

Integrated reports, external assurance and financial performance

Empirical analysis on North American firms

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Abstract

Purpose – The purpose of this paper is to examine the relationship between integrated reports, external assurance and financial performance for North American firms between 2011 and 2016.

Design/methodology/approach – Corporate websites were examined for disclosures which included both financial and non-financial information. Compustat North America and Global Reporting Initiative (GRI) websites provided additional data for the analysis.

Findings – Using a panel data analysis, the results provide evidence that there is a significant positive association between integrated reports and multiple measures of financial performance. Moreover, this positive effect is enhanced when integrated reports are assured by accounting firms.

Research limitations/implications – There are relatively a small number of firms that do this kind of reporting. A major limitation of the study is the small sample size.

Practical implications – As stakeholders find information in integrated reports relevant, there needs to be standardization on their content and level of assurance. Standard setters and regulators should be involved in setting these standards and assurance guidelines.

Social implications – Although it is clear that there is a cost to firms which produce integrated reports, the benefits to society may outweigh these costs. This may go beyond the benefits to shareholders as they make investment decisions.

Originality/value – According to the knowledge of the authors, this is the first study that examines the impact of integrated reports and external assurance on financial performance for North American firms.

Keywords Corporate social responsibility, Financial performance, External assurance, Integrated report

Paper type Research paper

1. Introduction

There is ample evidence that investors view information in financial statements as value-relevant (Francis and Schipper, 1999). Studies provide growing evidence that investors also consider non-financial information useful in their decisions (Barth and McNichols, 1994; Amir and Lev, 1996; Elliott *et al.*, 2014). One area that continues to be discussed as being value-relevant is the degree to which firms engage in socially responsible actions (Griffin and Mahon, 1997). As an example, Griffin *et al.* (2012) provide evidence that shareholders



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consider information on greenhouse gas emissions in their investment decisions. However, the debate continues on what actions are socially responsible (Dahlsrud, 2008).

Actions included under the broad heading of corporate social responsibility (CSR) can include some behaviors that may be closer to image management than to actually being socially responsible (Bebbington *et al.*, 2008; Gal, 2018; Moir, 2001). Petrenko *et al.* (2016) find evidence of firms disclosing corporate social responsible actions to enhance their image without focusing on financial performance. In support of this view, there are studies indicating that CSR can be used as a marketing strategy (Polonsky, 1995). These CSR disclosures may make firms appear to be more legitimate (Herzig and Schaltegger, 2006), but may not improve their financial performance (Akisik and Gal, 2017; Dhaliwal *et al.*, 2011; McWilliams and Siegel, 2001). This has provided support for arguments that question whether management should really be engaged in actions which may not have a positive impact on financial performance, as their only goal is to maximize shareholder wealth (Friedman, 1970). The fact that there is no consensus on the impact of CSR on financial performance could be owing to two issues. First, in contrast to financial statements, non-financial disclosures are voluntary (Abeysekera, 2008). Second, there is not a single accepted view about actions which are socially responsible (Dahlsrud, 2008; Whitehouse, 2006). This may make it difficult for investors to determine the impact that a firm's CSR actions will have on financial performance.

Providing investors (or any stakeholders) with better or more relevant information can certainly reduce asymmetry, uncertainty and therefore risk (ACCA, 2017a; Akins, 2018; Cuadrado-Ballesteros *et al.*, 2017; García-Sánchez and Noguera-Gámez, 2017b)[1]. In certain industries, CSR actions may have a particularly significant impact on a firm's future performance. For instance, financial performance of firms in the petroleum industry may be significantly impacted by actions that could be included in a CSR disclosure (Schneider *et al.*, 2011). Thus, both CSR disclosures and financial statements contain information that can be relevant for investors, as they provide different but potentially complementary views of firms' prospects (Flammer, 2013). Therefore, there is a growing call for a single report which integrates these different perspectives (The International Integrated Reporting Council, 2013).

To understand whether investors consider integrated reports (IRs) to be value-relevant, this study examines the relationship between North American firms' IRs and financial performance for the period between 2011 and 2016. The International Integrated Reporting Council (IIRC) has supported the creation of a single report which would combine both financial and non-financial measures (The International Integrated Reporting Council, 2013). However, IRs have a similar issue with CSR reports, in that there is no agreed-upon framework or template for such a comprehensive disclosure (Abeysekera, 2013; McNally *et al.*, 2017; de Villers *et al.*, 2017). To improve the quality of IRs, there are some suggestions that information contained in them meets tests such as materiality, reliability, completeness and consistency (ACCA, 2018). With a central focus of an IR on a firm's value creation activities, there is an argument that these reports should be relevant to investors (ACCA, 2018). While financial statements will have independent assurance, the non-financial information in IRs may not. Therefore, assurance on CSR information and other non-financial information to be included in an IR may increase the use of and credibility of these disclosures by investors.

Certainly, a review of any non-financial disclosure in general, and CSR disclosures in particular, is not required, and so in many cases they are not reviewed. The Global Reporting Initiative (GRI) has called for some assurance on disclosures which use their format (Global Reporting Initiative, 2013). It would seem that a review of any non-financial disclosure would add to its credibility (Holm and Birkholm-Laursen, 2007; Manetti and Becatti, 2009; Martinez-Ferrero and García-Sánchez, 2018). However, there is a question of

how this review would be performed and who should provide this review (Aguinis and Glavas, 2012; Cohen and Simnett, 2015; Simnett and Huggins, 2015). As CSR disclosures have become more prevalent, auditors have added assurance of CSR reports to their practice (O'Dwyer and Owen, 2005). O'Dwyer *et al.* (2011) argue that when auditors add assurance for CSR reports to their practice, this adds to the legitimacy of firms as general assurance providers and also to the legitimacy of this type of assurance. Therefore, the assurance may provide users with a basis for accepting the firms' CSR disclosures without looking at the detail (Akisik and Gal, 2014). This is similar to findings which suggest that users of financial statements focus on the review about financial performance (Asare and Wright, 2012; Schaub, 2006).

This study is the first to examine the relationships between IRs, external assurance and financial performance. It makes four major contributions to the literature. First, as a relatively new concept, there has not been a great deal of research on IRs (Maniora, 2017). Prior studies generally focus on theoretical issues and survey about IRs (Eccles and Serafeim, 2011; The International Integrated Reporting Council, 2013; KPMG, 2012; Maniora, 2017; Serafeim, 2015). Are IRs really important for financial performance? The goals of this study is to shed light on this issue. Second, the study extends previous research on IRs to the role of external assurance and investigates its impact on the relationship between IRs and financial performance (Dando and Swift, 2003; Eccles *et al.*, 2019; Wallage, 2000). As a third contribution, the study examines whether the credibility and the reliability of CSR reports provided by accounting firms' assurance extends to IRs (Cho *et al.*, 2014). There has been a long-standing debate about the impact of CSR actions on financial performance for firms in certain sectors (Kim and Venkatachalam, 2011). There is evidence that the business operations of firms in pollution-prone sectors are closely screened by stakeholders (Magness, 2010; Thompson and Cowton, 2004). Therefore, many firms operating in these sectors inform stakeholders about their efforts to reduce the negative impacts of their operations on environment and society. The study's fourth contribution is to analyze the relationships between IRs, external assurance and financial performance in pollution-prone sectors.

Data for this study come from various sources. The financial data are from Compustat North America, and the non-financial data about CSR reviews come from the GRI website. In addition, data on IRs and their assurance are hand-collected. Using a panel data fixed effects model for the period between 2011 and 2016, the results show that IRs are positively and significantly related to financial performance, and that this positive relationship is enhanced by external assurance provided by accounting firms. Furthermore, when the analysis is replicated for pollution-prone sectors similar results are obtained.

The remainder of the paper is organized as follows. Section 2 examines literature on stakeholder theory as it relates to IRs and the impact of assurance on these reports. Section 3 develops hypotheses. Section 4 presents the methodology and econometric model. Section 5 discusses the results of empirical analyses, including robustness tests and additional analyses. Finally, Section 6 presents conclusions and implications.

2. Literature review

2.1 Integrated reports and stakeholders

Arguments are made that a firm's only responsibility is to provide relevant information to shareholders as they provide the capital necessary to run the firm (Friedman, 1970). Some studies have concluded that altering the firm's business practice to become more socially responsible will diminish financial performance (Griffin and Mahon, 1997). While this argument may suggest that firms only need to disclose financial information, as this provides value-relevant information for investors, there are at least two arguments to suggest that additional disclosures are appropriate. First, there is evidence that shareholders

find additional information to be value-relevant; this will impact their investment decisions (Francis and Schipper, 1999). A second argument, and just as compelling, is that other groups of stakeholders have a legitimate stake in the firm's future, and therefore, they have an interest in disclosures that are relevant to their position in the firm. One type of additional information stakeholders consider relevant to their decisions falls under the broad heading of social responsibility disclosures

Shareholders have an interest in the future of the firm and the risk to their invested capital (Gamble and Kelly, 2001). While information in financial statements can help investors evaluate certain types of risk, information contained in CSR reports may also be useful for determining credit risk and therefore returns to shareholders (García-Sánchez and Noguera-Gámez, 2017a). For instance, Heyes (1996) finds that firms with higher potential for environmental damage can be charged higher interest rates. In a later study, Thompson and Cowton (2004) determine that lenders increase the scrutiny of firms with higher environmental risk. Thus, disclosures which indicate control over potential environmental risk may prove beneficial to shareholders, as these actions can reduce certain costs of doing business (Cormier *et al.*, 1993). Therefore, boards of directors are increasingly making additional disclosures about the firm's social responsible activities (Frías-Aceituno *et al.*, 2013). It is evident that shareholders are interested in CSR disclosures, as these may impact their returns. However, other stakeholders may also find this information useful.

Despite the arguments of Friedman (1970), there are views that firms should consider the needs or concerns of a broader group of stakeholders. The relationship between a firm and the needs of its stakeholders can be quite complex, as there are many different types of stakeholders and therefore different ways to engage them (Friedman and Miles, 2002; Scholtens and Zhou, 2008). Furthermore, supporting the needs of one group of stakeholders may be detrimental to another (Köbberling and Wakker, 2004). For example, an attempt to alter a firm's operations to meet the needs of any particular group of stakeholders could reduce their ability to provide long-term employment and meet the needs of employees. However, Gibson (2000) argues that there is a moral basis for firms to consider more than just shareholders in their operational decisions. Stakeholder theory suggests that there are ways to measure performance other than financially and to support many views of the firm's role in society (Freeman, 1984; Friedman and Miles, 2002; Kaler, 2006; Polonsky, 1995). To evaluate the impact of a firm's actions directed at different stakeholder groups, it is important to match specific socially responsible actions to specific groups of stakeholders when looking for performance measures (Wood and Jones, 1995). For instance, providing products that meet the needs of customers may produce loyalty and therefore an increase in sales for those products (Brown and Dacin, 1997; Madden *et al.*, 2012; Öberseder *et al.*, 2013; Romani *et al.*, 2013). This increased loyalty may also provide sustainable financial results. Campbell (1997) suggests that a shareholder view of performance will result in a short-term view of performance, and that a broader stakeholder perspective will allow a firm to survive and be successful in the long term. This is similar to the view of customers as stakeholders who provide long-term support for a firm that provides products which meet their needs. Stakeholder theory argues that firms, which consider more than just shareholders in their operations, will receive support from a variety of stakeholder groups (Freeman, 1984; Friedman and Miles, 2002). In addition to considering these multiple stakeholders, disclosure of information relevant to them is critical.

For socially responsible firms to receive support from stakeholders, there is a need to make them aware of the firms' CSR activities. Herzig and Schaltegger (2006) argue that firms can appear to be a more legitimate member of society by disclosing their non-financial results. As these disclosures are voluntary and concern activities that are generally not

legally required, this signals a desire to communicate with a broader group of stakeholders and an attempt to be viewed as a legitimate member of society (Benn and Bolton, 2011; Carroll and Shabana, 2010; Hockerts and Moir, 2004). Thus the management's decision to adopt a stakeholder view of the firm's goals and to provide additional disclosures can be seen as an attempt to change the society's view of the firm.

A concern in earlier discussion is that stakeholders have difficulty in relating CSR information to a variety of performance measures. While this concern may be particularly relevant for shareholders, other stakeholders may be interested in the long-term viability of the firm and how CSR actions may impact its future (Cahan *et al.*, 2016; Martínez-Ferrero and García-Sánchez, 2017). For this reason (and potentially others), there has been a growing call for management disclosure which would integrate both financial and non-financial information (Eccles and Krzus, 2010, 2014; Eccles *et al.*, 2015).

An IR is a corporate report which combines the multiple, "[...] factors that materially affect the ability of an organization to create value over time" (The International Integrated Reporting Council, 2013, p. 2). Early in the process of advocating for an IR, The International Integrated Reporting Council (2003) argues that this disclosure would be a concise communication about how a firm's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term. Because the IRs would include information from multiple sources, there are some studies that consider it a complement to these sources (ACCA, 2013; Remgro, 2017). The creation of a single report, which combines alternative sources, allows boards to make decisions about which disclosures are appropriate (Abeysekera, 2008; Frias-Aceituno *et al.*, 2013)[2]. This raises an issue about the format of an IR, which is similar to the issue that was considered when disclosure of CSR information was just beginning[3]. Therefore, there are discussions about creating a format for IR (Abeysekera, 2013),

Advocates of IRs indicate that these single reports will focus on value creation and therefore the future success of the firm (ACCA, 2018). The focus on IRs is on combining multiple sources of information on the firm's value and strategies. Thus an IR improves communication from the management and would be particularly relevant to investors (ACCA, 2017b; Cuadrado-Ballesteros *et al.*, 2017; García-Sánchez and Noguera-Gámez, 2017b). Although there are perceived benefits to integrating both financial and non-financial information in a single report, IRs have also been subject to some of the same criticisms that were leveled at CSR reports (Cuadrado-Ballesteros *et al.*, 2017).

Because IRs are still in their infancy, there is a need for research both on its format and for guidance on their preparation (Adams and Narayanan, 2007; de Villers *et al.*, 2017; Martínez-Ferrero *et al.*, 2018). The lack of guidance on the content of IRs makes them difficult to prepare (Chaidali and Jones, 2017; Maniora, 2017; Velte and Stawinoga, 2017). As IRs do not have an agreed-upon format, early adopters may be seen as being more legitimate and socially responsible than late adopters (Arguelles *et al.*, 2017; Frias-Aceituno *et al.*, 2014). This is similar to the benefit attributed to firms with a long history of CSR disclosures as the willingness to provide socially responsible information improves a firm's perceived integrity (Vanhamme and Grobben, 2009). While producing IRs may be difficult for firms, there is some reason to believe that investors will find these reports value-relevant. Investors may benefit from IRs because they can reduce information asymmetry about the impact of non-financial information on financial performance (Cosma *et al.*, 2018; Cuadrado-Ballesteros *et al.*, 2017; Frias-Aceituno *et al.*, 2013; Martínez-Ferrero and García-Sánchez, 2017; Schadewitz and Niskala, 2010). However, because the content of IRs makes them attractive to investors, the assurance of the information contained becomes critical (ACCA, 2017b, Eccles *et al.*, 2019; Moroney *et al.*, 2012).

2.2 Assurance of CSR disclosures and integrated reports

Firms have been required to disclose financial information for some time (United States Congress, 1934). In contrast to social responsibility and sustainability disclosures, financial statements have a very specific format and set of procedures to provide assurance. Any firm, which wants to maintain a positive image with its broad group of stakeholders, must provide some form of sustainability disclosure (EY, 2014). Because disclosures of socially responsible actions can be important for different stakeholders, there has been a call to include some level of assurance (Monaghan, 2004). The GRI has called for some type of assurance (preferably a third-party) of CSR disclosures (Global Reporting Initiative, 2013). Cuadrado-Ballesteros *et al.* (2017), Hodge *et al.* (2009), Holm and Birkholm-Laursen (2007) and Simnett *et al.* (2009a, 2009b) confirm that some level of assurance provided by an auditor, industry specialist or engineering firm establishes the credibility of the CSR disclosure (Akisik and Gal, 2014; Martínez-Ferrero and García-Sánchez, 2018; Martínez-Ferrero *et al.*, 2018). Assurance of CSR disclosures may also add to stakeholders' understanding of it because of the nature of the data contained in these reports.

The information in CSR disclosures is varied because it is compiled for a broad group of stakeholders with diverse interests and so can be difficult to interpret (Adams and Narayanan, 2007). Therefore, assurance on their CSR disclosure is critical for stakeholders for interpreting their complex and technical content (Morsing *et al.*, 2008; Schneider *et al.*, 2011). CSR disclosures are not mandatory and so their assurance is also not required. However, researchers argue that users would place more reliance on these reports if they were assured (Casey and Grenier, 2015; Bagnoli and Watts, 2016). Similarly, the assurance of IRs could also make them more accepted (Cheng *et al.*, 2014) as a credible source of information (Baron, 2014; Cheng *et al.*, 2015; Hodge *et al.*, 2009; McCuaig, 2010; Serafeim, 2015). Investors, who are viewed as the primary users of IRs, may be particularly interested in assurance of these reports (ACCA, 2017b). However, any independent assurance of IRs would increase fees corporations already pay for assurance services, so boards must see assurance as providing benefits to shareholders despite potential for this cost to be seen as a negative value (ACCA, 2018; García-Sánchez *et al.*, 2019)[4]. The additional costs could create a tension between certain stakeholders who would value an IR which combines many indicators of the potential for future success and shareholders who would be reluctant to pay for assurance of IRs. This would be particularly relevant when firms may have already hired an independent party to provide assurance for financial statements and CSR reports. The development of an IR does include information from these two sources, and therefore, a significant portion of the IR already has some level of assurance. It may be expected that firms that have their CSR reports assured by third-party assurance providers are likely to issue IRs (Sierra-García *et al.*, 2015). In addition, there is evidence that users view more complex IRs as more reliable (du Toit, 2017), but this could make them less readable. While there is no description of the metrics to be used, there has been a call for firms to provide some level of assurance for their IR (Briem and Wald, 2018; Dumay and Dai, 2017). This does raise a potential problem as there is evidence that owing to the complexity of financial statements, investors are more focused on their assurance than on their content (Schaub, 2006). Researchers have also demonstrated that assurance on stand-alone CSR reports has a significant impact on financial performance (Akisik and Gal, 2014, 2017). Therefore, while IRs should provide value-relevant information to investors, their assurance can be expected to provide additional information.

3. Hypotheses development

3.1 Effect of integrated reports on financial performance

The studies about the relationship between CSR performance and stock market effects go back to 1970s (Alexander and Buchholz, 1978; Moskowitz, 1972; Vance, 1975). Prior studies

about the relationship between market performance of common stocks and CSR provide contradictory results. Using UK and US data, [Cox et al. \(2004\)](#) document that a firm's poor CSR performance leads to a reduction in the number of long-term institutional investors holding the stock ([Brammer et al., 2006](#)). [Coram et al. \(2009\)](#) find that non-financial performance indicators significantly affect stock prices. In addition, they provide evidence that an assurance report on disclosure of voluntarily non-financial performance indicators significantly influence stock price estimates. However, this is only for positive non-financial performance indicators, suggesting that the value of assurance is context-specific. In a study for highly ranked (very large) US firms, [Amato and Amato \(2012\)](#) find a positive effect of corporate environmental policy on stock prices. They argue that the positive effect on stock prices could arise from socially conscious investors rewarding these firms by purchasing their stocks or stock purchases by investors who expect positive consumers' responses to firms' products. [Elliott et al. \(2014\)](#) argue that many investors regularly evaluate firms' CSR performance indicators along with traditional financial performance measures when making investment decisions. [Grewal et al. \(2017\)](#) find that firms voluntarily disclosing more information identified by the Sustainability Accounting Standards Board have higher stock price informativeness. For Canadian firms listed on the Toronto Exchange, [Berthelot et al. \(2012\)](#) provide evidence that the disclosure of sustainability reports has a positive impact on investors, indicating that the firms creating CSR reports receive a significant premium in the market. In contrast to this, findings of a study by [Moneva and Cuellar \(2009\)](#) suggest that investors attach a positive value to financial environmental disclosures (those that have an impact on financial performance) rather than environmental disclosures that do not have a direct impact on financial performance. Because CSR information has been found to impact financial performance, there has been a suggestion that an IR which combines both firm's financial information and non-financial information would be valuable to investors.

This leads to the view that IRs can create value-relevant information over the short, medium and long term ([The International Integrated Reporting Council, 2013](#)). While it is argued that IRs primarily address investors, all stakeholders might benefit from them ([Eccles and Krzus, 2014](#); [Velte and Stawinoga, 2017](#)). The few studies on IRs and financial performance indicate that they are positively associated. For example, [Churet et al. \(2014\)](#) find no conclusive evidence that IRs are associated with firms achieving higher performance measured by return on invested capital. However, when analyzing results by sector, they find a positive association between IRs and financial performance in the health-care and information technology sectors. [Knauer and Serafeim \(2014\)](#) provide evidence that firms that engage in integrated thinking and reporting attract long-term investors[5]. [Serafeim \(2015\)](#) documents a positive association between IRs and investor clientele, suggesting that firms' IRs are value-relevant. A number of proponents of IRs argue that IRs are a more effective way of communicating firms' capabilities ([The International Integrated Reporting Council, 2003](#)). This could lead to an increase in performance ([Serafeim, 2015](#)). In light of the views above, the following hypothesis are examined:

H1. Ceteris paribus, IRs are positively associated with financial performance.

3.2 Role of external assurance on the relationship between integrated reports and financial performance

Voluntary disclosures are made and an external assurance on them is adopted only if their benefits outweigh their costs ([Demartini and Trucco, 2017](#)). Even though external assurance might enhance the credibility of CSR reports, it leads to a significant additional cost over and above audit fees, which could negatively affect shareholder value ([ACCA, 2018](#))[6].

However, some authors (De and Sen, 2002; Firth and Smith, 1992) are of the opinion that the cost can be recovered as a result of enhanced credibility because assured reports will have a positive signaling effect to the market (García-Sánchez and Noguera-Gómez, 2017a; Mock *et al.*, 2007).

Besides its cost, the quality of external assurance is also an important factor taken into account by client-firms and stakeholders (Cohen and Simnett, 2015; de Villiers *et al.*, 2014). Is there any quality difference of external assurance in terms of the type of assurance providers? (Ferguson and Pundrich, 2015; Perego, 2009) It is argued that accounting firms, in particular Big-4, have some advantage with respect to the quality of assurance services over other assurance providers (engineering and small consultancy-boutique firms). This is because they provide their services in accordance with well-developed global standards, comply with independence and ethical requirements and have mechanisms to ensure the quality of the engagements (Cuadrado-Ballesteros *et al.*, 2017; Martínez-Ferrero *et al.*, 2018; Simnett *et al.*, 2009b). According to Perego and Kolk (2012), these differences are likely to result from conservative and cautious approaches employed by accounting firms when they assess the extent of assurance that can be provided in the face of disparate and voluntary reporting standards that firms follow when issuing CSR reports (Peters and Romi, 2015).

In contrast to these views, some authors contend that when it comes to “recommendations and opinions” contained in a statement, the assurance services provided by non-accounting firms might be more elaborate and informative, as they possess higher-level expertise of the subject matter (Deegan *et al.*, 2006; Hodge *et al.*, 2009; Mock *et al.*, 2013; Perego, 2009; Simnett *et al.*, 2009a). In other words, in contrast to accounting firms, consultancy firms are believed to focus more on completeness, fairness and overall balance in the opinion statements, which could be favorably regarded by users of these reports[7].

Neither IRs nor their external assurances are required by law in the USA. The IIRC is of the opinion that reliability of information being contained in IRs can be enhanced significantly by systems, such as robust internal control and reporting systems, stakeholder engagement, internal audit and independent external assurance (The International Integrated Reporting Council, 2013). Therefore, in addition to issuing IRs, some firms are also interested in adopting an external assurance to enhance the credibility of the information contained in them. However, it is not clear how external assurance can be conducted. This difficulty arises because there are no widely accepted assurance standards and as it is not clear whether the assurance should be a limited, reasonable or an integrated one. In addition, IRs may take various forms, such as a separately identifiable part of an annual report, a stand-alone report or an expanded management discussion and analysis (Eccles *et al.*, 2019; Maroun, 2017). The motivation behind integrated reporting is transparency and a one-channel communication on firms’ performance. IRs may be considered a business card for the firm both externally and internally (Eccles and Saltzman, 2011). It is argued that accounting firms, in particular Big-4, have made significant investment in developing and offering a variety of CSR services. The strong profile of accounting firms as providers of high-quality professional services in the area of corporate reporting is likely to provide greater appeal to stakeholders on their ability to provide high-quality assurance services of IRs. Moreover, non-accounting assurance providers are generally small firms, limiting their ability to enjoy scale efficiencies (Hodge *et al.*, 2009). Although non-accounting assurance providers may have better expertise in environmental, social and governance issues, stakeholders are more likely to perceive stronger reliability and credibility in IRs if they are accompanied by assurance statements provided by accounting firms (Simnett *et al.*, 2009b)[8]. In light of the views above, the following hypothesis is proposed:

H2. The positive effect of IRs on financial performance is enhanced by external assurance provided by accounting firms rather than by non-accounting firms.

4. Methodology and econometric model

4.1 Data collection

The study uses two main sources of data:

- (1) financial data were obtained from Compustat North America; and
- (2) data about IRs and external assurance providers came from the GRI website.

Furthermore, a verification of the existence of IRs and external assurance for the GRI sample used in the study was independently conducted. This study's sample of financial and non-financial data includes the periods from 2011 to 2016. There were a total of 106 IRs in GRI data. The practice of IRs is a matter of degree. There are firms that are issuing reports that could be considered IRs, but they do not describe them as integrated. Accordingly, in the review of the firms in the sample, any report made by firms containing financial and non-financial disclosures is considered to be an IR (Eccles and Serafeim, 2011). Furthermore, any form of review provided by an external party is viewed as providing some level of assurance. Overall, 19 IRs received assurance from accounting firms (38 per cent); 31 were assured by non-accounting firms (62 per cent).

4.2 Econometric model and variables

To test the hypotheses, we use the following model. In cross-sectional data sets, heteroscedasticity could be an issue. FGLS is a suggested alternative to OLS when there is evidence of heteroscedasticity (Wooldridge, 2006)[9]. So, we test the model below using both OLS and FGLS estimators:

$$\text{FINPERF}_{it} = \alpha_0 + \alpha_1 \text{IR}_{it-1} + \alpha_2 \text{AP}_{it-1} + \alpha_3 \text{IR}_{it-1} \times \text{AP}_{it-1} + \alpha_4 \text{CONTROLS}_{it-1} + \sum \text{INDUSTRY}_{it} + \sum \text{YEAR}_{it} + \varepsilon_{it}$$

4.2.1 *Dependent variables.* Although the findings of previous studies on the relationship of financial performance with CSR disclosures are rather mixed, it would be fairly said that the majority of these studies provide evidence of a positive association between the two (Barnea and Rubin, 2010). In the model, financial performance (FINPERF) is computed by three indicators: stock price growth (GRWSP) (Coram *et al.*, 2009; Edwards and Hilton, 1966), return on equity (ROE) (Artiach *et al.*, 2010; Cormier and Magnan, 2007; Plumlee *et al.*, 2015) and return on assets (ROA) (Artiach *et al.*, 2010; Choi and Wang, 2009; Villalonga, 2004). Although the GRWSP refers to a market-based measure of financial performance, ROE and ROA are accounting-based measures of performance which are used as proxies for support by a broader group of stakeholders.

4.2.2 *Independent and control variables.* All of the independent variables are one-year-lagged and, with the exception of dummies, are measured in natural logarithms[10]. AP refers to a dummy variable for external assurance (ACC = accounting firm or NONACC = non-accounting firm). IR is a dummy variable which takes on a value of 1 if the firm issues an integrated report. IR × AP is the interaction of IR and AP. CONTROLS refer to control variables that consist of financial leverage (LEV) (Bhandari, 1988; Dimitrov and Jain, 2008;

Gomes and Schmid, 2010; Modigliani and Miller, 1958), sales revenue (SALES) (Casey and Grenier, 2015; King and Lenox, 2002; Konar and Cohen, 2001; Rajan and Zingales, 1995), firm size (SIZE) (Becchetti *et al.*, 2008; McWilliams and Siegel, 2000; Orlitzky, 2001), capital intensity (CAPIN) (Elmasr, 2007; Servaes and Tamayo, 2013) and (the lack of) capital efficiency (EFF) (Servaes and Tamayo, 2013). INDUSTRY is a dummy variable for different industries in the sample while YEAR is a dummy variable for years 2011-2016[11].

5. Results of empirical analyses

5.1 Univariate analysis

Descriptive statistics are reported in Table I. For the entire sample in Table I, the mean of GRWSP is 0.043 with minimum and maximum values of -1.810 and 2.510 . SP (stock price) has a mean of \$53.679. Of the two accounting-based measures of financial performance, the mean of ROE is higher than that of ROA (0.205 vs 0.079). IR has a mean of 0.047 , suggesting that nearly 5 per cent of firms in the sample have IRs. The mean of NONACC is higher than that of ACC (0.118 vs 0.077), which implies that non-accounting firms issue more assurance on IRs than accounting firms in the sample. Table I presents the descriptive statistics for firms with and without IRs. Firms that issue IRs have higher GRWSP (0.048 vs 0.042), SP ($\$58.159$ vs $\$53.444$) and ROE (0.509 vs 0.189) than those without IRs. Table I shows that non-accounting firms (NONACC) provide more assurance on IRs than accounting firms (ACC) (0.315 vs 0.164).

Table II displays correlations matrix for the entire sample. The correlation coefficients suggest that there is no multicollinearity[12]. While GRWSP is significantly and negatively correlated with ACC ($\rho = -0.0672$), there is no significant correlation of GRWSP with NONACC ($\rho = 0.0117$). Spearman correlations of GRWSP with ACC and NONACC are similar to those of Pearson ($\rho = -0.0758, 0.0151$). IR is positively and significantly correlated with ROE in both Pearson and Spearman correlations ($\rho = 0.0882, 0.0605$). Moreover, there are significant and positive correlations of IR with EXAS, ACC and NONACC in both Pearson and Spearman correlations. The Spearman matrix also shows a positive and significant correlations of IR with LEV and SALES ($\rho = 0.0581, 0.0945$), which suggests that high financial leverage and/or firms with larger sales revenue are more likely to produce IRs.

5.2 Multivariate analysis

As noted previously, cross-sectional data sets might suffer from heteroscedasticity in their error distribution. Therefore, we start the analysis with a test to determine whether the error term has a constant variance. As the test results suggest a heteroscedasticity issue, we use both OLS with robust (heteroscedasticity-corrected) standard errors and FGLS estimators.

Table III presents the estimation results where the growth rate of stock prices (GRWSP) is the dependent variable. IR is significantly and positively related to GRWSP in Regressions (2), (4), (6) and (8), suggesting that integrated reports issued by firms lead to an increase in stock prices by increasing demand for stocks as a result of a reduction in information asymmetry between owners/managers and shareholders (Cosma *et al.*, 2018; Cuadrado-Ballesteros *et al.*, 2017; Frías-Aceituno *et al.*, 2013; Serafeim, 2015). This provides support for *H1*. To put it differently, investors positively value non-financial disclosures released by managements, particularly when they are combined with financial disclosures in a single report (Berthelot *et al.*, 2012). Moreover, we find that any external assurance (EXAS) is significantly and negatively associated with GRWSP (coef. = $-0.036, p < 0.05$; coef. = $-0.023, p < 0.01$). While external assurance provided by an accounting firm (ACC) is highly significant and negatively related to GRWSP (coef. = $-0.074, p < 0.01$; coef. =

Variables	Observations	Mean	SD	Minimum	Maximum
<i>Full Sample</i>					
GRWSP	1,463	0.043	0.270	-1.810	2.510
SP	1,463	53.679	44.890	0.023	530.925
lnROE	1,437	0.135	0.345	-4.580	4.268
ROE	1,463	0.205	2.130	-10.045	70.385
lnROA	1,462	0.069	0.160	-3.982	0.570
ROA	1,463	0.079	0.103	-1.038	0.768
IR	1,463	0.047	0.212	0	1
EXAS	1,463	0.198	0.398	0	1
ACC	1,463	0.077	0.267	0	1
NONACC	1,463	0.118	0.323	0	1
lnLEV	1,461	0.203	0.118	0	0.637
lnSALES	1,462	9.135	1.567	0.996	13.089
lnCAPIN	1,461	6.831	1.494	2.743	11.803
<i>Sample with IR</i>					
GRWSP	73	0.048	0.197	-0.543	0.713
SP	73	58.159	42.534	1.166	214.4
lnROE	72	0.289	0.475	-0.377	2.248
ROE	73	0.509	1.461	-4.007	8.472
lnROA	73	0.083	0.062	-0.071	0.226
ROA	73	0.089	0.069	-0.069	0.254
IR	73	0.753	0.434	0	1
EXAS	73	0.480	0.503	0	1
ACC	73	0.164	0.373	0	1
NONACC	73	0.315	0.468	0	1
lnLEV	73	0.230	0.089	0.033	0.412
lnSALES	73	9.739	1.123	5.098	11.892
lnCAPIN	73	6.685	1.240	4.401	9.672
<i>Sample without IR</i>					
GRWSP	1,390	0.042	0.274	-1.810	2.510
SP	1,390	53.444	45.013	0.023	530.925
lnROE	1,365	0.127	0.335	-4.580	4.268
ROE	1,390	0.189	2.159	-10.045	70.385
lnROA	1,390	0.068	0.163	-3.982	0.570
ROA	1,390	0.078	0.104	-1.040	0.768
IR	1,390	0.010	0.100	0	1
EXAS	1,390	0.183	0.387	0	1
ACC	1,390	0.073	0.260	0	1
NONACC	1,390	0.107	0.309	0	1
lnLEV	1,388	0.202	0.119	0	0.637
lnSALES	1,389	9.103	1.580	0.996	13.089
lnCAPIN	1,388	6.839	1.506	2.743	11.803

Table I.
Descriptive statistics

-0.073, $p < 0.01$; coef. = -0.078, $p < 0.01$; coef. = -0.075, $p < 0.01$) in Regressions (3), (4), (7) and (8), IR \times ACC turns out to be highly significant and positive (coef. = 0.109, $p < 0.01$; coef. = 0.080, $p < 0.01$; coef. = 0.125, $p < 0.01$; coef. = 0.069, $p < 0.01$), confirming $H2$. The negative association of ACC with GRWSP may be due to the high cost of external assurance provided by accounting firms. This view is supported by Briem and Wald (2018) who report that clients do not have their IRs assured because of high assurance costs [13]. The positive coefficient on the interaction suggests that even if external assurance by accounting firms is

	GRWSP t	lnROE	lnROA	IR	EXAS	ACC	NONACC	LEV	SALES	CAPIN
GRWSP		0.2401*	0.2804*	0.0166	-0.0459*	-0.0758*	0.0151	0.0121	0.0684*	-0.1406*
LnROE	0.1857*		0.6653*	0.0605*	-0.0369	-0.0689*	0.0191	0.0832*	0.2645*	-0.2999*
LnROA	0.2146*	0.2498*		0.0214	-0.0608*	-0.0501	-0.0276	0.0370	0.1583*	-0.4832*
IR	0.0117	0.0882*	0.0136		0.1780*	0.0452*	0.1748*	0.0581*	0.0945*	-0.0314
EXAS	-0.0426	0.0065	0.0061	0.1768*		0.5870*	0.7322*	0.0024	0.0378	0.0903*
ACC	-0.0672*	-0.0015	-0.0125	0.0618*	0.5912*		-0.1056*	0.0248	-0.0218	0.1037*
NONACC	0.0117	0.0159	0.0208	0.1606*	0.7323*	-0.1011*		-0.0086	0.0694*	0.0197
LEV	0.0231	0.0591*	0.0404	0.0251	-0.0233	-0.0022	-0.0188		-0.0822*	0.0133
SALES	0.0612*	0.1152*	0.2424*	0.0044	0.0509*	-0.0101	0.0749*	-0.0401		0.0118
CAPIN	-0.1027*	-0.1468*	-0.1483*	-0.0283	0.0849*	0.1087*	0.0101	0.0070	0.0026	

Table II.
Correlations matrix

Notes: (*) statistically significant at least at the 10 per cent level. The Spearman correlation coefficients are above the diagonal. Pearson correlation coefficients are below the diagonal

more costly, it might contribute to stock price performance by enhancing the credibility of IRs owing to a reduction in information asymmetry (Frías-Aceituno *et al.*, 2013). It is argued that accounting firms have access to a larger pool of resources to invest in assurance technologies and systems, which could enhance the quality of their services (Martínez-Ferrero and García-Sánchez, 2018). In contrast to the negative impact of ACC on GRWSP, the results show a significant positive association between NONACC and GRWSP in Regression 6 (coef. = 0.016, $p < 0.10$). However, IR \times NONACC is significantly negative in Regressions 6 and 8 (coef. = -0.061, $p < 0.05$; coef. = -0.068, $p < 0.05$), confirming the findings of prior research that financial analysts in North America consider assurance from non-accountants less credible, which could adversely affect the stock price growth (Pflugrath *et al.*, 2011). Overall, the results support the view among academics that investors are interested in non-financial information from CSR reports included in IRs more than ever (Eccles and Krzus, 2010). Furthermore, it can be argued that if firms have their CSR report assured by an external assurance provider and integrate it with audited financial statements in one integrated report, their impact on stakeholder including shareholders will likely be positive, leading to an increase in stock prices (Schadewitz and Niskala, 2010).

In examining control variables, we find significant relationships of LEV, SALES and CAPIN with GRWSP in all regressions, which is consistent with prior studies [14]. In addition, the table includes the values of the variance inflation factor (VIF) and Breusch-Pagan/Cook-Weisberg heteroscedasticity test results. In general, there is evidence of collinearity if the mean VIF is greater than unity or if the largest VIF is greater than 10 (Baum, 2006). Although our mean values of VIF indicate slightly collinearity, the maximum VIF values are less than 10 [15]. The Breusch-Pagan/Cook-Weisberg test for each regression indicates a significant degree of heteroscedasticity, which justifies the use of FGLS [16].

Table IV shows a replication of the analysis in Table III using an accounting-based measure of FINPERF (ROE) as the dependent variable (Marti *et al.*, 2015). There are numerous studies that examine the effect of accounting-based financial performance on social responsibility (Griffin and Mahon, 1997; Orlitzky *et al.*, 2003). The results of regressions are consistent with those in Table III. While IR is significantly and positively related to FINPERF in Regressions (4) and (5) (coef. = 0.019, $p < 0.05$; coef. = 0.143, $p < 0.10$), there is a significant and negative relationship between them in Regressions (1), (2), (7) and (8). In contrast to our findings in Table III, we find EXAS \times IR to be positively and highly

Variables	OLS Reg. 1	FGLS Reg. 2	OLS Reg. 3	FGLS Reg. 4	OLS Reg. 5	FGLS Reg. 6	OLS Reg. 7	FGLS Reg. 8
IR	0.015 (0.028)	0.049*** (0.013)	0.015 (0.025)	0.033*** (0.012)	0.023 (0.024)	0.041*** (0.011)	0.006 (0.028)	0.048*** (0.018)
EXAS	-0.036** (0.017)	-0.023*** (0.008)						
IR × EXAS	0.042 (0.045)	-0.034 (0.022)						
ACC			-0.074*** (0.025)	-0.073*** (0.015)			-0.078*** (0.026)	-0.075*** (0.015)
IR × ACC			0.100** (0.048)	0.080** (0.031)			0.125** (0.050)	0.069** (0.035)
NONACC								
IR × NONACC					0.002 (0.020)	0.016* (0.009)	-0.008 (0.020)	0.006 (0.009)
LEV	-0.015 (0.066)	-0.042** (0.020)	-0.012 (0.065)	-0.047** (0.020)	0.002 (0.052)	-0.061** (0.028)	0.022 (0.054)	-0.068** (0.031)
SALES	0.012** (0.006)	0.014*** (0.002)	0.011** (0.006)	0.013*** (0.002)	-0.011 (0.065)	-0.039* (0.021)	-0.027 (0.065)	-0.062*** (0.019)
CAPIN	-0.014*** (0.004)	-0.012*** (0.001)	-0.014*** (0.004)	-0.011*** (0.001)	0.011** (0.006)	0.012*** (0.002)	0.013* (0.006)	0.013*** (0.002)
CONSTANT	0.043 (0.064)	0.025 (0.023)	0.038 (0.064)	0.024 (0.021)	-0.015*** (0.004)	-0.011*** (0.001)	-0.010*** (0.004)	-0.008*** (0.001)
Observations	1,463	1,463	1,463	1,463	0.052 (0.064)	0.038 (0.024)	0.010 (0.068)	0.008 (0.022)
R^2	0.096		0.099	1,463	0.094	1,463	1,463	1,463
R^2 -adj.	0.090		0.092		0.087		0.098	
Wald test		2012		2,492		1498		2627
Prob > χ^2		0.000		0.000		0.000		0.000
Mean VIF	1.53		1.36		1.45		1.47	
Max. VIF	2.14		1.92		1.93		1.96	
Breusch-Pagan/Cook-Weisberg test	79.82		90.69		87.93		156.18	
Prob > χ^2	0.000		0.000		0.000		0.000	

Notes: Robust standard errors in parentheses (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$). OLS and FGLS refer to ordinary least squares and feasible generalized least squares estimations, respectively. Dependent variable is the growth of stock price (GRWSP). Regressions include industry- and year-fixed effects. All variables are defined in [Appendix 1](#)

Table III.
Regression results

Table IV.
Regression results

Variables	OLS Reg. 1	FGLS Reg. 2	OLS Reg. 3	FGLS Reg. 4	OLS Reg. 5	FGLS Reg. 6	OLS Reg. 7	FGLS Reg. 8
IR	-0.037* (0.020)	-0.025*** (0.008)	0.036 (0.042)	0.019** (0.009)	0.143* (0.078)	0.027 (0.021)	-0.059** (0.028)	-0.030** (0.012)
EXAS	-0.039* (0.023)	-0.021*** (0.004)						0.989*** (0.228)
IR × EXAS	0.393*** (0.105)	0.124*** (0.048)						
ACC			-0.063** (0.032)	-0.035*** (0.006)				-0.034*** (0.006)
IR × ACC			0.909*** (0.226)	0.928*** (0.232)				1.006*** (0.224)
NONACC					-0.016 (0.028)			-0.021 (0.028)
IR × NONACC					0.034 (0.115)			0.105*** (0.026)
LEV	0.257*** (0.094)	0.234*** (0.007)	0.254*** (0.093)	0.221*** (0.008)	0.270*** (0.094)	0.227*** (0.012)	0.240*** (0.090)	0.231*** (0.005)
SALES	0.026*** (0.007)	0.022*** (0.001)	0.025*** (0.007)	0.022*** (0.001)	0.026*** (0.007)	0.022*** (0.001)	0.025*** (0.007)	0.023*** (0.001)
CAPIN	-0.033*** (0.006)	-0.028*** (0.001)	-0.031*** (0.006)	-0.028*** (0.001)	-0.035*** (0.006)	-0.029*** (0.001)	-0.030*** (0.006)	-0.027*** (0.001)
EFF	-0.315*** (0.100)	-0.241*** (0.010)	-0.306*** (0.099)	-0.240*** (0.009)	-0.306*** (0.100)	-0.242*** (0.009)	-0.309*** (0.100)	-0.225*** (0.010)
CONSTANT	0.288*** (0.103)	0.252*** (0.013)	0.273*** (0.103)	0.245*** (0.012)	0.287*** (0.104)	0.254*** (0.013)	0.276*** (0.103)	0.240*** (0.012)
Observations	1,488	1,488	1,488	1,488	1,488	1,488	1,488	1,488
R ²	0.077		0.096		0.065		0.100	
R ² -adj.	0.0700		0.0888		0.0571		0.0916	
Wald test		3980				1651		18058
Prob > χ^2		0.000		0.000		0.000		0.000
Mean VIF	1.50		1.34		1.42		1.45	
Max. VIF	2.21		1.87		1.87		1.98	
Breusch-Pagan/Cook-Weisberg test	712.44		715.04		711.25		714.58	
Prob > χ^2	0.000		0.000		0.000		0.000	

Notes: Robust standard errors in parentheses [*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$]. OLS and FGLS refer to ordinary least squares and feasible generalized least squares estimations, respectively. Dependent variable is the natural logarithm of return on equity (lnROE). Regressions include industry- and year-fixed effects. All variables are defined in [Appendix 1](#)

significantly associated with ROE, suggesting that any external assurance increases the credibility of an IR and therefore positively impacts FINPERF. Similar to our findings in Table III where GRWSP is the dependent variable, the results show a negative relationships of ROE with ACC (coef. = -0.063 , $p < 0.05$; coef. = -0.035 , $p < 0.01$; coef. = -0.065 , $p < 0.05$; coef. = -0.034 , $p < 0.01$). However, in contrast to its association with GRWSP, NONACC is negatively associated with ROE (coef. = -0.011 , $p < 0.01$ coef. = -0.015 , $p < 0.01$). The positive and significant coefficient on IR \times ACC (coef. = 0.909 , $p < 0.01$; coef. = 0.928 , $p < 0.01$; coef. = 1.006 , $p < 0.01$; coef. = 0.989 , $p < 0.01$) in Regressions (3), (4), (7) and (8) again suggests that external assurance by accounting firms on an integrated report affects financial performance positively. Although the results show no significant influence of IR \times NONACC on FINPERF in Regressions (5) and (6), IR \times NONACC is found to have a strong positive effect on FINPERF in Regressions (7) and (8) (coef. = 0.240 , $p < 0.01$; coef. = 0.105 , $p < 0.01$).

In general, the findings for regressions where FINPERF is measured by ROA are similar to those of previous studies. In Table V, there is a positive and significant association between IR and FINPERF in Regressions (2), (4) and (6) (coef. = 0.010 , $p < 0.10$; coef. = 0.009 , $p < 0.01$; coef. = 0.015 , $p < 0.01$). Again, IR \times ACC is highly significant and positively associated with FINPERF in all regressions (coef. = 0.082 , $p < 0.01$; coef. = 0.056 , $p < 0.01$; coef. = 0.092 , $p < 0.01$; coef. = 0.063 , $p < 0.01$). Consistent with estimations from Table IV, NONACC is significantly and negatively associated with FINPERF (coef. = -0.024 , $p < 0.01$; coef. = -0.016 , $p < 0.01$; coef. = -0.026 , $p < 0.01$; coef. = -0.018 , $p < 0.01$). However, IR \times NONACC is found to be positively related to FINPERF in Regressions (6), (7) and (8) (coef. = 0.013 , $p < 0.05$; coef. = 0.041 , $p < 0.05$; coef. = 0.021 , $p < 0.01$). The findings suggest that external assurance provided by either accounting or non-accounting firms appears to contribute positively to the relationship between IR and FINPERF where FINPERF is measured by accounting-based indicators (ROE and ROA).

Overall, regression results are significant and support the hypotheses. Specifically, we find that integrated reports have a positive impact on financial performance, and this impact is enhanced when assurance is provided by accounting firms.

5.3 Robustness tests and additional analyses

5.3.1 Robustness tests. We conduct several robustness tests to ensure that our results are not affected by model misspecification or measurement error. For the sake of brevity, they are not reported. First, we re-estimated our model using first-order autoregressive estimator; second, the model has been replicated using return on common stocks as a proxy for FINPERF. The results are consistent with previous ones. Another potential issue is endogeneity that could arise owing to expanded disclosure policies which take into account other variables besides simple costs and benefits (Cuadrado-Ballesteros *et al.*, 2017; Lee and Yeo, 2016). To detect the probable occurrence of endogeneity, we conduct Durbin-Wu-Hausman test [17]. When the test results suggest that the problem of endogeneity exists, we adopt the GMM approach (Barton and Waymire, 2004). The GMM that yields heteroscedasticity-robust standard errors is widely used in economics and finance studies (Baum, 2006; Baum *et al.*, 2003). The regression results presented in Table VI support those obtained in OLS and FGLS regressions. In two-stage regression where GRWSP is used as the dependent variable, we find that IR has a significant positive effect on GRWSP (coef. = 0.358 , $p < 0.10$). Among the control variables, while STKTRD and GRWSALES have a strong positive effect on GRWSP (coef. = 0.026 , $p < 0.01$; coef. = 0.413 , $p < 0.01$), the impact of GROWTH on GRWSP is negative (coef. = -0.128 , $p < 0.01$). Accordingly, in addition to stock market development, integrated reports and sales are important for the growth of

Table V.
Regression results

Variables	OLS Reg. 1	FGLS Reg. 2	OLS Reg. 3	FGLS Reg. 4	OLS Reg. 5	FGLS Reg. 6	OLS Reg. 7	FGLS Reg. 8
IR	-0.003 (0.013)	0.010* (0.006)	0.007 (0.009)	0.009*** (0.003)	0.014 (0.012)	0.015*** (0.003)	-0.002 (0.013)	0.007 (0.006)
EXAS	-0.022*** (0.007)	-0.013*** (0.002)						
IR × EXAS	0.053*** (0.017)	0.025*** (0.008)						
ACC			-0.014* (0.008)	-0.001 (0.004)				
IR × ACC			0.082*** (0.015)	0.056*** (0.011)				
NONACC								
IR × NONACC								
LEV	0.111*** (0.037)	0.101*** (0.004)	0.113*** (0.038)	0.114*** (0.004)	0.024 (0.016)	0.013** (0.006)	0.041** (0.017)	0.021*** (0.008)
SALES	0.022*** (0.007)	0.018*** (0.000)	0.022*** (0.007)	0.020*** (0.000)	0.113*** (0.037)	0.105*** (0.004)	0.111*** (0.037)	0.100*** (0.004)
CAPIN	-0.023*** (0.002)	-0.021*** (0.000)	-0.024*** (0.002)	-0.022*** (0.000)	0.022*** (0.007)	0.018*** (0.000)	0.022*** (0.007)	0.018*** (0.000)
EFF	-0.505*** (0.120)	-0.432*** (0.007)	-0.501*** (0.119)	-0.445*** (0.007)	-0.024*** (0.002)	-0.021*** (0.000)	-0.023*** (0.002)	-0.021*** (0.000)
CONSTANT	0.272*** (0.025)	0.261*** (0.006)	0.271*** (0.025)	0.252*** (0.004)	-0.504*** (0.120)	-0.433*** (0.007)	-0.505*** (0.120)	-0.430*** (0.007)
Observations	1,513	1,513	1,513	1,513	1,513	1,513	1,513	1,513
R ²	0.363		0.361		0.362		0.364	
R ² -adj.	0.358		0.356		0.357		0.358	
Wald test								
Prob > χ^2		5394		9825		9973		6821
Mean VIF	1.49	0.000	1.33	0.000	1.41	0.000	1.44	0.000
Max. VIF	2.17		1.88		1.89		1.96	
Breusch-Pagan/Cook-Weisberg test	323.55		284.30		291.68		323.68	
Prob > χ^2	0.000		0.000		0.000		0.000	

Notes: Robust standard errors in parentheses (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$). OLS and FGLS refer to ordinary least squares and feasible generalized least squares estimations, respectively. Dependent variable is the natural logarithm of return on assets (lnROA). Regressions include industry- and year-fixed effects. All variables are defined in [Appendix 1](#)

Table VI.
GMM Regression
Results

Variables	2SLS GRWSP		Variables	1st SL SIR	
	Coef.	SE		Coef.	SE
IR	0.358*	0.196	ACC	0.049*	0.028
STKTRD	0.026***	0.006	NONACC	0.081***	0.024
GROWTH	-0.128***	0.039	STKTRD	-0.004	0.010
GRWSALES	0.413***	0.083	GROWTH	-0.025	0.024
IND_DUMMY	-0.105***	0.024	GRWSALES	0.051*	0.028
CONSTANT	-0.634***	0.198	SIZE	-0.000	0.004
			GDPGRW	-0.005	0.025
			EMP_LAG	0.014***	0.005
			LEV_LAG	0.012	0.018
			IND_DUMMY	0.042***	0.008
			CONSTANT	0.065	0.178
Observation		1199			1199
Kleibergen-Paap statistic <i>p</i> -value		0.000			
Hansen J statistic <i>p</i> -value		0.275			
Endogeneity test <i>p</i> -value		0.075			

Notes: Robust standard errors in parentheses (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$). For definitions of variables, see [Appendix 1](#)

stock prices. In the first-stage regression, both ACC and NONACC are found to be positively and significantly associated with IR (coef. = 0.049, $p < 0.10$; coef. = 0.081, $p < 0.01$), suggesting that it is highly probable that firms which produce integrated reports have them assured. Note that both GRWSALES and EMP_LAG have a significant and positive impact on IR (coef. = 0.051, $p < 0.10$; coef. = 0.014, $p < 0.01$), suggesting that an increase in sales and employment leads firms to issue integrated reports.

The GMM estimator provides three statistics to test the validity of the selected instruments. The Kleibergen-Paap statistics is a test of under-identification for determining if the excluded instruments are correlated with the endogenous variable. The Hansen-J statistic is a test of over-identification. The test results indicate a joint hypothesis that the instruments are relevant is accepted. This means that the instruments are uncorrelated with the error term, and that the excluded instruments are correctly excluded from the model. Finally, the endogeneity test statistic suggests that the null hypothesis that the instrumented variable is exogenous should be rejected in all regressions.

5.3.2 Additional analyses. In this section, we conduct two additional analyses. The first of these is about the relationship between integrated reports and financial performance in a pollution-prone sector. The second examines the impact of the quality of CSR information, which is a major component of IR.

5.3.2.1 Pollution-prone sector. It is argued that financial markets might be anticipated to react differently to firms in pollution-prone sectors (Dhaliwal *et al.*, 2011; Klassen and McLaughlin, 1996; Fonseca, 2010). Klassen and McLaughlin (1996) provide evidence that stock prices of firms in “dirty industries,” which have favorable environmental performance, are likely to rise. Similarly, Feldman *et al.* (1997) find that firms that improve their environmental management system and environmental performance increase their stock price by as much as 5 per cent. While firms in pollution-prone sectors do face increased scrutiny around their potential risks, there is also some evidence that they can mitigate some of this perceived risk. Bragdon and Marlin (1972) conclude that for the pulp and paper

industry, there is a strong association between pollution control and good profit record. Thus, it is important for management to produce reports, which emphasize the relationship of financial performance with compliance of environmental regulations, and the firm's efforts in resource conservation and crisis prevention. Therefore, IRs may be of a great interest to stakeholders of firms in pollution-prone sectors, as these help investors evaluate the evidence of a firm's pollution performance[18]. Prior research shows that adopting a more environmentally and socially responsible policy has a significant and favorable impact on firms' perceived riskiness to investors, and accordingly, their cost of capital and value in the market place (Feldman *et al.*, 1997). Moneva and Cuellar (2009) find that investors consider financial rather than non-financial disclosures. Thompson and Cowton (2004) and Goss and Roberts (2011) provide evidence that creditors consider environmental risk in lending decisions. Additionally, firms that are more socially responsible have better conditions to issue equity (Lamont *et al.*, 2001). Besides achieving good performance on environmental issues, it is also important to communicate these achievements to the stakeholders.

IRs provide a more holistic view of business than conventional financial reports by explicitly acknowledging interconnections between environmental, social and financial dimensions of corporate performance (The International Integrated Reporting Council, 2003). The IIRC's integrated reporting framework aims to bring together financial, environmental, social and governance information in a clear, concise, consistent and comparable format (The International Integrated Reporting Council, 2013; de Villiers *et al.*, 2014). External assurance is important to enhance the credibility of environmental disclosures for firms in pollution-prone sectors (Moroney *et al.*, 2012; Simnett *et al.*, 2009b).

In Table VII, regression results of pollution-prone sectors are presented. Consistent with the results for the full sample in Table III, IR is highly significant and positively associated with GRWSP in FGLS regressions with the exception of Regression (4). While ACC is significantly and negatively related to GRWSP in Regressions (3), (4), (7) and (8) (coef. = -0.111, $p < 0.01$; coef. = -0.118, $p < 0.01$; coef. = -0.114, $p < 0.01$; coef. = -0.119, $p < 0.01$), [19] the interaction terms, IR \times ACC are highly significant and positive (coef. = 0.220, $p < 0.01$; coef. = 0.215, $p < 0.01$; coef. = 0.221, $p < 0.05$; coef. = 0.164, $p < 0.01$), suggesting that assurance services provided by accounting firms on IRs are favorably regarded by investors and that the IRs including external assurance affect stock prices positively. On the other hand, the negative coefficient on IR \times NONACC (coef. = -0.117, $p < 0.01$; coef. = -0.075, $p < 0.01$) leads us to think that investors do not value IRs assured by non-accounting firms in pollution-prone sectors positively. We also performed an additional investigation to determine whether firms in the pollution-prone sectors, which produce IRs, are different than those that do not. The comparison of these two groups shows no difference in terms of stock price growth (GRWSP) ($\chi^2 = 1.481$ with 1 df; $p = 0.2235$). However, when an accounting firm provides assurance on IRs, the difference in GRWSP is highly significant (Kruskall-Wallis H test: $\chi^2 = 5.611$ with 1 df; $p = 0.018$).

5.3.2.2 Quality of IR. The quality of CSR information can influence the value of an IR. This quality may be determined by the adherence level of the CSR report, which reflects the extent to which the GRI Sustainability Reporting Framework and GRI Standards are applied to reports (Frias-Aceituno *et al.*, 2014; Garcia-Sánchez and Noguera-Gámez, 2017b; Global Reporting Initiative, 2014). The adherence levels indicate an objective quality based on objectively measurable characteristics of CSR reports[20]. In CSR reports prepared in accordance with GRI, there are three adherence levels: A, B and C. A "+" is added to an adherence level if the report is externally assured and that this assurance is publicly available (García-Sánchez and Noguera-Gámez, 2017b; Global Reporting Initiative, 2014). In

Variables	OLS Reg. 1	FGLS Reg. 2	OLS Reg. 3	FGLS Reg. 4	OLS Reg. 5	FGLS Reg. 6	OLS Reg. 7	FGLS Reg. 8
IR	0.037 (0.042)	0.085*** (0.027)	0.024 (0.031)	0.016 (0.018)	0.049 (0.037)	0.093*** (0.025)	0.023 (0.042)	0.064*** (0.028)
EXAS	-0.057* (0.030)	-0.058*** (0.014)						
IR × EXAS	0.045 (0.064)	-0.023 (0.038)						
ACC			-0.111*** (0.036)	-0.118*** (0.017)			-0.114*** (0.037)	-0.119*** (0.017)
IR × ACC			0.220*** (0.079)	0.215*** (0.052)			0.221** (0.087)	0.164*** (0.057)
NONACC								
IR × NONACC					-0.008 (0.037)	0.012 (0.016)	-0.020 (0.038)	-0.005 (0.014)
LEV	0.008 (0.165)	0.092* (0.053)	-0.004 (0.163)	0.091* (0.049)	-0.016 (0.059)	-0.117*** (0.037)	0.015 (0.063)	-0.075** (0.038)
SALES	0.030*** (0.010)	0.031*** (0.004)	0.029*** (0.010)	0.034*** (0.003)	0.030 (0.162)	0.134*** (0.053)	-0.006 (0.165)	0.088* (0.052)
CAPIN	-0.043*** (0.013)	-0.047*** (0.005)	-0.038*** (0.013)	-0.043*** (0.005)	0.029*** (0.010)	0.030*** (0.004)	0.029*** (0.010)	0.033*** (0.004)
CONSTANT	-0.172 (0.160)	-0.230** (0.091)	-0.183 (0.158)	-0.281*** (0.087)	-0.045*** (0.012)	-0.051*** (0.005)	-0.038*** (0.013)	-0.042*** (0.005)
Observations	534	534	534	534	534	534	534	534
F^2 -overall	0.112		0.116		0.107		0.116	
R^2 -adj.	0.0930		0.0972		0.0877		0.0942	
Wald test		476		2152		547.1		834.6
Prob > χ^2		0.000		0.000		0.000		0.000
Mean VIF	1.48		1.35		1.41		1.42	
Max. VIF	1.89		1.81		1.83		1.85	
Breusch-Pagan/Cook-Weisberg test	116.79		130.56		122.46		130.63	
Prob > χ^2	0.000		0.000		0.000		0.000	

Notes: Robust standard errors in parentheses (*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$). OLS and FGLS refer to ordinary least squares and feasible generalized least squares estimations, respectively. Dependent variable is the growth of stock price (GRWSP). Regressions include industry- and year-fixed effects. All variables are defined in [Appendix 1](#)

Table VII.
Pollution-prone
sectors' regression
results

each year, we classify firms into one of three categories with an ordinal number that takes values between 1 and 3, indicating the adherence level of its CSR reports[21].

Table VIII shows the results of regression analysis that examines the relationship between the quality of CSR reports in terms of adherence level (CSRQUA), IR and one-year (GRWSP), two-year (GRW2SP) and three-year (GRW3SP) growth of stock prices[22]. As noted previously, there is a view among academics that investors pay attention to non-financial information from CSR reports included in IRs more than ever (Eccles and Krzus, 2010), which implies that the quality of CSR reports reinforces the impact of integrated reports on investors' decisions. In all regressions, we find that both CSRQUA and IR are significantly and negatively related to GRWSP, GRW2SP and GRW3SP. However, CSRQUA \times IR turns out to be significantly positive, suggesting that the impact of IR on one-, two- and three-year growth rate of stock prices is positively influenced by the quality of CSR reports. To put it differently, an increase in the quality of CSR reports of firms that also issue integrated reports, using this CSR information, has a significant positive impact on stock price growth both in the short and long run[23].

6. Conclusions

There is a growing interest among stakeholders for firms to provide a disclosure which combines financial and socially responsible information in a single report. This disclosure could provide investors with management's perspective on the impact of socially responsible actions on financial performance. Integrated reports are in their infancy, particularly in the USA. Therefore, the benefits of providing an integrated report to stakeholders need further investigation. This study examines the relationship of integrated reports and external assurance on financial performance for North American firms for the period 2011-2016. The results show a significant and positive association between integrated reports and financial performance. Moreover, this association is enhanced when assurance of the integrated report is provided by an accounting firm. The findings from this study support the IIRC's view that integrated reports with assurance are important to stakeholders. A limitation of this study is the small number of North American firms creating integrated reports, which makes it difficult to reach conclusions about the impact of IRs on stakeholders with certainty. However, the results indicate that there are directions for future investigation.

This study has a number of implications. First, as suggested by our results, some decisions need to be made about the content of integrated reports. For the analysis, any report made by a firm which includes both financial and non-financial information was viewed as an integrated report. Therefore, the study includes reports of varying content and quality. The significant relationship between these reports and financial performance indicates a need to set some standards concerning their content. This is consistent with recommendations made by other researchers (García-Sánchez and Noguera-Gómez, 2017b; Pflugrath *et al.*, 2011). A second implication of this study concerns the value of assurance. It has always been implied that financial statements require a particular level of assurance. The results also indicate that assurance of integrated reports has an impact on stakeholders with a particular emphasis on shareholders. While the results suggest that an accounting firm's assurance is more beneficial, regulators may need to consider the benefits other types of assurance providers can bring to IRs. As the results are also consistent in environmentally sensitive industries, a level of assurance of their integrated reports may also be relevant for policymakers. A third implication is related to the society's access to information in integrated reports. While it is clear that there is a cost to firms which produce integrated reports, the benefits to society may outweigh these costs. This may go beyond the

Variables	GRWSP		GRW2SP		GRW3SP		GRW3SP		GRW3SP	
	OLS Reg:1	FGLS Reg:2	OLS Reg:3	FGLS Reg:4	OLS Reg:5	FGLS Reg:6	OLS Reg:5	FGLS Reg:6	OLS Reg:5	FGLS Reg:6
CSRQUA	-0.066*** (0.016)	-0.057*** (0.004)	-0.139*** (0.034)	-0.123*** (0.013)	-0.196*** (0.054)	-0.194*** (0.012)				
IR	-0.202*** (0.100)	-0.186*** (0.055)	-0.278 (0.218)	-0.294*** (0.109)	-0.072 (0.577)	-0.394* (0.206)				
CSRQUA × IR	0.109*** (0.039)	0.103*** (0.023)	0.181** (0.080)	0.187*** (0.044)	0.128 (0.206)	0.243*** (0.075)				
LEV	0.047 (0.138)	-0.014 (0.044)	-0.243 (0.269)	-0.226*** (0.058)	-0.548 (0.484)	-0.587*** (0.089)				
GROWTH	-0.238*** (0.064)	-0.241*** (0.021)	-0.747*** (0.107)	-0.713*** (0.041)	-1.122*** (0.198)	-1.093*** (0.069)				
SALES	0.015* (0.009)	0.016*** (0.003)	0.016 (0.019)	0.021*** (0.006)	0.006 (0.030)	0.005 (0.006)				
CAPIN	0.011 (0.009)	0.014*** (0.003)	0.053*** (0.016)	0.046*** (0.007)	0.093*** (0.030)	0.091*** (0.006)				
IND_DUMMY	-0.184*** (0.052)	-0.173*** (0.021)	-0.448*** (0.085)	-0.473*** (0.038)	-0.455*** (0.170)	-0.405*** (0.068)				
CONSTANT	0.219** (0.100)	0.176*** (0.033)	0.748*** (0.213)	0.456*** (0.094)	1.007*** (0.366)	0.619*** (0.097)				
Observations	496	496	316	316	171	171				
R ² -overall	0.190		0.282		0.316					
R ² -adj.	0.170		0.256		0.273					
Wald test										
Prob > χ ²		835		149397		4635				
Mean VIF		0.000		0.000		0.000				
Max. VIF	3.22		4.09		6.15					
Breusch-Pagan/Cook-Weisberg test	13.37		17.39		26.41					
Prob > χ ²	70.28		24.29		6.33					
	0.000		0.000		0.000					

Notes: Robust standard errors in parentheses (***) $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. OLS and FGLS refer to ordinary least squares and feasible generalized least squares estimations, respectively. Dependent variable is the one-year (GRWSP), two-year (GRW2SP), and three-year (GRW3SP) growth of stock price. Regressions include industry and year fixed effects. All variables are defined in Appendix 1

Table VIII.
Quality of CSR –
regression results

benefits to shareholders as they make investment decisions. These benefits to society may not be expressly represented in market prices. Integrated reports, which include content describing all of a firm's socially responsible actions, may benefit society in a way not captured in market prices. A future study that investigates the implications of integrated reports in various countries could yield results which suggest ways to improve disclosures to stakeholders.

Notes

1. This is a general agency problem, as asymmetric information is a central issue in any form of communication by management (Jensen and Meckling, 1976).
2. There are some discussions of whether the IIRC is more focused on investors (Flower, 2015).
3. We identified reports which combine financial and non-financial information, but did not have a generally accepted format or name like financial reports (Eccles and Serafeim, 2011).
4. The concern that IRs should provide shareholders with value is seen by some as abandoning the original mandate for these reports to be valuable for society (Eccles and Saltzman, 2011; Flower, 2015).
5. There is no an agreed-upon definition of long term in the finance literature. A three-year period is considered long-term by Serafeim (2015).
6. The results indicate that, in addition to high assurance fees, the perception that the external assurance does not add any value to the report is identified as one factor that causes firms not to seek external assurance (Park and Brorson, 2005).
7. CSR reports' complex nature requires opinions of experts in many different areas, ranging from accounting to economic and financial data and from management to elaborate industrial plans. According to Scalet and Kelly (2010), engineering expertise is necessary to evaluate environmental and chemical data. Considering the complexity of the services, even the consultation of the external experts by the accounting firm, who takes full responsibility for final opinions, might not necessarily add credibility to CSR reports and their assurance (Manetti and Toccafondi, 2012).
8. There is evidence that accounting firms generally prepare higher-quality assurance statements than non-accounting firms (Briem and Wald, 2018; Romero *et al.*, 2014).
9. Generalized least squares (GLSs) estimators are suitable when one or more of the assumptions of homoscedasticity and non-correlation of regression errors fail. Cross-section time-series regressions may have unequal variances. GLS estimation is more efficient than OLS estimation, leading to smaller standard errors, narrower confidence intervals and larger *t*-statistics (Cameron and Trivedi, 2010, p. 153, Beckett, 2013, p. 77).
10. Sustainability (non-financial) reports are usually issued with a time lag of three to six months (Serafeim, 2015). Therefore, we used one-year-lagged values of the independent variables in the estimations.
11. See Appendix 1 for a detailed description of the variables
12. Although some correlations (EXAS, ACC and NONACC) are above 0.50, the variables are not used together in the regressions. Also, it is argued that there is no serious threat of multicollinearity if coefficients of correlations are less than ± 0.80 (Farrar and Glauber, 1967; Judge *et al.*, 1985). In addition to coefficients of correlations, VIFs in tables 4 through 9 also indicate that there is no collinearity.
13. Prior studies find that the cost of assurance provided by accounting firms is usually higher as opposed to other providers (Simnett *et al.*, 2009).

14. While [Gomes and Schmid \(2010\)](#), [Bhandari \(1988\)](#) and [Modigliani and Miller \(1958\)](#) provide evidence that leverage is positively associated with stock returns, [Dimitrov and Jain \(2008\)](#) find a negative association between these two (see [Appendix 2](#)).
15. A rule of thumb states if the maximum VIF is less than 4, there is no need for further investigation ([Baum 2006](#)).
16. After initial results indicate heteroscedasticity, we use the robust estimator of OLS to control the heteroscedasticity ([Baum 2006](#)).
17. Durbin–Wu–Hausman test for endogeneity in IV estimation: $\chi^2 = 47.94$, $\text{prob} \geq 0.0000$. GMM is an effective method used by researchers in case of endogeneity that could give rise to errors in variables, omitted variables and simultaneous causality ([Baum, 2006](#)).
18. Like [Bragdon and Marlin \(1972\)](#), [Spicer \(1978\)](#), also examining pulp and paper firms, find that having better pollution control records has higher profitability, larger size and higher price/earnings ratio.
19. [Simnett et al. \(2009\)](#) argue that there is usually an increased cost associated with external assurance provided by members of the accounting profession as opposed to other assurance providers, and as such client-firms choose which assurance provider to employ based on a cost-benefit analysis. Accordingly, even though an additional assurance entails higher cost, it will be employed as long as its benefit is considered to be greater than its cost. In particular, stakeholders choosing to support firms operating in pollution-prone sectors which face higher environmental and social risks may see higher value in an IR with assurance provided by an accounting firm.
20. There is n generally agreed-upon definition of quality; it has been defined differently by different scholars ([Reeves and Bednar, 1994](#)). While [Abbott \(1955\)](#) and [Feigenbaum \(1951\)](#) define quality as value, [Gilmore \(1974\)](#) and [Levitt \(1972\)](#) describe it as “meeting and/ or exceeding customers’ expectations.” “[...] improvement must be related to some ‘qualities’ or characteristics of products, services, processes, or organizations. Since we are talking of quality ... we make reference to those characteristics that are important for the customers, or the stakeholders, or the company itself” ([Conti, 2003](#), p. 4).
21. See [Appendix 2](#).
22. See Footnote 5
23. Although the maximum VIF values are greater than 4, this results from the interaction terms (see footnote: 14).

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Appendix 1

Variables	Description
FINPERF	FINPERF, which refers to financial performance, is measured by four different variables: GRWSP = stock price growth based on the average of the annual high stock price (SP) and annual low stock price (SP); ROE = The natural logarithm of return on equity [$\ln(\text{net income}/\text{total stockholders' equity})$]; ROA = The natural logarithm of return on assets [$\ln(\text{net income}/\text{average assets})$]; and RET = The natural logarithm of return on common stocks [$\ln((P_t - P_{t-1} + \text{DIV}_t)/P_{t-1})$]*
IR	One-year-lagged dummy variable getting the value of 1 if a firm issues an integrated report and 0 otherwise**
EXAS	One-year-lagged dummy variable getting the value of 1 if a firm has an integrated report assured by a third party assurance provider (accounting or non-accounting firm)**
ACC	One-year-lagged dummy variable getting the value of 1 if a firm gets assurance on integrated report by an accounting firm and 0 otherwise**
NONACC	One-year-lagged dummy variable getting the value of 1 if a firm gets assurance on integrated report by a non-accounting firm and 0 otherwise**
LEV	Natural logarithm of one-year-lagged financial leverage computed by the ratio of total debts to total assets*
SALES	Natural logarithm of sales revenue*
GRWSALES	Annual growth of sales revenue
GROWTH	Natural logarithm of the ratio of book value to one-year-lagged market value of equity (book-to-equity).
SIZE	Firm size measured by natural logarithm of total assets
CAPIN	Natural logarithm of one year lagged capital intensity computed as total assets to total employees ^(*)
EFF	Natural logarithm of one-year-lagged efficiency computed as cost of goods sold to sales ^(*)
EMP	Employment*
GDPGRW	Annual economic growth rate***
STKTRD	Stocks traded total value (% of GDP)***

Notes: *Authors' calculation based on Compustat, **Authors' calculation based on GRI data, ***Authors' calculation based on WDI (World Bank-World Development Indicators)

Table AI.
Definitions of
variables

Adherence level of CSR reports	Rank
Firms that disclose CSR information in accordance with A level of GRI guidelines (i.e. these reports are very comprehensive), and Firms that have an external assurance on their disclosed CSR information in accordance with A level of GRI guidelines (A+).	3
Firms that disclose CSR information in accordance with B level of GRI guidelines (i.e. these reports are complete), and Firms that have an external assurance on their disclosed CSR information in accordance with B level of GRI guidelines (B+).	2
Firms that disclose CSR information in accordance with C level of GRI guidelines (i.e. these reports are very basic), and Firms that have an external assurance on their disclosed CSR information in accordance with C level of GRI guidelines (C+).	1

Notes: In preparing this table, we used the information in the paper by [García-Sánchez and Noguera-Gómez \(2017a, 2017b\)](#)

Table AII.

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