CSR DISCLOSURE: THE MORE THINGS CHANGE . . . ?

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ABSTRACT

Purpose – CSR disclosure is receiving increased attention from the mainstream accounting research community. In general, this recently published research has failed to engage significantly with prior CSR-themed studies. The purpose of this paper is threefold. First, it examines whether more recent CSR reporting differs from that of the 1970s. Second, it investigates whether one of the major findings of prior CSR research – that disclosure appears to be largely a function of exposure to legitimacy factors – continues to hold in more recent reporting. Third, it examines whether, as argued within the more recent CSR-themed studies, disclosure is valued by market participants.

Design/methodology/approach – Using Fortune 500 data from the late 1970s (from Ernst & Ernst, 1978) and a more recent sample (2010), we identify differences in CSR disclosure by computing adequate measures in terms of disclosure breadth and comparing them for any potential changes in the influence of legitimacy factors between 1977 and 2010. In the second stage of our analysis, we use a standard valuation model to compare the association between CSR and firm value between the two time periods.

Findings – We first find that the breadth of CSR disclosure increased significantly, with respect to both environmental and social information provision. Second, we find that the relationship among legitimacy factors and CSR disclosure does not differ across our two time periods. However, our analysis focusing on environmental disclosure provides evidence that industry membership is less powerfully related to differences in reporting, but only for the weighted disclosure score. Finally, our results indicate that CSR disclosure, in apparent contrast to the arguments of the more recent mainstream investigations, is not positively valued by investors.

Research limitations/implications – We explore changes in CSR disclosure only for industrial firms and as such we cannot generalize findings to companies in other industries. Similarly, we focus only on companies in the United States while different relationships may hold in other countries. Further, our disclosure metrics are limited by the availability of firm-specific information provided by Ernst & Ernst. Limitations aside, however, our findings appear to suggest that the failure of the new wave of CSR research in the mainstream accounting community to acknowledge and consider prior research into social and environmental accounting is potentially troublesome. Specifically, recent CSR disclosure research published in mainstream journals often lends credence to voluntary disclosure arguments that ignore previous contradictory findings and well-established alternative explanations for observed empirical relationships.

Practical implications – This paper provides supporting evidence that the unquestioned acceptance by the new wave of CSR researchers that the disclosure is about informing investors as opposed to being a tool of legitimation and image enhancement makes it less likely that such disclosure will ever move meaningfully toward transparent accountability.

Originality/value – Our study suggests that CSR disclosure, while used more extensively today than three decades ago, may still largely be driven by concerns with corporate legitimacy, and still fails to provide information that is relevant for assessing firm value. As such, the failure of the mainstream accounting community to acknowledge this possibility can only hinder the ultimate development of better accountability for all of the impacts of business.

Keywords: CSR disclosure; disclosure changes; Ernst & Ernst; legitimacy theory; market valuation.
Paper type: Research paper

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Introduction

Corporate social responsibility (CSR) disclosure appears once again to be a topic of interest for mainstream accounting[1] researchers (Patten, 2013). For example, *The Accounting Review* (TAR) recently published research on auditing of sustainability reports (Simnett *et al*., 2009) and the impact of CSR reporting on firms' cost of capital (Dhaliwal *et al*., 2011). More recently, the journal included a forum on CSR research in accounting in its May 2012 issue. In the introduction to that forum, current TAR editor John Harry Evans III states "the two forum archival studies document that shareholders have reason to care about CSR disclosures" and also adds that the third contribution to the forum, Moser and Martin (2012), suggests that experimental research could "offer new insight into understanding . . . why firms make the CSR disclosures that they do" (Evans, 2012, p. 721),[2] Moser and Martin (2012, p. 798) also offer additional evidence of the renewed mainstream interest in CSR by noting the (at that time upcoming) conference on corporate accountability reporting hosted by the Harvard Business School in collaboration with *Journal of Accounting and Economics* (*JAE*) held in January of 2013.

Our study is motivated by the Harvard/JAE conference's call for papers,[3] where one of the questions offered as a potential topic of interest was "How does corporate accountability reporting differ from corporate social responsibility of the 1970s . . .?" What we find interesting

[1] For our purposes, 'mainstream accounting' research refers to work published in the three major North American academic accounting research journals, *The Accounting Review*, *Journal of Accounting Research*, and *Journal of Accounting and Economics*.
[2] We would argue that a large body of research, experimental and otherwise (see, e.g., Milne and Patten, 2002), already exists offering great insight into what drives firms to disclose CSR information. But given the oft-cited concerns with the quality of CSR disclosure in the social and environmental literature (e.g., Gray, 2006; Patten, 2012), we question whether shareholders or any other stakeholders really have reason to care.
[3] Accessed at www.hbs.edu/units/am/conferences/2013/corporate-accountability-reporting, July, 2012.

about this research question is that, in addition to its being left unanswered in the studies presented at the conference, a close reading of the articles and papers comprising the recent wave of mainstream interest in CSR suggests the authors are either unaware of, or unwilling to acknowledge, the body of research that investigates both the early CSR reporting and, more generally, corporate social and environmental disclosure over the past three decades.[4] According to Patten (2013, p. 21) the real issue with the mainstream's failure to engage with prior CSR-themed research is that the earlier work "would appear to have substantial implications for the interpretations of the analyses included in the new wave of mainstream papers." While prior research suggests that much of the disclosure appears to be driven by concerns with legitimation and image enhancement (see, e.g., Deegan, 2002; 2007), the new wave seems only to focus on the assumption that the disclosure relates to informing investors.

In this paper, we examine whether more recent CSR reporting does indeed differ from that of the 1970s. Importantly, we investigate whether one of the major findings of prior CSR research – that disclosure appears to be largely a function of exposure to legitimacy factors – continues to hold in more recent reporting, and secondly, whether, as argued within the more recent CSR-themed studies, disclosure is valued by market participants. We do this by identifying differences in CSR disclosure in the late 1970s (using data from Ernst & Ernst, 1978) relative to disclosure from 2010 corporate reports. More specifically, we show, first, that the breadth of CSR disclosure[5] (using un-weighted and weighted measures of disclosure extensiveness) has grown dramatically, both with respect to environmental and social information provision. Second, we also find that, for total CSR reporting, the relationship of

[4] For example, Moser and Martin (2012, p. 797), in a footnote, explicitly state that "there are many other earlier CSR studies published in *The Accounting Review* and in many other accounting journals" but they "do not cite such papers because this commentary is not intended to provide a review of prior CSR work […]".
[5] We use the terms 'breadth' and extensiveness interchangeably, where the terms refer to the number of different categories of environmental and social information disclosed. We discuss these categories in more detail below.

legitimacy factors (firm size and membership in environmentally sensitive industries) to differences in the breadth of disclosure does not differ across our two time periods. However, our analysis focusing on only environmental disclosure provides evidence that industry membership is less powerfully related to differences in the reporting, but only for information weighted for the quality of disclosure. We argue this decrease in association is likely due to the uptake of standalone CSR reporting over the past two decades. Finally, and in contrast to the apparent beliefs of the new wave of mainstream researchers, we find no evidence that CSR disclosure is positively valued by investors. In general, our results suggest that CSR disclosure, while more extensive today than it was three decades ago, may still largely be driven by concerns with corporate legitimacy, and still fails to provide information that is relevant for assessing firm value.

Ideally, we would hope that our findings would be relevant to those new mainstream researchers choosing to explore CSR issues. Realistically, and based on the lack of engagement with the CSR research of the past three decades exhibited in the new wave of mainstream work, we think it is unlikely that the message will reach that audience. However, our results are still important for those non-mainstream researchers who are aware of, and rely on, the prior CSR work, in that they validate the arguments of that literature and suggest that the claims of the new wave must be challenged. We begin by providing background on CSR-themed research in accounting.

Background

While our study is motivated by the recent CSR activity by mainstream accounting researchers, it is important to note that CSR-themed explorations are not new to the mainstream journals. Patten (2013) identifies that a number of papers related to CSR topics were published over the 1970s and early 1980s in journals including *The Accounting Review* (e.g., Anderson and Frankle, 1980; Buzby and Falk, 1979; Ramanathan, 1976, Spicer, 1978) and the *Journal of Accounting Research* (e.g., Ingram, 1978; Ingram and Frazier, 1980). He notes that while some of this early work consisted of papers exploring the expansion of the traditional role of accounting – including an attempt to establish a theoretical framework for corporate social reporting by Ramanathan (1976) – several empirical investigations appear to have been triggered by the changing social disclosure practices of U.S. corporations over the 1970s. For example, Ingram (1978), using Ernst & Ernst (E&E) disclosure survey data, calculated monthly returns for portfolios differentiated on categories of CSR information provided in annual reports and found only weak evidence of a market value for CSR disclosure. Anderson and Frankle (1980) compared portfolios of annual report disclosers and non-disclosers and found that the former exhibited more positive abnormal returns than the latter, but only in the month prior to report issuance. However, after the early 1980s, CSR research disappeared from mainstream journals for more than a decade, and when it re-emerged in the mid-1990s and early 2000s, the focus was exclusively on environmental information and its potential valuation in the market (see, e.g., Barth and McNichols, 1994; Hughes, 2000; Clarkson *et al*., 2004).

Although the mainstream journals were not publishing CSR-themed articles over the 1980s and early 1990s, a substantial body of research on social and environmental disclosure was emerging through other outlets including *Accounting, Organizations and Society*, the *Journal of Accounting and Public Policy*, and *Accounting, Auditing and Accountability Journal*. As noted by Deegan (2002), a dominant theme of this research was the corporate use of the disclosure as a tool of legitimation. Legitimacy theorists (e.g., Deegan, 2002; Lindblom, 1994; Patten, 1991) argue that companies facing social and political pressures may use disclosure in an attempt to reduce these exposures, and numerous studies exploring disclosure over the 1970s through the 2000s document that legitimacy factors including firm size and membership in environmentally sensitive industries appear to explain differences in information provision.[6] Thus, a key argument emerging from this literature is that CSR disclosure appears to be more about image enhancement than meaningful accountability (see, e.g., Gray, 2006; Patten, 2012).

Similar to the earlier works published in the mainstream journals, the new wave of CSR related research by the mainstream accounting community once again seems largely to be driven by changes in corporate reporting practices – in this case, the growth in the use of standalone CSR reports - and it includes a variety of topics related to broader CSR disclosure themes. For example, Simnett *et al*. (2009) look at the impact of both country-level and firm specific factors on the choice to have CSR reports assured and, where assurance is obtained, the choice of assurance provider. Dhaliwal *et al*. (2011) investigate whether the initiation of stand-alone CSR reporting has an effect on disclosing firms' cost of capital, while Dhaliwal *et al*. (2012) focus on a broad sample of international companies and attempt to determine whether the reports lead to increased analyst forecast accuracy. Amongst the papers presented at the Harvard/*JAE* conference, Beatty and Liao (2013) focus on employee-related disclosure by geographic region, while Healy and Serafeim (2013) examine self-reported anticorruption efforts.

Unfortunately, the newest wave of CSR research in the mainstream community fails to engage with, or even recognize, the substantial body of CSR research that precedes it. Patten (2013) notes that, excepting Simnett *et al*. (2009), only two earlier CSR-related studies – Ingram and Frazier (1980) and Roberts (1992) – receive mention in any of the CSR-themed papers

[6] Certainly, other theoretical frameworks related to CSR disclosure emerged over this time. For example, both stakeholder theory and institutional theory have been relied on in numerous studies of CSR disclosure. As Deegan (2007) notes, there is considerable overlap between these theories and legitimacy theory, and exploring this overlap is beyond the scope of this investigation.

published recently in *The Accounting Review* or presented at the Harvard/*JAE* forum. The major problem with this omission is that the disclosure is being myopically viewed as a signaling device to market participants. Dhaliwal *et al*. (2011, p. 62-63), for example, make the claim that "standalone CSR reports likely provide incrementally useful information for investors to evaluate firms' long-term sustainability." Based on both the substantial body of evidence indicating CSR disclosure's use as a legitimating tool and on the oft-cited (within the non-mainstream literature) concerns with the quality of corporate social and environmental disclosure, we question whether shareholders, either in the 1970s or more recently, would have any reason to care about the information being provided. Accordingly, in this study, we turn to the unanswered question from the Harvard/*JAE* call for papers and explore whether CSR disclosure today differs from that of the 1970s and, importantly, whether investors across either period appear to value the practice.

Hypothesis Development

For several years over the 1970s, the accounting firm of Ernst & Ernst compiled a survey of corporate CSR disclosure included by the Fortune 500 industrial firms in their annual reports. Certainly, one of the most important findings of these surveys was that the extent of CSR disclosure appeared to be growing over time but varied dramatically across firms. The last of the reports, Ernst & Ernst (1978) was based on disclosures in 1977 annual reports and contained detailed information on the areas of CSR disclosure for each of the surveyed companies. We rely on this source for disclosure data in the late 1970s and as we discuss in the methods and results section below, we hand compile disclosure data for a similar sample of U.S. companies based on their 2010 annual reports, and where issued, stand-alone CSR reports.[7] Our concern in this investigation is to identify differences in CSR disclosure across the two periods relative to

[7] Buhr (2007) notes that the practice of stand-alone CSR reporting by U.S. companies started in the early 1990s.

(1) the breadth of the disclosure, (2) the factors that explain differences in disclosure across firms, and (3) the relationships, if any, of the disclosure to firm valuation. We separately provide our expectations for differences across these areas below.

Has the breadth of CSR disclosure changed?

The first intent of our investigation is to identify whether the breadth of CSR disclosure differs in 2010 compared to 1977. We believe there are several reasons for expecting the breadth of CSR disclosure to have increased. First, and related to environmental information, the 1980s saw substantial changes in environmental regulation in the U.S. Of particular relevance are the passage of the Comprehensive Environmental Response, Compensation, and Recovery Act of 1980, better known as the Superfund legislation, and the adoption of the Superfund Amendments and Reauthorization Act (SARA) six years later. The Superfund legislation addressed companies' responsibilities for remediation of hazardous waste sites and ultimately led to recognition of significant environmental liabilities by affected firms (Cahan *et al*., 1997). And while SARA also had implications for hazardous waste-related liabilities, a major aspect of the law centered on the creation of the Toxics Release Inventory (TRI). As noted by Wolf (1996), TRI required, for the first time, manufacturing companies to report to the Environmental Protection Agency estimates of toxic chemicals released into the environment.

Almost certainly as a result of the changing institutional environment, standard-setting bodies in the U.S. substantially increased the guidance and the requirements for financial report disclosure over the late 1980s and early 1990s. For example, the Securities and Exchange Commission, The Financial Accounting Standards Board (FASB), and the American Institute of Certified Public Accountants all issued authoritative guidance related to recognition of environmental liabilities over this period, and prior studies (e.g., Barth *et al*., 1997; Patten, 2000;) document increased disclosure of these exposures. Further, Cho and Patten (2008) indicate that a growing number of U.S. firms continued to adopt the reporting of environmental liability information over the mid-2000s. Because Patten (2000) shows that increased disclosure of environmental exposure information is associated with increases in other, more positive pieces of environmental information, we expect environmental disclosure to be higher in 2010 than in 1977.

In contrast to the environmental domain, the institutional environment with respect to other aspects of corporate social impacts remained relatively unchanged since the late 1970s. Almost all of the legislation related to employee health issues, product safety, and equal employment opportunity were already in place by the mid-1970s, and standard setting bodies in the U.S. issued no pronouncements or guidance with respect to disclosure of social-oriented issues. However, other factors may still have influenced corporate disclosure of social (as well as environmental) impact information, and we identify these factors in more detail below.

One of the most important developments in driving our expectations for increased CSR disclosure is the creation of the Global Reporting Initiative (GRI) and the growth in stand-alone CSR reporting. Established through a joint effort between the United Nations Environmental Program and the Coalition for Environmentally Responsible Economies in the late-1990s, GRI offers guidelines for CSR disclosure across not only environmental, but also social dimensions. Ballou *et al*. (2006, p. 66) argue that the GRI guidelines are "the most dominant" in the world, and they claim that nearly 1,000 organizations world-wide were following GRI by 2006. Perhaps owing to the influence of GRI, considerable evidence indicates that the practice of CSR reporting through separate stand-alone reports has grown dramatically over the past decade.[8] For

[8] Although not necessarily a function of the GRI, KPMG (2005) also indicates that the number of Global 250 companies including CSR information in their annual reports was increasing over the early 2000s.

example, KPMG, in its 2011 survey of CSR disclosure, reports that 95 percent of the Global 250 had issued some type of stand-alone CSR report over its period of investigation (KPMG, 2011). Other studies (e.g., Brown *et al*., 2010; Dhaliwal *et al*., 2011; Patten, 2012) note the practice is not limited to only the world's largest companies.[9] We anticipate that the growth of disclosure guidance and the proliferation of stand-alone CSR reporting will have led to increased extensiveness in the disclosure of CSR information across both the environmental and social areas.

A third factor that we argue increases the likelihood for increased CSR disclosure is the substantial increase in the social responsibility investment segment of the market. Although, as pointed out by Haigh and Hazelton (2004), social responsibility investment funds date back to at least the early 1970s in the U.S., they did not become a substantial component of the overall investment market until relatively recently. To illustrate, Social Investment Forum data indicate that social responsible investment assets grew from $639 billion in 1995 to just under $2.3 trillion a decade later (Dhaliwal *et al*., 2012; Holder-Webb *et al*., 2009), Importantly, Dhaliwal *et al*. (2011, p. 62) argue that socially conscious investors are willing to pay a premium for socially responsible firms, thus increasing firms' incentives to appear socially responsible. One way firms can increase their appeal to this segment of the market is to project an image of social responsibility, and as such, we argue that the desire to tap into this market also will lead to increased CSR disclosure over time.

Finally, and perhaps related to the justifications noted above, we believe the establishment of organizations and agencies that evaluate and rank companies on their CSR performance also will have led to increased CSR disclosure. Rating organizations such as

[9] For example, Patten (2012, p. 19) documents that, based on information from CorporateRegister.com, more than 800 U.S. organizations have issued a stand-alone CSR-type report.

Kinder, Lydenberg, Domini Research and Analytics (KLD) attract considerable attention and publicity worldwide (Chatterji *et al*., 2009), They seek to make corporate social initiatives more transparent by analyzing companies' plans and investments in the social and environmental domain, and as such rely, at least partly, on company-provided CSR disclosures. Similarly, disclosure appears to play a role in company inclusion in socially responsible indexes such as the Dow Jones Sustainability Index and the FTSE4Good (Cho, Guidry, Hageman, and Patten, 2012). Because CSR ratings and index membership can promote improved stakeholder relationships (Cooper and Owen, 2007) and lead to inclusion in social responsibility investment funds, firms seeking better ratings and increased likelihood of membership in the indexes have an incentive to increase their CSR disclosure.

Based on the justifications laid out above, we state our first hypothesis in null form as:

H_1: The breadth of corporate CSR disclosure will not differ across the 1977 and 2010 periods.

Given the substantial changes in environmental regulations over the 1980s in comparison to the lack of change regarding social legislation described above, we further refine this hypothesis across the environmental and social components of disclosure as follows:

H_{1a}: The breadth of corporate *environmental* disclosure will not differ across the 1977 and 2010 periods.

H_{1b}: The breadth of corporate *social* disclosure will not differ across the 1977 and 2010 periods.

Have factors explaining differences in CSR disclosure across firms changed?

As noted by Patten (2002), the variation in CSR disclosure revealed by the Ernst & Ernst surveys (and other studies) led to a number of investigations attempting to explain the differences across firms. And while a variety of theoretical lenses have been applied to these analyses (see, e.g., Gray *et al*., 1995), legitimacy theory is often recognized as the most dominant (e.g., Deegan, 2002; 2007), Proponents of legitimacy theory argue that companies use CSR disclosure to address exposures in the social and political environment and as such, they posit a positive association between social exposure and the extent of CSR disclosure (Patten, 1991; 1992; Hackston and Milne, 1996). Patten (2002, p. 765) notes that firm size and industry membership are the two factors most consistently shown to be related to differences in CSR disclosure, and we argue that empirical evidence suggests no changes in their association to CSR disclosure over time. Cowen *et al*. (1987) used disclosure data from Ernst & Ernst (1978) and reported firm size and membership in various environmentally sensitive industries as the factors most consistently explaining differences in the disclosure. Similar associations have since been reported for CSR disclosures by U.S. companies in the 1980s (Patten, 1991), the 1990s (Gamble *et al*., 1995; Patten, 2002), and the 2000s (Holder-Webb *et al*., 2009; Cho, Freedman, and Patten, 2012). Given the consistent findings over time, we expect the relationship of legitimacy variables to differences in CSR disclosure to remain unchanged from 1977 to 2010. We state this hypothesis in null form as:

> H_2: Ceteris paribus, the relationship between organizational legitimacy and the breadth of CSR disclosure will not have changed from 1977 to 2010.

Has the relationship between CSR disclosure and firm value changed?

The third purpose of our study is to investigate for any change in the degree to which CSR information appears to be valued in the marketplace. In contrast to examinations of the extent of CSR disclosure and the factors that explain differences in it, explorations of the market value of CSR disclosure are more limited and do not provide a consistent signal regarding potential impacts. Several early studies investigated the market reaction to annual report CSR disclosure and relied on information compiled by Ernst & Ernst in its annual surveys of CSR disclosure (e.g., Ernst & Ernst, 1978) to identify sample companies and their choice to disclose.

Belkaoui (1976), for example, used a monthly return model and tested for differences in market reaction at the time of issuance of annual reports for a sample of 50 firms identified by Ernst & Ernst as having pollution control disclosures versus a control group of non-disclosing companies. Belkaoui reports more positive returns for the disclosing firms. Ingram (1978), based on a larger sample and noting differences in disclosure across both social and environmental areas, finds no significant market reaction for his sample of disclosing companies overall. However, controlling for the sign of unexpected earnings and partitioning across industry subsets, Ingram does report some limited positive market reactions associated with aspects of CSR disclosure. Finally, Anderson and Frankle (1980) control for differences in firm-specific market risk and also examine for market reactions at the time of annual report issuance. Using a broad sample drawn from the Ernst & Ernst surveys, they report significant positive market reactions for CSR disclosing companies vis-à-vis non-disclosing counterparts, but primarily only for the month preceding annual report releases. Part of the problem with these early market studies of CSR disclosure is that, because the focus was on annual report disclosure of the information, results were likely confounded by other information.[10] In contrast, a more recent investigation of the market effects of CSR reporting (Guidry and Patten, 2010) examines reactions at the time of press releases announcing the first-time issuance of stand-alone CSR reports (where firms with confounding information announcements were excluded), Guidry and Patten (2010) report positive market reactions over a three-day event period centered on the press release date, but only for firms with more extensive disclosure.

Focusing more specifically on differences in firm valuation (as opposed to one-time market effects), two recent non-U.S. studies, Murray *et al*. (2006) and Jones *et al*. (2007), examine whether differences in social and environmental disclosure have long-term effects.

[10] Of course, the use of monthly returns also introduces problems with respect to confounding events.

Murray *et al*. (2006) report no significant short-term associations between CSR disclosure and market valuation for a sample of U.K. firms, but they do find that over a nine-year period of time, higher levels of disclosure appear to correlate with higher market valuation. In contrast, Jones *et al*. (2007), relying on a sample of Australian companies, find that CSR disclosure appears to be negatively, but only weakly associated with longer-term market valuation effects.

Although not focusing on CSR disclosure, several recent studies of environmental performance also provide potential justification for expectations that CSR information might be reflected in firm value. Hughes (2000, p. 210) claims that costs likely to be incurred in the future to address environmental performance issues often fail to meet the FASB Statement No. 5 requirements that they be "reasonably estimable." As such, he argues, they are usually not recognized in the financial statements. However, because these costs can be substantial, they could be expected to impact firm value. Relying on models controlling for the impacts of the book value of assets and liabilities, these studies examine whether differences in the market value of equity are related to future environmental cost exposures. Within this area, Barth and McNichols (1994), show that publicly available information on companies' exposures to investigations under the Superfund legislation are reflected as value-relevant unrecognized liabilities for affected firms. Similarly, Hughes (2000) finds that differences in sulfur dioxide emissions as reported by the Department of Energy for publicly traded utility companies targeted for reduction goals under the 1990 Clean Air Act Amendments (CAAA) are associated with differences in the market value of those firms. Finally, Clarkson *et al*. (2004) use two different measures of corporate environmental performance compiled by the EPA to partition their sample of pulp and paper companies into high-polluting and low-polluting sub-samples, and, consistent with both Barth and McNichols (1994) and Hughes (2000), their results indicate the market assesses a statistically significant unbooked liability for the high polluting firms.

In general, Barth and McNichols (1994), Hughes (2000), and Clarkson *et al*. (2004) all present evidence suggesting the market captures at least environmental performance information made available through non-company sources. If CSR disclosures provide meaningful information allowing investors to infer social and environmental performance (see, e.g., Dhaliwal *et al*., 2012), we would expect more extensive information provision to be associated with differences in firm value. Further, to the extent that we find expanded disclosure in our later period, we would also anticipate differences in disclosure in 2010 to be more closely associated with differences in firm value than for the 1977 period. However, CSR disclosure has been widely criticized as *not* providing meaningful information. Gray (2006, p. 803), for example, argues that "the vast majority of corporate reporting practice is . . . voluntary, partial, and, mostly, fairly trivial," and "with such data, no reader could make any kind of reliable estimate of the organisation's social or environmental performance." Thus, it is not clear that CSR disclosure should be expected to relate to firm value.

Based on the mixed evidence cited above, we offer our hypotheses related to CSR disclosure and firm value in null form. We state these as:

H_3: Ceteris paribus, differences in CSR disclosure are not related to differences in firm value.

H_4: Ceteris paribus, the relationship between CSR disclosure and firm value will not differ across the 1977 and 2010 periods.

Methods and Results

Sample Identification

Two major issues influence sample selection. First, while the Fortune 500 on which the 1978 E&E survey was based included only industrial firms, more recent Fortune 500 listings include other types of companies including financial services firms, utilities, transportation companies, and retailers. Numerous studies indicate that CSR disclosure differs across industry sectors, and accordingly, to assure comparability, we focus our 2010 analysis only on industrial companies from sectors similar to those used by E&E for its 1978 survey.[11] As such, 280 of the Fortune 500 companies from 2010 were eliminated due to industry sector. Moreover, we also consider potential comparability issues driven by the size of the companies since numerous studies indicate firm size influences CSR disclosure. We thus focus only on the 250 largest companies included in the 1977 Fortune 500 industrials, two of which were not included in the E&E analysis. The second major factor influencing sample selection was the availability of financial data through the WRDS database. In total, seven firms from 2010 and 43 companies from 1978 either were not available in the database or had missing data. As such our final sample consists of 213 industrial firms from 2010 and 205 from 1977. Only 71 companies are included in both years.

CSR Disclosure Measures

We identify CSR disclosure breadth in 1977 using data reported in E&E (1978). For each firm, the survey identifies the disclosure of 25 different items of environmental and social information across six categories– environment, energy, fair business practices, human resources, community involvement, and product (see Appendix). We use the same metric to

[11] The Fortune 500 from 1977 also included Broadcasting, Motion Picture Production and Distribution firms. We do the same.

classify the breadth of disclosure included in the 2010 reports. We award one point for each of the 25 items disclosed by the sample firms, and as such content scores could range from zero to 25. We then decompose the scores into separate measures for environmental disclosure (the environment and energy categories) consisting of seven information items, and social disclosure (using the remaining four classifications) including 18 potential disclosure items.

We further employ a second CSR disclosure measure that takes into consideration the specificity of the information provided. Similar to Wiseman (1982), we weight monetary disclosures as a three, quantitative but non-monetary disclosures are scored as a two, and non-quantitative disclosures receive only one point. However, E&E (1978) only break down the monetary/quantitative disclosure across the six major categories of information (i.e., rather than indicating the level of specificity for each of the 25 disclosure items, E&E only indicate, for example, that disclosures in the environmental category included monetary or quantitative non-monetary information). As such, the overall weighted disclosure scores could range from zero to 18 (up to 3 points for each of the six disclosure categories), the weighted environmental scores from zero to six, and the weighted social scores from zero to 12.

Differences in Disclosure Breadth

We use a t-test of differences in means to assess the significance of changes in CSR disclosure over time. As summarized in Panel A of Table 1, the breadth of overall CSR disclosure is significantly higher in 2010 than it had been in 1977, and thus Hypothesis 1 is rejected. The average content score in 1978 was 6.99 in comparison to a mean score of 14.54 for the 2010 sample. Similarly, the weighted disclosure scores rose from an average of 6.13 in 1977 to 11.98 by 2010. Both sets of differences are statistically significant at $p < .001$, two-tailed.[12] Panels B and C of Table 1 identify the mean disclosure scores for the environmental and social

[12] Results are qualitatively similar for a sub-set of only those firms included in both sample years.

disclosure sub-components, respectively, and results indicate that all disclosure measures are significantly higher in 2010 than they had been in 1977. Thus, the overall change in disclosure is not driven by changes in only one of the areas. Certainly, a key factor in the growth of disclosure breadth is the adoption of standalone CSR reporting. In 2010, 122 of our sample companies issued such a report. However, it is important to note that, for the 92 firms without such reports, CSR disclosure across all six metrics, while considerably less extensive than for their report-issuing counterparts,[13] also was significantly higher (at $p < .05$, two-tailed) than for the 1977 sample.

---------- Table 1 about here ----------

Legitimacy Factors

We next attempt to assess whether the influence of legitimacy factors has changed over time, and as such, we pool the data from 1977 and 2010. To control for the differences in disclosure across the periods noted above, we include a year indicator variable (Year) where one designates observations from 2010. We measure firm size as the relative rank of the company within the sample for its year based on total revenues, and as such, we expect a negative association between this variable (SizeRank) and the breadth of CSR disclosure (lower rank designates a larger company and we anticipate breadth of disclosure will be higher for larger firms). Consistent with prior research (e.g., Patten, 2002; Cho *et al*., 2012), we designate companies from environmentally sensitive industries (ESI) using a one/zero indicator variable, where the extractive, paper, chemicals, petroleum and metals industries are classified as ESI. Overall, 77 (66) of the sample observations from 1977 (2010) were classified as ESI. We anticipate a positive association between our ESI variable and CSR disclosure. To identify any

[13] To illustrate, the mean un-weighted and weighted total disclosure scores for the 92 companies without standalone CSR reports were 8.64 and 8.62, respectively.

changes in the impact of the legitimacy variables, we include year/variable interaction terms. Given our expectation that legitimacy factors will continue to be associated with differences in CSR disclosure, we expect the coefficients on the interaction variables (Year*SizeRank, Year*ESI) to be statistically insignificant. We state our legitimacy model (with the expected sign of association beneath each variable) as:

$$DISC_i = a_1 + \underset{(+)}{B_1 Year_i} + \underset{(-)}{B_2 SizeRank_i} + \underset{(+)}{B_3 ESI_i} + \underset{(+/-)}{B_4 Year{*}SizeRank_i} + \underset{(+/-)}{B_5 Year{*}ESI_i} + e_i$$

Finally, we estimate our regression models, first, for each of the total disclosure breadth measures, and then separately for the environmental and social sub-component scores.

As reported in Table 2, the SizeRank variable is negative and statistically significant (at $p < .01$, one-tailed) for both disclosure models. However, while positively signed in both cases, the ESI variable is only statistically significant (at $p < .01$, one-tailed) relative to the weighted disclosure score. Importantly, neither of the interaction terms is statistically significant for either of the disclosure models. This indicates that the basic relationships between the legitimacy factors and the breadth of CSR disclosure remain similar across the two time periods. The results thus support Hypothesis 2.

---------- Table 2 about here ----------

Table 3 presents results for the additional legitimacy regressions on the disclosure sub-components. With respect to the environmental disclosures, we find both firm size and ESI are significantly related (at $p = .001$, two-tailed) to environmental disclosure scores using either metric. Interestingly, however, the Year*ESI interaction variable is negative and significant in the weighted scores model, indicating that ESI membership explains less variation in weighted environmental disclosure in 2010 than it had in 1977. In contrast, while firm size continues to be positively related to differences in social disclosure (using either disclosure measure), we find that ESI membership is not related to social information provision.[14]

One potential explanation for the decreased association between ESI and weighted environmental disclosure is the uptake of standalone CSR reporting by companies across virtually all industry sectors over the past two decades (see, e.g., KPMG, 2011), Patten and Zhao (2014) argue that because many of the reporting companies rely on guidelines from the GRI that include considerable emphasis on the disclosure of environmental information, even firms from non-environmentally sensitive industries are including substantial amounts of environmental disclosure in their reports. They find, for example, that U.S. retail companies (an industry not considered environmentally sensitive) allocated more space in their first-time CSR reports, on average, to environmental disclosures than to any other category of social information. The increased levels of disclosure by non-ESI companies would thus explain why ESI membership is less powerful in the later period of our analysis.[15]

---------- Table 3 about here ----------

CSR and Firm Value

Our final set of tests focuses on the relationship between CSR disclosure and differences in firm value. We rely on the basic market valuation model employed by Barth and McNichols (1994), although, similar to Aboody *et al*. (2004) we also control for firms' earnings. As with the legitimacy tests, we pool observations across the 1977 and 2010 periods. Because a t-test of means showed the average market value of equity was significantly larger in 2010 than it had

[14] In non-tabulated sensitivity tests, we re-estimated the legitimacy models for the social disclosure items replacing ESI with a 'socially exposed industry' classification variable. Following Brammer and Millington (2005) and Cho *et al*. (2012), we classified firms from the extractive, chemical, paper, pharmaceutical, alcoholic beverages, and defense industries as facing greater social exposures. Results of these analyses were qualitatively similar to those using the ESI variable.

[15] In support of this argument, regressions deleting the 122 companies from 2010 with standalone reports show that the ESI interaction term is no longer significant for either the un-weighted or weighted environmental disclosure scores.

been in 1977 we add a one/zero indicator variable (Year) where one indicates observations from 2010 to control for these differences. We also add a Year*Disclosure interaction variable to capture any differences in the impact of CSR disclosure on firm value over the two sample periods.[16] We thus state our valuation model (with the expected sign of association beneath each variable) as:

$$\underset{}{MVE_i} = a_1 + \underset{(+)}{B_1 Year_i} + \underset{(+)}{B_2 Total\ Assets_i} + \underset{(-)}{B_3 Total\ Liabilities_i} + \underset{(+)}{B_4 EBIT_i} + \underset{(+/-)}{B_5 Disclosure_i}$$

$$+ \underset{(+/-)}{B_6 Year{*}Disclosure_i} + e_i$$

All financial variables are measured as of the end of the fiscal year and all are deflated by the number of shares outstanding. Similar to the legitimacy analysis, we estimated models first using total CSR disclosure metrics and then ran separate analyses using the disclosure sub-components.

Table 4 reports the results of our market value tests using the total CSR disclosure scores. We find no evidence that total CSR disclosure (using either disclosure metric) is associated with firm value. In each of the models, the Disclosure variable is negatively signed and is not statistically significant at conventional levels. Further, the interaction term (Year*Disclosure) is also statistically insignificant, indicating the relationship between total CSR disclosure and market value does not differ across our two time periods. As reported in Table 5, the results of the market valuation tests using the social disclosure scores are similar to those for total CSR disclosure. Neither disclosure nor the interaction term is statistically significant for models using either of the social disclosure scores. However, as also presented in Table 5, we find, first, that

[16] In non-tabulated sensitivity tests, we also allow the impact of the financial explanatory variables to vary across the two periods. Results indicated our earnings measure is more positively associated with differences in firm value in 2010 than it had been in 1977, whereas the interaction terms on the other financial variables are statistically insignificant. Inferences for the CSR disclosure variables remain unchanged in this additional analysis.

environmental disclosure using either metric is significantly, but negatively related to differences in firm value. Results also indicate a positive and significant interaction between disclosure and year for the un-weighted environmental score model suggesting that the negative impact of environmental disclosure on market value is reduced in the 2010 period. The interaction term in the weighted environmental disclosure model is also positively signed, but is not significant at conventional levels.

---------- Tables 4 and 5 about here ----------

The negative association between environmental disclosure and market value suggests that the market negatively values this information provision. However, a potential explanation for this finding is that our model does not control for the environmental performance of sample companies. Numerous studies over the past decade (e.g., Aerts and Cormier, 2009; Cho and Patten, 2007; Cho *et al*., 2012) document a negative relationship between corporate environmental disclosure and firms' environmental performance. That is, companies with worse environmental performance make more extensive environmental disclosures, presumably in an attempt to reduce the exposures arising from their environmental impacts (Patten, 2002). Because prior studies show that investors negatively value at least some aspects of the environmental performance (Barth and McNichols, 1994; Clarkson et al., 2004), the negative association between our disclosure measure and sample firms' market value could be due to the metric proxying for performance relationships. Ideally, therefore, we would like to control for environmental performance impacts. Unfortunately, we are aware of no publicly available assessments of corporate environmental performance from the 1970s. In an attempt to shed light on this possible explanation, therefore, we focus only on the 2010 sample and incorporate environmental performance assessments from the firm KLD Analytics. KLD performance data have been used in a number of prior studies (e.g., Cho and Patten, 2007; Dhaliwal *et al*., 2011) and the evaluations consist of assessments of performance across various strength and concern categories. However, due to Chatterji *et al*.'s (2009) findings that the strength scores are not related to other measures of environmental performance, we rely on only the concern scores as our measure of environmental performance. Because several of the sample companies were not included in the KLD database, this stage of our analysis includes 196 companies.

Calculation of Pearson Product-Moment correlations indicates that the KLD concern scores for our 2010 sample[17] are positively and significantly (at $p = .001$, two-tailed) associated with the environmental disclosure measures. Because higher concerns indicate worse performance, this suggests, consistent with prior studies (e.g., Cho and Patten, 2007), that worse performing companies include more extensive environmental disclosure. Table 6 presents the results of the market valuation tests on environmental disclosure controlling for environmental performance. As reported in the table, neither the un-weighted nor the weighted disclosure measure is statistically significant at conventional levels. We also find that the environmental performance measure is not significantly associated with differences in market value for our 2010 sample of firms.[18] In additional sensitivity tests, we estimated models with interaction terms to allow the impact of disclosure to vary across better and worse performers, as well as models controlling for ESI membership and interaction terms to capture differences in the impact of environmental disclosure on market valuation for these firms relative to others. In no cases were either of the environmental disclosure metrics significantly associated with market value.

[17] We use KLD scores reported in 2010. However, in sensitivity tests we replaced this measure with lagged scores from 2009. Results, not presented here, were qualitatively similar to those using the 2010 metric.

[18] In non-tabulated sensitivity tests, we re-estimated the models using the lagged environmental performance measure. We also estimated models with environmental disclosure*environmental performance interaction terms to allow the impact of disclosure to vary across all different environmental performance levels. All results are qualitatively similar to the original findings.

Overall, therefore, we conclude that our evidence suggests environmental disclosure, similar to social disclosure, does not appear to be valued by investors.

---------- Table 6 about here ----------

Conclusion

Motivated by both the increased attention CSR disclosure recently has received from the mainstream accounting research community and that group's failure to engage with prior CSR-themed research, we attempt in this study to identify if the practice today differs from that of the 1970s. Based on samples of industrial companies included in the 1977 and 2010 Fortune 500 listings, we find that the breadth of CSR disclosure had increased significantly. However, our analysis also indicates that the relationship among legitimacy factors to differences in CSR disclosure remains largely unchanged over time. Firm size continues to explain differences in environmental, social, and overall CSR information provision, and membership in environmentally sensitive industries, although less powerfully associated with differences in 2010 than in 1977 using one of our two metrics, continues to be positively associated with differences in environmental disclosure. Further, and importantly, we document that CSR disclosure, in apparent contrast to the arguments of the more recent mainstream investigations, is not positively associated with differences in firm value.

The findings of our investigation would appear to suggest that the failure of the new wave of CSR research in the mainstream accounting community to acknowledge and consider prior research into social and environmental accounting is potentially troublesome. Specifically, recent CSR disclosure research published in mainstream journals often lends credence to voluntary information arguments that ignore previous contradictory findings and well-established alternative explanations for observed empirical relationships. Indeed, the new wave's unquestioned acceptance that the disclosure is about informing investors as opposed to being, as argued in much of the prior CSR-themed research, a tool of legitimation and image enhancement makes it, we believe, less likely that such disclosure will ever move meaningfully toward transparent accountability.

Like all studies, our investigation suffers from certain limitations. We explore changes in CSR disclosure only for industrial firms and as such we cannot generalize findings to companies in other industries. Similarly, we focus only on companies in the United States. Interest in corporate social responsibility, in general, and in CSR disclosure more particularly is argued to vary across regions (see, e.g., Simnett *et al*., 2009; Dhaliwal *et al*., 2012), and as such, differing relationships may hold in other countries. Finally, our disclosure metrics are limited by the availability of firm-specific information provided by Ernst & Ernst. Richer disclosure measures may reveal patterns we are not able to capture. Extensions of our analysis along any of these lines, therefore, would appear to be warranted.

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Table 1

Tests of Differences in the Breadth of CSR Disclosure

Panel A – Total Disclosure				
Content Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**[a]
1977	6.99	4.98		
2010	14.54	6.37	13.467	.000
Weighted Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**
1977	6.13	3.88		
2010	11.98	3.98	15.186	.000
Panel B – Environmental Disclosure				
Content Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**[a]
1977	2.04	1.55		
2010	4.92	1.90	16.890	.000
Weighted Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**
1977	2.64	1.95		
2010	4.29	1.66	9.334	.000
Panel C – Social Disclosure				
Content Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**[a]
1977	4.94	4.27		
2010	9.61	4.98	10.285	.000
Weighted Scores	**Mean**	**Std. Dev.**	**t-stat**	**sig.**
1977	3.49	2.74		
2010	7.67	2.79	15.451	.000

Sample size is 205 firms from 1977 and 213 from 2010.

[a] Significance levels are two-tailed.

Table 2
Tests for Changes in Legitimacy Relationships – Total CSR Disclosure

	Content Scores	**Weighted Scores**
Constant	10.310 (12.335)***	8.166 (14.282)***
Year	7.593 (6.654)***	5.771 (7.382)***
SizeRank	-0.035 (-5.505)***	-0.024 (-5.580)***
ESI	0.764 (1.012)	1.250 (2.415)**
Year*SizeRank	0.002 (0.267)	0.004 (0.730)
Year*ESI	-0.346 (-0.316)	-0.738 (-0.984)
n	418	418
Adj. R^2	.390	.439

Dependent variables are the total CSR disclosure content and weighted scores, respectively.
t-statistics in parentheses beneath parameter estimates.
*, **, *** indicate significance at .10, .05, and .01 levels, two-tailed, respectively.

Table 3
Tests for Changes in Legitimacy Relations – Separate Disclosure Areas

	Environmental		**Social**	
	Content Scores	**Weighted Scores**	**Content Scores**	**Weighted Scores**
Constant	2.528 (10.004)***	3.028 (11.502)***	7.783 (11.375)***	5.138 (12.568)***
Year	2.974 (8.608)***	1.735 (4.821)***	4.619 (4.937)***	4.041 (7.230)***
SizeRank	-0.008 (-4.266)***	-0.008 (-4.128)***	-0.027 (-5.139)***	-0.016 (-5.147)***
ESI	0.968 (4.230)***	1.240 (5.200)***	-0.203 (-0.328)	0.012 (0.031)
Year*SizeRank	0.001 (0.288)	0.002 (0.833)	0.002 (0.220)	0.002 (0.451)
Year*ESI	-0.280 (-0.845)	-0.724 (-2.099)**	-0.066 (-0.073)	-0.004 (-0.007)
n	418	418	418	418
Adj. R^2	.483	.277	.285	.427

Dependent variables are environmental and social disclosure content and weighted scores, respectively.
t-statistics in parentheses beneath parameter estimates.
*, **, *** indicate significance at .10, .05, and .01 levels, two-tailed, respectively.

Table 4
Tests for Changes in Market Valuation using Total Disclosure Score

	Content Scores	Weighted Scores
Constant	-7.627 -(2.553)**	-5.808 (2.524)***
Year	33.318 (7.502)***	31.139 (5.820)***
Total Assets	0.531 (6.463)***	0.527 (6.457)***
Total Liabilities	-0.834 (-7.391)***	-0.823 (-7.327)***
EBIT	3.949 (13.010)***	3.943 (13.100)***
CSR Disclosure	-0.171 (-0.572)	-0.509 (-1.339)
Year*CSR Disclosure	0.281 (0.745)	0.643 (1.215)
n	418	418
Adj. R^2	.652	.653

Dependent variable is the market value of equity.
The specific CSR disclosure metric employed in each model is indicated in the column heading.
t-statistics in parentheses beneath parameter estimates.
*, **, *** indicate significance at .10, .05, and .01 levels, two-tailed, respectively.

Table 5
Tests for Changes in Market Valuation using Separate Disclosure Areas

	Environmental		**Social**	
	Content Scores	**Weighted Scores**	**Content Scores**	**Weighted Scores**
Constant	-4.742 (-1.669)*	-4.345 (-1.504)	-8.990 (-3.194)***	-8.413 (-2.897)***
Year	29.570 (6.334)***	33.226 (7.098)***	35.174 (8.962)***	32.637 (6.666)***
Total Assets	0.543 (6.666)***	0.538 (6.613)***	0.529 (6.432)***	0.526 (6.426)***
Total Liabilities	-0.841 (-7.506)***	-0.838 (-7.478)***	-0.830 (-7.357)***	-0.820 (7.290)***
EBIT	3.954 (13.177)***	3.958 (13.198)***	3.931 (12.897)***	3.915 (12.945)***
Disclosure Score	-2.324 (-2.422)**	-1.872 (-2.460)**	0.070 (0.201)	-0.083 (-0.154)
Year*Disclosure	2.732 (2.214)**	1.430 (1.237)	0.055 (0.122)	0.451 (0.601)
n	418	418	418	418
Adj. R^2	.657	.657	.652	.652

Dependent variable is the market value of equity.
The specific CSR disclosure metric employed in each model is indicated in the column headings.
t-statistics in parentheses beneath parameter estimates.
*, **, *** indicate significance at .10, .05, and .01 levels, two-tailed, respectively.

Table 6
Tests for Relationship of Environmental Disclosure to Market Valuation Controlling for Environmental Performance – 2010 Sample Only

	Content Scores	**Weighted Scores**
Constant	14.495 (3.024)***	21.416 (4.645)***
Total Assets	0.312 (2.743)***	0.304 (2.678)***
Total Liabilities	-0.512 (-3.494)***	-0.500 (-3.411)***
EBIT	5.736 (10.502)***	5.694 (10.504)***
Environmental Disclosure	0.582 (0.700)	-0.999 (-1.062)
Environmental Performance	1.264 (1.055)	1.762 (1.476)
n	196	196
Adj. R^2	.756	.756

Dependent variable is the market value of equity.

The specific CSR disclosure metric employed in each model is indicated in the column headings. t-statistics in parentheses beneath parameter estimates.

*, **, *** indicate significance at .10, .05, and .01 levels, two-tailed, respectively.

Appendix
Disclosure scale of CSR information items from the Ernst & Ernst (1978) survey

Environment
1. Pollution control
2. Prevention or repair of damage to the environment
3. Conservation of natural resources
4. Other environmental disclosures

Energy
5. Conservation of energy
6. Energy efficiency of products
7. Other energy-related disclosures

Fair Business Practices
8. Employment of minorities
9. Advancement of minorities
10. Employment of women
11. Advancement of women
12. Employment of other special-interest groups
13. Support for minority businesses in the U.S.
14. Socially responsible business practices abroad
15. Other statements on fair business practices

Human Resources
16. Employee health and safety
17. Employee training
18. Other human resource disclosures

Community Involvement
19. Community activities
20. Health-related activities
21. Education and the arts
22. Other community activity disclosures

Products
23. Safety
24. Reducing pollution arising from use of product
25. Other product-related disclosures