured by ESG parameters. Our study employs this unique dataset of the ESG index, which covers the period from 2007, concurrent with the establishment of ESG ratings, to 2016, to provide new evidence on the incentives and usefulness of CSR disclosure.

3. Relevant Literature and Hypotheses Development

3.1 Tax Avoidance and CSR

CSR has received considerable attention from both businesses and academics (Brooks & Oikonomou, 2018; Lu & Taylor, 2016). ESG practices include any activity that involves a firm’s efforts to make a positive impact on the environment and society. These practices also focus on firms’ governance issues, such as integrity, ethics, transparency, and effective functioning of the board of directors (Limkriangkra et al., 2017; Lu & Taylor, 2016). According to the Principles for Responsible Investment (PRI), paying the fair share of taxes is among the key ESG factors (PRI, 2017). In this regard, it must be pointed out that taxation is vital to the character and functioning of the state, economy, and society. Taxes are primarily collected to enable government to provide the public with all kinds of public goods and services (Gribnau, 2015). In Egypt, tax revenues account for almost 77% of the total governmental revenues and represent around 15.8% of the GDP (World Bank, 2017). However, tax avoidance could be viewed as a value-maximizing activity by businesses (Kim et al., 2011; Armstrong et al. 2015). Tax avoidance can be defined as the reduction of explicit taxes paid by firms (Dyreng et al., 2008; Hope et al., 2013; Lanis & Richardson, 2013). It implies that firms can lower their tax rates while still taking tax positions that are unlikely to be overturned by the tax authority, such
as opening a subsidiary in a low tax country or taking advantage of accelerated depreciation deductions (Guenther et al., 2016).

There is a disagreement on the relationship between CSR and tax avoidance in the academic literature (Davis et al., 2016; Huseynov & Klamm, 2012; Lanis & Richardson, 2013; Lin et al., 2017; Preuss, 2010; Sikka, 2010). Some studies argue and find that socially responsible firms are likely to be less tax aggressive. Their findings are in line with Freeman’s (1984) stakeholder view that established the necessity of maintaining a balance between business ethics, economic interests, and social responsibility, and hence, proposed that firms should avoid tax aggressive practices and pay their fair shares of tax (Hoi et al., 2013; Lanis & Richardson, 2013; Lin et al., 2017). Based on this stakeholder view, it can be stated that tax payment is a pivotal element of firms’ CSR practices (Lin et al., 2017). Using US data, Lanis & Richardson (2015) find that socially responsible firms are less likely to be involved in a major tax dispute and controversy over their tax obligations. Likewise, Hoi et al. (2013) reveal that firms with low CSR activities are more aggressive in avoiding taxes. Using a sample of French firms, Laguir et al. (2015) indicate that CSR is negatively associated with the level of corporate tax aggressiveness.

In contrast, several studies suggest a positive relationship between CSR disclosure/activities and tax avoidance (Davis et al., 2016; Landry et al., 2013; Lanis & Richardson, 2013). Their findings are based on the arguments that a corporation is a contract between shareholders and managers, with a single objective function—shareholder wealth maximization (Jensen & Meckling, 1976). In such a setting, CSR poses a constraint, and this aspect drives managers to make a trade-off between societal concerns and shareholder wealth maximization. In fact, managers view the reduction of taxes or engaging in tax avoidance strategies as beneficial for shareholders (Armstrong et al. 2015; Huseynov & Klamm, 2012; Sikka, 2010). Meanwhile, managers express concern about the potential negative impacts
associated with undertaking aggressive tax planning activities, such as sanctions, damaging the firm's reputation, raising public concerns, and media pressure (Laguir et al., 2015; Lin et al., 2017; Wilson, 2009). Therefore, managers tend to increase their CSR disclosure to cover up the adoption of tax avoidance strategies or to gain the anticipated benefits of CSR reporting (Hoi et al., 2013; Lin et al., 2017).

In such a setting, CSR reporting is conceived as an outcome of the reputation risk management process, especially when a firm has incentive to engage in questionable behaviors, such as tax avoidance (Bebbington et al., 2008; Lanis & Richardson, 2013; Unerman, 2008). According to the risk management view of CSR, “A firm could serve the interests of its shareholders by managing its positive CSR reputation, which can potentially mitigate the risk associated with negative corporate events” (Hoi et al., 2013, p 8). Therefore, if a positive CSR reputation protects the firm against the risk of adverse political, regulatory, and social penalties, then firms might manage CSR activities to hedge against the consequences of tax avoidance activities (Godfrey, 2005; Hoi et al., 2013).

Another motive to disclose more CSR is to impress stakeholders. It was argued that managers use corporate disclosure and their judgement in financial reporting as impression management tools to influence the perceptions and decisions of stakeholders (Healy & Wahlen, 1999; Yuthas et al., 2002).

In line with the aforementioned views, Davis et al. (2016) find a substitution relationship between CSR and tax avoidance, suggesting that firms engaged in tax avoidance strategies are more likely to increase their CSR disclosure. These findings are consistent with the legitimacy theory in that firms increase ESG disclosures to alleviate community concerns about low tax payments and to build legitimacy (Davis et al., 2016; Deegan, 2002; Lanis & Richardson, 2013). Likewise, Preuss (2010) reveals that companies based in tax havens frequently claim that they engage in socially responsible business practices. Furthermore, Lanis
& Richardson (2013) find that a tax aggressive firm increases CSR disclosure to show that it is meeting societal expectations regarding its activities. Additionally, Landry et al. (2013) suggest that paying the fair share of taxes is not necessarily aligned with CSR.

Although previous studies addressed the relationship between tax avoidance and CSR, there is no evidence on this relationship in the emerging economies, including Egypt. Similar to other developing countries, Egypt is characterized by weak institutional setting (i.e., weak enforcement and investor protection systems) and a high-level of corruption (Attia et al., 2016; Maaloul et al., 2018). Therefore, we examine the relationship between tax avoidance and the level of CSR disclosure using a dataset comprising ESG ratings. Consistent with the studies above and given the institutional settings of the Egyptian context, the following hypothesis is stated:

**H1.** There is a positive and significant relationship between CSR disclosure and tax avoidance.

### 3.2 Corporate Governance and CSR

#### 3.2.1 Founding Family Members on the Board

Family firms differ in their governance structures and their response toward the adoption of best practices. Prior studies indicate that the presence of family members on the board is associated with these differences between family and non-family firms (Bloom et al., 2012). Founding family members seemingly influence the business philosophy and view of governance (Mullins & Schoar, 2016). Due to the possibility of ineffective monitoring by the board, Wang (2006) indicate that family firms may have inferior corporate governance.

While several studies investigate the determinants of CSR, few studies focus on specific internal determinants, such as family influence (Campopiano & De Massis, 2015). Generally, family firms' behavior and practices are driven by economic and non-economic objectives (Kotlar et al., 2013). Several recent studies focused on social responsibility issues in family
firms (Campopiano & De Massis, 2015; De Massis et al., 2014). The evidence from prior studies indicates that family firms formulate a unique response to a variety of stakeholder claims (Gomez-Mejia et al., 2014). Founding family members usually have a long-term orientation. They also play an important role in facilitating the adoption of a collectivist stakeholder identity and identifying the extent and types of CSR activities conducted by the firm (Bingham et al., 2011). However, prior studies provide mixed evidence on the association between family firms and CSR practices. While some studies find a positive relationship between family firms and CSR practices (Berrone et al., 2010; Bingham et al., 2011; Cruz et al., 2014; Dyer & Whetten, 2006; Sharma and Sharma, 2011), other studies report a negative relationship (Morck & Yeung, 2004).

Those who predict a positive relationship argue that family firms focus on their social image and reputation, and therefore, they have incentives to enhance their social engagement (Dyer & Whetten, 2006). Family firms may be willing to be more socially responsible to generate positive moral capital to mitigate any possible negative impact and contribute toward shareholder wealth (Godfrey, 2005). Family members have more concern about reputation and litigation costs than non-family directors (Chen et al., 2008; Wang, 2006). In this context, the idea of socio-emotional wealth was in prior studies to explain the response of family firms to social and environmental issues (Berrone et al., 2010; Cennamo et al., 2012; Gomez-Mejia et al., 2007, 2011, 2014). These studies report that family firms are expected to engage in more CSR activities than non-family firms. Furthermore, family firms are more likely to start CSR initiatives to enhance their image and reputation (Dyer & Whetten, 2006). Gavana et al. (2017) report that the presence of family members on the board has a significant positive effect on CSR activities, particularly on environment and labor disclosure. They also indicate that family firms are more sensitive to media pressure than non-family firms.
Conversely, some studies use the agency relationship and the idea of amoral familism to predict and explain the CSR practices, suggesting that family firms are motivated by selfish objectives, and hence, have a relatively low engagement in CSR activities (Morck & Yeung, 2004). Moreover, family CEOs in emerging capital markets may select and appoint directors based on family ties or personal connections. This aspect negatively affects board independence and explains the prediction of lower motivation in family firms to engage in CSR activities (Muttakin et al., 2018). Additionally, the traditional view of CSR claims that firms consume resources, spend money, and efforts on CSR activities. Therefore, it can be argued that the presence of founding family members on the board can lead to lower CSR activities and reporting.

However, there is no agreement about the role of agency relationship in explaining the financial reporting practices in family-led firms (Salvato & Moores, 2010). Mullins & Schoar (2016) indicate that family-led firms differ from non-family firms not only in their explicit governance structures, but also in terms of the softer factors that affect management effectiveness. They find that founders and CEOs of firms with greater family involvement display a greater stakeholder focus and feel more accountable to employees and banks than to shareholders. Campopiano & De Massis (2015) find that family firms disseminate a wider variety of CSR reports, but are less compliant with CSR standards and place emphasis on different CSR topics. Labelle et al. (2018) find that family firms engage in lower CSR compared to non-family firms and report a curvilinear relationship between family control and CSR. Additionally, Cruz et al. (2014) indicate that family firms have a positive effect on social dimensions linked to external stakeholders and a negative impact on internal social dimensions.

Furthermore, the empirical evidence on the quality of financial reporting by family firms is mixed and varies among countries (Ali et al., 2007; Klai & Omri, 2011). Labelle et al. (2018) highlight that the relationship between family firms and CSR is context dependent.
Therefore, there is a need to check family firms in other contexts that have different institutional and cultural factors, such as Egypt. As active listed companies, Egyptian family firms are always under the public scrutiny and have more incentives to promote and enhance their image as good corporate citizens. Additionally, they must legitimize and distinguish themselves by being more socially responsible. They use CSR to signal to the market and stakeholders their commitment to the social responsibility philosophy. As mentioned earlier, the EGX introduced a sustainability index, i.e. the ESG index. This initiative increases the informal pressure on these family firms to respond positively. Therefore, it is expected that Egyptian family firms will be more willing to adopt proactive stakeholder engagement practices compared to non-family firms.

Based on the evidence from prior studies and characteristics of the Egyptian context, this study expects that the existence of founding family members on the board of Egyptian listed companies improves CSR reporting. Therefore, we test the following hypothesis:

**H2:** There is a positive and significant relationship between the presence of family members on the board and CSR disclosure.

### 3.2.2 Foreign Members on the Board

While capital markets around the world aim to attract foreign direct investments, the deficiency of internal governance and the shortage of management resources are problematic in emerging capital markets (Youssef, 2003). There is an increasing demand for foreign directors not only in multinational firms, but also in domestic listed companies, owing to their international knowledge and expertise that lead to corporate success (Barrios et al., 2019). Foreign directors transfer the best cross-country governance practices (Iliev & Roth, 2018), and play an important role in monitoring and advising firms in emerging economies (Oxelheim & Randøy, 2003). Due to their familiarity with strategic market areas, the presence of foreign members on boards helps firms gain expertise and introduces a new dimension and culture to
their boards (Hahn & Lasfer, 2016; Masulis et al., 2012; Ramaswamy & Li, 2001). An increase in the number of foreign members can mean an increase in advanced technology use and a greater likelihood of more developed practices (Elsayed & Wahba, 2013). Furthermore, their existence is expected to reduce managerial entrenchment. Estelyi & Nisar (2016) provide evidence that boards containing diverse nationalities are positively and significantly associated with shareholder heterogeneity and a firm's international market operations. Furthermore, foreign members have weaker connections with local governments, which enable them to be more effective in monitoring activities (Giannetti et al., 2015).

Few studies investigate the determinants of cross-border transfer of best management concepts and practices in emerging capital markets, and most of them focus more on country-level factors than firm level factors (Shin et al., 2016). Board independence is one of the challenges for effective corporate governance in emerging capital markets (Abdelfattah, 2018). Examples of factors that threaten board independence include the nature of non-executive and independent members’ appointment (Crowther & Jatana, 2005) and members’ tenure (Patelli & Prencipe, 2007). Having foreign members on the board may mitigate this challenge as they are considered more reliable than national non-executive members, who may have some links or affiliations with executives. In addition to their familiarity with best practices of corporate governance and CSR, the presence of foreign members allows cultural diversity in the board. This may reduce the negative impact of high power distance and the dominant secretive culture in an emerging capital market, such as Egypt.

In contrast, there is a debate about the relevance of western concepts and practices to emerging markets. Several prior studies highlight the effect of economic, legal, and cultural factors on the effective implementation of corporate governance and CSR concepts in the emerging capital markets (Doidge et al., 2007; Humphries & Whelan, 2017; Leuz et al., 2009; Nakpodia & Adegbite, 2018). Hahn & Lasfer (2016) indicate that foreign members may
significantly exacerbate agency conflicts. Foreign members may be unfamiliar with the local institutional factors that affect firm decisions and practices. This may weaken the internal governance mechanisms and reduce the benefits of recruiting foreign members to the board. Peck-Ling et al. (2016) find no association between appointments of a foreigner as both chairman and CEO (CEO duality) and return on equity. Furthermore, as foreign board members typically receive higher compensation, it reduces their cost-effectiveness and might demotivates companies to engage in CSR activities (Hahn & Lasfer, 2016).

With regards to the effect of foreign members on CSR practices, the evidence is mixed. While some studies find a positive relationship between CSR and the presence of foreigners (Guthrie & Parker, 1990; Moneva & Llena, 2000), Haniffa & Cooke (2005) find a positive significant relationship between CSR disclosure and the percentage of local members on the board. Fuente et al. (2017) find no relationship between the percentage of foreign directors and CSR. Similarly, Lau et al. (2016) report only a weak effect of foreign directors on CSR in China. Moreover, the effect of foreign members on CSR varies according to the CSR development in the home countries of these foreign members (Prado-Lorenzo et al., 2009).

The western management practices and globalization have affected CSR practices in several regions around the world (Oh et al., 2011). Rao & Tilt (2016) highlight the importance of investigating the impact of board composition on CSR activities and reporting. Since foreign members are familiar with the financial reporting style of different markets and possess social capital and connections with key stakeholders, they enable firms to expand into new markets (Masulis et al. 2012). Due to the cultural differences, the presence of foreigners facilitates diverse views in board meetings, especially regarding the needs associated with providing stakeholders’ information and CSR activities. Therefore, it is expected that firms with foreign members will engage more in CSR.
In the Egyptian context, 64% of foreign investment comes from Europe, the US, and Canada (The Egyptian Exchange, 2012), and in these places CSR activities and reporting are highly recognized and considered desirable. Ebrahim and Abdelfattah (2015) report the presence of foreign members as a determinant of compliance with the International Financial Reporting Standards (IFRS) recognition and disclosure requirements in Egypt. Consequently, we expect that the presence of foreign members on Egyptian firms’ boards will have a positive effect on their social responsibility performance and reporting. Therefore, we test the following hypothesis:

**H3**: There is a positive and significant relationship between the presence of foreign members on the board and CSR disclosure.

### 3.3 The Market Reaction to CSR

This study also examines the market reaction to CSR practices. Prior studies provide inconclusive evidence on the association between corporate financial performance and CSR activities (Brooks & Oikonomou, 2018; Garcia et al., 2017; Li et al., 2018). One set of studies supports a positive relationship focus on stakeholder and legitimacy theories. According to stakeholder theory, stakeholders reward good CSR practices in the areas associated with investment, consumption, and higher productivity efforts. Stakeholder theory also implies that a higher level of transparency in CSR practices will reduce information asymmetry with the public, thereby increasing confidence levels of investors and lowering risks. Consistent with this theory, prior studies argue and find that firms with high legitimacy through improved CSR reporting have a lower unsystematic risk. This is also in line with the risk mitigation argument in favor of CSR (Li et al., 2018). For instance, Ioannou and Serafeim (2017) use a sample comprising four countries (China, Denmark, Malaysia, and South African) and report that the effects of CSR on Tobin’s Q are value-enhancing rather than value-destroying. Garcia et al. (2017) also indicate that CSR is positively associated with profitability. Using a sample from
South Africa, Bernardi and Stark (2018) suggest that ESG disclosures, particularly the environmental disclosure levels, have a relationship with forecast accuracy following the introduction of their mandatory integrating reporting regime.

In contrast, another set of empirical studies found a negative relationship between corporate ESG practices and corporate performance. They mainly suggest that CSR represents costly diversions of firm resources. In other words, at the expense of shareholder value, managers engaging in CSR activities sacrifice other investments that would be more profitable for the company (Friedman, 1962; Limkriangkrai et al., 2017). This view is based on the agency cost theory. It also suggests that managers will benefit from engaging in CSR activities (i.e., for building their reputation), while the cost of this engagement will be borne by the shareholders (Brooks & Oikonomou, 2018; Garcia et al., 2017; Li et al., 2018). Nevertheless, prior studies documented that country-institutional settings, such as enforcement, political, and culture systems, affect firms’ ESG disclosure practices and its economic consequences (Baldini et al., 2018; Dhaliwal et al., 2014). Therefore, it is pivotal to understand the relationship between CSR disclosure and firm performance within country-specific contextual factors (e.g., Egypt).

Consistent with most prior studies, including those discussed extensively in a review study by Brooks and Oikonomou (2018) and a meta-analysis by Lu and Taylor (2016), we expect a positive relationship between CSR disclosure and stock returns. Therefore, the following hypothesis is stated:

**H4:** There is a positive and significant relationship between CSR disclosure level and stock returns.

4 Research Design and Data

4.1 Variables Measurement
4.1.1 Measurement of CSR Disclosure

Our study aims to address the motivations and consequences of CSR in the Egyptian context. To measure CSR, we use the ESG ratings described earlier. These annual ratings aim to provide investors with objective benchmarks for managing their CSR investment portfolios, enhance transparency and disclosure, and improve reporting standards in Egypt. According to this rating, companies are assigned a composite score each year based on their latest filings, news, and other material information available in the public domain. They are also subjected to a mid-year review. This score consists of three components: environmental, social, and governance. While the environmental and social aspects were based on the output obtained by mapping the GRI, global compact, and sustainable development goal, the governance aspect was adapted from Standard and Globe’s corporate governance methodology used at the time of the study (S&P/EGX ESG Index Methodology). This composite score is obtained by summing the qualitative and the quantitative scores for each firm. Subsequently, the top (best) 30 firms from the pool of 100 Egyptian companies were listed in the ESG Index.

4.1.2 Measurement of Tax Avoidance, Corporate Governance, and Stock Returns

Consistent with the prior studies, the effective tax rate (ETR) is used to measure tax avoidance (Dyreng et al., 2010; Hope et al., 2013; Laguir et al., 2015). ETR is commonly used as a good proxy to capture tax avoidance in academic research (Hoi et al., 2013; Hope et al., 2013; Laguir et al., 2015 Lanis & Richardson, 2013). Following prior studies (i.e., Dyreng et al., 2008; Huseynov & Klamm, 2012), we define tax avoidance to encompass practices that reduce a firm’s taxes relative to its pre-tax accounting income. Thus, tax expenses are divided by the pre-tax income to obtain the ETR.

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2 Companies are assigned new scores each year based on their latest filings, news, and other material information available in the public domain.
We capture the sophistication level of the board by the presence of family and foreign members. We follow prior studies and use founding family members on the board for measuring the impact of the founder’s involvement in management (Bingham et al., 2011; Labelle et al., 2018; Miller et al., 2013). Family (FAMILY) is an indicator variable that equals one if family members are present on the board, and zero otherwise. Likewise, foreign (FOREIGN) is an indicator variable that equals one if there are non-Arab foreign members on board, and zero otherwise. Arab members are not considered foreigners because they share the same basic Arabic culture with Egypt. Data regarding the presence of family or foreign members on the boards are collected manually from the websites and the annual reports of firms.

Finally, consistent with previous studies, stock return is used to test the economic consequences of ESG disclosure (Al-Tuwajri et al., 2004; Daske et al., 2008; Harjoto & Jo, 2015; Yip & Young, 2012). Stock return (STOCKRET) is calculated as the natural logarithm of the average of 12-month returns for each firm (Amihud, 2002; Daske et al., 2008). All financial data are from the DataStream database.

4.1.3 Control Variables

Our study controls for a set of firm level characteristic that are associated with CSR practices (Baldini et al., 2018; Dhaliwal et al., 2014; Lanis & Richardson, 2013; Li et al., 2018) Consistent with prior studies, we control for the firm size (SIZE), profitability (PROFIT), leverage (LEV), and capital intensity (CAXTA). Additionally, for the stock returns model, we control for growth (GROWTH) and trading volumes (LOGTV) (Al-Tuwajri et al., 2004; Garcia et al., 2017; Ioannou & Serafeim, 2017; Jo & Harjoto, 2011; Li et al., 2018). Table 1 shows all variable definitions.

[Insert Table 1 here]
4.2 Sample and Data

Our initial sample includes the 100 most active Egyptian companies in the EGX, as measured by the EGX 100 index in the financial year ending 2016, covering nine years. The study begins in 2007, concurrent with the establishment of the ESG formal ratings by the Egyptian Capital Market Authority, and ends in 2016. Out of 900 firm-years observations, 64 observations are related to financial institutions, and there are 101 missing observations. The final sample comprises 735 firm-years. Table 2 reports the distribution of the sample across sectors and years.

[Insert Table 2 here]

Table 3 shows the descriptive statistics of all variables. All continuous variables are winsorized at the 1% and 99% percentiles. Following prior studies (Dyreng et al., 2010; Hope et al., 2013), we delete firm-years with negative ETRs and further winsorize ETRs greater than one to equal one. Table 3 indicates that the average (median) of ESG disclosure is 0.539 (0.532) and ranges between 0 and 1. Furthermore, the mean (median) of sample profitability is 6.8% (5.5%), with sales growth of 14%. The mean (median) of ETR is 27% (18%).

[Insert Table 3 here]

Table 4 presents the correlation matrix among all variables. The correlation matrix indicates significant positive associations between the presence of family and foreign members on the board and the quality of CSR disclosure. It also shows that firms with high CSR disclosure tend to be more profitable, bigger, and incur greater capital expenditures. Furthermore, the correlation matrix shows that none of the coefficients is higher than 0.339 (i.e., between LEV and SIZE), suggesting the absence of any multicollinearity issue.

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4 This study excludes 2011 due to the intense political and economic unrest and the abnormal behavior of the Egyptian Stock Market during that time.
5. Main Analysis

We use the following regression model to test the first three hypotheses. The definitions of variables are presented in Table 1

\[
ESG_{it} = \alpha + \beta_1ETR_{it} + \beta_2FAMILY_{it} + \beta_3FOREIGN_{it} + \beta_4SIZE_{it} + \beta_5PROFIT_{it} + \beta_6LEV_{it} + \beta_7CAXTA_{it} \\
+ \beta_8YearFixedEffect_i + \beta_9IndustryFixedEffect_i + \epsilon_{it}
\]

Model (1)

The results of the ordinary least squares (OLS) with industry- and year-fixed effects are used to test H1, H2, and H3. The results are reported in Table 5. Consistent with H1, the coefficient of ETR is negative and significant at the 5% level (\(\beta_1 = -0.071\)), suggesting that a tax avoidance firm tends to increase its ESG disclosure. According to Armstrong et al. (2015), tax avoidance is one of the many risky investment opportunities available to management involving expected cash flows. Thus, it is necessary for managers with incentives to reduce tax payments to increase their engagement in ESG practices, and hence, develop a positive public and media perception toward their ethical conduct (Laguir et al., 2015; Lin et al., 2017; Wilson, 2009). These findings also support the risk mitigation view if the main incentive of CSR disclosure is to manage risk (Bebbington et al., 2008; Jiraporn et al., 2014; Lanis & Richardson, 2013). CSR disclosure plays a risk mitigation role when there are opportunities to develop CSR reputation in a new area or when negative incidents expose CSR shortcomings of specific corporations or industries (Unerman, 2008). Moreover, consistent with the legitimacy theory, our findings show that a tax avoidance firm tends to increase ESG disclosure to alleviate public concerns and to create an image of being a socially responsible entity (Deegan et al., 2002; Lanis & Richardson, 2013). These findings also imply that in the Egyptian context, CSR is viewed as a constraint, and engaging in tax avoidance strategies is considered important for shareholder wealth maximization (Huseynov & Klamm, 2012; Sikka, 2010).
Consistent with H2, the coefficient of FAMILY is positive and significant at the 1% level ($\beta_2 = 0.077$). This finding suggests that firms with family members on the board tend to increase ESG disclosure. These findings are consistent with the notion that firms with greater family involvement are more concerned about their reputation and social image and will aim to protect themselves by generating positive moral capital (Dyer & Whetten, 2006; Godfrey, 2005). The findings support the idea of socio-emotional wealth in that the founding family members have non-economic and emotional benefits (Gomez-Mejia et al., 2007; Labelle et al., 2018). Additionally, these firms also tend to send signals to the market and stakeholders of their commitment to the social responsibility philosophy (Ali et al., 2007, Mullins & Schoar, 2016; Wang, 2006).

Consistent with H3, the coefficient of FOREIGN is positive and significant at the 10% level ($\beta_3 = 0.035$), suggesting that the presence of foreign members on the board increases ESG disclosure. These findings are consistent with the argument that corporate governance practices, and hence, the monitoring effectiveness are more dominant due to the existence of foreign members on the board. These findings support the benefits (i.e., higher ESG practices) associated with having members from foreign countries wherein the requirement and the practices of financial disclosure and transparency are higher (Barrios et al., 2019; Giannetti et al., 2015; Masulis et al., 2012). Additionally, the findings suggest that the cultural diversity in the boards with foreign members enhances the CSR practices in emerging capital markets. Foreign members are considered important sources for transferring the best governance and CSR practices (Iliev & Roth, 2018). For control variables, Table 5 indicates that larger firms and firms earning high profits provide high-quality ESG reporting, compared to smaller and low profit generating firms; this inference is based on the finding that the coefficients of SIZE
and PROFIT are positive and significant at the 1% and 5% levels, respectively. Other control variables in Table 5 are not significant.

In the fourth hypothesis, we expect a positive relationship between stock returns and ESG disclosure. To test the fourth hypothesis, we estimate the following regression model. The definitions of variables are presented in Table 1.

\[
STOCKRET_{it} = \alpha + \beta_1ESG_{it} + \beta_2GROWTH_{it} + \beta_3LOGTV_{it} + \beta_4SIZE_{it} + \beta_5PROFIT_{it} + \beta_6LEVI_{it} \\
+ \beta_7CAXTA_{it} + \beta_8FAMILY_{it} + \beta_9FOREIGN_{it} + \beta_{10}ETR + \beta_{11}YearFixedEffect_{t} \\
+ \beta_{12}IndustryFixedEffect_{i} + \epsilon_{it}
\]

Model (2)

The OLS regression results are reported in Table 6. Consistent with H4, the coefficient of ESG is positive and significant at the 5% level (\(\beta_2 = 0.169\)), which provides evidence that the disclosure of ESG is associated with higher stock returns. These findings suggested that ESG disclosure provides additional information beyond financial data, and thereby reduces the asymmetric information between firms and related parties, increases the incentives of the manager to improve the internal control mechanisms for serving a firm's stakeholders' interests, and, in turn, leads to better investment decisions and operating performance (Li et al., 2018). It also suggests that ESG disclosure improves transparency and accountability; hence, it is considered value-enhancing rather than value-destroying (Brooks & Oikonomou, 2018; Ioannou & Serafeim, 2017). For control variables, Table 6 shows that the coefficient of GROWTH is positive and significant, indicating that the higher the growth, the higher will be the stock returns. Other variables are not significant\(^5\).

[Insert Table 6 here]

6. Additional Analysis

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\(^5\) We acknowledge the argument that tax avoidance practices may be perceived positively by shareholders and reflected in the stock prices. However, we controlled for tax avoidance and the results indicate no relationship between tax avoidance and stock return (reported in Table 6)
To check the robustness of our main findings, several sensitivity tests are conducted. First, to investigate whether our findings are sensitive to tax avoidance measurements used in this study, we use temporary book tax differences (BTD) as an alternative proxy for ETR. Prior studies indicate that BTD (both permanent and temporary) are significantly associated with tax avoidance (Blaylock et al., 2012; Hanlon & Heitzman, 2010; Wilson, 2009). For instance, Wilson (2009) find that firms accused of using tax shelters have larger BTD. Consistent with prior studies, we calculate temporary BTD for each firm year as (deferred tax/stationary tax rate) scaled by total assets (Blaylock et al., 2012; Hanlon & Heitzman, 2010). Using temporary BTD as alternative proxy for tax avoidance, the findings in Table 5 (column 2) are consistent with our main prediction that tax avoidance is positively and significantly associated with CSR reporting. The only difference is that the coefficient of FOREIGN, although positive as expected, is not significant.

Second, although Foste and Kalenkoski (2013) document that the qualitative conclusion based on both OLS and Tobit regressions are usually the same, we re-estimate our baseline model (1) using Tobit regression to check our findings against any potential biases or inconsistencies in the OLS estimators. The findings, reported in Table 5 (column 3), are consistent with OLS estimates results in that tax avoidance and presence of family and foreign members on board are significantly associated with CSR disclosure.

Third, as an alternative procedure, we include only the listed companies on the ESG index in an analysis. Although this procedure diminishes the sample size to 213 observations in Model (1) and to 151 observations in Model (2), it provides useful insights about the importance of the relative ranking of ESG disclosure. The findings, reported in Table 5 (Column 4), are consistent with our main results regarding tax avoidance (ETR) and the presence of foreign members on the board (FOREIGN). However, the coefficient of FAMILY

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*The stationary tax rate is 22.5% in Egypt. This rate applies to all types of business activities, except for oil exploration companies, whose profits are taxed at 40.55%.
is not significant. Likewise, the findings in Table 6 (Column 2) indicate that the coefficient of ESG is positive and significant, which again is consistent with our main results.

Fourth, the potential endogenous relationships between CSR, tax avoidance, and corporate governance are a concern in our analysis. Endogeneity can arise due to unobservable heterogeneity when some underlying omitted variables are correlated with the dependent and independent variables or when there is a potential reverse causality between dependent and independents variables. For instance, one argument is that socially responsible firms will not engage in tax avoidance practices (Hoi et al., 2013; Lin et al., 2017; Sikka, 2010). In this case, tax avoidance practices depend on the level of CSR practices, and therefore, we may encounter the reverse causality problem between tax avoidance and CSR disclosure. To mitigate endogeneity concerns, we use three alternative procedures.

First, we include additional control variables that may affect both dependent and independent variables. Consistent with literature on tax avoidance, corporate governance, and CSR disclosure, we control for the following: board size (BSIZE), board independence (BIND), CEO duality (CEODU), and institutional ownership (INST) (Haniffa & Cooke, 2002; Ho & Wong, 2001; Hoi et al., 2013; Jo & Harjoto 2011; Lanis & Richardson, 2013; Rao & Tilt, 2016). The definitions of these additional variables are presented in Table 1. The findings reported in Table 7 (Column 1) provide evidence that the three main variables of interest, namely ETR, FAMILY, and FOREIGN, are consistent with our expectations in H1, H2, and H3\(^7\). Regarding the additional control variables, we find a negative relationship between institutional ownership, board independence, and CSR disclosure (García-Sánchez & Martínez-Ferrero, 2015; Rao & Tilt, 2016).

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\(^7\) The number of observations used in this additional analysis is less than the main analysis due to missing corporate governance data.
The second method to mitigate the endogeneity concerns is to add the lagged value of the independent variable (LAGETR). As reported in Table 7 (Column 2), the main results remain the same, although the coefficients of ETR and FOREIGN are significant at only the 10% level.

As a final alternative procedure, we use the two-stage least squares method to account for the potential endogeneity issue. Following prior studies (Garcia-Castro et al., 2010; Lin et al., 2017), we use INDUSTRY as an instrumental variable. The results reported in Table 7 (Column 3) indicate that the coefficient of FAMILY is positive and significant, as expected. In contrast, while the coefficients of ETR and FOREIGN have the anticipated sign, they are not significant.

[Insert Table 7 here]

Egypt’s Arab Spring takes place in 2011. Although our study excludes this year due to the intense political and economic unrest and the abnormal behavior of the Egyptian Stock Market during this time, it is particularly important to consider the changes in the period post the event. Acemoglu et al. (2018) conclude that political changes and the uprising in Egypt have significant impact on market valuations, and especially politically connected firms. In a similar context, Maaloul et al. (2018) show that politically connected companies exhibit a higher performance and market value than those without political connections. Therefore, these political changes may influence the incentives and the consequences of CSR disclosure (Darrag & Crowther, 2017; Rizk et al., 2008).

To investigate this, we incorporate a dummy variable to indicate the post-revolutions impact. The period from 2007 to 2010 represents the pre-revolution period, and the period from 2012 to 2016 denotes the post-revolution period. Subsequently, we generate a set of interactions terms to test the impact of tax avoidance (ETR) and the presence of family and foreign member on board (FAMILY and FOREIGN) on CSR disclosure. We also generate an
interaction term to test the market reaction to CSR after the revolution. Nevertheless, the findings of all the interaction terms are not significant, suggesting that the incentives and consequences of CSR are equally important in the period before and after the Egypt’s Arab Spring (not tabulated).

7. Conclusion

This study provides empirical evidence regarding the incentives and usefulness of CSR in the Egyptian context and offers policy implications which are arguably valid for emerging markets. More specifically, this study investigates the impact of tax avoidance and the presence of family or foreign members on Egyptian companies’ board of directors, as two indicators of effective corporate governance, on CSR practices. Although CSR literature emphasized CSR practices and corporate governance over the past decade, the impact of corporate tax policy and the two indicators of corporate governance are relatively under-investigated in the emerging markets (Chan et al., 2014; Haniffa & Cooke, 2005; Jo & Harjoto, 2011; Lanis & Richardson, 2013; Lin et al., 2017). This is the first study that investigates whether CSR practices are related to tax avoidance activities in the MENA region, in general, and Egypt, in particular. This study extends the empirical literature on the relationship between CSR and firm performance by using a dataset of ESG ratings for Egyptian firms over a nine year period. We examine whether CSR can also lead to positive economic outcomes for the firm, as measured by the market stock returns.

Our main results demonstrate that the higher the likelihood of tax avoidance, the higher will likely be the level of CSR disclosure of a firm. These findings suggest that a firm’s tax behavior is not necessarily aligned with its CSR. In other words, firms engaged in tax avoidance are likely to increase CSR disclosure to alleviate potential public concerns and to show that they are meeting community expectations. Therefore, our findings reinforce the importance of
the risk management proposition as an explanatory motive behind CSR (Bebbington et al., 2008; Lanis & Richardson, 2013; Unerman, 2008)

These findings reveal the importance of public awareness of CSR as a pivotal element of CSR. We also provide empirical evidence that an effective corporate governance, as measured by the presence of family or foreign members on the Egyptian companies’ board of directors, is a driver for higher CSR reporting. We find that the presence of family or foreign members on companies’ board of directors increases CSR disclosure. Finally, our results indicate that firms with increased CSR disclosures accrue higher stock return values. This finding suggests that CSR is value-enhancing rather than value-destroying (Brooks & Oikonomou, 2018; Ioannou & Serafeim, 2017).

Although the study makes clear contributions, it also has some limitations, which are also avenues for future research. First, although ETR and BTD are commonly used proxies of tax avoidance, the literature criticizes the accuracy of financial statement-based tax avoidance measures (Dyreng et al., 2008; Hoi et al., 2013; Hope et al., 2013; Laguir et al., 2015). Another limitation is that this study is not compared with other studies that use other rating methodologies to measure CSR disclosure (i.e., Bloomberg ratings or Thomson Routers scorings) as these ratings are not available for Egyptian listed firms. Moreover, our sample size is relatively small due to the data availability which affects the generalization of our findings. Finally, our study employs the combined score of ESG to measure CSR disclosure. Therefore, an in-depth analysis could be performed to specify which individual components of CSR disclosure are more closely associated with a firm’s tax policy, market performance, and corporate governance indicators.

Acknowledgement
We are grateful for the constructive comments and guidance of the Editor, Professor Robert K. Larson, and two anonymous reviewers.

References


### Table 1: Summary of variables definition

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental, Social and Governance score (ESG)</td>
<td>ESG score based on the ESG ratings generated by Standard and Poor's (S&amp;P) in collaboration with the Egyptian Stock Exchange and credit ratings agency CRISIL.</td>
</tr>
<tr>
<td>Effective Tax Rate (ETR)</td>
<td>Income tax divided by pre-tax income.</td>
</tr>
<tr>
<td>Family Member (FAMILY)</td>
<td>An indicator variable coded as one for firms with family members on board of directors, and zero otherwise.</td>
</tr>
<tr>
<td>Foreign Member (FOREIGN)</td>
<td>An indicator variable coded as one for firms with foreign members on board of directors, and zero otherwise.</td>
</tr>
<tr>
<td>Stock Return (STOCKRET)</td>
<td>Natural log of average annual stock return.</td>
</tr>
<tr>
<td>Growth (GROWTH)</td>
<td>Annual growth in sales.</td>
</tr>
<tr>
<td>Trading Volume (LOGTV)</td>
<td>Natural log of average annual trading activities.</td>
</tr>
<tr>
<td>Firm size (SIZE)</td>
<td>Natural logarithm of total assets.</td>
</tr>
<tr>
<td>Profitability (PROFIT)</td>
<td>Net income before extraordinary items deflated by total assets.</td>
</tr>
<tr>
<td>Leverage (LEV)</td>
<td>Total debt of a firm deflated by total assets.</td>
</tr>
<tr>
<td>Capital Expenditure (CAXTA)</td>
<td>Total capital expenditure to total assets.</td>
</tr>
<tr>
<td>Board Size (FSIZE)</td>
<td>Total number of directors on the board.</td>
</tr>
<tr>
<td>CEO Duality (CEODU)</td>
<td>An indicator variable coded as one if the chair and CEO are the same person, and zero otherwise.</td>
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<tr>
<td>Board independence (BIND)</td>
<td>Percentage of independent directors on the Board of Directors.</td>
</tr>
<tr>
<td>Institutional Ownership (INST)</td>
<td>Percentage of stock owned by institutional investor.</td>
</tr>
<tr>
<td>Industry (INDUSTRY)</td>
<td>Dummy variable for each individual industry based on ICB classification.</td>
</tr>
<tr>
<td>Lagged Effective Tax Rate (LAGETR)</td>
<td>The lag value of effective tax rate.</td>
</tr>
</tbody>
</table>

### Table 2: Sample distribution across years and Industries based on ICB classification

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Table 3: Descriptive statistics of all variables.

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<th>Variables</th>
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<th>MEDIAN</th>
<th>SD</th>
<th>MIN</th>
<th>MAX</th>
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<td>0.539</td>
<td>0.532</td>
<td>0.260</td>
<td>0.000</td>
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<td>STOCKRET</td>
<td>4.600</td>
<td>4.600</td>
<td>0.470</td>
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<td>6.900</td>
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<td>GROWTH</td>
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<td>0.360</td>
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Note: For variable definitions, see Table 1.
Table 4: Spearman Correlation Matrix

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<th>ETR</th>
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<th>FOREIGN</th>
<th>GROWTH</th>
<th>LOGTV</th>
<th>SIZE</th>
<th>PROFIT</th>
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<tr>
<td>STOCKRET</td>
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<td>1.000</td>
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<td>0.139**</td>
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Notes: For variable definitions, see Table 1. *** p<0.01, ** p<0.05, * p<0.1
Table 5: The relationships between tax avoidance, corporate governance and CSR.

<table>
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<tr>
<th>VARIABLES</th>
<th>(1) OLS</th>
<th>(2) OLS with BTD</th>
<th>(3) Tobit regression</th>
<th>(4) OLS - ESG index</th>
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<td>YES</td>
<td>YES</td>
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<td>Year Fixed Effect</td>
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<td>YES</td>
<td>YES</td>
<td>YES</td>
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<td>Robust Cluster</td>
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<td>YES</td>
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<td>YES</td>
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Notes: For variable definitions, see Table 1. t-statistics in brackets. *** p<0.01; ** p<0.05, * p<0.1
Table 6: The impact of CSR disclosure on Stock Market Return

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) OLS</th>
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<td>0.262***</td>
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<td>[2.771]</td>
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<td>0.196</td>
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<tr>
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<td>[0.280]</td>
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<tr>
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<td>[0.772]</td>
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<td>[26.180]</td>
<td>[12.20]</td>
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</tbody>
</table>

Observations: 460, 151
R-squared: 0.077, 0.196
Industry Fixed Effect: YES, YES
Year Fixed Effect: YES, YES
Robust Cluster: YES, YES

Notes: For variable definitions, see Table 1. t-statistics in brackets. *** p<0.01, ** p<0.05, * p<0.1
Table 7: The relationship between tax avoidance, corporate governance and CSR using alternative model specifications

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) Additional control variables</th>
<th>(2) Lagged variable</th>
<th>(3) Second-Stage (Industry as Instrumental Variable)</th>
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<tbody>
<tr>
<td>ETR</td>
<td>-0.086**([-2.188])</td>
<td>-0.055*[1-1.670]</td>
<td>-1.467[1-1.462]</td>
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<td>0.081***[3.073]</td>
<td>0.170**[2.091]</td>
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<td>FOREIGN</td>
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<td>0.035*[1.647]</td>
<td>0.050[1.131]</td>
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<td>SIZE</td>
<td>0.029***[3.021]</td>
<td>0.041***[5.914]</td>
<td>0.057***[3.425]</td>
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<td>0.237**[2.350]</td>
<td>1.251*[1.647]</td>
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<td>CEODU</td>
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<td>INST</td>
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<td>LAGETR</td>
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<td>-0.405***[-4.396]</td>
<td>-0.320**[-2.033]</td>
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</table>

Observations 436 735 735
R-squared 0.267 0.218 0.200
Industry Fixed Effect YES Yes No
Year Fixed Effect YES Yes Yes
Robust Cluster YES YES YES

Notes: For variable definitions, see Table 1. t-statistics in brackets. *** p<0.01, ** p<0.05, * p<0.1