

**DISCLOSURE IN PURSUIT OF ACCOUNTABILITY: STUDIES ON
THE ADVENT, MATERIALITY, AND REPERCUSSIONS OF
UTILITIES' ENVIRONMENTAL DISCLOSURES**

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By
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There is little doubt that the increased reliance on both neoliberal policies and corporate voluntarism to achieve corporate sustainability has led stakeholders—e.g. investors, citizens, and regulators—to rely on voluntary environmental disclosures. Stakeholders rely on disclosures as they attempt to hold corporations accountable for their environmental impacts. As corporations can use disclosures to strategically maintain economic and legitimacy resources, environmentalists and policymakers have grown skeptical of the link between disclosure and accountability. This skepticism inspires me to investigate: (1) the motivations for corporations' first voluntary environmental disclosures; (2) the variation in disclosure language; and (3) the potential repercussions of environmental disclosure. To understand the advent of and variation in environmental disclosure, I focus on a specific industry: electric utilities. In my first empirical chapter, I use an event history model to determine why utilities first began disclosing environmental information between 1960 and 1975. I find that corporations first acknowledged their environmental impacts in response to the environmental movements' activities that pressured legislators to create environmental regulations. In my second empirical chapter, I use a mixed-effects model to understand how stakeholder pressures influenced the materiality of utilities' climate disclosures between 2000 and 2010. My findings expose the role of monopolistic and oligopolistic competitive structures in shaping utilities' perceptions of stakeholder power. Specifically, I find that corporations increased the materiality of their disclosures in response to social movement activities—demonstrating growing perceptions of power. Finally, in my third chapter, I develop a theoretical framework that assists scholars in determining when and how

voluntary environmental disclosures affect corporate resources. In this framework, I expose the importance of considering stakeholders' power, expectations, willingness to attribute responsibility, and sanctioning ability. In total, my research supports the argument that disclosures may be a tool for informing and shaping stakeholders' expectations—making sanctioning unlikely. These insights reinforce environmentalists' skepticism towards relying on disclosures to guarantee accountability for environmental degradation.

BIOGRAPHICAL SKETCH

Brandon Kraft is a PhD Candidate at Cornell University in the field of Natural Resources. His research uses insights from organizational sociology to inform debates on environmental governance, corporate environmentalism, and environmental law. Specifically, Brandon explores these debates as they relate to forest products and electricity industries. He has presented his research recently at the Academy of Management, American Sociological Association, Law and Society, International Symposium on Society and Resource Management, and the Rural Sociology conferences. Previously, Brandon worked as a Program Associate at the Gay and Lesbian Victory Fund and Institute, where he assisted Lesbian, Gay, Bisexual, and Transgender (LGBT) professionals in attaining executive appointments and developed international programming to build LGBT political representation in South America. He has worked on a variety of environmental and conservation related issues including: community based biodiversity conservation strategies at Rare; innovation strategies at the Organization for Economic Cooperation and Development; climate change adaptation policies at Georgetown's Harrison Institute for Public law; and marine mammal conservation at Oceana. Born in Chicago, he has worked and lived in Paris, France; San Jose, Costa Rica; Quito, Ecuador; New York, New York; Boston, Massachusetts; and Washington, DC. He holds a JD from Georgetown University Law Center and a BA in Biology from Boston University. He has been a member of the Illinois Bar since 2010.

I dedicate this dissertation to Dennis, Mike, and my parents – those who always inspire me to be my best-self, even when I don't want to be

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CHAPTER 1: INTRODUCTION

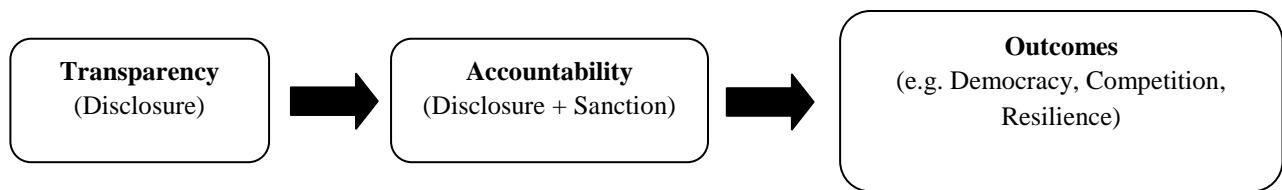
1.1 Expectations of Environmental Transparency as Governance

Recently, scholars have devoted attention to stakeholders' reliance on transparency to guide corporate activity (Bromley & Powell, 2012; Gupta, 2010). Specifically, scholars discuss stakeholders' expectation that corporations disclose financial, corporate governance, and corporate social responsibility (CSR) information. These disclosures are written narratives disseminated to stakeholders in a variety of forms, including regulatory filings, annual reports, and press releases. By disclosing information not otherwise available to stakeholders, corporations become more transparent—shedding light into the black-box of organizational decision-making, negotiating, and goal-setting processes (Bovens, 2007; Kraft & Bogusz, 2016; Messner, 2009). Expectations of disclosure are closely linked to the perception that transparency necessarily builds accountability. The conflation of these ideas has led stakeholders to rely on disclosure in pursuit of assuring corporate accountability (McBarnet, 2007).

In this dissertation, I argue accountability is not synonymous with transparency. Transparency involves the exposure of difficult to observe information. Accordingly, disclosures serve as a corporate tool to build transparency (Gupta, 2010). Accountability, however, requires the potential imposition of discipline (Messner, 2009). Specifically, accountability is a social relationship where one actor, the accountor, receives information from another actor, the accountee (Bovens, 2007). If exposed information deviates from the accountor's expectations, the accountor can then formally or informally sanction the accountee (Bovens, Schillemans, & Hart, 2008). While transparency relationships only involve the flow of information, an accountability relationship involves both the flow of information and the risk of sanction (Bovens, 2007; Kraft and Wolf, 2016; Kraft and Bogusz, 2016). Accordingly, disclosure can be a tool for building accountability because it is one component of the accountability relationship (Kraft and Wolf, 2016; Kraft and Bogusz, 2016). Disclosure alone, however, does not necessarily ensure an accountability relationship.

Scholars have long argued that accountability is necessary for representative democracies, competitive markets, resilient organizations, and sustainability (Agrawal & Ribot, 1999; Alchian & Demsetz, 1972; Coase, 1988; Holley, Gunningham, & Shearing, 2011; Manin, Przeworski, & Stokes, 1999; Tilly, 2007). By extension, scholars and policymakers have argued that disclosure helps to achieve these public policy outcomes (Andrew & Cortese, 2013; Kraft & Bogusz, 2016; Short & Toffel, 2010). Therefore, disclosure is seen to be essential to the resilience and functioning of the contemporary political economy (Bovens, 2010; Levi-Faur, 2012). See Figure 1.1.

Figure 1.1: The Relationship between Disclosure, Transparency, Accountability, and Sanctions



The use of disclosure to achieve corporate accountability and public policy outcomes has its origins in the early 1900s, when regulators began requiring the disclosure of financial information, organizational structure, ownership information, and corporate governance (Benston, 1973; Gomes, Gorton, & Madureira, 2004; Kleindorfer & Orts, 1998; Kraft & Bogusz, 2016; Perrow, 2005). By exposing this information, disclosures offered a glimpse into potential corporate malfeasance, deceit, corruption, and unseemly behavior. Regulators assumed that by exposing corporate behaviors markets and industries would become more open to competitive pressures, corporations would lose some control of regulatory processes, and stakeholders would have more control over corporate goals (D. Anderson, 1981; Edelman & Stryker, 2005; Perrow, 2005; W. R. Scott & Meyer, 1991).

Some of these information disclosure laws directly empowered stakeholders to guide corporate behavior through offering sanctions. For instance, the Public Utility Holding Company Act of 1935 (PUHCA) required utilities to disclose their corporate structures to the Securities Exchange Commission (SEC). PUHCA then empowered the SEC to dissolve holding company structures to weaken regional monopolies and diminish the power to fix prices (D. Anderson, 1981). Alternatively, other information

disclosure laws relied on social and market pressures to change corporate behavior. For instance, the Securities Exchange Act of 1934 required publicly traded corporations to file their annual reports with the SEC. The SEC then made this information available in a public database. Regulators meant this information to empower shareholders to judge and monitor corporate performance and then make investment decisions accordingly.

Although many of these early efforts focused on financial performance and corporate governance, in the contemporary period, stakeholders have come to expect both the mandatory and voluntary disclosure of CSR activities (Bowen, 2014; Bromley & Powell, 2012). Specifically, stakeholders expect information about corporate environmentalism—i.e. corporations' support of and investments in green technology, projects to mitigate pollution, and programs stemming the detrimental health impacts of corporate activities (Bowen, 2014; Hoffman, 2001). Therefore, I argue it is not surprising that stakeholders have similarly come to rely on disclosure as a tool to hold corporations accountable for their effects on the natural environment. The relationship between expectations of environmentalism and expectations of disclosure relate to the changing relationships between corporations, their stakeholders, and social, political, and market structures. In this dissertation, I explore how these relationships influence the evolution and potential repercussions of voluntary environmental disclosures. Figure 1.2 details this evolution.

Figure 1.2: The Evolution of Environmental Information

	1940-1970	1970-1982	1982-1993	1993-Present
Environmental Movement	Nascent	Growing and diversifying	Institutionalized and consolidation	Stability and grassroots
Policy and Regulations	Research based	Command and control	Market based	Decentralized and voluntarism
Corporate Environmentalism	Industrial	Regulatory	Social Responsibility	Strategic
Purported use of Information	Gather information for future regulatory intervention	Assist in setting baselines and requirements	Strengthen market based approaches	Coordinate action, guide reflexive forms of regulation, learning
Reasons for Voluntary Disclosures	Manage impressions, Demonstrate regulatory compliance, Signal a green identity, Improve competitiveness, Shape/avoid regulations, Maintain legitimacy			

1.2 The Evolution of Environmental Disclosure within a Socio-Political Context

In this chapter, I discuss four discrete period of American environmentalism. I chose these periods based on the works of Mazmanian and Kraft (2001), Hoffman (2001), and Brulle (1996). First, from 1940-1970, the nascent environmental movement began targeting corporations they believed led to environmental health crises, like the Donora deadly smog in 1948 and the Cuyahoga River fire in 1968. Rachel Carson's Silent Spring in 1962 highlights the importance of this environmental health frame in mobilizing citizens to compel regulatory and corporate change.

In response to calls for change, corporations practiced what Hoffman (2001) calls industrial environmentalism. Specifically, corporations treated pollution as a problem that they could solve internally through changing operations. As such, corporations perceived efforts to mitigate environmental degradation, avoid lawsuits, and assuage environmentalists' concerns as a regular cost of doing business (Hoffman, 2001). Therefore, they engaged in green innovation to the extent it was cost effective. Generally, this strategy meant that few corporations engaged in voluntary efforts to mitigate their environmental damage (Hoffman, 2001; Switzer, 1997).

This lack of voluntary efforts to mitigate environmental damage was exacerbated by the relative lack of environmental regulations that compelled corporate behavior. Of those few environmental regulations passed during this time period, most focused on gathering information to guide future regulation (Barton, 2006; Mazmanian & Kraft, 2001). Specifically, laws like the Federal Water Pollution Control Act (1948) and the Air Pollution Control Act (1955) mandated the federal government work with corporations to collect information that could be used to create baselines for environmental regulations. Most notably, in the debates preceding the Resources Conservation Act (1960), The Ecological Research and Surveys Act (1966), and the National Environmental Policy Act (1970), environmental organizations and legislators maligned the relative absence of information regarding corporations' detrimental environmental impacts (Kraft & Bogusz, 2016).

Second, between 1970 and 1982, the number and diversity of the environmental organizations grew substantially (Brulle, 1996). The movement moved beyond discourses of environmental health, preservationism, and conservationism. Specifically, movement organizations began developing discourses about the moral imperative to minimize humans' detrimental environmental impacts (Brulle, 2009). Moreover, they merged their mobilizing discourses with those of other progressive causes—creating eco-feminist, deep-ecological, and environmental justice discourses (Taylor, 1997). Many of these discourses vilified corporations and advocated for regulatory change (Martinez, 2013; Olzak & Soule, 2009).

Between 1970 and 1982, regulators responded to this advocacy by passing more than 20 national environmental laws. Most of these laws focused on curtailing the polluting tendencies of corporations through commanding and controlling their behavior (Mazmanian & Kraft, 2001). They offered corporations very little flexibility in meeting regulatory requirements (Holley et al., 2011). They required substantial investments in improving agency monitoring and enforcement activities. Moreover, as part of agency monitoring, corporations were compelled to disclose information regarding best practices, investments in technology, emissions, and land use. In response to these regulations, corporations entered

a period of regulatory environmentalism—creating environmental offices and departments charged with managing regulatory compliance (Hoffman, 2001).

Third, in the 1980s, the Reagan Administration pursued policies that minimized regulatory burdens on corporations—attempting to halt the growth of the regulatory state during the 1970s (Gottlieb, 2005; Martinez, 2013). Rather than relying on regulation and the Environmental Protection Agency, the Reagan Administration relied on deregulation to drive corporate environmental behavior (Hoffman, 2001). This period was marked by neoliberal regulations—i.e. regulations relying on market-based strategies to accomplish goals—and reliance on voluntary practices—i.e. voluntarism—to mitigate environmental degradation (Martinez, 2013; Scheffer, 1991).

Environmental regulations during this time period sought to allow corporations flexibility in compliance (Barton, 2006; S. G. Breyer, 1982; Coglianese & Lazer, 2003). To allow for this flexibility, regulators largely relied on economic incentives and on the creation of markets. For instance, the Clean Air Act Amendments of 1990 created a sulfur oxide trading program that meant to stem the growing acid rain problem. Moreover, mandatory disclosure also played a pivotal role in many of the environmental regulations after 1980 (Karkkainen, 2000). For instance, the Emergency Planning and Community Right to Know Act (1986) created the Toxic Release Inventory. This Inventory required corporations to disclose their hazardous pollution. In another instance, the SEC passed several regulations requiring publicly traded corporations to disclose some types of environmental information. Specifically, the SEC mandated that corporations disclose compliance with environmental laws and environmental information that affects future strategy in their annual reports (17 C.F.R. 229.101(c)(xii), 17 C.F.R. 229.103, 17 C.F.R. 229.303). The SEC made these disclosures available in public databases. These regulations, and others, assumed that citizens, consumers, and investors could use disclosed environmental information to inform their decisions. Accordingly, they could choose to reward and punish corporations by suing, changing consumption patterns, and/or divesting.

Despite these regulations, much of corporate environmentalism became voluntary during this time-period (Kitzmüller & Shimshack, 2012). Hoffman (2001) argues that between 1980 and 1990 corporations engaged in environmentalism as social responsibility—beginning to voluntarily go beyond regulatory requirements. The now institutionalized environmental movement grew incredulous of many of these voluntary activities. Environmentalists justified these concerns by maintaining that corporations—who must pursue profits and increase shareholder value—have little incentive to engage in green innovation and practices that may be costly (Bowen, 2014; Kitzmüller & Shimshack, 2012). As such, the environmental movement began directly targeting corporations, rather than relying solely on regulatory change (Brulle, 2009; Hirsh, 1999; Olzak & Soule, 2009).

Fourth, and finally, from 1993 to the present environmentalists and policymakers have furthered discourses of sustainability, which hope to align environmental, economic, and social values and interests (Mazmanian & Kraft, 2001). During this time period, policymakers and environmentalists seek to find balance between regulatory requirements and voluntary efforts driven by market processes. Supporting neoliberal regulations to realize sustainability, Porter and van der Linde (1995) argue that pollution and waste are costly to corporations. Therefore, regulations—specifically taxes and other market based approaches—can help corporations realize increases in productivity by incentivizing innovation and ensuring the sharing of costs. Recent regulatory approaches attempt to realize Porter’s ideas by allowing for flexibility, diminishing bureaucracy, and incentivizing experimentation (Bernstein, 2011; Holley et al., 2011). Furthermore, these approaches frequently involve decentralizing decision-making processes—attempting to build collaborative projects involving movements, regulators, and corporations (Holley et al., 2011; Lemos & Agrawal, 2006; Levi-Faur, 2012). During this time period, mandatory environmental disclosure provisions are seen as a way of minimizing transaction costs—increasing market efficiencies and allowing investors and consumers to make decisions (Coase, 1960; Ostrom, 2005). Moreover, scholars argue that disclosed environmental information helps to align objectives, monitor behavior, and inspire learning (Cashore, 2002; Folke, 2006; Ginn, 2005; Gunderson & Light, 2006; Holley et al., 2011;

Kallis, Kiparsky, & Norgaard, 2009; Sharkey & Bromley, 2014). As such, many calls for policy interventions require an exchange of information (Agrawal & Ostrom, 2001; Black, 2008; Hannah et al., 1998; Klandermans, 1988; Ostrom, 2003).

The contemporary focus on sustainability furthers ideas of ecological modernization—meaning that corporations can both improve environmental performance and economic outcomes (Mol, 2003). Hoffman (2001) argues that during this time period, corporations engage in strategic environmentalism. Specifically, corporations strategically invest in innovation to build green reputations avoid costly legal actions, and strengthen their competitive advantage (Hoffman, 2001).

This historical perspective demonstrates that the purported uses and goals of disclosed information changed in tandem with regulations and conceptions of environmentalism. Most notably, this history exposes an evolution from mandatorily disclosed information to strengthen environmental regulations towards voluntarily disclosed information as environmental regulation (Barton, 2006; Coglianese & Lazer, 2003; Gupta, 2010; Hoffman, 2001). This evolution raises concerns about whether and when disclosure empowers stakeholders to hold corporations accountable.

Recently, environmentalists and policymakers have stressed these concerns—arguing that despite increases in disclosed information corporations still contribute to substantial environmental degradation (C. Cho, Laine, Roberts, & Rodrigue, 2015; Clarkson, Li, Richardson, & Vasvari, 2008; Gupta, 2010; Haufler, 2010). These concerns are buttressed by the dominant theories of voluntary disclosure, which largely focus on corporate strategy. Specifically, scholars' argue that corporations strategically manage stakeholders' impressions in a manner that allows them to maintain resources without making costly investments in mitigating their environmental impact (C. Cho, Guidry, Hageman, & Patten, 2012; Hahn, Reimsbach, & Schiemann, 2015; Lyon & Montgomery, 2015). This process undermines stakeholders' ability to hold corporations accountable because stakeholders do not know the accuracy and comprehensiveness of disclosed information.

1.3 Corporate Strategy in Voluntarily Disclosing Environmental Information

As stated above, increasing reliance on voluntary disclosures to understand corporations' environmental performance has motivated scholars to investigate how corporations use disclosures to respond to stakeholder pressure. In existing scholarship, there are two dominant theories of voluntary environmental disclosures: signaling and impression management.

Scholars developing signaling theory contend that corporations voluntarily disclose environmental information to avoid problems of adverse selection and send positive signals to stakeholders. The problem of adverse selection arises when a corporation has information about a product, transaction, process, or investment that a stakeholder does not. The rational stakeholder will interpret withheld information as unfavorable information (Grossman, 1981; Milgrom, 1981). Corporations will judge the risk of adverse selection against the general cost of gathering and disseminating information (James & Lawler, 2011; Spence, 1974; Verrecchia, 1983). Scholars argue that by voluntarily disclosing information corporations overcome adverse selection—sending positive signals and/or mitigating detrimental stakeholder perceptions. Through effective signaling, corporations gain and maintain profits, shareholder value, and competitive advantage (C. Cho et al., 2012, 2015; Toms, 2002).

Disclosures offer corporations the opportunity to signal investments in green innovation, programs, and philanthropy. By doing so, corporations can recruit and maintain customers, employees, and investors sharing similar values (Clarkson et al., 2008; Greening & Turban, 2000; Kitzmueller & Shimshack, 2012). Signaling theory also posits that environmental disclosures can assuage stakeholders' concerns, motivating them to abandon efforts to reign in corporate activities. Specifically, scholars find that positive environmental signaling could convince regulators that new regulations are not necessary (Acharya, DeMarzo, & Kremer, 2011; Dobbin, 1994; Short & Toffel, 2010; Verrecchia, 2001).

Signaling scholars contend corporations that invest in environmental performance—generally measured as investments in green technologies and/or emission reduction strategies—should disseminate verifiable and accurate information (Clarkson et al., 2008). These signals are difficult for poor

environmental performers to replicate (C. Cho et al., 2012). Interestingly, scholars also argue that strong environmental performers may have incentives to attenuate their signals. Specifically, companies may “Brownwash” their annual reports, disseminating information that understates their efforts to mitigate environmental degradation. Scholars argue this is most common when shareholders are wary of investments not directly linked to increasing share value (E.-H. Kim & Lyon, 2015).

Scholars also contend that poor environmental performers have incentives to send signals to stakeholders. These corporations, however, have an incentive to disclose symbolic information, i.e. information using broad or vague language specifying a commitment to the environment (C. Cho et al., 2015; Delmas & Burbano, 2011; Lyon & Maxwell, 2011). Some consider this symbolic information a form of “Greenwashing” (Bowen, 2014). Signals containing symbolic information demonstrate alignment with stakeholder values. These disclosures allow a corporation to mitigate negative perceptions and environmental disasters (Clarkson et al., 2008; Lyon & Montgomery, 2015; Parguel, Benoît-Moreau, & Larceneux, 2011). As a whole, the signaling literature exposes corporations’ motivations to use environmental disclosures to demonstrate alignment with stakeholders’ expectations and build competitive advantage by displaying commitments to environmentalism.

Other scholars, specifically sociologists, have developed impression management theory to explain voluntary disclosures. Within this theory, scholars argue that corporations frame their activities within disclosures to demonstrate their regulatory, normative, and cultural appropriateness (King, 2008; Rhee & Fiss, 2014; Tedeschi, 1981). Generally, impression management scholars contend that corporations defensively and anticipatorily manage stakeholders’ impressions (Elsbach, 1994; McDonnell & King, 2013). In this vein, corporations disseminate environmental disclosures in response to boycotts (McDonnell & King, 2013), protests (McDonnell, King, & Soule, 2015), pending legislation (Short & Toffel, 2008), and shareholder resolutions (Reid & Toffel, 2009). Scholars argue that corporations disclose environmental information in an effort to gain and maintain economic resources—e.g. shareholder

value—and legitimacy resources—e.g. reputation (Clarkson, Li, Richardson, & Vasvari, 2008; Lyon & Maxwell, 2000; McDonnell & King, 2013; Reid & Toffel, 2009).

In their environmental disclosures, corporations frame their activities to match stakeholders' multiple, and sometimes divergent expectations (Fiss & Zajac, 2006; Rhee & Fiss, 2014). To frame their activities, corporations may use symbolic or substantive information (Clarkson et al., 2008; Marquis, Glynn, & Davis, 2007; Marquis & Qian, 2014). Scholars posit that corporations disclose symbolic language, defined above, to maintain legitimacy while not changing actual practices (Black, 2008; Bromley & Powell, 2012; McDonnell & King, 2013). Alternatively, substantive information offers verifiable and specific information referencing actual practices.¹

In the impression management literature, scholars find that corporations disclose more substantive environmental information when exposed to heightened external scrutiny and when economic resources are at stake. Heightened scrutiny may arise from operating within liberal democracies (Marquis & Toffel, 2014), operating within countries with many environmental organizations (Marquis & Toffel, 2014; Sine & Lee, 2009), and being successively protested by the environmental movement (McDonnell et al., 2015). Certain stakeholder activities may risk damage to economic resources, leading corporations to disclosure substantive information. Specifically scholars have found that corporations disclose substantive environmental information in response to boycotts (King, 2008) and shareholder resolutions (Reid & Toffel, 2009). Impression management theories empower scholars to understand variation in environmental disclosure language in response to external pressures. In this way, it is a less agentic approach than signaling theory (C. Cho et al., 2015; Hahn et al., 2015). Because I situate corporations within broader social, political, and economic environments, I rely most heavily on impression management in my work.

¹ In Chapter 3, I discuss the limitations of the substantive/symbolic dichotomous categorization of disclosure language. Although frequently treated as a dichotomy, I argue that both substantive and symbolic categories are broad and expose a need to consider a spectrum of verifiability.

Much of the existing scholarship argues that corporations disclose environmental information in an effort to gain and maintain economic and legitimacy resources. They assume that failure to offer the right information will result in corporations losing resources. Studies attempting to determine the veracity of this assumption, however, expose that the outcomes of disclosure are highly contextual. As a whole, scholars have found that both symbolic and substantive environmental disclosures have led to positive, negative, and no effect on economic and legitimacy resources (Hahn et al., 2015; Lyon & Montgomery, 2015). Despite the ambiguous effect of disclosure on corporations' resources, scholars generally agree that corporations perceive disclosure as a tool by which to mediate relationships with stakeholders.

1.4 Stakeholder Empowerment Versus/Supporting Corporate Strategy

Thus far, I have demonstrated that stakeholders have come to rely on disclosure to guide corporate environmentalism. This reliance assumes that disclosed information can empower stakeholders, allowing them to hold corporations accountable. I have also demonstrated that corporations can strategically use their disclosures in an effort to gain/maintain resources—essentially avoiding being held accountable. I argue that the existing literature exposes a potential tension between disclosure as a tool to ensure corporate environmentalism and disclosure as a tool for strategic resource maintenance.

The potential tension between the policy goals of disclosure—i.e. corporate environmentalism, competitive markets, and representative democracy—and corporations' strategic goals for disclosure—i.e. the acquisition and maintenance of economic and legitimacy resources—is not well understood. In an effort to better understand this relationship, I investigate corporations' motivations for first disclosing environmental information. I then explore how and why corporations vary the content of the climate disclosures, despite the relative absence of competitive pressures. Finally, I develop a framework that will assist future scholars in determining when and how disclosures have repercussions on corporate resources. My studies demonstrate that some disclosure strategies may disempower stakeholders to hold corporations accountable. I argue, however, disempowerment does not arise solely out of a symbolic

disclosure strategy. Rather disclosures may influence stakeholders' expectations, making sanction unlikely.

1.5 Electric Utilities as a Focus

To engage in my investigations, I follow the advice of Guthrie, Cuganesan, and Ward (2008) and Rhee and Fiss (2014) to explore corporate behavior in a specific historical and industry context. In this paper, I explore Investor Owned Utilities' (IOUs)—publically traded electricity corporations.

Electricity has been an important part of American life since the beginning of the industrial revolution (Cottrell, 2009; Humphrey, Lewis, & Buttel, 2002; Lutzenhiser, Harris, & Olsen, 2002). Throughout US history, privately owned, publicly traded corporations have been the predominant actors responsible for generating, transmitting, and delivering electricity. In 2015, these IOUs constituted 66% of the electricity industry—supplying electricity to 99 million customers and earning 223 billion dollars in revenue (US Energy Information Administration). Electricity production, transmission, and delivery have extensive impacts on the environment and human health (Lutzenhiser et al., 2002). Therefore, understanding IOU behavior is essential to discerning the relationship between electricity and environmental impact.

Through most of their history, IOUs were vertically integrated and regulated as natural monopolies. In the late 1800s, Samuel Insull built the first vertically integrated utility—consolidating generation, transmission, and delivery within one corporation (D. Anderson, 1981). With the help of Thomas Edison, this corporate form diffused across the country (Granovetter & McGuire, 1998a). These vertically integrated IOUs formed an electricity market dominated by regional monopolies. Despite concerns about these monopolies setting high rates, regulators considered IOUs natural monopolies until 1978. Even after opening generation markets, however, regulators still consider generation markets as oligopolistic and transmission and delivery markets as naturally monopolistic.

In this dissertation, I explore two salient periods in the history of electric utilities. In my second chapter, I explore IOUs' environmental disclosures between 1960 and 1975. The push to expand electricity generation after the 1940s led to the proliferation of coal, oil, and gas power plants. These plants were major contributors to the toxic air and water emissions that posed threats to ecosystem and human health. Beginning in the 1950s, the environmental movement used national discontent with this pollution to advocate for clean air and clean water regulations—many of which applied to IOUs (Brulle, 1996; Martinez, 2013; Taylor, 2000).

Beyond the environmental movement, IOUs also confronted technological and economic crises. In the 1960's, IOUs dealt with a technological stasis that required bigger generators—allowing output and costs to grow, but efficiency to decline (Hirsh, 1999, 2002). This shift created bigger machinery that was reliant on coal and oil. Coal prices rose in the late 1960's, leading IOUs to rely more heavily on oil. This reliance made IOUs vulnerable to the OPEC oil crisis. Rising fuel prices in the 1960s and 1970s led IOUs to increase electricity rates. In turn, these increases incited a nascent energy conservation movement that advocated for lower prices, renewable generation, and market competition (Hirsh, 1999; Lovins, 1980). These pressures led legislators to pass Public Utility Regulatory Policy Act in 1978—which created competition in generation markets and incentivized renewable generation.

In my third chapter, I explore IOUs' climate disclosure between 2000 and 2010. Despite the hope of increased renewable generation following PURPA, renewables still comprise a relative small percentage of fuels used in electricity generation. Throughout the early 2000s, coal still remained a major fuel source. Coal combustion is a major source of global greenhouse gas emissions.

Although scientific concern regarding climate change began in the early 1800s, the acknowledgement that humans caused this change is relatively recent (J. T. Roberts, 2009). Despite international acknowledgment of climate change, domestic legislation has lagged. National policy has attempted, but failed, to regulate many greenhouse gasses. In 2016, the US Supreme Court's

unwillingness to enforce the Environmental Protection Agency's Green Power Plan is new evidence of national hesitance to mitigate power plants' greenhouse gas emissions. Despite the slow passage of national regulations, since the 1990s, states have passed legislation attempting to stem greenhouse gas emissions from electricity generation (J. T. Roberts, 2009). Between 2000 and 2010, IOUs have had to navigate developing expectation of climate stewardship and an uncertain regulatory environment.

Both these time periods offer interesting contexts to understand the advent and variation in IOUs' environmental disclosures. Between 1960 and 1975, IOUs first began disclosing environmental information. Between 2000 and 2010, IOUs first disclosed commitments to mitigate climate change, disclosing more metrics and specific practices over time. These two periods allow me to explore the ways in which IOUs varied their climate disclosure strategy in response to a variety of external pressures.

1.6 Adding to the Debate: Advent, Materiality, and Repercussions

My focus on corporate strategy and socio-political structures relates to the rich lineage of scholarship on organizational behavior. Specifically, since the 1970s, organizational sociology has developed theories and empirical insights that explore how corporations respond to external structures, including institutions, populations, networks, and power (Hannan & Freeman, 1989; J. Meyer & Rowan, 1977; Pfeffer & Salancik, 1978). Moreover, as of late, organizational sociology has integrated more agentic treatments into these structural discussions (Friedland & Alford, 1991; Hardy & Maguire, 2008). As such, I argue this literature allows me to situate voluntary environmental disclosure strategy within larger political, historical, and market contexts. It also allows me to question highly agentic explanations of corporate disclosure strategy.

In this dissertation, I add to main debates in environmental governance and organizational sociology literatures on voluntary disclosure. In Chapter Two, I investigate IOUs motivations to first disclose environmental information. Specifically, I explore how IOUs varied their environmental disclosure strategies in response to environmental movement activities in the 1960 and 1970s. I find that corporations first disclosed environmental information in response to the movements' attempts to shape

regulations. These findings underscore the role of disclosures in contesting the movements' framing of environmental degradation and green technologies. Understanding the advent of disclosure helps to inform our current understandings of this now, expected practice.

In Chapter Three, I investigate how IOUs varied the content of their climate disclosures in response to regulatory, movement, and shareholder pressures. Specifically, in this chapter, I explore how non-competitive markets shape the materiality of corporations' climate disclosures. Materiality measures the usefulness of disclosed information to stakeholders when attempting to launch legal actions. The concept of materiality improves upon extant categorizations of language because it does not assume stakeholders hold singular expectations. In this chapter, I find that embeddedness in state regulatory processes and social movement protests/media shaming correlate to an increase in climate disclosure materiality, while shareholder resolutions do not correlate to significant variation in materiality. These findings demonstrate that the regulated and oligopolistic electricity market increases corporations' perceptions of political and movement actors. I also stress the importance of legitimacy maintenance when economic resources are assured.

In Chapter Four, I move beyond a specific empirical context to develop a theoretical framework that makes connections between existing studies on the repercussions of environmental disclosure. To develop my framework, I use the concept of accountability. In accountability relationships, an accountee shares information with the accountor. The accountor can then sanction the accountee based on whether that information aligns with their expectations. By conceptualizing disclosure relationships as accountability relationships, I develop several considerations that scholars should investigate to determine when and why a disclosure has an effect. Specifically, I argue that a powerful stakeholder must receive information that they judge to be misaligned with their expectations. They then attribute responsibility to the corporation for those activities. After attributing responsibility, the stakeholder chooses from available sanctions. Then the stakeholder deploys a sanction during a corporate opportunity structure. These sanctions damage corporations' economic and legitimacy resources. This framework exposes that

disclosure language influences stakeholders' power, expectations, and willingness to attribute responsibility. Disclosure language, however, does not necessarily influence the presence of sanctions or corporate opportunity structures.

In Chapter Five, I discuss the implications of my findings for future research and environmental policy. First, I contend that variation in corporate environmental disclosure strategy and language indicates differing perceptions of stakeholder power. This argument demonstrates that disclosure can be a powerful analytical tool when attempting to understand corporate-stakeholder relationships and the dynamics of legitimacy. Second, and most notably, I argue that disclosures can be a tool for corporate contestation—rather than merely a tool for impression management and signaling. By acknowledging their environmental impacts and contesting progressive environmental frames, corporations shape stakeholders' expectations. I extend these arguments by contending that corporations can use disclosed language to undermine stakeholders' ability to judge and sanction corporate behavior. These studies demonstrate the responsiveness of corporations to their social, political, and economic environment. As such, my research helps to situate voluntary environmental disclosures within a broader evolution in ideas of environmentalism—including how corporations used disclosures to shape stakeholders' expectation of environmentalism. Third, by situating these findings within my theoretical framework, I argue that using disclosure to contest emergent norms and regulations does not necessarily frustrate the accountability relationships between stakeholders and corporations. Rather, corporations use disclosures to shape stakeholders' expectations—making sanctioning activity unlikely. Therefore, if corporations strategically frame their activities in disclosures to minimize stakeholders' expectations of environmentalism, then there is reason to question reliance on voluntary environmental disclosures to reach environmental policy goals. Accordingly, although stakeholders may demand disclosure in pursuit of accountability, I argue that voluntary disclosures may decrease the likelihood that stakeholders actually hold corporations accountable for their environmental performance.

CHAPTER 2: THE ADVENT OF ENVIRONMENTAL DISCLOSURE: UTILITIES' RESPONSE TO PUBLIC AND PRIVATE POLITICS BETWEEN 1960 AND 1975

2.1 Abstract

Recent scholarship highlights that corporations attempt to manage the impressions of social movement actors through using environmental disclosures. As a whole, these studies create a relatively inconclusive understanding of the relationship between movement activities and variation in environmental disclosure. In this paper, I argue this ambiguity arises because of a failure to consider corporate responses to both public and private political activities. To remedy this oversight, I explore the question of how public and private political actions shape environmental disclosure. I pursue this question within a specific historical and industry context. Namely, I explore the advent of utilities' environmental disclosures in response to movement activities between 1960 and 1975. By using event history analysis, I find that public political activities, and not private political activities, are determinants of utilities' first environmental disclosure. These findings demonstrate that utilities used disclosure to contest and shape emerging environmental norms and regulations. Moreover, I argue that the nascent environmental movement lacked the legitimacy to launch threatening private political action—diminishing their ability to shape disclosure strategy. These findings add to the growing literature exploring both public and private politics. Moreover, it highlights one pathway through which corporations shaped ideas of environmentalism.

2.2 Introduction

Scholars generally agree that corporations vary the content of their voluntary, environmental disclosures in response to stakeholders' activities—e.g. boycotts (McDonnell & King, 2013), legislation (Short & Toffel, 2008), and shareholder resolutions (Reid & Toffel, 2009). These studies emphasize that corporations use disclosures to demonstrate their regulatory, normative, and cultural appropriateness, essentially managing stakeholders' impressions (Elsbach, 1994; McDonnell & King, 2013). By managing impressions, corporations gain and maintain economic resources—e.g. shareholder value—and legitimacy

resources—e.g. reputation (Clarkson, Li, Richardson, & Vasvari, 2008; Lyon & Maxwell, 2000; McDonnell & King, 2013; Reid & Toffel, 2009).

Although scholars find that corporations frame their activities in response to stakeholder pressure, there is still some indeterminacy regarding which activities and which stakeholders lead to significant changes in corporations' disclosure strategies (Hahn et al., 2015; Lyon & Montgomery, 2015). Many scholars find that corporations respond to social movement pressures by varying their disclosure strategy. Corporations varying responses to these activities, however, has led scholars to ascribe different levels of importance and power to social movements. For instance, some scholars find that corporations respond to social movements' activities by disclosing symbolic language without changing actual practices (Hiatt, Grandy, & Lee, 2015; J. N. Kim, Bach, & Clelland, 2007; McDonnell & King, 2013). These scholars argue corporations perceive movements as less important and powerful than other stakeholders, like shareholders (Vasi & King, 2012). Conversely, other scholars argue that corporations respond to movement activities by disclosing verifiable language that references actual practices (E.-H. Kim & Lyon, 2015; Marquis & Toffel, 2011, 2014). These scholars contend that corporations can perceive movements as important as stakeholders.

I contend one possible driver of this indeterminacy is scholars' narrow focus on types of movement activities. For instance, Hiatt et al. (2015) and McDonnell and King (2013) study how corporations use disclosures to respond to social movement protests directed at them. Alternatively, Marquis and Toffel (2011) and (2014) study how corporations use disclosures to respond to the number of national environmental movement organizations and membership in those organizations. These latter studies attempt to capture movements' indirect efforts to influence corporations by changing regulations.

These direct and indirect activities relate to movements use of private and public political activities (Reid & Toffel, 2009; Soule, 2009). Social movements engage in private political activities when they do not rely on law or the public order, e.g. lawsuits and lawmaking, to affect corporate

activities (Baron, 2003). When engaging in private political activities, movements use extra-legal activities, e.g. protests and boycotts (Hiatt et al., 2015; Soule, 2009). Conversely, public political actions include lawsuits, protests, and lobbying directed at citizens and policymakers—attempting to affect corporations by changing and/or using regulations. I also consider attempts to change norms as public political activities because scholars argue modern movements attempt to change values, norms, and personal identities rather than attempting to change regulations exclusively (Johnston, Larana, & Gusfield, 1994; Offe, 1985; A. Scott, 1990). The specification of whether an activity is either public or private politics depends on both the target and the socio-political context through which mobilization takes place. Therefore, some activities may be either public or private politics. For instance, protests may be an example of public political activities when movements target legislators—attempting to inspire regulatory change that affects corporate behavior. Alternatively, protests may be an example of private political activities when movements target corporations directly.

Figure 2.1: Public and Private Politics

	<u>Public</u>	<u>Private</u>
<u>Direct</u>	<ul style="list-style-type: none"> • Lawsuits 	<ul style="list-style-type: none"> • Protests <i>targeting</i> the corp. directly • Boycotts <i>targeting</i> the corp. directly • Media shaming <i>targeting</i> the corp. directly
<u>Indirect</u>	<ul style="list-style-type: none"> • Protests <i>targeting</i> legislators • Lobbying • Changing norms 	<ul style="list-style-type: none"> • Protests <i>targeting</i> other corps. and related industries • Boycotts <i>targeting</i> other corps. and related industries • Media shaming <i>targeting</i> other corps. and related industries

Until recently, scholars have rarely compared corporate responses to both public and private political activity. Two notable exceptions are works by Hiatt et al. (2015) and Reid and Toffel (2009). Hiatt et al. (2015) finds that corporations changed their actual practices in response to both public and private political actions. They also find that corporations varied their disclosure strategy in response to private, but not public, political activities. Hiatt et al.'s (2015) findings contradict those of Reid and Toffel (2009), who find that both public and private political activities led corporations to vary their disclosure strategy. These two studies represent the few attempts to investigate firm responses to movements' public and private political actions jointly. Notably, they differ in their predictions.

I posit that one reason for this difference is these scholars varying measures and narrow choice of private and public political activities. Regarding private political activities, Hiatt et al. (2015) measure the amount of national climate change protests, while Reid and Toffel (2009) measure the amount of shareholder resolutions mentioning climate change. Regarding public political activities, Hiatt et al. (2015) investigate the effects of congressional testimony and Reid and Toffel (2009) investigate the effect of introduced legislation. Beyond these different measures, these scholars chose one measure of each type of activity. To bridge these studies and better understand corporations' responses to movements, I explore how disclosure varies in response to a variety of public and private political activities explored in other research. This broader approach follows Rhee and Fiss's (2014) suggestion that that corporations frame their activities in disclosures in response to discrete pressures and events. In this paper, I frame my question as: how do the environmental movement's public political activities—e.g. congressional testimony, national protests, formation of environmental organizations, and lawsuits—and private political activities—e.g. directed protests and media shaming—shape corporations' environmental disclosures?

To answer this question, I also follow the advice of Guthrie, Cuganesan, and Ward (2008) to explore corporate behavior in a specific historical and industry context. In this paper, I explore Investor Owned Utilities' (IOUs)—publically traded electricity corporations—environmental disclosures in response to environmental movement's public and private political actions between 1960 and 1975.

The time-period I investigate captures significant changes to IOUs' normative and regulatory environment. Specifically, between 1960 and 1975, the environmental movement substantially grew and diversified (Brulle, 2009; Gottlieb, 2005). The movements' public political activities shaped environmental norms and political processes—setting the stage for the expansion of environmental regulations (Martinez, 2013; Olzak & Soule, 2009). Separate, yet related to the expansion of environmentalism, citizens and policymakers grew increasingly concerned with energy conservation (Tomain & Cudahy, 2011). In fact, during the early 1970s, Congress began to consider dissolving the naturally monopolistic structure of electricity markets.

During this time period, the growing environmental movement also began directly targeting corporations for both public and private political activities (Hoffman, 2001). Specifically, some environmental organizations sued corporations for their polluting behaviors (Brulle, 1996; Frank, Hironaka, & Schofer, 2000). Moreover, the movement directly protested and shamed IOUs (Hirsh, 1999).

This historical and industrial context exposes an important oversight in the existing disclosure literature. Specifically, scholarship focuses on variation in disclosure language rather than the advent of specific language. Extant scholarship—e.g. Hoffman (2001), Clarkson et al. (2008), Reid and Toffel (2009), Hrasky (2011), and Kraft (2015)—generally assumes an existing environmental disclosure strategy and then focuses on variation in language. Specifically, Hoffman (2001) discusses changes in the framing of environmental sustainability in trade publications between 1960 and 1993. In his discussion of the 1960s and 1970s, he highlights an evolution from regulatory to industrial framing of behavior. He does not discuss the advent of environmental disclosure. I consider this an oversight because the advent of a now taken-for-granted activity elucidates corporate motivations for continued use of the activity (Tolbert & Zucker, 1996). This is particularly salient investigation as policymakers and citizens now rely on voluntary corporate environmental disclosures to judge and sanction corporations (Bromley & Powell, 2012). In my context, IOUs began disclosing environmental information during between 1960 and 1975, with most disclosing by 1975.

In this paper, by using event history analysis, I find that public political activities were the predominant determinant of IOUs first disclosure of environmental information in annual reports. Private political action, however, did not significantly affect environmental disclosure strategy. Moreover, the environmental movements' public political activities influenced IOUs' disclosure strategy differently depending on their target and pathway. For instance, movements' attempts to change regulations increased the rate of first disclosure of environmental information. Conversely, movements' attempts to shape norms of environmentalism and mobilize citizens led to a decreased rate of IOUs' first disclosure. Finally, those public political activities using existing legal pathways did not lead to significant variation in disclosure rate. I argue these findings demonstrate that IOUs responded to the environmental movements' public political activities in an effort to shape/forestall regulations—minimizing uncertainty and risk. These findings show that corporations may use disclosures as narrative devices where they contest and shape emerging norms and regulations.

2.3 Theory and Hypotheses

Between 1960 and 1975, IOUs were exposed to growing pressures from the environmental movement. During this time-period, the environmental movement expanded, diversifying its discourses and recruiting new adherents. With this expansion, the movement began targeting regulators and corporations. One way IOUs engaged the movement and potentially shaped regulatory outcomes was to offer their own narratives and framing of their practices in disclosures.

2.3.A Response to Public Political Activities

The environmental movement's public political activities aimed to change norms and regulations. Amenta et al. (2010) highlight the difficulty in disaggregating these two types of outcomes. I develop hypotheses that map the pathways through which movements use or change regulations to influence corporate behavior. I explore three pathways.

First, I follow the movement's attempts to mobilize citizens to compel social change—in the process evidencing changing norms. The number of environmental organizations—as well as their

resources and membership—demonstrates society’s investment in norms of environmentalism (Marquis & Toffel, 2014; Sine & Lee, 2009). The formation of movement organizations represents a consolidation of monetary, personal, and reputational resources (Schurman, 2004; Zald & McCarthy, 1987). Moreover, regulators perceive movement organizations as more legitimate than a loosely organized movement (McAdam, 1982; McAdam, Tilly, & Tarrow, 2001). This legitimacy is bolstered by the legal designation of many organizations as non-profit, member, or recreational organizations.

IOUs likely perceived the formation of environmental organizations as a signal of changing environmental norms because people were more willing to devote resources to the movement than during previous times. Moreover, IOUs likely perceived the growth of environmental organizations as attempts to mobilize citizens to pressure regulators for change. As such, they likely disclosed to both assuage the environmental movement’s concerns about pollution—essentially managing their impressions—and offer counterpoints to the environmental movement’s framing of the problem. Moreover, IOUs may have intended their disclosures to demonstrate they were already engaging in sought after practices—by extension, stemming the growth of the movement. Therefore, I argue:

Hypothesis 1: An increase in the amount of environmental movement organizations will increase the rate of first disclosure.

Second, like forming a movement organization, mobilizing protests requires significant resources. More specifically, protests require a movement to transform ambient discontent into contentious behavior, so that adherents give their time, effort, and resources to the cause (McAdam, 1983; D. Meyer, 2004; Soule, McAdam, McCarthy, & Su, 1999). Between 1960 and 1975, environmental protests predominantly targeted regulators (Olzak & Soule, 2009; Walker, Martin, & McCarthy, 2008). As such, these protests represented public political activities—attempting to affect corporations by changing regulations.

Unlike the formation of organizations, however, protests are generally short-lived. Moreover, during this time-period, environmental protests were relatively rare—averaging about six protests per year (Olzak & Soule, 2009). Corporations may have perceived these short-term activities as relatively weak

influences on regulators (Olzak & Soule, 2009; Walker et al., 2008). As such, corporations likely responded using a short-term disclosure strategy (Hiatt et al., 2015). In the short term, disclosing environmental information could have exposed IOUs' poor environmental performance and/or further legitimized the environmental movement. Accordingly, IOUs likely decided to withhold environmental information in their disclosures. Therefore, I argue:

Hypothesis 2: The presence of environmental protests nationally will correspond to a decrease in the rate of first disclosure.

In the second pathway, the movement attempts to shape regulations directly. As Olzak and Soule (2009) argue, there is a need to separate regulatory outcomes from regulatory processes. Historians emphasize the growth of environmental regulations, i.e. outcomes, during the 1960s and 1970s. These regulations increased the level of uncertainty and risk by creating penalties for corporations, increasing certain costs, and establishing new rules for market and political exchange (Dobbin & Dowd, 2000; Short & Toffel, 2010). Generally, these concerns motivated corporations to mitigate potential risks by framing their practices to demonstrate they were preemptively engaging in sought after practices and/or to offer information that can influence regulatory language (Dobbin & Sutton, 1998; Edelman, Uggen, & Erlanger, 1999; Short & Toffel, 2010).

The level of uncertainty and risk posed by regulation varies by industry and political level. Until 1978, IOUs operated as natural monopolies, diminishing the power of non-regulatory stakeholders to influence their behavior (Delmas, Russo, & Montes-Sancho, 2007). Accordingly, the introduction of legislation represented a potential shock to their market dominance. This potential, however, likely varied by the level of regulation.

Beginning in the late 1800's, utility executives sought to diminish competition in electricity markets by creating vertically integrated utilities and forming regional monopolies (Granovetter & McGuire, 1998b; Hirsh, 1999; Tomain & Cudahy, 2011). In the 1930s, as regulation loomed, IOUs strongly advocated for oversight at the state level—knowing that they could easily shape state policy (D.

Anderson, 1981). Congress eventually sided with IOUs. Despite the passage of the national Public Utility Holding Company Act in 1935, states retained much regulatory power—especially over electricity rates and market competition. Beginning in 1967, with proposed amendments to the Federal Power Act, IOU dominance in electricity markets, however, came under attack. Specifically, national regulators sought to open generation markets. This culminated with the passage of the Public Utility Resource Protection Act in 1978. This historical context likely made IOUs more wary of national regulation than state regulation. Accordingly, IOUs likely designed a disclosure strategy that responded to national regulatory pressure—using disclosure to forestall regulation. Conversely, they likely retained information that could upset their relative dominance in state regulatory processes. Therefore I posit:

Hypothesis 3a: The introduction of national environmental and energy legislation will increase the rate of first environmental disclosure.

Hypothesis 3b: The introduction of state environmental and energy legislation will decrease the rate of first environmental disclosure.

Social movements not only change regulatory outcomes, they also change regulatory processes. One way that movement organizations shape policy processes is by testifying in Congressional hearings. I argue there are two reasons why corporations may respond with disclosure to a movement's testimony in Congressional hearings. First, corporations may attempt to contest movements' framing of a problem. As Schneiberg & Soule (2005) argue, regulations arise through a dynamic relationship between movements and their targets. In these relationships, corporations use disclosures as narrative devices that transmit their ideal framing of problems to regulators (Zilber, 2006). Second, as Hiatt et al. (2015) demonstrates, corporations respond to movements' public political activities by developing substantive, internal practices that address movement demands. As these practices likely require investments of time and money, corporations justify these expenditures in disclosures. This process can assuage stakeholders' pragmatic concerns regarding profits and shareholder value.

Throughout the 1960s and 1970s, the environmental movement frequently testified at hearings for national environmental regulation (Brulle, 2009; Gottlieb, 2005). As such, IOUs likely responded to their

framing of pollution problems. Moreover, as IOUs likely changed internal practices in anticipation of these laws, there was a need to justify new investments.

Movements are not alone in offering testimony in Congressional debates. Switzer (1997) highlights that the environmental movement forced a strong corporate backlash in the 1970s. This backlash occurred within legislative hearings. Testifying in debates likely diminished IOUs' perceptions of risk and uncertainty because they had a direct way to influence legislation and openly contest the movement's framing of environmentalism. Accordingly, this direct access likely mitigated perceptions of the strength of the environmental movements' public political activities. Therefore, I argue:

Hypothesis 4a: Environmental movement actors' testimonies in hearings preceding environmental legislation will increase the rate of first environmental disclosure.

Hypothesis 4b: IOUs' testimonies in hearings preceding environmental legislation will decrease the rate of first environmental disclosure.

Finally, in the third pathway, a movement uses existing regulations and legal tools to influence corporations. Not all public political activities indirectly target corporations. Namely, environmental movements utilize public pathways to launch lawsuits against corporations. Scholars argue that corporations respond to movements' direct activities in symbolic ways—attempting to stave off lost legitimacy while not changing actual practices (McDonnell & King, 2013). Movements may elicit a substantive response, however, when their actions damage both profits and legitimacy (King, 2008; Vasi & King, 2012). Lawsuits can damage both corporate profits and their reputation (Coglianese & Lazer, 2003; Hoffman, 2001). The potential to directly damage profits, however, is only speculative—depending on the outcome of the trial. Therefore, corporations may not always respond to the filing of lawsuit in a substantive manner.

IOUs likely perceived the filing of a suit against them as a potential threat to profits and legitimacy. They also, however, likely did not change their substantive practices unless the outcome of a

suit required it. Therefore, they may have developed a disclosure strategy that did not expose them to further risk following the filing of a suit. Therefore, I argue:

Hypothesis 5: Lawsuits filed by environmental movement organizations against IOUs will lead to a decreased rate of first environmental disclosure.

2.3.B Response to Private Political Activity

Private political activity takes the form of protests, boycotts, and media shaming deployed directly against corporations (Soule, 2009). Scholars argue that corporations respond to these activities in symbolic ways—attempting to stave off lost legitimacy while not changing actual practices (McDonnell & King, 2013). Some private political activity, like boycotts, however, can lead to non-symbolic responses when they damage both profits and legitimacy (King, 2008; Vasi & King, 2012).

Although the environmental movement grew between 1960 and 1975, its power and legitimacy was not assured until the 1980s (Brulle, 2009; Martinez, 2013). Therefore, it is unlikely that IOUs perceived direct, private political activities as threats to their continued legitimacy. Moreover, the environmental movement primarily engaged in protests and media shaming. These activities are generally unlikely to affect both profits and legitimacy. Accordingly, these activities lost their power to garner even a symbolic response. Therefore, I argue:

Hypothesis 6a: Protests will not affect the rate of first environmental disclosure.

Hypothesis 6b: Media shaming will not affect the rate of first environmental disclosure.

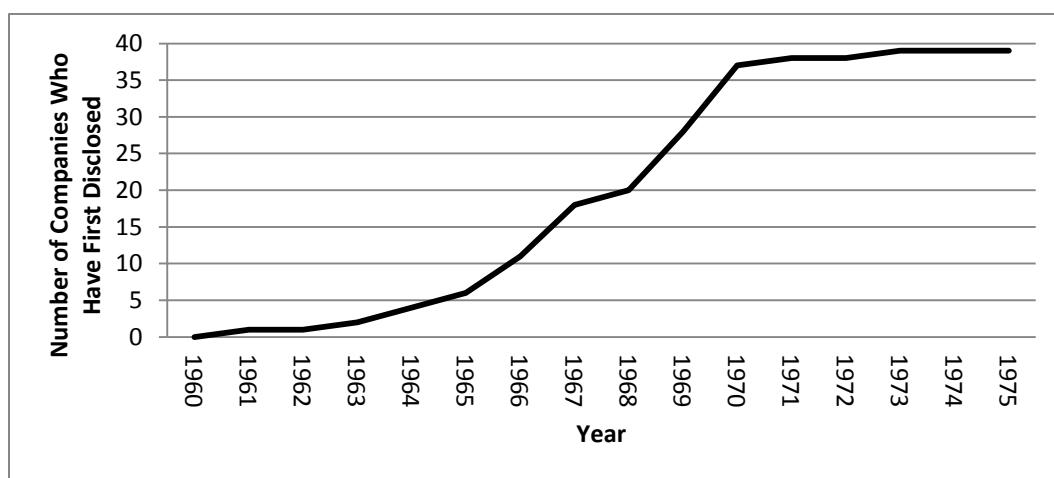
2.4 Methods

To test these hypotheses, I investigated environmental disclosures in the annual reports of 42 IOUs between 1960 and 1975—yielding 672 firm-year observations. I chose these 42 IOUs because of the availability of their annual reports over the entire period.² These 42 IOUs operated in 39 states and represented approximately 70% of all electricity revenues in each year. In 1960, zero IOUs disclosed environmental information. By 1975, however, at least 77% of IOUs, and 95% of those reviewed in this

² The absence of a company's annual report does not mean that they did not create an annual report. Rather the difficulty in attaining these annual reports speaks to the current constraints of databases like Mergent, SEC Edgar, and ThompsonOne Banker.

study, had disclosed some form of environmental information (See Graph 1).³ My investigation of annual reports improves upon Hoffman's (2001) and Hiatt et al.'s (2015) studies of environmental disclosure in the 1960's and 1970's. Unlike the trade publications they consulted, the annual reports that I investigated represent IOUs' purposeful framing of activities to manage the impressions of legislators, shareholders, and social movements. Moreover, there is evidence that movement and regulatory stakeholders read IOUs' annual reports (de Villiers & van Staden, 2010; Hirsh, 1999; Hoffman, 2001; Switzer, 1997).

Graph 2.1: Number of IOUs Who Have First Disclosed by a Given Year



2.4.A Dependent Variables

I used content analytic techniques at the level of sentences to create six dichotomous dependent variables. Specifically, I read annual reports for sentences mentioning: 1) general statements mentioning the environment, 2) general clean air, 3) general clean water, 4) sulfur dioxide, 5) particulate matter, and 6) thermal pollution information. Table 2.1 provides examples of every type of language. These six types of information reflect the most prominent accusations of environmental degradation during the time-period (Harris, 2006; Hirsh, 1999; Tomain & Cudahy, 2011). If an IOU's annual report contained a sentence mentioning environmental information, I coded it as one for that year. Sentences had to specifically refer

³ Although I could not find continuous annual report data throughout the 15 years in question, I did find substantially more annual reports for IOUs for the years 1973-1975. Specifically, I reviewed 96 companies' annual reports in 1975. This represents approximately 85% of IOUs continuously operating during this time period. I found 87 companies disclosed some form of environmental information. Correspondingly, at minimum, 77% of all IOUs disclosed environmental information in 1975.

to the IOUs' programs, metrics, values, missions, or beliefs. Although I collected data regarding these six types of information, I primarily focused on the first variation—using the others to test the robustness of my findings. Two researchers verified my coding. There was 98% agreement between coders.

Table 2.1: Examples of Types of Disclosures Found in Annual Reports

Type of Disclosure	Example
General Environmental	“Niagara Mohawk has long played a leadership role in research to preserve the natural environment and aesthetic qualities within our service area. Today, with the awakening of public interest in conservation of land, air, and water, we are striving more diligently than ever to maintain the highest possible environmental standards.” – Niagara Mohawk (1968)
General Air	“We are engaged in comprehensive programs for improving the air quality at our generating plants. The full operation of our King plant this spring will substantially reduce our dependence on older units and thereby further reduce our contributions to air pollution....” – Northern States Power Company (1967)
General Water	“Maintaining and improving water quality in the streams of our service area is our continuing concern.” – Philadelphia Electric (1972)
Sulfur Oxides	“In 1967, a comprehensive system for measuring atmospheric concentrations of sulfur dioxide was established in our service area.” – Long Island Lighting Company (1969)
Particulate Matter	“For decades, PEPCO has been a leader in preserving the environment – from the installation of modern fly ash collection equipment... to the construction of fully enclosed substations....” – Potomac Electric Power Company (1971)
Thermal Pollution	“The cooling water discharged from our plants is affected only by a temperature rise and is within the thermal limits established by state regulations to protect aquatic life.” – Toledo Edison (1967)

2.4.B Independent Variables

Environmental Movement Organization Growth – I constructed a continuous variable for the number of environmental movement organizations within a year. I found this data in the *Encyclopedia of Associations* and *The Conservation Directory*. Brulle, Hall Turner, Carmichael, & Jenkins (2007) argue that combining these two directories is one of the most comprehensive methods to determining the amount of environmental organizations in a year. In my count of organizations, I included only national member organizations, non-profit organizations, and associations. I did not include organizations that

were government agencies/committees, hunting clubs, local-community organizations, or state organizations. My choice of measure assumes that IOUs' likely perceived the growth of national organizations as stronger evidence of changing norms than local organizations—which may have arisen to contest local, short-lived environmental concerns (Gottlieb, 2005).

Environmental Protests – I gathered data on total environmental protests within a given year from the “Dynamics of Collective Action” dataset collected by Doug McAdam, John McCarthy, Susan Olzak, and Sarah Soule. To collect this data, the researchers read the *New York Times* for everyday between 1960 and 1990, coding protest events.⁴ Although there may be some protests not covered in the nationally disseminated paper, protests covered in the *New York Times* likely signaled a stronger push for legislative change—reaching more citizens and legislators than a local newspaper (Hiatt et al., 2015).

To find environmental protests directly targeting utilities, I investigated media reports for each company over the time-period. I gathered this information using Factiva and Lexis-Nexis databases to find news articles. Articles were from mainstream newspapers, like *The New York Times* and *The Wall Street Journal*, and industry media, like *Electric Utility Week*. In these databases, I searched for all utilities in my sample and “‘protest’ and (‘environment’ ‘clean’ or ‘emissions’)”. I then created a continuous variable, specific to a given IOU. I subtracted these protests from the number of national protest in a given year.

Introduction of Legislation – To find the introduction of national and state laws, I used Westlaw, a legal search service that contains 40,000 databases of regulations, legislation, legislative history, and case law. Specifically, I searched for laws mentioning “air,” “toxics,” “pollution,” “water,” “streams,” “energy,” and/or “electricity.” I then read the laws for reference to pollution abatement and energy conservation. I created four continuous variables for the introduction of national laws pertaining to general environment (e.g. the National Environmental Policy Act), clean air (e.g. The Air Quality Act), clean water (The Clean

⁴ This data set can be found at: <http://www.stanford.edu/group/collectiveaction/cgi-bin/drupal/node/9>

Water Act), energy conservation (e.g. The Federal Power Act), and a composite variable that adds these previous variables together. I also created similar variables for the introduction of state laws. Beyond legislation, I also searched WestLaw for evidence of interstate air and water compacts. These state law variables are specific to the location of IOUs operation and delivery services. In my main model, I used the three composite variables capturing national and state laws, and interstate compacts.

Presence of Movement and Utilities in Legislative Debates – I used Westlaw and ProQuest Legislative Insight, a database of legislative histories for Federal Legislation, to find evidence of environmental movement and utility testimony in Congressional debates. In committee and legislative transcripts, I specifically searched for environmental organizations and IOUs who testified or sent correspondence. I counted all appearances of these two types of organizations in each hearing. I then calculated the relative percentage of their appearance in Congressional hearings. I did this because utilities likely considered movements' power to shape legislative outcomes relative to how many other actors were consulted in hearings. I also documented and measured the involvement of the Edison Electric Institute, an industry association. Using this information, I created discrete variables corresponding to these actors' testimonies preceding environmental, air, water, and energy laws. In my main model, I used a composite variable capturing the relative presence of movement organizations, utilities, and the EEI in all Congressional hearings in a given year.

Movement Suits against Utilities – To determine the presence of litigation between the environmental movement organizations listed above and IOUs, I used Westlaw. In this database, I searched for litigation pertaining to air/water nuisance, air/water trespass, water pollution, emissions, and air pollution. I only included legal actions that went to trial. This was necessary because it ensured that there were searchable court records. I created year and IOU specific continuous variables relating to the number of lawsuits filed by environmental organizations naming IOUs as defendants.

I searched for suits filed by 15 environmental organizations, e.g. The Sierra Club, The Wilderness Society, The League of Women Voters, The Nature Conservancy, The National Wildlife Federation, The National Audubon Society, The Izaak Walton League, The Defenders of Wildlife, The Environmental Defense Fund, Environmental Action, The Natural Resources Defense Council, The Rachel Carson Council, Greenpeace, The National Water Action Project, and The Air and Waste Management Association. I chose these organizations based on Brulle's (1996) listing of noteworthy environmental organizations that existed between 1900 and 1975. This process ensured that the lawsuits originated from the environmental movement.

Movement Media Shaming of Utilities –To capture negative press coverage, I used Factiva and Lexis-Nexis databases to find news articles. I searched for any press coverage mentioning the 15 organizations mentioned above and each IOU. The articles I found mentioned toxic emissions, pollution, waste, and the environment. I then determined in the movement organization drew attention to the IOU for its poor environmental record. I counted the number of articles in a given year. I used this count to create a utility specific, continuous variable.

2.4.C Control Variables

I controlled for firm specific characteristics that can influence environmental disclosure: including age, net revenues, and return on capital. Previous research finds that large, well performing corporations are more likely than poor performing corporation to voluntary disclose environmental information (Cormier & Magnan, 1999; Lyon & Maxwell, 2011; Wu & Shen, 2013).

Other scholars highlight the importance of environmental performance as a predictor of environmental disclosure (Clarkson et al., 2008). Between 1960 and 1975, there was no comprehensive data collection of IOUs' toxic emissions. Scholars have responded to this dearth of information by creating a variable representing the average age of equipment—assuming that newer equipment is more efficient and less environmentally damaging (Clarkson et al., 2008; Connors & Johnston, 2014; Healy &

Palepu, 2001). Following these studies, I created a ratio of net capital expenditures divided by gross capital expenditures.

As mentioned above, the IOUs' political economy changed throughout the fifteen year period. Therefore, I included two variables to capture these changes. First, I included the average price of a barrel of oil per year. Due to technological stagnation between 1960 and 1970, IOUs increasingly relied on oil to generate electricity (Hirsh, 1999). The OPEC Oil Crisis in 1973 led to spikes in oil prices that posed a threat to IOU profits. High prices led IOUs to investigate alternative fuel sources, including renewables (Tomain & Cudahy, 2011). Investments in these renewables likely increased the rate of environmental disclosure—justifying IOUs' choices.

Second, I included a variable capturing the percentage of Democrats in Congress. In the 1960's, President Johnson's Great Society ushered in a series of liberal reforms and a growth in the federal government (Gottlieb, 2005; Hoffman, 2001). Many utilities disapproved of these reforms (Hirsh, 1999; Tomain & Cudahy, 2011). Although the election of President Nixon in 1972 ushered in Republican control of the White House, Democrats still controlled Congress. It was the combination of Nixon and the Democrat majority that led to the environmental reforms of the 1970s (Kraft & Bogusz, 2016; Martinez, 2013). Scholars have demonstrated that liberal government coalitions in democracies can influence environmental disclosure strategy (Marquis & Toffel, 2011, 2014). Therefore, the percentage of Democratic Congresspeople may influence IOUs' disclosure strategies.

2.4.D Model Specification

To assess the effects of public and private politics on the rate of first environmental disclosure, I used an event history model (Blossfeld, 2001; Box-Steffensmeier, 2004). In an event history model, scholars investigate the hazard function. This function is the instantaneous rate of an event happening within a given time interval. Generally the hazard function is:

$$h_j(t) = g(t, \beta_0 + X_j \beta_x)$$

This function describes the hazard of actor j in response to the presence of multiple predictors via the row vector X_j , where β_x is a column vector of regression coefficients. The function g varies based on the structure of the data. In this paper, I use the Gompertz function.

$$h_j(t) = \exp(\beta_x) \exp(X_j t)$$

This function assumes that the hazard rate is either monotonically increasing or decreasing (Blossfeld, 2001). This assumption makes sense given the diffusion of practices that Sine and his colleagues found within the electric utility industry in the 1970s (Sine, Haveman, & Tolbert, 2005; Sine & Lee, 2009). I chose a Gompertz over a Weibull specification because of the multiple and potentially interacting predictor variables (Blossfeld, 2001; Juckett & Rosenberg, 1993). Moreover, my specification allows me to consider some level of diffusion of practices among organizations—a consideration an exponential specification would forestall (Allison, 2010).

Although my measurements take place during discrete time periods, time is still a continuous variable. As other scholars have recently done using a similar data structure, I use a continuous event history model (e.g. Briscoe & Safford, 2008; Sine, Haveman, & Tolbert, 2005; Sine & Lee, 2009). Many scholars prefer continuous over discrete event history models when there is little right-censoring and when there are few ties between variables (Allison, 2010; Frank et al., 2000; Frank, Longhofer, & Schofer, 2007). These are not concerns with my data. Later, however, I test the robustness of my choice by using a discrete event history model. My outcomes are robust to model specification.

To best specify my model, I tested for multicollinearity. To test for multicollinearity, I calculated the variance inflation factors (VIFs) for my independent variables. I also ran a stepwise variable selection protocol to indirectly test for multicollinearity. Both tests demonstrate that concerns of multicollinearity arise from inclusion of the number of movement organizations and total environmental protest variables. All other variables survive the stepwise protocol and have VIF's less than five. Thus, my variables contain an acceptable amount of multicollinearity (Afifi, May, & Clark, 2011). To alleviate concerns

about my collinear variables, I orthogonalized these variables using the Gram-Schmidt procedure (Saville & Wood, 1997). This procedure removes common variance between collinear variables. Table 2.2 shows the descriptive statistics and correlations between independent variables. I also accounted for autocorrelation. Panel data poses a risk of autocorrelation both within and across panels. In my model construction, following the advice of Wooldridge (2010), I minimized autocorrelation by incorporating both year and firm specific variables.

Table 2.2: Descriptive Statistics and Correlations for Key Variables

Variable	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11
1. Organizational Age	63.56	22.44	10	129	1										
2. Net Revenues†	3.20	3.76	.003	26.1	0.101	1									
3. Equipment Innovation	11.44	17.89	0	194.42	0.044	-0.034	1								
4. Return on Capital	6.3	4.42	.100	80.12	0.089	0.037	-0.035	1							
5. Introduction of Nat. Law	2	1.37	0	4	0.181	0.253	0.148	-0.081	1						
6. Introduction of State Law	0.188	0.368	0	2	0.048	0.146	-0.035	0.0946	0.1702	1					
7. Movement in Cong. Hearings (%)	27.54	18.21	0	65	0.0105	-0.001	0.0703	0.0508	0.1789	0.1527	1				
8. Total Movement Orgs	201.5	64.98	115	311	0.203	0.289	0.1604	-0.084	0.6591	0.08	0.0278	1			
9. Total Movement Protests	5	2.137	0	20	0.011	-0.013	-0.001	-0.023	0.1637	0.1929	0.1858	0	1		
10. Media Shaming	.075	.376	0	5	0.026	0.447	0.040	-0.001	0.1488	0.15	0.0106	0.1466	-0.061	1	
11. Lawsuits	.045	.215	0	2	-0.036	0.162	-0.005	0.013	0.1695	-0.009	-0.021	0.1552	-0.066	0.093	1

2.5 Results

I present the results of my event history analysis in Table 2.3. In my model, the proxy for environmental performance and return on capital were insignificant predictors of a utility's first environmental disclosure. This makes sense given the regulated market's foreclosure of competition. Specifically, there was little incentive to disclose environmental information as a signal to consumers a green image in an effort to increase competitive advantage (Clarkson et al., 2008). The age and revenues control variables were also not significant predictors of the first environmental disclosure.

Both of the percentage of Democratic Congresspeople and yearly oil price variables were significant predictors of first environmental disclosure. The percentage of Democrats in Congress was positively correlated to the rate of first disclosure of environmental information. As discussed above, Democrats in the 1960s and 1970s advocated for a stronger government presence in the electricity industry and its environmental performance. Therefore, IOUs likely perceived their dominance as a threat to the current regulatory environment and thus chose to disclose. Yearly oil price was negatively correlated to first environmental disclosure. The rising price of oil was an exogenous shock to utilities—increasing their costs of doing business. Knowing that shareholders would be wary of additional costs, IOUs did not disclose environmental information.

My findings support many of my hypotheses regarding the effect of public political activities on the rate of first environmental disclosure. For instance, both the introduction of national legislation and movement testimony correlated to an increased rate of first disclosure. Additionally, the number of protests and utility testimony correlated to a decreased rate of first environmental disclosure. Moreover, the introduction of state legislation did not affect disclosure strategy. The only deviations from my hypotheses regarding public politics occur when considering the number of environmental organizations and lawsuits. My results demonstrate that the number of organizations correlates to a decreased rate of first environmental disclosure. Moreover, lawsuits do not significantly affect the rate of first environmental disclosure

My findings regarding private political activities support both of my two hypotheses. As predicted, protests and media shaming do not significantly affect the rate of first environmental disclosure.

Finally, Hiatt et al. (2015) argue that private and public political activity, when taken together, may have a different effect on corporate behavior than when considered separately. I find support for this assertion. I created an interaction variable to capture both public and private variables. This is shown in Model 2. I find that public and private political activities together correlated to a decrease in the rate of first environmental disclosure. Following Hiatt et al.'s (2015) reasoning, I argue IOUs prioritize response to short-term, private political activities. Therefore, they decrease their rate of first disclosure to avoid further scrutiny after a lawsuit.

I present another interaction regarding dominant utilities and their presence in debates in Model 2. I argue that more successful utilities may feel less likely to disclose environmental information, especially if they are present in the legislative debate. I find these interactions to be non-significant.

Table 2.3: Effects of Public and Private Political Activities on the Rate of IOUs' First General Environmental Disclosure

Variable	Model 1	Model 2
Control Variables		
Organizational Age	0.00839 (0.00722)	0.00769 (0.00729)
Net Revenues	0.0001 (0.01)	0.0001 (0.01)
Equipment Innovation	-0.00402 (0.0124)	-0.00389 (0.01240)
Return on Capital	-0.09750 (0.175)	-0.08050 (0.175)
Percent Democrat in Congress	3.950*** (0.915)	3.346*** (0.818)
Oil Price	-8.037*** (-1.539)	-7.572*** (-1.356)
Explanatory Variables		
Total Movement Organizations (H1)	-142.8*** (23.40)	-146.7*** (23.03)
National Environmental Protests (H2)	-119.3*** (21.34)	-117.1*** (19.44)
Introduction of Nat. Law (H3A)	4.492*** (1.397)	3.066** (1.455)
Introduction of State Law (H3B)	-0.46000 (0.437)	-0.52700 (0.447)
Interstate Compact (H3B)	-0.04870 (0.318)	0.00515 (0.311)
Movement in Congressional Hearings (H4A)	1.170*** (0.209)	1.150*** (0.191)
Total Utilities in Congressional Hearings (H4B)	-6.434*** (1.141)	-6.389*** (1.053)
Specific Utility in Congressional Hearings (H4B)	0.08140 (1.078)	0.70200 (3.642)
EEI in Congressional Hearings (H4B)	54.29*** (9.874)	52.58*** (8.885)
Movement Lawsuit (H5)	0.146 (1.083)	142.5*** (37.07)
Directed Protest (H6A)	0.000001 (0.0002)	0.000001 (0.00023)
Movement Media Shaming (H6B)	0.15200 (0.332)	0.12100 (0.327)
Specific Utility Presence X Revenues		0.001 (0.10)
Movement in Cong. Hearing X Lawsuit		-7.794*** (2.09900)
Constant	-376.6*** (71.59)	-352.1*** (63.13)
Gamma	0.0774***	0.0796***

Robust standard errors in parentheses; † in Millionths

* p < .10; ** p < .05; *** p < .01

2.5.A Robustness Tests

As I mentioned in the methods section, I collected information regarding IOUs' disclosures of clean air, clean water, sulfur dioxide, particulate matter, and thermal pollution. In Table 2.4, I present the findings of my event history analysis for the first disclosure of each type of information. Notably, the yearly oil price, the amount of environmental organizations, and the amount of national environmental

protests are significant predictors of an increased rate of first disclosure of all types of information. Moreover, there is much consistency between my findings regarding general environmental disclosure and general clean air and water disclosures—with indicators of public political activities remaining significant predictors. Lawsuits, however, are significant predictors of air and water disclosures, while they are not significant predictors of environmental disclosure. This demonstrates that IOUs may perceive lawsuits as threats to both profits and legitimacy—compelling IOUs to disclose more specific language to assuage movement concerns. These models demonstrate the robustness of my findings to changes in dependent variable specification, so long as I consider general disclosure language.

Table 2.4: Effects of Public and Private Political Activities on the Rate of IOUs' First Disclosure of Discrete Types of Environmental Information

VARIABLES	Air	Water	Sulfur Dioxide	Particulate Matter	Thermal Pollution
Total Movement Organizations (H1)	-45.70*** (7.697)	-15.23*** (2.713)	-25.48*** (4.681)	-11.96*** (3.794)	-19.16*** (3.952)
National Environmental Protests (H2)	-0.793 (0.761)	-3.886** (1.762)	-3.483*** (1.001)	-1.561** (0.728)	-1.796** (0.79)
Introduction of Nat. Law (H3A)	4.730*** (1.758)	-1.195** (0.492)	-1.115 (1.035)	-1.202 (0.766)	-0.578 (1.123)
Introduction of State Law (H3B)	-0.267 (0.45)	-0.875 (0.533)	-0.0378 (0.356)	-0.575 (0.658)	-0.325 (0.558)
Interstate Compact (H3B)	-0.319 (0.303)	-0.115 (0.301)	-0.208 (0.282)	-0.0878 (0.396)	0.0648 (0.299)
Movement in Cong. Hearings (H4A)	0.119** (0.051)	-0.0253 (0.0272)	-0.0987** (0.0408)	-0.0377 (0.0323)	-0.0649 (0.0421)
Total Utilities in Cong. Hearings (H4B)	0.734*** (0.219)	-0.186* (0.107)	-0.0311 (0.0788)	-0.0699 (0.0701)	0.0111 (0.114)
Specific Utility in Cong. Hearings (H4B)	-12.04 (986.1)	1.08 (0.954)	1.386 (1.3)	1.489 (1.242)	-17.55 (7,891)
EEI in Cong. Hearings (H4B)	-4.972*** (1.428)	2.261** (1.014)	2.023*** (0.636)	0.953* (0.506)	0.433 (0.859)
Movement Lawsuit (H5)	2.280*** (0.655)	2.195*** (0.74)	1.188* (1.035)	0.653 (1.262)	1.098 (0.84)
Directed Protests (H6A)	0.000001 (0.0012)	0.000015 (0.0021)	0.000003 (0.0013)	0.000001 (0.0019)	0.0000013 (0.0016)
Movement Media Shaming (H6B)	-0.745 (1.036)	0.318 (0.482)	-1.123 (1.022)	0.161 (0.978)	0.128 (0.449)
Constant	-148.3*** (29.33)	-27.66*** (10.15)	-66.44*** (17.03)	-26.18*** (9.8)	-31.88** (13.95)
Control Variables	Yes	Yes	Yes	Yes	Yes
Gamma	0.0330***	0.0104***	0.0191***	0.00936***	0.0140***

Robust standard errors in parentheses; † in Millions

* p < .10; ** p < .05; *** p < .01

Rhee & Fiss (2014) argue that corporations frame narratives of their activities in response to specific events. To this end, I reran my models using specific air and water legislative variables. I present this information in Table 2.5. Despite attending to event specificity, the effects of national legislation, movement testimony, national protests, and total movement organizations remain significant predictors of first disclosure. Therefore, I argue that my findings are robust to legislative variable specification.

Table 2.5: Effects of Public Political Activities for Specific Air and Water Laws on the Rate of IOUs' First Environmental Disclosures

VARIABLES	Air	Water
Total Movement Organizations (H1)	-82.43*** (13.68)	-23.14*** (5.476)
National Environmental Protests (H2)	-88.17*** (15.73)	-5.439*** (1.642)
Introduction of Nat. Law (H3A)	102.3*** (18.68)	9.908** (4.958)
Introduction of State Law (H3B)	-0.0941 (0.772)	-1.678 (1.157)
Interstate Compact (H3B)	-0.332 (0.534)	-0.419 (0.476)
Movement in Congressional Hearings (H4A)	7.030*** (1.283)	0.0946* (0.0538)
Total Utilities in Congressional Hearings (H4B)	-8.579*** (1.585)	-0.239* (0.135)
Specific Utility in Congressional Hearings (H4B)	18.85 (16.821)	1.084 (1.037)
EEI in Congressional Hearings (H4B)	90.85*** (16.38)	2.691** (1.101)
Movement Lawsuit (H5)	1.686*** (0.651)	2.208*** (0.649)
Directed Protest (H6A)	0.0000001 (0.0001)	0.0000001 (0.0001)
Movement Media Shaming (H6B)	-0.932 (0.998)	0.305 (0.465)
Constant	-1,814*** (323.6)	-48.01*** (9.352)
Control Variables	Yes	Yes
Gamma	0.107***	0.0118***

Robust standard errors in parentheses; † in Millionths

* p < .10; ** p < .05; *** p < .01

Finally, Table 2.6 explores insights offered by Hiatt et al. (2015). Specifically, I analyze whether public and private political activities change IOUs' substantive practices. In a mixed effects model, I tested whether my explanatory variables led to variation in the amount an IOU invested in new technologies. Table 2.6 demonstrates that congressional testimony affected IOUs' investment in new technology. This aligns with Hiatt et al.'s (2015) finding. Moreover, it supports my reasoning in Hypothesis 4a. Specifically, IOUs may disclose information to justify expenditures in new technologies.

Table 2.6: Effects of Public and Private Politics on Investments in New Technology

VARIABLES	Tech. Innovation
Total Movement Organizations (H1)	2.746 (2.291)
National Environmental Protests (H2)	-0.058 (0.876)
Introduction of Nat. Law (H3A)	0.251 (0.600)
Introduction of State Law (H3B)	-2.147 (1.615)
Interstate Compact (H3B)	-2.129 (1.501)
Movement in Congressional Hearings (H4A)	0.054** (0.0274)
Total Utilities in Congressional Hearings (H4B)	-0.065 (0.057)
Specific Utility in Congressional Hearings (H4B)	-0.0527 (2.154)
EEI in Congressional Hearings (H4B)	-0.386 (0.765)
Movement Lawsuit (H5)	-1.0523 (1.639)
Movement Media Shaming (H6)	0.29 (0.872)
Control Variables	Yes
Constant	32.538*** (9.733)

Robust standard errors in parentheses; † in Millionths

* p < .10; ** p < .05; *** p < .01

Finally, to test the robustness of my model specification, I reran my general environmental disclosure model using a discrete event history model. In discrete event history models, scholars relax assumptions of continuous time. In practice, scholars usually consider this hazard function as Logistic. My general findings are robust to model specification with signs and significance aligning between continuous and discrete models—the magnitude of coefficients does vary.

2.6 Discussion and Conclusion

My study adds to the growing literature on the effects of both public and private political activities on corporate behavior. Specifically, my investigation adds new insights into the relationship between the environmental movement and corporations during a period of great change in environmentalism. In this study, I find that IOUs began disclosing environmental information in response to the movement's public political activities between 1960 and 1975. IOUs, however, did not vary their disclosure strategy in response to private political activities. I argue these findings demonstrate that IOUs privileged using disclosures to influence norms and regulations over responding to direct attacks.

This study contributes to social movement, disclosure, and environmental history literatures. First, this study adds to the growing literature on the differential effects of movements' public and private political activities on corporate behavior. Like Hiatt et al. (2015), I find that these two types of activities led to different types of corporate responses. Specifically, I find that 1) public political activities effecting political outcomes and processes led to an increased rate of first environmental disclosure; 2) public political activities representing citizen discontent, evidencing changing norms and political pressures, led to a decreased rate of first disclosure; and 3) public and private political activities directly targeting IOUs did not lead to a significant change in the rate of first disclosure.

I argue these findings reinforce Hiatt et al.'s (2015) argument that the short-term/long-term nature of strategies matter. In this paper, I find that corporations generally privilege a long-term strategy in dealing with movement activities. IOUs' long-term strategy attempted to shape norms and regulations. Specifically, I find that public political activities that evidence attempts to mobilize citizens, e.g. public protests and growing environmental organizations, led to a decreased rate of first disclosure. Movement activities directly aimed at changing regulations, however, led to an increased rate of first environmental disclosure. I argue these findings expose a long-term disclosure strategy that privileges attempts to diminish the risk and uncertainty inherent in future regulation (Short & Toffel, 2008). This long-term strategy, however, may expose IOUs' attempts to delegitimize new norms of environmentalism by not disseminating environmental information. These findings reinforce the importance of economic concerns, like uncertainty and risk, in understanding response to movement activities.

My findings regarding the effects of Congressional testimony add nuance to existing understandings of the public political activity. Specifically, I find that the environmental movements' testimony led to an increased rate of first environmental disclosure. I, however, also find that this effect is attenuated by utilities' testimony. Therefore, I argue that corporations may adapt their practices based on their perceptions of future regulatory risk. Corporations may consider future regulation less of a threat when regulators make an effort to consider their voice. In this context, rather than risking exposure of

poor environmental performance in public disclosures, e.g. annual reports, corporations prefer to shape regulations directly by participating in Congressional hearings. This effect is yet further mediated by the presence of industry societies in congressional debates. The presence of the EEI increased the rate of first environmental disclosure. This demonstrates that IOUs may disclose information to support industry initiatives. I argue this occurs because testimony by the EEI represents agreed upon narratives and, therefore, IOUs' individual disclosures do not risk exposing deviation from industry accepted practices.

Second, my study contributes to the environmental disclosure literature. Most existing studies investigate variation in disclosure content—focusing on changes to an existing disclosure strategy. This study focuses on the advent of environmental disclosure strategy. I find that public political activities may have a greater effect on disclosure strategy than Hiatt et al. (2015) predicts. Rather, my finding supports Reid and Toffel's (2009) finding that public political activities influence disclosure strategies. I argue this similarity arises because of Reid and Toffel's (2009) focused on the adoption of a novel disclosure practice—responding to the Carbon Disclosure Project's questionnaire publicly. Hiatt et al. (2015), however, focused on variation in an existing disclosure strategy in press releases. In this context, my findings demonstrate that considering the advent of a strategy may affect findings.

Third, my findings add to historical understandings of the relationship between corporations and social movements. Specifically, I find evidence that IOUs used environmental disclosure as part of the corporate backlash to regulatory change that Switzer (1997) describes. As part of this backlash, corporations used disclosure language to contest and corroborate the environmental movements' framings of pollution and degradation. Therefore, my findings highlight a broader role than previously discussed for corporations in shaping environmental norms and regulations during this pro-environmental period. Accordingly, I argue that certain corporations may have been instrumental in shaping environmentalism.

The limitations of my study offer future lines of inquiry. First, my focus on a specific industry limits the generality of my findings. I argue scholars should investigate industries operating in regulated

markets, e.g. airlines, railroads, and banks, and/or unregulated markets, e.g. financial organizations. I assume that regulated entities would respond to public political activities in a similar manner to IOUs. This, however, should be investigated because IOUs' were exposed to broader political-economic shocks, like the OPEC Oil Crisis, than other corporations. Second, my broad categorization of information does not account for positive and negative framings of environmental stewardship activities. Future qualitative work should investigate the overlap between corporate disclosure language and environmental movement frames. This will also expose contestation and collaboration in shaping environmental norms and regulations. Third, future work should compare the advent of and changes to environmental disclosure strategies to better distinguish substantive and symbolic responses in other industries and time-periods.

This study adds to the emerging literature on the effect of social movements' public and private political activities on corporate activities. My specific addition is an investigation of the advent of corporate environmental disclosures. In this paper, I expose IOUs perceptions of the growing environmental movement and their efforts to shape regulations. Key to this argument is the role of disclosures as a tool for mediating social movements' activities. As such, this study demonstrates that corporations, through their disclosures, may have played an instrumental role in shaping early environmental norms and regulations.

CHAPTER 3: SHEDDING LIGHT ON STAKEHOLDER POWER IN A REGULATED MARKET: A STUDY OF VARIATION IN ELECTRIC UTILITIES' CLIMATE CHANGE DISCLOSURES

3.1 Abstract

Extant theory posits that corporations disclose environmental information to maintain economic and legitimacy resources. Frequently, studies find that corporations prioritize the maintenance of economic resources when formulating their disclosure strategies. These studies generally assume competitive markets. Many polluting industries, however, do not operate in competitive markets. Accordingly, current assumptions of competitiveness may obscure potential explanations of disclosure. To remedy this oversight, I investigate how utilities vary their climate disclosures in response to regulatory, movement, and shareholder pressures within monopolistic and oligopolistic markets. By using a mixed-effects model, I find that embeddedness in regulatory processes and movement targeting correlate to an increase in disclosure materiality. Interestingly, within monopolistic electricity markets, shareholder pressures do not lead to variation in disclosure materiality. As markets become less monopolistic, I find that shareholders resume their position of power, increasing disclosure materiality. I argue these findings demonstrate that market competition influences corporations' perceptions of stakeholder power.

3.2 Introduction

Throughout United States history, privately owned, publicly traded corporations have been the predominant actors responsible for generating, transmitting, and delivering electricity (Hirsh, 1999). In 2013, these investor owned utilities (IOUs) constituted 66% of the electricity industry—supplying electricity to 99 million customers and earning 223 billion dollars in revenue (American Public Power Association, 2013). These same organizations are major emitters of greenhouse gasses (Lutzenhiser et al., 2002). As such, in the contemporary period, they have become targets of regulator, social movement, and shareholder scrutiny—calling them to address their environmental impacts (Delmas et al., 2007; Heiman & Solomon, 2004; Sine & Lee, 2009).

In response to this scrutiny, IOUs have disseminated voluntary climate disclosures, written narratives of corporate behavior not easily observed by stakeholders (Bromley & Powell, 2012; Clarkson et al., 2008). Generally, studies demonstrate that corporations privilege maintaining economic resources—e.g. shareholder value and return on assets—over legitimacy resources—e.g. reputation—when forming disclosure strategy (Clarkson et al., 2008; E.-H. Kim & Lyon, 2015; Lyon & Maxwell, 2011; McDonnell & King, 2013; Reid & Toffel, 2009). These disclosure studies support the expansive literature on stakeholder power. Specifically, they reinforce findings that stakeholders who directly affect economic resources, e.g. shareholders, have primacy over those who primarily affect legitimacy resources, e.g. social movements (King, 2008; Vasi & King, 2012).

Despite this emphasis on economic resources, few disclosure studies have explicitly investigated corporate disclosure strategy in less-competitive market structures, like monopolies and oligopolies. Generally, this relative failure is an oversight because the strength of competitive forces influences corporations' ability to acquire and maintain economic resources (Delmas & Burbano, 2011; Delmas et al., 2007). If corporations disclose to maintain these resources, then market structures necessarily influence disclosure. More specifically, existing scholarship may be ill equipped to understand IOUs disclosures strategies because these corporations operate within nationally oligopolistic and regionally monopolistic markets. To understand the influence of market structures on IOUs' perceptions of stakeholder power to effect economic and legitimacy resources, I ask: how do regulatory, movement, and shareholder pressures affect the content of IOUs' climate disclosures?

In answering this question, I respond to scholars' calls to investigate the multivocal nature of stakeholders' expectations and how corporations communicate to satisfy those expectations (Fiss & Zajac, 2006; Rhee & Fiss, 2014). Moreover, I describe disclosure content using a spectrum of materiality. Material information empowers stakeholders to form judgments about, monitor, and guide corporate behavior (Deegan & Rankin, 1997; Garner, 2014). Unlike other descriptions of disclosure content,

materiality does not presume stakeholders' expectations. As such, it offers a broad standard to understand stakeholders' perceptions of climate disclosures.

My empirical analysis of IOUs' climate disclosures highlights that market structures can matter for environmental disclosure strategy. I find that the electricity market shapes IOUs' perceptions of stakeholder power to affect economic and legitimacy resources. Specifically, I argue that when the market protects economic resources corporations prioritize the maintenance of political power and legitimacy. This prioritization leads to a disclosure strategy that uses material information to minimize scrutiny that arises from embeddedness in regulatory processes and to maximize legitimacy following a social movement attack. The electricity market, however, seems to diminish IOUs' perceptions of shareholder divestment risk. As a whole, these findings motivate future work on how markets shape corporations' perceptions of stakeholder power and, by extension, their disclosure strategies. These future studies will assist scholars in better understanding specific industries with less competitive structures, including those that are major polluters, like airlines, oil, and natural gas. Moreover, my findings motivate a more comprehensive treatment of disclosure language than utilized in many previous studies.

3.3 Theoretical and Empirical Motivation

3.3.A Current Theories of Corporate Disclosure Content

Disclosure scholars argue that corporations disseminate environmental information to mediate relationships with their stakeholders, managing their impressions (McDonnell et al., 2015; Patten, 1992; J. Roberts, 1991). Existing research focuses on how corporations manage impressions by varying the content of their disclosures. Although scholars use myriad content categories, I argue these categories can be simplified into a substantive—i.e. non-selective and verifiable—or symbolic—i.e. not grounded in actual practice—dichotomy (Clarkson et al., 2008; Hrasky, 2011; Marquis & Toffel, 2014).

Generally, scholars contend that a corporation will not disclose substantive environmental information that may damage economic resources (Clarkson et al., 2008; Dye, 1985; Verrecchia, 2001). In these situations, corporations choose to disclose symbolic information that demonstrates alignment

with stakeholders' values, maintaining legitimacy without risking damage to economic resources (McDonnell et al., 2015; Reid & Toffel, 2009; Stanny, 2013). Many studies support these arguments—demonstrating that corporations disclose symbolic environmental information, unless stakeholders motivate them to do otherwise (C. Cho & Patten, 2007; Clarkson et al., 2008; Short & Toffel, 2008).

The most common motivation is when stakeholders have power to affect economic resources. For instance, corporations use environmental disclosures as a signal to attract environmentally conscious consumers (Clarkson et al., 2008; Greening & Turban, 2000). In another notable example, corporations tend to disclose more substantive information and/or concede to poor performance when stakeholders' actions threaten both profits and legitimacy (King & Soule, 2007; Reid & Toffel, 2009). In a final example, as an object of increasing stakeholder scrutiny, corporations disclose substantive environmental information to alleviate pressure and anticipate future exposure that may diminish reputation and economic resources (Marquis & Toffel, 2014; McDonnell et al., 2015). Every example above reinforces the idea that corporations privilege the maintenance of economic resources, many times, over legitimacy resources when creating disclosure strategies.

Despite an emphasis on economic resources, research generally fails to explicitly consider how variation in market structures influences disclosure strategy (Delmas & Burbano, 2011; Delmas et al., 2007; E.-H. Kim, 2013). Existing scholarships' tangential considerations of market structures occur at the stock exchange, industry level, and state level (Guthrie et al., 2008; Healy & Palepu, 2001; E.-H. Kim & Lyon, 2015; Marquis & Toffel, 2014). Scholars employ stock exchange and industry variables attempting to understand how globalization, international accounting standards, and environmental performance affect environmental disclosure strategy. Other scholars, like Kim and Lyon (2015), have investigated how de-regulation of state markets influences corporations' responses to shareholder pressures. At stock exchange, industry, and state levels, however, scholars assume competitive market structures. For instance, Wiseman (1982) and Clarkson et al.'s (2008) studies of polluting industries do not account for variation in competition within industries, specifically the oligopolistic structures of oil and electricity

industries. In another example, Delmas and Burbano (2011) implicitly assume that more firms necessarily mean competition and increased diffusion of environmental disclosures. In a final example, Kim and Lyon (2015) assume that de-regulation within state level electricity markets creates traditional notions of a competitive market. In most cases, however, de-regulation of electricity markets, at best, has led to oligopolies, not perfect competition (Harris, 2006; Tomain & Cudahy, 2011).

Most other environmental disclosure studies similarly assume competitive market structures. In their theoretical reasoning, scholars argue that stakeholders make decisions based on disclosed information. If they do not agree with a corporation's practices, they can engage with another corporation who is a competitor. This reasoning assumes the presence of a competitor allows a stakeholder to choose that competitor. By sampling only publically traded corporations, scholars implicitly assume competitive market structures where corporations attempt to maximize shareholder value. This research design obscures the potential effects of non-competitive market structures on disclosure strategy.

Scholars should explicitly consider the effects of market structures on environmental disclosure for two reasons. First, market structures influence how corporations gain and maintain economic resources. Market structures shift traditional notions of stakeholder power, specifically the idea of shareholder and consumer primacy (T. Cho & Hambrick, 2006; Delmas et al., 2007; Smith & Grimm, 1987). For instance, monopolistic and oligopolistic markets disempower consumers to use their purchasing choices to guide corporate behavior, insulating corporations from threats to profits (Posner, 1974). Accordingly, corporations in less-competitive markets likely perceive their consumers as less powerful. Generally, as corporations engage in disclosure strategies based on their perception of stakeholder power, market structures that influence these perceptions can affect disclosure strategy.

Second, several polluting industries operate in less-competitive market structures. For instance, gas, oil, coal, and airline industries operate in oligopolistic market structures (T. Cho & Hambrick, 2006; Smith & Grimm, 1987; Tomain & Cudahy, 2011). Therefore, if one goal for investigating environmental

disclosures is to understand environmental stewardship behaviors, then scholars must consider the potential eccentricities of polluting industries' market structures. This paper directly considers one polluting industry that operates in an oligopolistic market structure. Although my approach focuses on only one industry and one market structure, it demonstrates how variation in market competition leads to a deviation from outcomes expected in previous literatures.

3.3.B IOUs' Regulated Market—the Structure of Oligopoly

Shortly after their creation, electric utilities sought to create a monopolistic, protected market. Beginning in the late 1800's, utility executives sought to insulate the electricity market from competition by creating vertically integrated utilities, i.e. IOUs, and forming regional monopolies (Granovetter & McGuire, 1998b; Hirsh, 1999; Tomain & Cudahy, 2011). In the early 1900s, in an effort to dissuade vertically-integration and the creation of multi-state monopolies, national legislators passed the Public Utility Holding Company Act (PUHCA). This law required IOUs to disclose their corporate structures to the Security Exchange Commission (SEC). The SEC could then dissolve IOU holding company structures. Coinciding with these national efforts, states created utility commissions that had oversight authority for electricity rates and entrance into state electricity markets. Together these laws codified IOUs' belief that they were natural monopolies. Natural monopoly status plus IOUs dominance on utility commissions offered them much power and protection throughout much of the 1900s (D. Anderson, 1981).

In the 1970's, the OPEC oil crisis, the rise of environmentalism, and technological stagnation, however, motivated national legislators to challenge IOUs' natural monopoly status (Hirsh, 1999). Specifically, in 1978, the passage of the Public Utility Regulatory Policy Act (PURPA) ushered in competition within the electricity generation market by relaxing barriers to entry for non-IOU organizations and mandating states create opportunities for renewable generators. This law, however, was of limited success because of the proprietary nature of transmission lines, the hesitancy of some states to

implement the law, and the expiration of certain contractual relationships between IOUs and renewable generators (Harris, 2006; Tomain & Cudahy, 2011).

In the contemporary period, national legislators have attempted to alleviate some of these problems by passing the Energy Policy Acts of 1992 and 2005. These laws and subsequent regulations created independent transmission entities, supported distributed generation systems, and laid the foundation for a national grid. Despite these laws' efforts, they did little to weaken regional monopolies (Heiman & Solomon, 2004; Patterson & Clamp, 2013). Moreover, these laws gradually revoked PUHCA—allowing IOUs to once again form holding company structures and tighten vertical integration (Gerrard, 2011). In the contemporary period, scholars describe the electricity market as a regulated market, which is nationally oligopolistic and regionally monopolistic (Gerrard, 2011; Harris, 2006).

3.3.C A Multivocal Consideration of Disclosure Content

In their market, IOUs use environmental content to attend to stakeholders' expectations. Work by Rhee and Fiss (2015) highlight the multivocal and potentially divergent nature of stakeholders' expectations and corporations' responses in disclosures. I argue that the dominant substantive/symbolic dichotomy limits scholars' ability to capture this multivocality because it only measures content along one dimension, its verifiability, and it assumes that stakeholders only judge information based on this dimension. To better capture the multivocality of disclosures, I use a spectrum of materiality.

I use the legal definition of materiality. Material information empowers stakeholders to form judgments about, monitor, and guide corporate behavior (Cooper & Owen, 2007; Garner, 2014; Wiseman, 1982). By extension, material information empowers stakeholders' to mobilize legal resources and/or launch formal grievance procedures. I juxtapose material information to symbolic information. Symbolic information uses broad language to speak to normative and cultural systems (Fiss & Zajac, 2006). It is less verifiable, limiting stakeholders' ability to use it in legal and grievance proceedings (Bowen, 2014; Cooper & Owen, 2007). Moreover, although symbolic information empowers stakeholders to judge corporate behavior, its broadness makes it difficult for stakeholders to incorporate into some rational

decision-making processes (Feldman & March, 1981; Ocasio, 1997; Pratt & Rafaeli, 2001). The concept of materiality improves on the idea of substantiveness because it does not assume stakeholders' expectations. Rather it captures the potential usefulness of the information to stakeholders when judging corporations' activities. By offering material information, corporations offer stakeholders information that can expose them to threats to economic and legitimacy resources.

Materiality and symbolic information lie at different ends of a spectrum. I argue a spectrum is necessary because stakeholders cannot always perceive information as purely material or symbolic. This is especially true given their variable trust in corporations and the difficulty in understanding and verifying information. Corporations vary the materiality of their disclosures to offer information to stakeholders they perceive as powerful grantors of economic and legitimacy resources. To explore the variation in climate disclosure materiality, I question: how do regulatory, social movement, and shareholder pressures affect the materiality of IOUs' climate disclosures within a regulated market?

3.4 Hypotheses

Below I develop four hypotheses of corporate-stakeholder relationships. My development of these hypotheses differs from existing literature in two ways. First, I focus on specific sub-classes of stakeholders, e.g. institutional investors rather than shareholders. Second, I develop my hypotheses with attention to the general oligopolistic structure of the national electricity market. In my results section, I add nuance to my hypotheses by considering variation in competition within state oligopolistic markets.

In relationships with regulatory stakeholders, corporations use voluntary disclosures to forestall or shape future regulation (Edelman et al., 1999; Short & Toffel, 2010). Specifically, corporations disclose information that signals that regulation is not necessary and/or offers language regulators can use as templates (Dobbin & Sutton, 1998; Edelman & Stryker, 2005). Without a specific mandate, however, corporations commonly use symbolic content to mediate relationships with regulators and accomplish their goals (Short & Toffel, 2008; Suchman & Edelman, 1996).

Throughout the 2000s, national and state legislators introduced laws mandating that IOUs address climate change. At the national level, legislators introduced cap and trade laws, which would create a market-based system whereby IOUs trade credits to emit greenhouse gasses. At the state level, legislators introduced renewable portfolio standard (RPS) laws. RPS laws mandate that IOUs either generate or purchase a certain percentage of renewable energy. The introduction of legislation was coupled with a consistent pressure to voluntarily report carbon emissions under The Department of Energy's (DOE) Voluntary Reporting of Greenhouse Gas Program. The coupling of voluntary pressures and legislative introductions likely encouraged IOUs to disclose material information, specifically emissions metrics. Material information allowed IOUs to signal compliance with DOE voluntary requirements and to offer baselines for potential emissions standards and caps. Therefore, I posit:

H1: The introduction of national or state laws will lead to an increase in IOU climate disclosure materiality.

In the above discussion, corporations are outsiders to the regulatory process. Corporations, however, can be embedded in the process. Scholars have demonstrated that corporations can shape regulatory processes directly through lobbying or situating representatives on decision-making bodies (Hansen & Mitchell, 2000; D. Miller & Harkins, 2010). By doing so, corporations need not take a public stance on issues through disclosure.

At the state level, IOUs have historically offered testimony to legislative committees and placed representatives on utility commissions (D. Anderson, 1981; Hirsh, 1999). In the contemporary period, IOUs have matched this state advocacy strategy with a national strategy—lobbying congressmen and testifying before Congress (Heiman & Solomon, 2004; Lutzenhiser et al., 2002). This deep embeddedness in regulatory processes offers IOUs the ability to influence regulation without disclosing material information that risks exposing damaging information. Therefore, I posit:

H2: An IOU's embeddedness in the regulatory process increases will lead to a decrease in climate disclosure materiality.

Not only do regulators shape corporations' environmental disclosures, so do social movements (Reid & Toffel, 2009; Stanny, 2013). Existing scholarship finds that corporations generally disclose symbolic information in response to social movement activities to maintain legitimacy (Deegan, Rankin, & Voght, 2000; Hrasky, 2011; Reid & Toffel, 2009). Corporations, however, may respond with substantive disclosures when a movement's activities draw scrutiny that can damage reputation and economic resources (Hendry, 2006; King & Soule, 2007; McDonnell et al., 2015).

The electricity market generally insulates IOUs from social movement activities that directly damage economic resources. Despite this insulation, social movement actors can still shape other stakeholders' perceptions. For instance, movement mobilizations may target legislators, advocating for social change. Their discourses in these mobilizations may conflict with IOUs' regulatory discourses—destabilizing their efforts to manage regulators' impressions (Schneiberg & Soule, 2005). Social movements can also shape normative structures, leading shareholders and consumers to question IOUs' legitimacy (Davis & Thompson, 1994; Soule, 2009). IOUs may fear these alternative pathways more in less-competitive markets because they represent some of the few exogenous shocks to their dominance. Additionally, when the market protects economic resources, IOUs may value perceptions of legitimacy greater than when economic resources are also at stake. Knowing that there is little risk to economic resources, IOUs likely use material information to assuage social movement concerns. Therefore, I posit:

H3: Social movement activities will lead to an increase in the materiality of IOUs' climate disclosures.

Social movements and regulators are secondary stakeholders, arguably having less power to shape corporate practices than primary stakeholders, like shareholders (Vasi & King, 2012). This primacy arises because shareholders can negatively and directly affect economic resources. Supporting this argument, scholars have found that corporations disclose more substantive content in response to shareholder activities (Reid & Toffel, 2009). Even in the protected market, shareholders are primary stakeholders because IOUs still compete for investment (E.-H. Kim & Lyon, 2015).

The dominant type of shareholder throughout the 2000s was institutional investors, managing 75.9 trillion in assets in 2010 (CERES, 2010). Scholars have long recognized the power of these shareholders in influencing corporate behavior (Davis & Thompson, 1994). One way they exert this influence is through filing shareholder resolutions. Within the past 20 years, institutional investors have filed environmental resolutions at IOUs (EY, 2013; CERES, 2013). As institutional investors are primary stakeholders, IOUs likely responded to their resolution by disclosing sought after information, like emission metrics. Therefore, I posit:

H4: Shareholder resolutions filed by institutional investors mentioning climate change will increase the materiality of climate disclosures.

3.5 Methods

To test these hypotheses, I investigated the climate disclosures of 45 IOU parent companies operating in 48 states between 2000 and 2010, yielding a total 495 firm-year observations. I chose these 45 IOUs because of the availability of their annual reports over the time-period.⁵ My sample represents approximately 74% of all IOU parent companies. Parent companies' annual reports speak to their generation, transmission, and delivery companies' practices. Therefore, my data pertains to 72% of all operating companies' practices. I chose this time-period to begin in 2000 because scholars generally assert that this year marks the expansion of the climate change movement in the U.S. (Martinez, 2013). I ended in 2010 because the EPA mandated the disclosure of greenhouse gas emissions in 2011.

I investigated IOUs' annual reports because they are among the only voluntary climate disclosures read by legislators, shareholders, and social movements that contain narratives of programs and specific metrics. There is much evidence that these three classes of stakeholders read annual reports (Deegan & Gordon, 1996; Deegan & Rankin, 1997; de Villiers & van Staden, 2010). I do not use IOUs' disclosures in SEC filings because the disclosure of climate information is not voluntary. In SEC filings, corporations must disclose compliance with environmental laws, legal proceedings, and environmental

⁵ The absence of a company's annual report does not mean that they did not create or disseminate an annual report. Rather the difficulty in attaining these annual reports speaks to the current constraints of databases like Mergent, SEC Edgar, and ThompsonOne Banker. The availability of comprehensive data also motivated me to exclude CSR reports.

information that affects future strategy (17 C.F.R. 229.101(c)(xii), 17 C.F.R. 229.103, 17 C.F.R. 229.303). I also do not investigate Federal Energy Regulatory Commission (FERC) Form 1 Reports. Although these reports contain voluntarily greenhouse gas emissions metrics, these reports only mention emissions—limiting my ability to understand the multivocality of disclosures. Moreover, there is little support for the assumption that shareholders read government reports, especially on websites (Connelly, Certo, Ireland, & Reutzel, 2011; Deegan & Rankin, 1996; de Villiers & van Staden, 2010). Finally, I also do not investigate Corporate Social Responsibility (CSR) reports. These reports are voluntary, but there are questions as to how frequently legislators read them (Neu, Warsame, & Pedwell, 1998; Townsend, 2011). Following from this reasoning, annual reports represent the major disclosure where IOUs likely attempt to mediate the multivocal expectations of stakeholders in one document. Therefore, they are the most appropriate form of disclosure for my study.

3.5.A Dependent Variable

My dependant variable is an index of climate disclosure materiality. Scholars have developed several indices of environmental content. These indices generally focus on the number of disclosures, e.g. Deegan et al. (2000), or variation in language, e.g. Clarkson et al. (2008). My index of materiality captures variation across both of these dimensions. To form my index, I adapted Clarkson et al.'s (2008) index. Clarkson and his colleagues formulated a 45-item index by speaking to corporate leaders and elaborating on the Global Reporting Initiative's Framework for Sustainability Reporting. I adapted this index in three ways. First, I narrowed the items to speak directly to climate disclosure. This simplified index includes 13 items, with 91 different combinations. Second, rather than perpetuate a hard/soft dichotomy, I reassigned these items on a spectrum of materiality. Third, rather than bivariate coding, I use differential scoring of items.

I separated my 13 items into material, semi-material, and symbolic categories. I categorized discrete measures of emissions, resource use, and renewable technology as material because stakeholders find verifiable measures useful in making decisions and falsifying this information can be legally

actionable (Deegan & Rankin, 1997; Wiseman, 1982). In this manner, my material designation mirrors Clarkson et al.'s (2008) hard designation. I categorized disclosures of broad initiatives as symbolic because this information is less helpful to stakeholder when forming judgments (Reid & Toffel, 2009; Sanders & Hamilton, 1992). Although many of these items coincide with Clarkson et al.'s (2008) soft designation, my identification does not rely solely on the verifiability of this information.

Unlike Clarkson et al.'s (2008) dichotomy, I categorized two items as semi-material. These two items corresponded to disclosures of compliance with legal mandates regarding greenhouse gas emissions and participation in industry, climate change associations. Although disclosure of this information is helpful to stakeholders, IOUs frequently have autonomy in defining legal compliance and formulating the commitments of industry associations (Edelman & Stryker, 2005; Heiman & Solomon, 2004). This information is more than symbolic because it speaks to discrete practices. It is not, however, purely material as stakeholders perceive it as less objective than metrics.

Table 3.1: Index of Materiality of Climate Change Disclosure

Disclosure Type	Examples From Annual Reports	Points	
Symbolic	Environmental sustainability officer or board committee	“Executive Vice President, Environmental Affairs and Public Policy”	0 or 1
	Programs that build energy efficiency	“Ultra-supercritical coal generation offers greater efficiency and emission reductions...”	0 or 1
	Information regarding R&D that minimize greenhouse gas emissions	“We are rigorously evaluating new low carbon supply sources, including capacity uprates at our existing nuclear plants, new natural gas-fired generation and renewable energy resources like wind”	0 or 1
	CEO statement regarding sustainability	“Our impact on societies is also profound. Social responsibility and environmental stewardship have always been hallmarks of AES.”	0 or 1
	A statement of corporate environmental policy that incorporates concerns for climate change	“We believe that global climate change is real. The scientific evidence strongly suggests that human activity is warming the planet. And we believe that the time to act is now.”	0 or 1
	External environmental performance awards for greenhouse gas mitigation	“All of our hard work on the environmental front has not gone unnoticed. In Newsweek’s annual rankings, Con Edison achieved the second highest green score among utilities.”	0 or 1
	Attempts to mitigate climate change other than minimizing greenhouse gas emissions	As a further indication of AES’s commitment to renewable power, we acquired a landfill gas project in El Salvador, which was being modified to convert methane emissions to electricity, dramatically offsetting the release of greenhouse gas into the atmosphere.”	0 or 1
	Statements of compliance with specific environmental legal standards regarding greenhouse gas emissions	“The Company’s Southland and Placerita businesses are located in California. On September 27, 2006, the Governor of California signed the Global Warming Solutions Act of 2006, also called Assembly Bill 32 (“A.B. 32”). A.B. 32 directs the California Air Resources Board to promulgate regulations that will require the reduction of CO2 and other GHG emissions to 1990 levels by 2020.”	0 or 8
Semi -Material	Participation in industry specific associations to mitigate climate change	“... We were a founding member of Edison Electric Institute’s new Institute for Electric Efficiency (IEE), which has already announced several new initiatives to advance the adoption of energy efficiency.	0 or 8
	Independent verification of greenhouse gas emission metrics	“The Carbon Disclosure Project recently named Con Edison first in its Leadership Index of S&P 500 companies and first among utilities in the new Carbon Performance Leadership Index.”	0 or 22
	Performance indicators on energy use and energy efficiency	“The key elements...are... [a] 20% increase in energy efficiency.”	0 or 22
	Performance indicators on greenhouse gas emissions.	“Con Edison’s emissions of greenhouse gases during the past [four] years... were: 2008 (4.6), 2007 (5.3), 2006 (5.4), 2005 (6.6).”	0 or 22
Material	Performance indicators regarding renewable fuel use	“PECO WIND enrollments grew 55 percent, to more than 34,000 customers over the year...”	0 or 22

To account for variation between categories, I assigned different scores to each category. I assigned the highest score (22) to the four items in the material category, while I assigned the lowest score (1) to the seven items in the symbolic category. I assigned a score of (8) to semi-material information. The intuition behind this assignment is that the disclosure of one item of semi-material information should outweigh the disclosure of all seven items of symbolic information. Similarly, the disclosure of one item of material information should outweigh the disclosure of all nine items of symbolic and semi-material information.

To account for variation within a category, I added the number of points within a category. High scores within a category correlate to higher materiality. Extant literature supports this construction, finding that diverse information offers stakeholders increasingly useful information on which to form decisions (Deegan et al., 2000; Hrasky, 2011; Verrecchia, 2001). To account for total variation both within and between categories, I sum all points across categories. This creates an index that ranges from zero to 111. Table 3.2 demonstrates that different combinations of symbolic, semi-material, and material items lead to similar index scores. Similar scores mean the mix of information offers stakeholders relatively the same amount of information to form expectations and judge behavior. To test the sensitivity of my index, I verified my coding by asking three independent researchers to code a random sample of annual reports. There was a 90% agreement rate between the coders and me.

Table 3.2: Scoring Matrices for Index – Scores as a Function of Variation in Symbolic and Material Disclosures

Each table is a cross section of the $8 \times 5 \times 3$ matrix that is used to score my index. Materiality increases in the direction of the arrows. The most material scores being found in upper right corners.

(A)

Index Scores as a Function of Variations
in Symbolic and Material Information;
With No Disclosure of Legal Compliance
or Participation in Industry Associations

7	7	29	51	73	95
6	6	28	50	72	94
5	5	27	49	71	93
4	4	26	48	70	92
3	3	25	47	69	91
2	2	24	46	68	90
1	1	23	45	67	89
0	0	22	44	66	88
	0	22	44	66	88

Material - # of Variations →

(B)

Index Scores as a Function of Variations
in Symbolic and Material Information;
With Disclosure of Legal Compliance or
Participation in Industry Associations

7	15	37	59	81	103
6	14	36	58	80	102
5	13	35	57	79	101
4	12	34	56	78	100
3	11	33	55	77	99
2	10	32	54	76	98
1	9	31	53	75	97
0	8	30	52	74	96
	0	22	44	66	88

Material - # of Variations →

(C)

Index Scores as a Function of Variations
in Symbolic and Material Information;
With Disclosure of Legal Compliance and
Participation in Industry Associations

7	23	45	67	89	111
6	22	44	66	88	110
5	21	43	65	87	109
4	20	42	64	86	108
3	19	41	63	85	107
2	18	40	62	84	106
1	17	39	61	83	105
0	16	38	60	82	104
	0	22	44	66	88

Material - # of Variations →

Opportunity for Most Material Scores within an Annual Report →

3.5.B Independent Variables

Introduction of Laws – I coded the introduction of RPS and cap and trade laws within a given year in a dichotomous manner per company. To find evidence of introductions, I use Westlaw a legal database of national and state legislation and case-law. I also verified this search process by searching for and reading state legislative dockets. I found these dockets on state specific legislative websites. Many parent companies operate in multiple states, sometimes with each state legislature introducing climate legislation. Similar to Delmas et al. (2007), I weighted the introduction variable based on how many states an IOU operates in within a given year. This creates a variable that spans zero to one, with one signifying that all states within which an IOU operated had introduced a law in a given year. The intuition here is that an IOU likely feels legislative pressure more acutely when legislatures in all of the states in which it operates introduce an RPS law.

Embeddedness in Regulatory Processes – At the state level, IOUs influenced regulations by intervening in state utility commissions. To measure this intervention, I investigated whether commissioners had a history of working for IOUs before serving on a commission. Here, I assume previous employees maintain some connection and/or fondness to their previous employers. I first collected the names of all commissioners using Beecher's (2007) *All Commissioners List*. This list only contains the names of commissioners up until 2007. I found the names of commissioners who served after 2007 on the National Association for Regulatory Utility Commissioners and state utility commission websites. For each name, I searched for biographies that were available on LinkedIn, on utility commission websites, in newspapers, and in legislative proceedings. If an IOU operated within a state where a commissioner had previously worked for the IOU, I coded it a one for that year.

To quantify IOUs' embeddedness at the national level, I created a variable that denoted their presence in congressional debates. To create this variable, I searched for their presence in committee and floor debates. I found this information using a combination of ProQuest Legislative Insight and committee specific websites. If an IOU had a presence in a committee and/or debate in a given year, I

coded it as one for that year. If an IOU was present in many committees or debates, I added each appearance to create a continuous variable.

Social Movements Organizations' Pressures – For each year between 2000 and 2010, there were on average 997 environmental organizations (Brulle, 2009). Because of the number of environmental organizations, it would be difficult and inefficient to investigate the activities of all organizations. Rather, I chose to focus on dominant organizations that advocated for corporations to mitigate climate change, specifically The Natural Resources Defense Council (NRDC), The Union of Concerned Scientists, The Sierra Club, the Environmental Defense Fund, Earth Justice, and The Nature Conservancy (TNC) (Martinez, 2013). Although each of these organizations engages in different activities to reach their goals, they share similar movement frames. Specifically, these organizations pursue ecocentric frames, meaning they believe that human survival is linked to ecosystem survival (Brulle, 1996). Accordingly, my selection allows me to focus on organizations with similar expectations of corporations.

News media are useful in uncovering social movement activities (Earl, Martin, McCarthy, & Soule, 2004). I searched major written news media for environmental organizations' disruptive actions, including protests, litigation, and media campaigns. I used Factiva and Lexis-Nexis databases to find news articles. Articles were from mainstream newspapers, like *The New York Times* and *The Wall Street Journal*, and industry media, like *Electric Utility Week*. For each company and year, I reviewed news media to specify discrete disruptive activities. If a media source or a series of sources reported an activity multiple times within a year, I coded it as one activity. If the activity spanned multiple years, I coded it as one for each year that the activity appeared in the media.

Shareholder Resolutions – I gathered information regarding shareholder resolutions about climate change from the Interfaith Center on Corporate Responsibility (ICCR) database—an association of faith-based institutional investors that collects information on shareholder resolutions. Between 2000 and 2010, 75% of the environmental resolutions filed at utilities referenced climate change. Of those climate change

resolutions, 66% advocated for reporting and metrics. The other 34% mentioned green energy, energy efficiency, and investments in renewables. To create a continuous variable, I added the number of shareholder resolutions referencing climate change filed at an IOU within a given year.

Green Competition – Further, I control for competition in renewable generation. Mandatory green power marketing (GPM) laws allow consumers the choice to purchase their electricity directly from non-IOU, renewable generators. These laws supplement state retail and national wholesale deregulation laws by encouraging renewable generation and purchase. By using information from the Energy Information Agency, I also determined the number for non-IOU, renewable generators within a state. I created a composite variable that captures both an IOUs presence in a state that offer green power marketing and the number of potential competitors. Like with my RPS variable, I created a weighted variable based on operations within multiple states. Unlike Delmas et al. (2007) and Kim and Lyon (2015), my variable specification does not assume deregulation and green power marketing created competitive markets. Rather, my specification allows me to gauge the amount of green competition at the state level.

3.5.C Control Variables

I control for organizational age, net earnings, operating state, and air emissions. Scholars have found that large, well performing organizations may elicit scrutiny from various stakeholders. Corporations disclose specific information in an attempt to deflect scrutiny and diminish threats to profits and legitimacy (Bartley & Child, 2014; Marquis & Toffel, 2014).

Several studies demonstrate that environmental performance affects environmental disclosure (Clarkson et al., 2008). Specifically, scholars find that corporations attempting to signal strong environmental performance will disclose specific metrics and programs. I focus on total air emission as a proxy for greenhouse gas emissions because there was no reliable source for greenhouse gas emissions throughout my entire time-period (E.-H. Kim & Lyon, 2015). I gathered emissions data using the Environmental Protection Agency's Toxic Release Inventory. To ensure emissions were a comparable

measure of environmental performance across parent companies, I divided total emissions by the number of generating plants.

3.5.D Model Specification

In this project, I used a mixed effects regression model. Generally, this mixed model is:

$$y = X\beta + Zu + \epsilon$$

In this model, y is a matrix of observed outcomes, X is a row vector of multiple predictors, β is a column vector of regression coefficients taking into account fixed effects, Z is a column vector of regression coefficients pertaining to random effects, u is an unknown vector of random effects, and ϵ is a vector of random errors (McLean, Sanders, & Stroup, 1991; Wooldridge, 2010).

I used a mixed effects model because it allowed me to take into account both random and fixed effects (Wooldridge, 2010). Random effects models control for unobserved heterogeneity, where fixed effects models control for observed heterogeneity (McLean et al., 1991). My mixed approach is justified because my model contains fixed effects—like state legislation and social movement pressures—and random effects—unobserved heterogeneity across IOUs.⁶ This model remedies admitted limitations in previous utility and disclosure studies (e.g. Delmas et al., 2007). Table 3.3 shows the mean, standard deviation, and correlations between independent variables.

⁶ I ran my model using the Stata 12 *xtnmixed* command. This command estimates both regression coefficients and random effects parameters. This command estimates u by analyzing its variance components, which are generated using maximum likelihood methods. This allows for interpretation beyond independent variable residuals and errors.

Table 3.3: Descriptive Statistics for Independent Variables

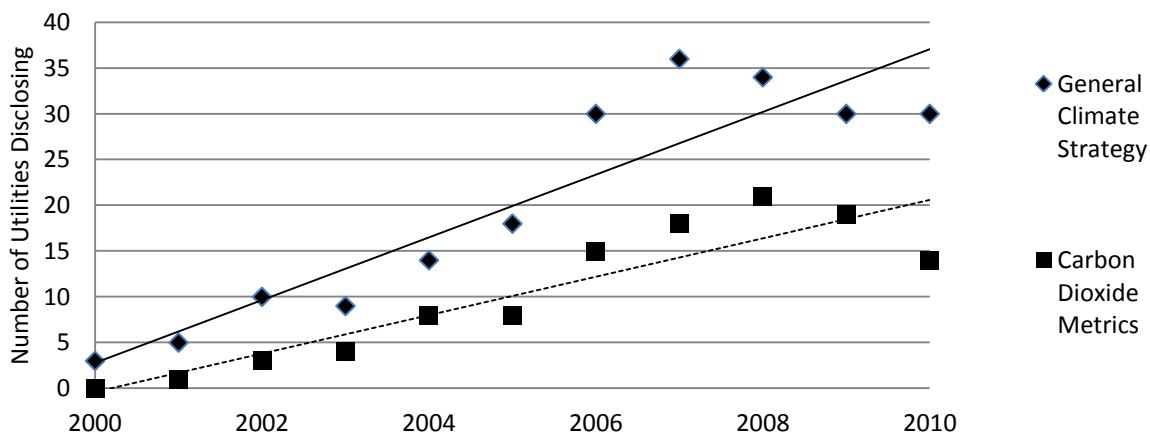
Variable	Mean	SD	Min	Max	1	2†	3	4	5	6	7	8	9	10††	11
1. Organizational Age	10.79	7.12	0	35	1										
2. Net Revenues †	6.5	1.8	.68	61.3	-0.69	1									
3. Green Competition	0.122	0.328	0	1	0	2.84	1								
4. Introduction of National Legislation	0.454	0.656	0	2	0	-9.96	0.004	1							
5. Social Movement Targeting	1.365	2.14	0	21	-0.35	-4.273	0.001	0.005	1						
6. Introduction of State Legislation	0.579	0.494	0	1	0.765	1.97	0.013	0.575	0.15	1					
7. National Embeddedness	0.029	0.170	0	1	.334	-6.04	0.001	0.862	2.21	0.1	1				
8. State Embeddedness	0.032	0.175	0	1	0	9.18	0.002	0.228	-0.431	-0.021	0.086	1			
9. Previous Social Movement Targeting	1.365	2.137	0	21	0.018	-4.03	-0.001	0.016	0.009	0.004	0.009	0.003	1		
10. Emissions††	.415	.784	0	.435	-1.89	-0.057	1.75	9.2	-2.47	-9.92	-1.17	-2.63	-2.97	1	
11. Shareholder Resolution	0.097	0.361	0	4	-0.089	-1.31	-0.002	0.124	0.23	0.086	-0.027	-0.02	-0.38	-0.101	1

† In Billions; †† In Billionths

I tested for selection bias among my IOU parent companies and years. I indexed the annual reports of seven companies that did not have continuous annual report data. The results of this indexing were within one standard deviation of the mean for the companies I included in my sample. This demonstrates that the failure to include the remainder of IOU parent companies likely does not lead to any substantial variation that would affect my findings.

I also ensured that my selection of years was not biased. Figure 3.1 demonstrates that in 2000 only three companies disclosed a broad climate change strategy and no companies disclosed climate change metrics in their annual reports. From the observation that few companies disclosed any climate change information before 2001, I assume that most, if not all, utilities did not disclose before 2000. Moreover, the three companies that did disclose broad climate strategy in 2000 did not disclose in 1999.

Figure 3.1: Utilities' Disclosure of General Climate Change Strategy and Carbon Dioxide Metrics between 2000 and 2010



To test for multicollinearity, I calculated the variance inflation factors by running Ordinary Least Squares regressions using independent variables, controlling for state and year effects. I also ran a stepwise variable selection protocol to indirectly test for multicollinearity. Both tests demonstrate that concerns of multicollinearity arise from inclusion of the organizational age and emissions variables. All other variables survive the stepwise protocol and have VIF's less than five, thus demonstrating an

acceptable amount of multicollinearity (Afifi et al., 2011). To alleviate the concern regarding organizational age and emissions, I orthogonalized these variables using the Gram-Schmidt procedure (Saville & Wood, 1997). This procedure removes common variance between collinear variables.

I also tested for autocorrelation. Panel data poses a risk of autocorrelation both within and across panels. In my model construction, following the advice of Wooldridge (2010), I minimized autocorrelation by incorporating both year (e.g. age, national legislation) and firm (e.g. earnings, emissions) fixed effects. Moreover, I followed (Petersen, 2009) advice to calculate clustered-robust standard errors. I did this by using STATA's robust standard error option, which clusters variances at the highest level in the model. After running my models, I tested for autocorrelation via residual plots. I used residual plots because traditional post-estimation tests cannot adequately determine autocorrelation in mixed effects models. Plots demonstrate no notable concerns for autocorrelation.

3.6 Results

I present the results of my mixed effects models in Table 3.4. Regarding my control variables, IOU age and revenues correlate to a significant increase in disclosure materiality in all models. Increasing amounts of competition, however, are not significant predictors of disclosure materiality in any model. These findings support arguments that large, well-performing corporations feel safe to risk exposure arising from material information disclosure, signaling a green image may attract stakeholders.

In regards to my explanatory variables, the introduction of RPS and cap and trade laws was not significant in any model. The presence of a utility commissioner who had worked previously at an IOU correlated to a significant increase in materiality. An IOU's presence in national legislative debates, however, was not significant. These findings do not completely support my hypotheses.

The introduction of a law and a corporation's embeddedness in the regulatory process may interact to affect disclosure content. For instance, the introduction of a law may have a greater effect on disclosure strategy when a corporation is not embedded elsewhere in the regulatory process. To this end, I

created interaction variables. These interactions are shown in Model 2. The interaction at the national level is insignificant. The interaction at the state level, however, is significant.

Supporting my third hypothesis, my findings demonstrate that social movement activities significantly predicted an increase in materiality in all models. Social movements also indirectly affect corporations through pressuring legislators to introduce and pass laws. To this end, I created interaction variables. Models 3 displays these interactions. These interactions are insignificant.

Across all models, shareholder resolutions are insignificant predictors of materiality. Interestingly, overlooking this insignificance, my correlations show a negative relationship between shareholder resolutions and materiality. Accordingly, the magnitude of this variable supports my fourth hypothesis.

Table 3.4: Effects of Regulator, Movement, and Shareholder Pressures on the Materiality of Climate Change Disclosures

Variable	Model 1	Model 2	Model 3	Model 4
Control Variables				
Organizational Age	31.51*** (3.57)	31.61*** (3.515)	30.98*** (3.698)	29.34*** (4.329)
Revenue	5.181*** (1.864)	5.211*** (1.813)	5.168*** (1.683)	1.249 (1.789)
Air Emissions †	4.06 (4.26)	3.57 (4.42)	2.92 (4.28)	1.65 (4.7)
Explanatory Variables				
Green Competition	6.314 (6.567)	6.314 (6.456)	6.216 (6.423)	7.167 (6.401)
National Law Introduced	1.827 (1.253)	1.512 (1.251)	1.505 (1.257)	1.338 (1.66)
State Law Introduced	-2.327 (2.732)	-2.437 (2.76)	-2.713 (2.7)	-2.713 (2.743)
IOU Embedded in National Debate	-5.766 (5.685)	-16.52 (12.63)	-9.032 (14.63)	-13.38 (16.6)
IOU Embedded in State Debate	19.33*** (2.706)	15.04*** (2.249)	21.76*** (5.678)	21.79*** (6.021)
Social Movement Activities	2.304*** (0.846)	2.390*** (0.797)	2.871*** (0.699)	2.649*** (0.585)
Previous Social Movement Targeting	2.001*** (0.461)	1.975*** (0.469)	2.061*** (0.476)	
Shareholder Resolution	-1.488 (2.221)	-1.596 (2.268)	-1.676 (2.26)	-1.971 (2.342)
Interactions				
National Embedded × National Law Introduced		8.402 (7.278)	6.123 (8.462)	8.103 (9.437)
State Embedded × State Law Introduced		5.258** (2.655)	5.709*** (1.809)	4.850** (2.02)
Movement Attack × National Embedded			-1.399 (1.102)	-0.631 (1.255)
Move Attack × State Embedded			-3.978 (2.777)	-3.999 (2.869)
Constant	39.13*** (17.55)	39.10*** (17.55)	39.71*** (17.89)	38.41*** (19.99)

State dummy variables are not shown; Robust standard errors in parentheses; † in Millions

* p < .10; ** p < .05; *** p < .01

In Table 3.5, I present other interaction variables capturing the relationship between increased green competition within state markets and my main explanatory variables. These results demonstrate that as competition increases, social movement activities, the introduction of state RPS legislation, and shareholder resolutions are all significant predictors of changes in climate disclosure materiality. Specifically, increased market competition interacts with these variables to create significant changes in disclosure materiality. Interestingly, the effects of these variables in more competitive markets resemble those discussed in previous literature. Specifically, shareholder resolutions became significant predictors of increased materiality (similar to Reid and Toffel, 2009), while social movement activities became significant predictors decreased materiality (similar to McDonnell and King, 2014). I argue these findings demonstrate that in more competitive electricity markets, traditional notions of primary and secondary stakeholders are valid (Vasi and King, 2008). Competition alone, however, does not influence disclosure materiality.

Table 3.5: Effects of Regulator, Movement, and Shareholder Pressures on the Materiality of Climate Change Disclosures as Competition Increases

Variable	Model 1	Model 2
Control Variables	Yes	Yes
Explanatory Variables		
Green Competition	6.216 (6.423)	7.167 (6.401)
National Law Introduced	1.152 (1.23)	1.16 (1.22)
State Law Introduced	-3.145 (2.82)	-3.14 (2.81)
IOU Embedded in National Debate	-5.552 (5.30)	-5.29 (5.23)
IOU Embedded in State Debate	19.41*** (2.49)	19.38*** (2.38)
Social Movement Activities	3.12*** (0.75)	3.13*** (0.759)
Previous Social Movement Targeting	1.975*** (0.447)	
Shareholder Resolution	-3.13 (2.82)	-3.11 (2.033)
Interactions		
Social Move. Activities × Green Competition	-15.97*** (6.07)	-16.07*** (6.02)
State RPS Intro. × Green Competition	53.93*** (14.99)	54.58*** (14.97)
Shareholder Resolution × Green Competition	171.123*** (63.30)	170.51*** (62.92)
Constant	40.95*** (18.46)	37.39*** (22.35)

State dummy variables are not shown; Robust standard errors in parentheses; † in Millions

* p < .10; ** p < .05; *** p < .01

3.6.A Robustness Checks

I conducted additional analyses to check the robustness of my findings. First, I tested alternative scoring systems for my index. Specifically, I translated my scoring into multiples of {1, 8, 22}—representing my same intuition but testing the integrity of my scoring—and a {1, 4, 8}—representing the intuition that the disclosure of one item of material information must outweigh the disclosure of all seven symbolic items. The significance of my predictors is robust against these changes. Naturally, the different weighting changes the magnitude of my coefficients. The relative proportions between coefficients, however, remain the same across models.

Second, I accounted for the fact that some IOUs may be prone to social movement targeting. Scholars find that social movements target corporations that are most salient to the public. Accordingly, large, public, and previously targeted corporations have an increased likelihood of being targets (Bartley & Child, 2014; McDonnell et al., 2015). This creates a risk of selection bias. To test for this bias, I first included previous social movement targeting as an independent variable in Table 3.4, Models 1-3 and Table 3.5, Model 1. Moreover, I used Heckman's (1979) two-step process. This process corrects for targeting effects. To accomplish this, I first conducted a Probit analysis testing whether organizational age, net revenues, and previous targeting influenced the likelihood of targeting in a given year. I found all of these to be significant predictors of targeting. For these findings, I calculated the inverse Mills ratio—a measure of the selection correction. I then incorporated this correction into Table 3.4, Model 4 and Table 5, Model 2. These models demonstrate that the significance and coefficients of my variables are relatively unchanged. Moreover, this selection effect is insignificant. Therefore, I conclude that my findings are robust to potential selection bias.

Third, I ensured that a utilities presence in a state that had passed an RPS law did not affect my findings. To this end, I re-estimated my models including a weighted variable for operations in a state that passed an RPS law. While significant, this variable increased materiality by approximately eight points. This makes sense because SEC regulations require that corporations disclose their compliance with

regulations that affect their operations and profits. RPS laws clearly meet this threshold. Incorporating these variables into my models did not affect the significance or magnitude of my coefficients.

Fourth, I ran logistic regressions with discrete disclosure items as dependent variables. I specifically chose index items common in other environmental disclosure studies, like the presence of an environmental board (McDonnell et al., 2015) and carbon metrics (Reid & Toffel, 2009). Moreover, I simplified my independent variables, focusing on those that are common to other studies. I present my results in Table 3.6.

My findings show certain variables, representing stakeholder pressures, correlate to the disclosure of discrete types of information. Some of these same variables, however, do not correlate to a change in overall materiality. For instance, although a utility's air emissions do not affect overall materiality, this characteristic does affect the likelihood that a corporation will disclose a general climate change strategy, the presence of an environmental board, and participation in industry associations. Studies by McDonnell et al. (2015), Clarkson et al. (2008), and Marquis and Toffel (2014) generally support these findings. It is further interesting to note that the introduction of RPS legislation and operating in a state with mandatory green power marketing is not predictive of any change in disclosure strategy. Those variables that are predictive of an overall increase in materiality, like social movement activities, are significant in most models. Taken together, these findings demonstrate that many of my variables are predictive of utility disclosure strategy, even if they do not influence overall materiality. This argument supports the necessity to consider corporations' total narrative when mediating multiple stakeholders' expectations.

Some of my discrete findings, however, still deviate from previous studies. For instance, my finding that social movement activities do not influence the disclosure of an environmental board deviates from McDonnell et al.'s (2015) findings. I argue these deviations highlight the importance of considering how market structures affect perceptions of stakeholder power and, therefore, disclosure strategy. Despite the illustrative nature of these findings, they are limited by their inability to control for firm-specific

unobserved heterogeneity, i.e. random effects. Moreover, all of these models have smaller sample sizes than the main model because some firms never disclosed a particular item. Despite these limitations that scholars should investigate in future studies, my findings demonstrate the robustness of my variable specification and reinforce my main arguments.

Table 3.6: Effects of Regulator, Social Movement, and Shareholders Pressures on Discrete Items of Climate Information

VARIABLES	Sustainability Strategy	Climate Change Strategy	Environmental Board	Member of Prof. Association	Renewables Metrics	Climate Change Metrics
Organizational Age	0.674*** (0.141)	0.684*** (0.0769)	0.228*** (0.0608)	0.294*** (0.096)	0.724*** (0.089)	0.460*** (0.068)
Revenues†	-219* (142)	111 (555)	-193** (790)	131 (690)	190 (555)	114 (632)
Air Emissions†	-1.90* (1.70)	1.39** (0.603)	-2.90** (1.18)	1.81** (0.846)	-1.20 (9.22)	32.9 (55.2)
Operates in State with GPM	-2.466 (4.089)	2.248 (7.066)	-3.537 (2.836)	-3.485 (4.201)	2.123 (6.479)	10.02 (12.3)
National Law Introduced	0.0941 (0.472)	0.298 (0.237)	0.0979 (0.212)	0.0519 (0.326)	0.328 (0.254)	0.371* (0.224)
State Law Introduced	-0.207 (0.684)	0.437 (0.489)	0.0593 (0.461)	-0.277 (0.688)	0.572 (0.56)	-0.252 (0.527)
Social Movement Activities	0.306 (0.294)	-0.163* (0.0921)	-0.0434 (0.0991)	0.196* (0.127)	0.296** (0.135)	-0.0217 (0.0795)
Shareholder Resolution	0.818 (0.981)	0.797* (0.476)	-0.0123 (0.336)	0.7 (0.799)	-0.547 (0.547)	-0.259 (0.39)
Observations	297	429	341	132	429	341
Number of IOUs	27	39	31	12	39	31

State dummy variables are not shown; Robust standard errors in parentheses; † in Millions

* p < .10; ** p < .05; *** p < .01

3.7 Discussion and Conclusion

Existing research demonstrates that corporations develop their disclosure strategies to gain and maintain economic and legitimacy resources. Many studies have shown that stakeholder pressures lead to changes in environmental disclosure strategy. Frequently, these pressures lead to substantive disclosures when they risk damaging economic resources. Although these studies seem to highlight the importance of economic resources, they do not explicitly consider the eccentricities of markets structures.

This oversight led me to question how IOUs change their disclosure strategy in response to different stakeholder pressures while operating in monopolistic and oligopolistic markets. My findings show that the electricity market's structure affects IOU disclosure behavior. Within the regulated electricity market, social movements may have more power to shape climate disclosure strategy than previously thought. Alternatively, shareholders have less power than previous research would suggest. These findings highlight the importance of considering market structures when discussing environmental disclosures role in mediating stakeholder relationships.

Scholars argue that corporations use their disclosures to offer their voice in regulatory processes, attempting to maintain the status quo, minimize uncertainty, and avoid future costs (Dobbin & Sutton, 1998; Edelman et al., 1999; Short & Toffel, 2008). My findings demonstrate that corporations' choices to use disclosure in this manner may be mediated by concerns of stakeholder scrutiny (Marquis & Qian, 2014; McDonnell & King, 2013; McDonnell et al., 2015).

In a regionally monopolistic market, material disclosures risk exposing information that can upset IOU market and political dominance. Specifically, this information could expose the limited amount of electricity generated through renewables, the magnitude of environmental degradation, and the failure to invest in energy efficiency. This information would likely draw national and state regulatory attention, especially since these facts demonstrate the relative failure of national and state laws to reach their goals. A disclosure strategy using only symbolic disclosures, however, can also attract legislators' scrutiny because they may view broad or vague information as an attempt to hide information (Grossman, 1981; Short & Toffel, 2010). This no-win situation leads IOUs to maintain their disclosure strategy in the face of regulatory activities unless pressured to do otherwise.

One such pressure occurs when regulators must demonstrate heightened scrutiny of IOU behavior to maintain their legitimacy. At the state level, IOUs have a long history of embeddedness (D. Anderson, 1981). Although this embeddedness offers IOUs some safety from regulatory activities, some types of

embeddedness may draw scrutiny that IOUs must address through disclosure. One such type occurs when a state utility commissioner has previous ties to an IOU.

This type of embeddedness leads to deviation from the general disclosure strategy discussed above because both the legislative stakeholder, here the commissioner, and the IOU attempt to minimize external scrutiny. Citizens may closely scrutinize a commissioner's behavior knowing their tie to an IOU. Engaged citizens may learn of this fact from news media and confirmation hearings. These commissioners likely closely scrutinize IOU behavior to avoid perceptions of corruption and favoritism. This scrutiny coincides with IOUs likely fearing that previous insiders know their operations and faults. In this case, material disclosures may help to dispel commissioners' previous conceptions of IOUs' environmental stewardship efforts and meet commissioners' needs to dispel perceptions of favoritism. Once a state legislature introduces a law, scrutiny on both the commissioner and IOU intensify. Therefore, utilities further increase the materiality of their disclosures.

At the national level, regulatory scrutiny of IOU practices may be less acute. It is common to have corporations testify in national regulatory proceedings, like hearings and floor debates (Soule & King, 2006). Therefore, their presence in these debates does not draw attention to regulators' potential favoritism towards utilities. In this case, IOUs likely feel no heightened scrutiny and maintain their general strategy by not varying their disclosure strategy in response to national legislative embeddedness.

As market competition increases and becomes more oligopolistic, the risk of state regulations becomes a significant predictor of disclosure materiality. I argue this occurs because in competitive markets, IOUs perceive renewable portfolio standard laws as risks to their economic resources. As such, they increase their climate disclosure materiality to either stave off or shape those regulations.

The less competitive nature of many electricity markets also affects utilities relationships with social movements. Within much of the disclosure literature, scholars find that corporations respond to social movement activities with symbolic disclosures unless there is a risk to economic resources (Hendry,

2006; King & Soule, 2007; McDonnell et al., 2015). Within regionally monopolistic electricity markets, there are few opportunities for movements to directly threaten economic resources. As I hypothesized, however, movements have alternative methods of threatening IOUs' economic resources and political dominance. In this context, IOUs' increased their disclosure materiality to maintain legitimacy and mollify movement pressures to change political structures.

Moreover, extant scholarship demonstrates that movements contest corporations' framing of environmental stewardship (Olzak & Soule, 2009). This contestation can lead to changes in political structures (Schneiberg & Lounsbury, 2008; Schneiberg & Soule, 2005). In this case, movement activities challenged the continued durability of regional monopolies, regulated markets, and voluntary climate stewardship practices. In this context, IOUs prioritized assuaging social movement concerns and maintaining legitimacy resources through material disclosures.

Like my findings regarding social movement pressures, my findings on shareholder pressures demonstrate that market structures challenge general understandings of stakeholder primacy. Specifically, my findings demonstrate that IOUs do not significantly vary the materiality of their climate disclosures in response to these pressures. In more competitive markets, however, shareholder resolutions increase climate disclosure materiality. To explain this finding, I argue that IOUs may perceive institutional investors as unlikely to divest based on disclosure strategy. This perception may be reinforced when corporations operate in monopolistic markets. When IOUs compete for consumers and purchasers, they likely become increasingly concerned with continued investments from IOUs. In these situations, they perform as Kim and Lyon (2015) expect—by increasing the disclosure of accurate and verifiable metrics. This necessarily increases disclosure materiality.

Existing scholarship focuses on how corporations mediate stakeholder relationships through disclosures. Their findings support the idea that corporations privilege the maintenance of economic resources, many times, over legitimacy resources when formulating their disclosure strategies. This

emphasis on economic resources calls attention to the market structures in which corporations operate (Delmas & Burbano, 2011). Until this paper, scholars have under theorized the role of these structures.

By investigating the climate disclosures of IOUs, I demonstrate that market structures can affect disclosure strategy. IOUs operate in an overall oligopolistic market, with regional monopolies. These competitive structures shift the power dynamics between IOUs and certain stakeholders. By extension, these markets influence corporations' use of disclosures to maintain their economic and legitimacy resources. Specifically, I find that the electricity market strengthens the power of social movements to shape corporate behavior. In these markets, movements represent a potential exogenous force that can undermine IOUs' dominance within the regulated electricity market. Regulators' scrutiny that arises when IOUs are embedded in legislative processes compounds these forces. To contest these forces and mediate relationships with social movements and legislators, IOUs disclose material information.

My findings raise important questions for future research. As one limitation of my research is that I only investigate small variations in one specific market structure, I argue that future work should compare how different market structures shape both stakeholder power and corporations' resulting disclosure strategies. To this end, studies of multiple industries with similar market structures would be welcome. Moreover, my focus on materiality highlights the need to better understand how stakeholders receive and judge information. In this regard, I propose future research where scholars form indexes of disclosure content based on interviews with specific stakeholders.

Although my arguments seem to expose the uniqueness of IOUs and their market, I argue my findings have broader implications, pertaining to other industries. The electricity market represents an oligopoly, where customers have little choice and legislators seem bound by regulatory capture. Similar contexts exist in other polluting industries, like oil and gas (Cortese, 2011; Shapiro, 2011; Tomain & Cudahy, 2011). Therefore, I argue that corporations in these industries may follow similar patterns in disclosure materiality.

Market structures influence relationships between corporations and their stakeholders.

Accordingly, they also influence corporations' disclosure strategies. Considering market structures offers new insights into the environmental disclosures of many polluting industries, especially those with less-competitive structures. By understanding these structures, scholars can better situate agentic disclosure strategies within larger economic and political structures. Accordingly, these studies answer calls to understand the context of disclosure strategy, including specific stakeholder expectations and power.

Chapter 4: FROM DISCLOSURE TO ACCOUNTABILITY: A FRAMEWORK TO UNDERSTAND THE REPERCUSSIONS OF ENVIRONMENTAL DISCLOSURE

4.1 Abstract

Stakeholders have come to expect corporate transparency regarding environmental practices and impacts. In most cases, corporations respond to these expectations through purposeful, voluntary disclosures that attempt to frame their activities in an effort to gain and maintain economic and legitimacy resources. Recent reviews expose the relative dearth of research on the repercussions of environmental disclosure. The few studies that do investigate the repercussions of disclosures create a highly contextual understanding. In this paper, I develop a theoretical framework that connects these existing studies and offers new avenues for investigation. In my framework, I ask: when and how can stakeholders hold corporations accountable for information communicated in environmental disclosures? I develop seven steps that will guide scholars in answering this question. Specifically, my framework draws attention to stakeholders' power, expectations, judgments, and sanctioning actions. By focusing on these concerns, I delineate the role of disclosed information, as well as the importance of sanctions. My framework raises concerns for the continued reliance on environmental disclosures to guide corporate behavior.

4.2 Introduction

There is little doubt that stakeholders—e.g. shareholders, regulators, and social movements—have come to expect some level of corporate transparency (Bromley & Powell, 2012). These stakeholders assume, potentially wrongfully, that information will empower them or a designated entity to judge and guide corporate behavior (Cooper & Owen, 2007; DeMaCarty, 2008). Given the increased expectations of corporate transparency, scholars have spent much effort investigating the ways that corporations frame their activities in purposeful, voluntary disclosures—i.e. written narratives of corporate behavior otherwise not easily accessed by stakeholders (Fiss & Zajac, 2006; Rhee & Fiss, 2014). Examples of voluntary disclosures include annual reports to shareholders, corporate social responsibility reports, and press releases. Unlike in mandatory disclosures—i.e. those required by law—corporations have much autonomy

in deciding what and when they disclose. Scholars posit that by exposing their activities to stakeholders in voluntary disclosures, corporations can gain and maintain economic resources—e.g. profits and return on assets—and legitimacy resources—e.g. reputation (Clarkson et al., 2008; E.-H. Kim & Lyon, 2015; Lyon & Maxwell, 2011; McDonnell & King, 2013; Reid & Toffel, 2009).

Given the benefits of proper framing, scholars have become wary of corporations' motivations to use disclosures to maintain resources by hiding and/or ambiguously discussing their activities (Delmas & Burbano, 2011; Lyon & Maxwell, 2000). Essentially, these scholars argue that corporations can use disclosures to decouple symbolic language from material practices (Lyon & Montgomery, 2015; J. Meyer & Rowan, 1977). By decoupling, corporations maintain resources, but do not invest money and time into making changes to actual practices.

Nowhere are concerns of symbolic content and deceit more pronounced than within the literature investigating corporations' disclosure of social responsibility (CSR) activities (Lyon & Montgomery, 2015; Pope & Wæraas, 2015). Within this literature, scholars have developed several terms to signify the use of symbolic content, including CSR-washing, greenwashing, and pinkwashing (Lubitow & Davis, 2011; Lyon & Montgomery, 2015; Pope & Wæraas, 2015). Generally, scholars argue that corporations' prioritize the pursuit of shareholder value over investments in CSR activities (Kitzmüller & Shimshack, 2012). Corporations, however, feel pressure from stakeholders to engage in CSR activities. Therefore, corporations use symbolic language, i.e. CSR-washing, to respond to stakeholder pressures for CSR, but not make potentially costly investments in actual practices (Bowen, 2014).

Despite claims that symbolic environmental disclosures lead to positive outcomes for corporations, there have been few attempts to understand the repercussions of environmental disclosures on corporate economic and legitimacy resources (Hahn et al., 2015; Lyon & Montgomery, 2015). Moreover, recent reviews of the environmental disclosure literature note the inconclusive nature of these few studies (Hahn et al., 2015; Lyon & Montgomery, 2015). Specifically, scholars have found that both

symbolic disclosures and substantive disclosures, i.e. those mentioning specific and verifiable programs and metrics that correspond to actual practices, can lead to positive, negative, and no effect on corporations' resources (C. Cho et al., 2012; Gallego-Alvarez, 2012; E.-H. Kim & Lyon, 2011b; Stanny, 2013; Toms, 2002). The ability to understand the repercussions of environmental disclosure are important if citizens, shareholders, and policymakers are to rely on disclosures as components of environmental governance and social regulation. In the absence of material risk to their resources, it is unlikely that corporations will change their activities to be in line with stakeholders' expectations. This concern is especially prevalent as the US government continues to endorse voluntary environmental behavior over formal regulations—requiring stakeholders to rely on voluntary disclosures to understand corporate activities (Barton, 2006; Kleindorfer & Orts, 1998; Kraft & Bogusz, 2016; Short & Toffel, 2010).

To create connections between existing empirical studies, generate less contextual findings, and motivate future research, I develop a novel theoretical framework. I use the idea of accountability to assist me in developing my framework. Accountability is a social relationship between an accountor and an accountee (Bovens, 2007). The accountee either actively or passively shares information with the accountor. By exposing information, the accountee becomes more transparent. The accountor can then sanction the accountee based on whether that information aligns with their expectations. Applying this concept to a disclosure relationship, a disclosure will have an effect on a corporation, i.e. an accountee, when stakeholders, i.e. accountors, have the ability to sanction the corporation (Kraft & Wolf, 2016).

I argue conceptualizing disclosure relationships as accountability relationships draws attention to stakeholders' power, expectations, their processes of attributing responsibility, and the presence-strength of sanctions. To assist me in considering these components, I rely on a variety of insights from both macro and micro organizational behavior literatures. Specifically, my framework synthesizes and combines theories of stakeholder salience (e.g. Mitchell, Agle, & Wood, 1997), attribution of responsibility (e.g. Sanders et al., 1996), formal and informal regulation (e.g. Coglianese & Lazer, 2003), and corporate opportunity structures (e.g. Soule, 2009). Through synthesis, I develop a framework that

exposes the dynamic process whereby powerful stakeholders can sanction a corporation for unmet expectations exposed in disclosures. This framework demonstrates links between existing studies and offers new pathways for research.

In my framework, I develop seven considerations, which I call steps, that guide scholars investigating the repercussions of disclosures. Empirical investigations of each step will strengthen existing understandings of the repercussions of disclosure. At the most general and abstract level, for a disclosure to have an effect, I argue that a powerful stakeholder must receive information in a disclosure that they judge to be misaligned with their expectations. They then attribute responsibility to the corporation or a corporate employee for those activities. After attributing responsibility, the stakeholder chooses from available sanctions, which they then deploy against a corporation. The stakeholder deploys this sanction when a corporation is vulnerable—i.e. during a corporate opportunity structure—overcoming corporate resilience. These sanctions damage corporations’ economic and legitimacy resources. Put differently, these steps equate to a stakeholder, i.e. an accountor, holding a corporation, i.e. an accountee, accountable for information exposed in an environmental disclosure.

My framework exposes the specific ways that disclosed information effects stakeholders’ decisions to reward or punish corporations for practices and symbols exposed in disclosures. Specifically, I argue that disclosed information influences stakeholders’ power, expectations, and willingness to attribute responsibility. Information, however, does not influence the availability and strength of a stakeholder’s sanctions. These insights call researchers to design studies that investigate both specific stakeholders’ decision-making processes and socio-political structures that influence the availability-efficacy of sanctions. Most notably, my framework highlights when and if information is enough to empower stakeholders’ to hold corporations accountable for information exposed in their environmental disclosures.

4.3 Motivating a Framework – Moving Towards Accountability

Existing research creates a highly contextual, and slightly ambiguous, understanding of the repercussions of voluntary environmental disclosures on a corporation's economic and legitimacy resources. Hahn et al. (2015) rightfully critiques extant studies of repercussions of environmental disclosures as being theoretically bereft. I argue an absence of a coherent theory creates a highly contextual understanding of when and how environmental disclosures affect corporations' economic and legitimacy resources. For instance, Wu and Shen (2013) investigated greenwashing among 122 banks in 22 countries between 2003 and 2009. They found that corporations who only paid "lip service" to environmentalism without engaging in substantive practices did not realize any benefit to their share price. They argue that firms who greenwashed did not generate costs related to green innovation. According to Wu and Shen (2013), this allowed shareholders to use financial statements to identify corporations that were not actually changing their practices.⁷ Accordingly, the banks' shareholders divested from companies who greenwashed. Gallego-Alvarez (2012), however, finds that the disclosure of verifiable carbon metrics by 138 global firms between 2006 and 2010 similarly negatively affected share price. In her explanation, she argues that the recession spanning 2008 through 2010 opened corporate decisions to heightened critique from shareholders. Specifically, she argues the recession made shareholders wary of investments in environmental projects. Therefore, they divested from corporations disclosing pro-environmental projects, which demonstrated decreased greenhouse gas emissions. In a final example, Kim & Lyon (2011a) find that disclosing verifiable carbon mitigation practices led to increases in share value. They argue that this increase occurred because the ratification of the Kyoto Protocol made shareholders more interested in corporations' efforts to mitigate climate change. Therefore, corporations' disclosure of climate information demonstrated alignment with their expectations.

Divergent findings and theoretical ambiguity also result from efforts to understand the link between environmental disclosure and legitimacy resources, e.g. reputation. For instance, Cho, Guidry,

⁷ I simply state the author's reasoning for their findings. There is a substantial body of literature that highlights how difficult shareholders find it to separate real from symbolic language, and/or to rectify multiple accounts (Klettner, Clarke, & Boersma, 2013; Primmer & Wolf, 2009).

Hageman, and Patten (2012) study 92 US firms in environmentally sensitive industries between 2006 and 2009. They find that the greater the percentage of verifiable metrics in a disclosure the higher shareholders' perceptions of firm reputation for environmentalism. They also argue that those corporations with few pro-environmental practices have high reputation scores. They explain these findings by arguing that corporations who are poor environmental performers are more likely to disclose verifiable, positive information. Therefore, disclosure mediates stakeholders' otherwise poor perceptions to corporate environmental performance. Toms (2002) similarly finds a positive correlation between verifiable information and corporate reputation. Toms (2002), however, argues that verifiable information sends a signal about positive environmental performance. He further argues that corporations with poor environmental performance cannot mimic this signal. To explain his findings, he maps the pathways through which stakeholders can affect reputation—demonstrating that institutional investors who have the time and capacity to further investigate corporate activities can pose a greater risk to corporate reputation following disclosure. Finally, Delmas and Montes-Sancho (2010) find that symbolic environmental disclosures can also lead to positive reputational outcomes. In their study of electric utilities, they find that greenwashing can supplement participation in voluntary climate agreements. Greenwashing increased regulators' perceptions of the reputation of poor environmental performers.

As these examples illustrate, without a coherent theoretical premise, contemporary studies create a highly contextual understanding of the repercussions of environmental disclosure. I argue, however, that there are two commonalities in these studies. First, many scholars discuss stakeholders' expectations and their judgments of disclosed information. Second, many focus on the social, political, and market environments in which corporations operate. I use these two commonalities as a starting point for developing a theoretical framework to understand the repercussions of environmental disclosures.

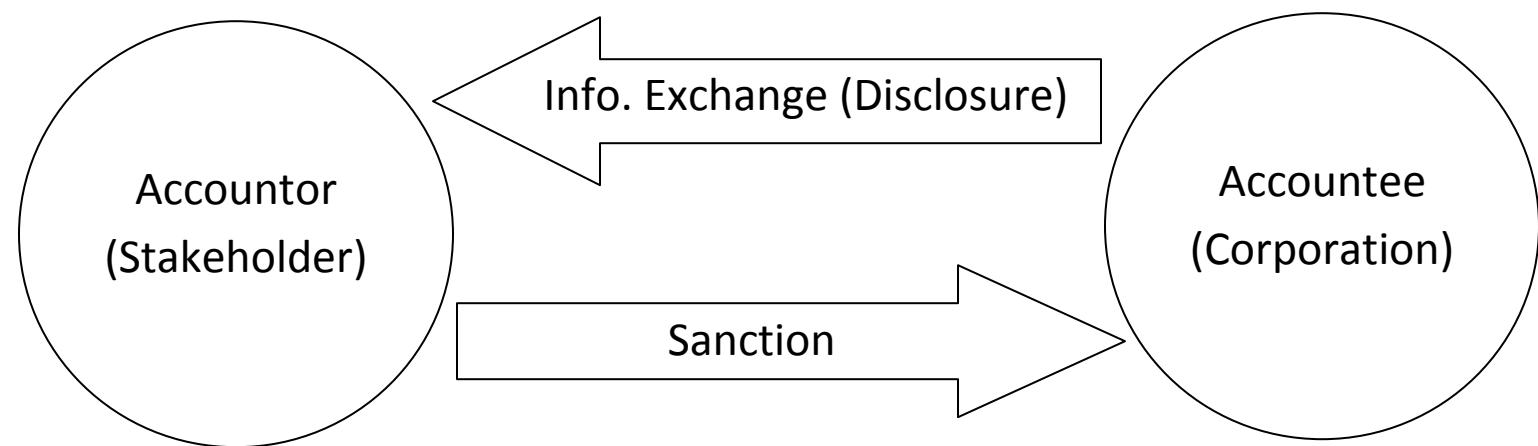
These two commonalities demonstrate a need consider both sides of a disclosure relationship—i.e. corporations and stakeholders. To understand this dynamic relationship, I rely on a concept that has proven useful in understanding reciprocal relationships where one actor can levy repercussions against

another. This concept is accountability. By focusing on accountability, I transform the question: what are the repercussions of environmental disclosure? Into the question: when and how can stakeholders hold corporations accountable for information exposed within environmental disclosures?

4.4 From Disclosure to Accountability

When scholars question whether disclosures affect firm performance, they essentially ask: do stakeholders hold corporations accountable for their actions exposed in disclosures? Accountability is a social relationship—i.e. an accountability relationship (Bovens, 2007). Within accountability relationships, one actor, the accountor, has the ability to sanction another actor, the accountee, based on an exchange of information (Black, 2008; Bovens, 2010; Manin et al., 1999; Messner, 2009; A. Miller, 1973; Mulgan, 2000; M. Scott & Lyman, 1968). Arising from this definition, there are two discrete aspects of accountability—information flow and sanction (Kraft & Bogusz, 2016; Kraft & Wolf, 2016). Scholars generally consider the information flow an account (M. Scott & Lyman, 1968). This account creates a transparency relationship between a discloser and a recipient (Bovens, 2007; Cooper & Owen, 2007). Disclosures are written accounts in material form (Kraft & Wolf, 2016). Following from this definition, disclosures frequently play an integral part in establishing and building accountability relationships (Bromley & Powell, 2012; Gupta, 2010). Figure 4.1 demonstrates a basic schematic of an accountability relationship.

Figure 4.1: Disclosure and Accountability Relationships

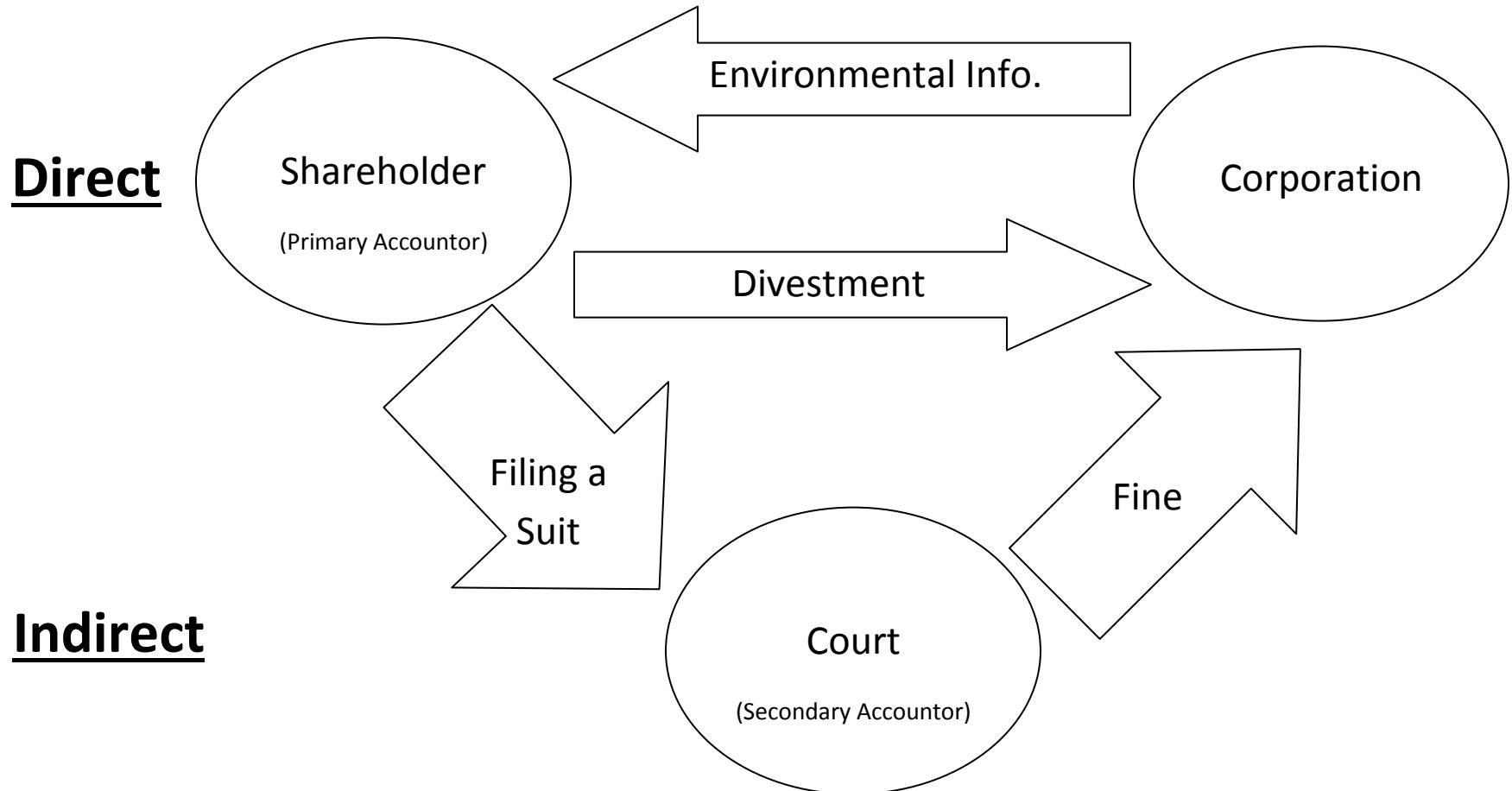


By extending the literature on accounts, I argue that accountors expect accountees to disclose information that demonstrates the incorporation of institutionalized practices (Kraft & Bogusz, 2016; Kraft & Wolf, 2016; M. Scott & Lyman, 1968). By doing so, accountees are able to gain and maintain economic and legitimacy resources (Dowling & Pfeffer, 1975; J. Meyer & Rowan, 1977; Suchman, 1995). Institutions are the values, norms, formal and informal rules, beliefs, and assumptions that permeate an organization's work area (Meyer and Rowan 1977; DiMaggio and Powell 1983; Suchman 1995; Scott 2001). Institutions are relatively stable and therefore, accountors' expectations remain fairly settled over time.⁸ For a disclosure to have repercussions for an accountee, accountors must read disclosures and sanction the accountee if there is misalignment between expectations (Kraft & Wolf, 2016). This risk of sanction is the defining feature of accountability—differentiating it from transparency.

Accountors may deploy sanctions through direct and indirect pathways. For instance, if a shareholder, i.e. the accountor, believes a corporation, i.e. the accountee, misrepresented itself, they may directly sanction the corporation through divesting. In this case, the market provides shareholders a direct pathway to sanction the corporation. I consider the shareholder a primary accountor. Shareholders may also indirectly sanction the corporation through bringing a lawsuit for misrepresentation in the courts. In this case, the law provides an indirect pathway through which courts sanction the corporation. I consider the court a secondary accountor. Figure 4.2 demonstrates a schematic of primary and secondary accountors.

⁸ The institutional change and entrepreneurship literatures, however, demonstrate that institutions evolve (Hardy & Maguire, 2008). Therefore, although accountors' expectations may be fairly stable, they can change as institutions change.

Figure 4.2: Direct and Indirect Sanctions – Primary and Secondary Accountors

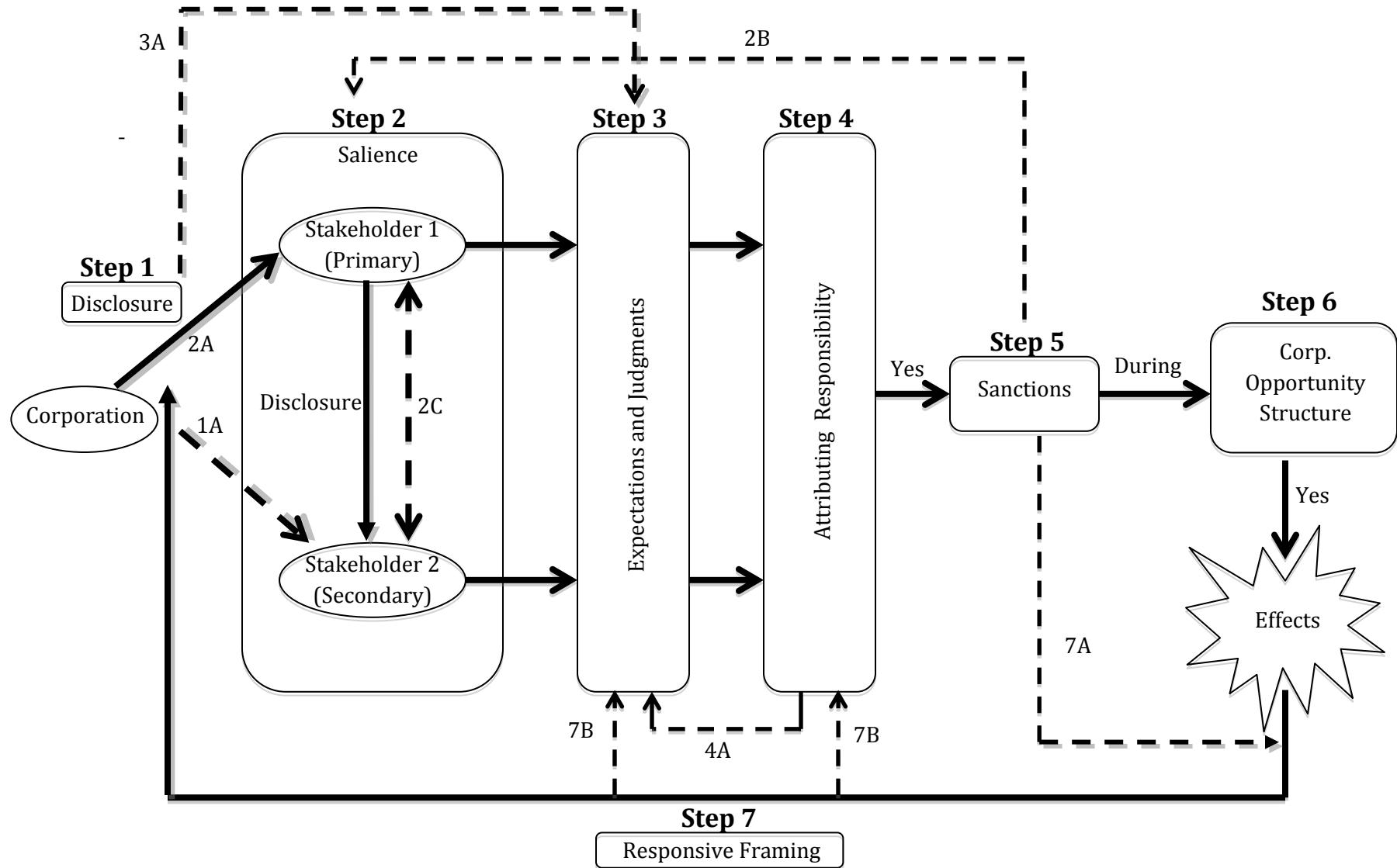


The disclosure of information to a primary accountor may also spread between multiple other stakeholders. If these recipients have the ability to sanction the corporation, then they are secondary accountors. Therefore, as information spreads the amount of secondary accountors may increase. For instance, when a shareholder shares information with an investor rights organization, the organization may share the information with many other shareholders. In its capacity as a centralized mobilizing organization, the investor rights organization can then compose and disseminate shareholder resolutions that form a sanction. Through much of my discussion, I do not differentiate between primary and secondary accountors. The stakeholders I mention may be either primary or secondary accountors. Scholars operationalizing my framework, however, should be cognizant of whether a stakeholder directly or indirectly receives information and deploys a sanction.

Relationships between corporations and stakeholders are potential accountability relationships. The corporation, as an accountee, disseminates information in the form of a disclosure to a stakeholder. If the stakeholder has the power to judge and sanction the corporation based on the information disclosed, then the stakeholder is an accountor. Extant research on accountability draws attention to: 1) the authority and power of accountors; 2) accountors expectations of accountees; and 3) the mechanisms through which accountors sanction accountees (Bardach & Lesser, 1996; Bovens, 2007; Romzek, Blackmar, & Leroux, 2012; Schillemans, 2008). By arguing a disclosure relationship is an accountability relationship, I develop a framework that draws explicit attention on stakeholders' power/authority, expectations, assignment of responsibility, and sanctions. I supplement these foci with consideration of corporate opportunity structures. The entire framework is demonstrated in Figure 4.3. In my detailed discussion, I will reference steps within Figure 4.3.

Figure 4.3: A Theoretical Framework to Understand the Repercussions of Disclosures

Solid lines represent progression between steps, which are necessary for an effect. Dotted lines represent interactions between steps.



4.5 Step 1: Corporate Framing and Disclosure Dissemination

I begin with a corporation, i.e. an accountee, disclosing information to a stakeholder, i.e. an accountor. Most of the disclosure literature focuses on this step. Specifically, scholars argue that corporations defensively or anticipatorily disclose information to frame activities in a manner that manages stakeholders' impressions (Elsbach & Sutton, 1992; Rhee & Fiss, 2014; M. Scott & Lyman, 1968; Tedeschi & Melburg, 1984). Through managing impressions, corporations maintain economic and legitimacy resources (Marquis & Toffel, 2014; McDonnell & King, 2013). Key to this pathway is corporations' perceptions of stakeholders' expectations.

Scholars operationalize stakeholders' expectations by referencing specific actions and/or pressures. For instance, scholars have investigated how the introduction of legislation (Delmas & Montes-Sancho, 2010), legal mandates (Delmas, Montes-Sancho, & Shimshack, 2010), social movement protests (McDonnell et al., 2015), and shareholder resolutions (Reid & Toffel, 2009) have led to variations in disclosure strategy. These scholars reason that failure to respond to these activities risks damage to resources.

Stakeholders may directly or indirectly receive information. For instance, a shareholder may directly receive an annual report from a corporation. In this case, the shareholder is the primary recipient of information—making them potentially a primary accountor. In another case, a shareholder may forward a disclosure, e.g. an email, to a shareholder rights organization. The organization is an indirect recipient of information—making them potentially a secondary accountor. Moreover, general disclosures may reach a wide-range of stakeholders. These stakeholders are passive recipients of information (See Figure 4.3, Step 1A). The original disclosure may spread among stakeholders, increasing the amount of accountors.

When anticipating stakeholders' expectations, corporations perceive stakeholders as powerful grantors of economic and legitimacy resources. For instance, a corporation may construct an email to shareholders in anticipation of a media article exposing poor environmental performance. This email sent to perceived powerful stakeholders is meant to blunt the potential effect of the article (Acharya et al.,

2011; Milgrom, 1981). As I describe in Step 2, considering power necessitates a discussion of stakeholder salience.

4.6 Step 2: Identifying Empowered Accountors

When viewing disclosure relationships as accountability relationships, I argue stakeholders, i.e. accountors, are powerful. Accountors can grant or take resources based on whether disclosed information matches their expectations. A stakeholder's power refers to their ability to compel a corporation to do something they would otherwise not do (Etzioni, 1961).⁹ The potential loss of resources causes corporations to respond to stakeholders' demands—giving stakeholders power (Vasi & King, 2012).

Power, however, is relative and not absolute. To capture the potential relative nature of stakeholders' power, I argue for a consideration of salience. There are three characteristics that determine the salience of a stakeholder: power, an urgent demand, and legitimacy (Laplume, Sonpar, & Litz, 2008; Mitchell et al., 1997; Neville, Bell, & Whitwell, 2011).

The presence of a disclosure and a sanction strengthens stakeholders' power over corporations. As demonstrated in Figure 4.3, Step 2A, disclosures can directly influence stakeholder power by exposing otherwise unknown or proprietary information to external scrutiny (McDonnell et al., 2015; Rosenfeld & Denice, 2015). Not all information, however, is power (Williamson, 1997). Specifically, symbolic content, like greenwashing, can obscure damaging information or deceive stakeholders—weakening their relative power. Moreover, as Rosenfeld and Denice (2015), Haufler (2010), Cooper and Owen (2007), and Gupta (2010) argue, stakeholders have to be able to use the information to compel corporate change. For instance, Rosenfeld and Denice (2015) found that disclosed financial data diffuses power within corporations, assisting employees in negotiating higher salaries. In this case, negotiating and striking offered stakeholders the opportunity to use information to compel corporate change. For this reason, I

⁹ I choose Etzioni's definition of power here because of its use by scholars investigating power within and among organizations, e.g. Pfeffer (1992). The definition is broad enough to capture other definitions powers, e.g. Emerson (1962); Korpi (1989); and M. Weber (1922).

argue that the presence or absence of a sanction directly influences stakeholder power (See Figure 4.3, Step 2B).

The urgency of a stakeholder's claim changes over time as the risk of sanction varies (Weitzner & Deutsch, 2013, 2015). For instance, following a crisis, stakeholders may use newly exposed information to advocate for rapid corporate change—potentially making them more likely to deploy available sanctions within shorter time intervals (Elsbach & Sutton, 1992).

Finally, corporations perceive a stakeholder as legitimate when they justify claims based on legal, normative, and cultural rules and assumptions (Aldrich & Fiol, 1994; Dowling & Pfeffer, 1975). Within the context of accountability, laws, norms, and cultural repertoires form the basis of sanctions. Therefore, the ability to sanction a corporation grants stakeholders some legitimacy (See Figure 4.3, Step 2A). Moreover, I argue that primary accountors and secondary accountors can reciprocally increase each other's legitimacy (See Figure 4.3, Step 2C). A primary accountors' decision to employ indirect pathways of sanctioning can legitimize secondary accountors. As secondary accountors deploy sanctions against accountees, they grow in salience. Information can also play a role in secondary accountors' salience. Moreover, primary and secondary accountors can collectively act—strengthening their salience. For instance, individual shareholders can share information and band together and create voting blocks that can more negatively affect share price than when acting separately (King, 2007). In another example, social movements can join together in a coalition to shape corporate behavior (Zald & Ash Garner, 1987; Zald, Morrill, & Rao, 2005). By pooling resources, including information, they can increase their power and legitimacy.

By focusing on accountability, I expose that stakeholders' salience relates to the receipt of information and the availability of sanctions. Notably, stakeholders, i.e. accountors, may not have equal salience to the corporation, i.e. accountee. Step 2 highlights the importance of empirically investigating stakeholder salience, rather than assuming it.

4.7 Step 3: Stakeholders' Understandings and Expectations

Once a salient stakeholder receives information, they judge the information to determine if it aligns with their expectations. As mentioned above, stakeholders, i.e. accountors, base their expectations on institutions. Generally, scholars struggle to delineate specific and discrete institutional practices (DiMaggio, 1988; Thornton, Ocasio, & Lounsbury, 2012; Tolbert & Zucker, 1996). As such, I argue stakeholders may similarly struggle to delineate their specific expectations regarding corporate performance. Similar concerns have led scholars, like Rhee and Fiss (2015), to assess stakeholders' multivocal expectations. This means acknowledging that stakeholders may have multiple, and even contradictory, expectations of corporations. For instance, shareholders may want a corporation to mitigate climate change by investing in costly technological advances, but also maximize their short term gain in share value (E.-H. Kim & Lyon, 2015). Accordingly, stakeholders may judge corporate behavior based on one piece of information and its match to discrete expectations.

Reciprocally, stakeholders, i.e. accountors, must understand a wide variety of information (Klettner, Clarke, & Boersma, 2013). When reading environmental disclosures, if attempting to ascertain corporations' actual practices, stakeholders must separate symbolic from substantive content (Adams, 2002). Moreover, when stakeholders find it difficult to understand disclosure content, they may develop an indifference to corporate behavior—making it unlikely they would deploy a sanction (Chatterji & Levine, 2008; Chatterji, Levine, & Toffel, 2009; Neville et al., 2011; Peloza & Papania, 2008). Several scholars have investigated stakeholders' responses to corporate disclosure strategies that use metrics, figures, graphics, terminology, and prose to manipulate understandings of corporate behavior (Carlile, Nicolini, Langley, & Tsoukas, 2013; Elsbach, 2006; Elsbach & Sutton, 1992; Elsbach, Sutton, & Principe, 1998; Schultz, Hatch, & Ciccolella, 2006). The purported goal of these strategies is to diminish negative perceptions of activities and, by extension, decrease the likelihood of a sanction.

Another way that corporations can shape stakeholders' ability to judge their activities is through shaping stakeholders' expectations. A growing literature on institutional entrepreneurship focuses on the

role of narrative and rhetorical devices, like disclosures, in creating and changing institutions. Situating these insights within my framework, accountees' disclosures can influence accountors' expectations (See Figure 4.3, Step 3A). This effect may be greater when corporations have proprietary information and/or expertise that stakeholders need to form their expectations. For instance, electric utilities disclosure of technologies in the 1970s shaped shareholders expectations of efficient operations and equitable rate making (D. Anderson, 1981; Hirsh, 1999; Tomain & Cudahy, 2011)

Given the potential for poor understanding of information and manipulation, a primary accountor, may delegate judgment authority to a secondary accountor. In this situation, a secondary accountor may have expert knowledge on corporate or industry activities—including the ability to read and parse a variety of data. By delegating this judgment authority, primary stakeholders may increase the salience of secondary stakeholders by increasing their legitimacy.

By focusing on expectations, I expose the difficulty of ascribing singular expectations to stakeholders. Moreover, I demonstrate that expectations change over time. I demonstrate how understanding of disclosed information can lower likelihood of sanction. Corporations may purposefully purposely use their disclosures to further this goal.

4.8 Step 4: Attributing Fault

Assuming that stakeholders, i.e. accountors, understand the disclosed information and judge it to be misaligned with their expectations, they must determine fault. Essentially, they ask if the corporation, i.e. an accountee, or their employees were responsible for the actions that deviated from their expectations. This process has been discussed extensively in the organizational scholarship as attribution of responsibility.

Attribution theory attempts to explain how stakeholders make causal inferences about corporations' behavior (Heider, 1944; Kelley, 1973). Scholars generally agree that roles, traits, and contexts are the main aspects of attribution theory (Gailey & Lee, 2005). To attribute responsibility,

stakeholders consider the roles and traits of corporations and corporate employees. The major categories of traits that stakeholders consider are positive/negative attributes, intrinsic/extrinsic motivations, and behavioral consistency (Gailey & Lee, 2005). Generally, stakeholders are more likely to attribute responsibility for activities that do not meet their expectations when corporations' have subjectively negative traits, operate on intrinsic motivations, and engage in behavior that is consistent with past performance (Gailey & Lee, 2005; Hamilton & Sanders, 1996). For instance, stakeholders may attribute positive attributes to a corporation that creates an identity based on environmental philanthropy and consistently engages in practices supporting that identity. Alternatively, a corporation who wantonly pollutes may have a negative identity (Sanders & Hamilton, 1992). Stakeholders also consider a corporations role in certain events before attributing responsibility. Generally, when stakeholders perceive a corporation to act in a sole manner and in distinct ways, they are more likely to attribute responsibility to the corporation for activities (Simpson & Piquero, 2002).

Stakeholders also base their judgments of corporate actions on whether they perceive an activity as intrinsically motivated (Gailey & Lee, 2005). Generally, perceptions of intrinsic motivations can heighten negative traits, while extrinsic motivations attenuate negative traits (Mitchell et al., 1997; Pancer, McShane, & Noseworthy, 2015). For instance, a shareholder may be more likely to attribute fault for a toxic spill when they perceive the corporation to have internally made the decision to dump based on minimizing costs. Moreover, the more socially embedded a corporation, the less likely stakeholders will attribute responsibility for its actions because stakeholders consider actions to be extrinsically motivated (Heider, 1944; Parguel et al., 2011). For instance, when an entire industry engages in similar practices, a stakeholder will consider the corporation as responding to external pressures and will be less likely to attribute responsibility for activities misaligned with expectations (Parguel et al., 2011).

Finally, stakeholders consider the context of corporate actions when attributing responsibility. Specifically, they consider outcome severity and the level at which decisions are made. Stakeholders are more likely to attribute responsibility for actions deemed more serious and/or catastrophic in nature

(Robbennolt, 2000; Schroeder & Linder, 1976). Contexts also matter when stakeholders determine at what level or loci within a corporation to attribute responsibility. For instance, stakeholders may separate CEO behavior from general corporate behavior (Sanders et al., 1996). In making assessments, stakeholders may also focus on particular employees—determining the roles, traits, and contexts of individual actors (Sanders et al., 1996).

Not only do corporate traits, roles, and context influence stakeholders' willingness to attribute responsibility. Stakeholders' characteristics also matter. These characteristics include their race, gender, age, educational background, social status, and cultural background (Hamilton & Hagiwara, 1992; Hamilton & Sanders, 1996; Kelley, 1973; Sanders et al., 1996). These traits may interact with perception of salience (See Figure 3, Step 4A). For instance, certain social status or cultural background may affect perceptions of legitimacy (Cooper & Owen, 2007; Williamson, 1997). Moreover, these traits influence stakeholders' motivations to impose discipline on corporations. For instance, stakeholders holding a lower socio-economic status may be hesitant to attribute responsibility when they risk damaging their economic security.

The assignment of responsibility greatly expands consideration of stakeholders' judgments of disclosed information. Specifically, I argue that even when a disclosure demonstrates that a corporation did not act in accordance with expectations, a stakeholder may not consider the corporation responsible for that deviation. Therefore, they may not sanction the corporation.

4.9 Step 5: The Availability and Severity of Accountors' Sanctions

Assuming a salient stakeholder receives information that it judges to be misaligned with its expectations and attributes responsibility to the corporation, a stakeholder can choose to deploy an available sanction. Without a sanction, a corporation will not realize any effect on its economic and legitimacy resources. Not all stakeholders have identical sets of sanctions available to them. Moreover, some sanctions may elicit greater effects than others (L. Anderson, Chircos, & Waldo, 1977; S. Breyer,

1984; Nicoletti & Pryor, 2001). To assist in discussing the myriad of sanctions available to stakeholders, i.e. accountors, I rely on insights from regulatory theory.

Political and legal scholars group sanctions based on whether or not they arise from legal and political structures (Barton, 2006; Karkkainen, 2000; Sabatier & Mazmanian, 1983). Formal sanctions arise through legal or political order (Baron, 2001; Barton, 2006; M. Weber, 1922). These sanctions include lawsuits and public hearings. Informal sanctions—e.g. protests, boycotts, and media shaming—do not arise from legal or political order. They arise from actors' membership in peer groups, families, reference groups, and markets (L. Anderson et al., 1977; Hollinger & Clark, 1982; Romzek et al., 2012). Both formal and informal sanctions vary in terms of their availability and severity.

First, accountors' available sanctions vary depending on the social, political, legal, and market context in which they are embedded. For instance, the Emergency Preparation and Community Right to Know Act (EPCRA) requires corporations to disclose their toxic emissions to the Environmental Protection Agency (EPA). The EPA then makes this information publically available to citizens in the Toxic Release Inventory. Here, citizens are secondary accountors who receive information from the primary accountor, the EPA. The law does not grant citizens any formal sanctions. Citizens may, however, choose to deploy several informal sanctions, including voting with their dollar—i.e. refusing to purchase items from the corporation—or publically shaming a corporation in a media article/website. In this example, citizens' legal and market embeddedness influences the availability of sanctions.

Second, sanctions vary in their severity. Severity is a function of potential outcome of a sanction. Sanctions vary in the extent to which they damage economic and legitimacy resources. For instance, corporations consider boycotts a severe sanction because they damage both profits and legitimacy (King, 2008; Vasi & King, 2012). Corporations, however, may deem other sanctions, like media shaming, as less severe because they primarily damage a corporation's reputation (King, 2008; McDonnell & King, 2013).

Generally, existing scholarship argues a sanctions perceived severity increases when the sanction damages economic resources (Vasi & King, 2012).

The severity of a sanction is also a function of the regularity at which accountors deploy it. For instance, some sanctions, like protests, may become more severe the more frequently they occur (King, 2008; McDonnell et al., 2015). Other sanctions, however, may decrease in severity as corporations come to expect them and build structures and practices that insulate them from attack. For instance, corporations that are sued frequently build agreements that favor alternative forms of dispute resolution and strategies that prolong litigation (Clark, Salo, & Hebb, 2008; Edelman, Fuller, & Mara-Drita, 2001; Rothman, 2011).

Viewing disclosure relationship as accountability relationship calls scholars to investigate the availability and severity of both informal and formal sanctions. Sanctions are the defining feature of accountability relationships. Therefore, their presence is necessary if disclosures will have an effect on corporate behavior. Moreover, the ability to deploy a sanction directly relates to a stakeholders' salience (see Figure 4.3, Step 2B).

4.10 Step 6: Corporate Opportunity Structures

Although not directly envisioned in most accountability frameworks, certain accountee, i.e. corporation, characteristics may influence whether or not an accountor's, i.e. stakeholder, sanction has an effect. Accordingly, although stakeholders may have available and effective sanctions, they may need to strategize about when they deploy a sanction. The outcomes of this strategy may influence whether the corporation will be resilient to a sanction. If a corporation is resilient, scholars and stakeholders will likely not observe a repercussion. Moreover, if they trust their ability to weather a sanction, corporations may not worry about the possibility of sanctioning.

This idea has been most readily studied in the social movement literature. Well-developed corporations may be resilient to some sanctions, particularly those aimed at damaging reputation (Soule,

2009). Therefore, for a stakeholder to impact a corporation, they must deploy a sanction at the right time in a corporations' development and at the right time within industry evolution. Essentially, stakeholders must attend to corporate opportunity structures (Ashford, Rothbard, Piderit, & Dutton, 1998; Bakker & Hond, 2008; Soule, 2009; K. Weber, Rao, & Thomas, 2009). These opportunities relate to times when: there are market-political disruptions, a corporation has been targeted previously, a corporation has a poor reputation, a corporation operates within a liberal democracy, a corporation restructures, a corporation gets new officers, and elite employees share values with the stakeholder (Briscoe, Chin, & Hambrick, 2014; King, 2007; Schurman, 2004).

Once a stakeholder learns that a corporation is not aligned with their expectations, as exposed in disclosures, they must deploy a sanction at the appropriate time and in the appropriate context. Otherwise, a corporation may be resilient to the stakeholder's attacks. For instance, activists protesting corporations environmental performance in authoritarian regimes and/or less competitive markets have less influence on corporate behavior because of limited opportunity structures—insulating corporations from the detrimental effects of sanctions (Delmas & Burbano, 2011; Delmas, Hoffmann, & Kuss, 2011; Marquis & Toffel, 2014). If a corporation is resilient to attacks, there will be little to no effect on economic and legitimacy resources. Moreover, if there are effects, they may be difficult for scholars to observe.

Deploying a sanction during an opportunity structure may be purposeful or inadvertent. For instance, a shareholder may wait to file a resolution until there is a market crisis. Alternatively, certain market crises may make shareholders more interested in information, increasing the chances that they will judge and sanction a corporation. By exposing the role of corporate opportunity structures, my framework demonstrates that sanctioning, alone, may not be enough to compel corporations to change their behavior.

4.11 Step 7: Responding with Disclosure

After a sanction, regardless of whether or not it elicited a response (See Figure 4.3, Step 7A), corporations would likely vary their disclosure strategy. In this way, my framework loops back to the beginning with a corporation disseminating information to stakeholders. After a sanction, corporations

may frame their activity to defensively manage impressions—constructing accounts that draw attention away from activities that are misaligned with stakeholder expectations (Elsbach and Sutton 1992; Elsbach 1994). There are certain recurring practices involved in defensive impression management. These are: excuses—discourses that attempt to avoid responsibility for negative outcomes; justifications—discourses that offer an explanation that acknowledge responsibility for the consequences but not their negative implications; and disclaimers—discourses that attempt to ward off and defeat advance doubts and negative typifications (Tedeschi and Melburg 1984; Arndt and Bigelow 2000).

Before a stakeholder deploys a sanction, a corporation may anticipatorily manage their impression when they know that certain activities are misaligned with expectations and sanctions may result. There are two main strategies of anticipatory impression management. First, corporations may disclose information that distracts from and diminishes negative issues or overwhelms recipients. Second, corporations may disclose information that induces favorable emotions—leading recipients to overlook potentially negative issues or to simplify their judgments of information (Elsbach, Sutton, and Principe 1998).

Both defensive and anticipatory impression management generally attempt to influence stakeholders' understandings of corporate behavior and their willingness to attribute responsibility to a corporation for their actions (see Figure 4.3, Step 7B). By engaging in these practices, corporations attempt to forestall future sanctions. This last point incorporates many of the existing insights regarding how corporations respond to stakeholder tactics using disclosures.

4.12 Implications and Conclusion

The existing literature creates an ambiguous and highly contextual understanding of the repercussions of voluntary, environmental disclosures. Recent reviews highlight that one potential reason for this confusion is the lack of a unifying theory (Hahn et al., 2015). In this paper, I develop a theoretical framework that draws connections between existing research and offers pathways for future investigation. To develop my framework, I utilize the idea of accountability.

By arguing that disclosure relationships are accountability relationships, I demonstrate the importance of stakeholders' power, judgments, and sanctions. My theoretical framework exposes that disclosures will most likely have repercussions on corporate resources when: 1) salient stakeholders receive the information; 2) stakeholders understand disclosed information and judge corporate activities to be misaligned with their expectations; 3) stakeholders attribute responsibility to the corporation for this misalignment; and 4) stakeholders deploy a sanction at the appropriate time.

4.12.A Using the Framework to Connect Existing Studies

To demonstrate how my framework connects extant research, I return to the examples discussed earlier. First, in Wu and Shen's (2013) investigation of banks, they argue that shareholders did not divest from greenwashing firms because they were able to make inferences based on profit/loss information in financial reports. By situating this study within my framework, I argue that financial reports gave shareholders information they needed to judge and understand environmental disclosures. Accordingly, they could judge when corporations were paying "lip-service" versus investing in sustainability practices. The variation in firms' incorporation of sustainability practices also likely allowed shareholders to infer motivation. Specifically, I argue that shareholders likely perceived the failure to develop actual practices as arising from intrinsic motivations. Therefore, shareholders were more likely to attribute responsibility for deviation from expectations. This study demonstrates that shareholders understanding of environmental performance and willingness to attribute responsibility were important to their divestment, i.e. sanctioning, decision.

Second, Gallego-Alvarez (2012) found that the disclosure of verifiable carbon metrics negatively affected share value. She argued that the recession exposed corporations to greater scrutiny. Moreover, she argued that in this uncertain time shareholders expected risk adverse strategies that did not include investments in sustainability initiatives. My framework offers some theoretical clarity to these findings. Gallego-Alvarez's (2013) discussion of the recession exposes a corporate opportunity structure. During this time period, the recession mediated shareholders' sanctioning activity—leading to an observable effect.

Moreover, the recession changed shareholders expectations—causing them to judge corporate environmental performance as misaligned with their wishes.

Third, Kim & Lyon (2011a) find that disclosing verifiable environmental practices increased share value. They argue that the ratification of the Kyoto Protocol shifted stakeholders' expectations of climate change mitigation activities. Like Gallego-Alvarez's (2013) study, this investigation highlights the importance of both stakeholders' expectations and corporate opportunity structures. The Protocol shifted stakeholders' expectations and by extension how they judged environmental information in disclosures. Moreover, the shifting international, political landscape offered shareholders an opportunity to reward, and not sanction, corporations.

Fourth, both Toms (2002) and Cho et al. (2012) find that the disclosure of verifiable metrics can improve a corporation's reputation. By viewing these studies through my framework, I argue that both studies highlight how disclosed information influences stakeholders' attribution of responsibility. Specifically, both Toms (2002) and Cho et al. (2012) premise their arguments on shareholders' ability to use disclosed information to attribute poor environmental performance to corporations. In these cases, verifiable metrics signaled intrinsic motivations to engage in sustainability practices and allowed shareholders to augment their perceptions of corporate traits.

By applying my framework to these studies, I uncover a common focus on stakeholders' expectations, their judgments, and their willingness to attribute responsibility. Other studies on the repercussions of environmental disclosures share similar reasoning regarding stakeholders' expectations (Hahn et al., 2015; Lyon & Montgomery, 2015). Also, Gallego-Alvarez's (2012) and Kim and Lyon's (2011a) findings expose the importance of corporate opportunity structures.

Many of the studies, however, could be strengthened by more explicit investigation of stakeholder salience and sanctions. Most disclosure studies assume that recipients have some power to guide corporate behavior. Few, however, explore the origins and variation in this power. As I demonstrate,

a stakeholder's power is best understood by their salience, which is a function of power, urgency, and legitimacy. Not all stakeholders, i.e. accountors, have the same salience.

None of the studies reviewed in this paper, and few in the extant literature, critically assess the role of sanctions following voluntary, environmental disclosures. My framework highlights the importance of discussing both the availability and severity of formal and informal sanctions. In my six examples, scholars focus on informal sanctions—based on markets, e.g. divestment, and/or reputation. Moreover, beyond Kim and Lyon (2011a), no study discussed the differential salience of groups of shareholders or variation in sanction severity. By not focusing on sanctions, some disclosure studies finding no effect of disclosures, like some findings in Gallego-Alvarez's (2013) work, lack clarity. I argue that a disclosure may have no effect because there are few available sanctions or the sanctions available may be weak. My framework calls for more explicit engagement with the ideas of stakeholder salience and sanctions.

By viewing previous studies through the lens of my framework, I demonstrate the failure of previous studies to explicitly consider stakeholders' characteristics, expectations, willingness to attribute responsibility, and sanctions. Scholars must empirically investigate stakeholders to further work towards a common understanding of the repercussions of disclosures.

4.12.B The Role and Limitations of Disclosure—Next Steps

Not only does my framework expose connections between existing studies, it also highlights interesting pathways for future inquiry. Notably, my framework motivates work on the power and limitations of information in eliciting repercussions on corporate resources. In my framework, I demonstrate that information influences stakeholders' salience, expectations, and willingness to attribute responsibility. Information, however, has little influence over the availability and severity of sanctions and the presence of corporate opportunity structures.

These insights offer some interesting practical repercussions. Most importantly, certain types of environmental disclosure language, e.g. greenwashing, may influence certain steps in my framework, but not others. For instance, a greenwashed disclosure may diminish stakeholders' salience because it obscures corporate activities. Furthermore, this same information may demonstrate alignment with expectations, but only in the broadest sense. This information may also develop a positive environmental corporate image—diminishing stakeholders' willingness to attribute responsibility for deviation from expectations. Each of these steps makes it less likely that a stakeholder would deploy a sanction. Alternatively, in other cases, greenwashed information can strengthen stakeholders' salience, demonstrate misalignment with expectations, and lead to willingness to attribute fault.

Disclosed information, however, has little effect on sanctions and corporate opportunity structures. Therefore, even when a stakeholder is displeased with a corporation's activities, they may not have the ability to sanction a corporation. Moreover, they may deploy a sanction at a corporation that is particularly resilient to attack. In these cases, despite the misalignment of corporate practices and stakeholder expectations, a stakeholder will have little ability to damage the corporations' economic and legitimacy resources. By considering sanctions and corporate opportunity structures, scholars may find instances where exposed information upsets stakeholders, but those stakeholders do not have power to affect corporate resources.

The potentially limited ability for environmental disclosures to affect corporate resources raises important questions for further research. First, scholars should investigate the instances of misaligned expectations and the inability to deploy a sanction. This investigation would help scholars understand the extent to which disclosure is an effective tool to guide corporate behavior within certain contexts. For instance, shareholders may not have the ability to sue a corporation for poor environmental performance because they do not have legal standing and/or causality is too proximate. In these circumstances, a shareholder may be displeased with a corporation's activity, but unable to sanction.

Second, scholars should investigate the extent to which stakeholders may attribute responsibility to a corporation, yet still not deploy an available sanction. For instance, stakeholders may wait for a corporate opportunity structure to deploy a sanction. In another instance, a stakeholder may have a countervailing reason to withhold a sanction—e.g. a shareholder may not want to upset their financial wealth. Research following this second line of inquiry may expose how stakeholders strategize after receiving a disclosure, but before deploying a sanction. Specifically, scholars should consider stakeholders' motivations to deploy or withhold a sanction.

Third, scholars should investigate how stakeholders choose which sanctions to deploy after receiving information that exposes corporate activities not aligned with expectations. For instance, shareholders learning of corporate malfeasance may have the ability to divest, sue, and/or file a shareholder resolution. Each of these sanctions varies in their availability and severity. Investigations following this third line of inquiry will expose situations where there is a mismatch between chosen sanction and corporate opportunity structure. For example, a shareholder may choose to file a shareholder resolution when they do not have the support from dominant classes of shareholders. This will diminish the likelihood of the sanction effecting corporate resources. Moreover, investigations may indicate that certain types of stakeholders consistently choose less severe sanctions.

Fourth, and finally, scholars should determine if disclosed information can widen corporate opportunity structures. As I argue above, accountors can cross-legitimate each other by sharing information. Therefore, I argue that the spread of information can disperse power across stakeholders. This spread can lead to industry or market crisis, which can then lead to growing corporate opportunity structures. Scholars should better understand how the spread of information and, by extension, stakeholder empowerment, influences the likelihood of a disclosure having repercussions on corporate resources.

Although I argue the steps in my framework offer a comprehensive mapping from disclosure to repercussion, there is room for future theorization. First, my discussion of each step represents a meso-level engagement with the literatures synthesized in my framework. I invite scholars to add depth to each step by integrating the rich history of insights from the literatures I invoke. For instance, scholars should consider how and when stakeholders attribute fault to a corporate team and/or an employee. This consideration may expose a willingness to sanction individual corporate employees instead of the entire corporation, like the forced resignation of a CEO. Second, corporations and shareholders operate within networks of accountability—where accountors are also accountees. Future theoretical work should consider the repercussions of these networks on expectations, willingness to attribute responsibility, sanctions, and corporate opportunity structures. For instance, within a network, primary accountors may frustrate secondary accountors' ability to form judgments about an accountee by withholding or editing information.

4.12.C Conclusion

There is little doubt that understanding when and why voluntary, environmental disclosures have repercussions on corporate resources is important for society, markets, and contemporary policy. In the neo-liberal era, in the relative absence of new environmental regulation, policymakers and citizens have relied on disclosures to monitor and guide corporations' activities. Without the risk of repercussions, however, this reliance is misplaced because stakeholders lack the power to affect corporate resources and by, extension guide corporate activities.

In this paper, I conceptualized the question of repercussions as one of accountability. Specifically, I ask: when and how can stakeholders hold corporations accountable for their actions exposed in disclosures? In my theoretical framework, I reference seven steps that influence stakeholders' ability to elicit repercussions on corporate resources. These steps demonstrate that while disclosure is important in building accountability—fluencing stakeholders' power, expectations, and attributions of responsibility—it is not determinative. Rather, the availability and efficacy of sanctions and corporate opportunity

structures also matter. By extension, my framework demonstrates that greenwashing alone may not be determinative of whether or not corporations realize any benefit or detriment following a disclosure. Accordingly, my arguments raise concerns for continued reliance on disclosures alone to empower stakeholders to guide corporate environmental behavior.

CHAPTER 5: CONCLUSION

5.1 Summary

In this dissertation, I engage three main debates in the voluntary environmental disclosure literature. Specifically, I engage questions of: 1) why do corporations disclose environmental information? 2) How do they vary the information content of environmental disclosures? 3) What are the repercussions of environmental disclosure? In Chapter Two, I ask: how did IOUs use disclosure to respond to the environmental movements' activities between 1960 and 1975? Through an event history analysis, I find that corporations first began disclosing environmental information in response to the movements' efforts to change regulations, but not their direct attacks on corporations. I argue this occurred because IOUs prioritized a long-term disclosure strategy meant to shape norms and regulations—contesting the environmental movements' frames. In other words, IOUs used disclosure to demonstrate their alignment with their changing socio-political context.

In Chapter Three, I ask: how did IOUs vary the materiality of their voluntary environmental disclosures in response to regulatory, movement, and economic pressures between 2000 and 2010? This study improves on previous investigations by focusing on materiality—which does not presume stakeholder expectations—and by focusing on the competitive structure of markets. I find that within regionally monopolistic markets IOUs increase the materiality of their disclosures in response to social movement's protests, lawsuits, and public relations campaigns. I argue this finding demonstrates that IOUs prioritize secondary stakeholders, e.g. social movements, over primary stakeholders, e.g. shareholders. I further contend this prioritization seems reasonable because IOUs operate in a market that protects their economic interests. I argue that these findings demonstrate the potential importance of competitive structures in shaping corporations' perceptions of stakeholder power and, by extension, their disclosure strategies. Moreover, I argue that IOUs' choice to increase the materiality of their disclosures between 2000 and 2010 demonstrates their attempts to speak to multiple stakeholders and their varied expectations in one disclosure.

Finally, in Chapter Four, I ask: when and how do voluntary environmental disclosures affect corporations' economic and legitimacy resources? To engage this question, I develop a theoretical framework. In this framework, I transform the general question above into: when can stakeholders hold corporations accountable for actions exposed in their environmental disclosures? In my framework, I argue that empowered stakeholders, i.e. accountors¹⁰, must receive and understand a disclosure. They then must judge to be misaligned with their expectations. They must also attribute responsibility to the corporation for this misalignment. Then, stakeholders deploy a sanction at the appropriate time within a corporation's history and context. This framework draws attention to how disclosed information affects stakeholders' power, expectations, and willingness to attribute responsibility. The framework also demonstrates the disclosures weak influence on sanctions.

5.2 Scholarly Implications and Future Research

Taken together these studies add to understandings of voluntary environmental disclosure. First, I argue my findings demonstrate the importance of disclosures as a corporate tool for contestation—responding to movements' efforts to shape regulations and norms. As such, it allows corporations to anticipate and get ahead of regulation and other exogenous shocks to their competitiveness and legitimacy. This may be most useful during times of institutional, normative, and cultural emergence. For instance, I show that IOUs likely used environmental disclosures to address and contest the nascent environmental movements' framing of environmental degradation in the 1960s and 1970s. Therefore, I argue disclosures may serve a broader purpose than merely anticipating or responding to stakeholders' attempts to directly damage corporate resources.

Future work should more closely engage with these alternative uses of disclosure. Specifically, scholars should consider long-term disclosure strategies. In most of the extant literature, disclosures are considered short-term strategies to assuage stakeholder concerns through impression management (Hiatt

¹⁰ As I state in Chapter Four, there are primary and secondary accountors. These accountors exist in dynamic networks with accountees. These networks influence accountor legitimacy, expectations, and the availability-severity of sanctions. Moving forward in this conclusion, my use of the term stakeholders includes both potential primary and potential secondary accountors.

et al., 2015; King, 2008; McDonnell & King, 2013). Even scholars' considerations of anticipatory impression management techniques assume specific actions that the corporation must frame in a positive way (Elsbach et al., 1998). Long-term disclosure strategies, however, may not arise from an attempt to frame a specific activity in a manner that aligns with stakeholders' expectations. Rather long-term disclosure strategies may aim at shaping stakeholders' expectations.

By focusing on long-term disclosure strategies, scholars can situate disclosure within a broader institutional and sociological literature. In recent years, scholars have grown interested in how actors build and change institutions (Hardy & Maguire, 2008). Within this literature, some scholars have focused on the tools through which corporations accomplish this task. Specifically, scholars have argued that narrative and rhetorical devices disseminate corporations' practices allowing them to diffuse within organizational fields—allowing for the institutionalization of certain practices (Abrahamson & Fairchild, 1999; Hardy & Maguire, 2008; Zilber, 2006). Voluntary disclosures offer corporations the ability to disseminate their practices and create/shape institutions. Specifically, they may expose practices that other corporations want to emulate. Moreover, judgments of disclosed activities may increase or decrease acceptance and diffusion of practices. Therefore, I argue disclosures may serve an integral role in the institutional dynamics. Further work, however, should test this assertion.

Second, I argue that my findings demonstrate that corporations change their disclosure strategies in relation to their perceptions' of stakeholder power. In my third chapter, I demonstrate that secondary stakeholders, e.g. social movements, activities increased the materiality of climate disclosures. These results run contrary to previous scholarship that argues that stakeholders that directly threaten economic resources, i.e. primary stakeholders, are the predominant determinant of disclosure materiality. In this paper, I argue that the competitive structure of electricity markets delegitimizes threats to economic resources and, by extension, shareholders. In these markets, however, social movements gain power as IOUs rely on their continued perceptions of legitimacy to avoid external shocks.

This second implication reinforces the need to understand context when discussing stakeholder power. Generally, in organizational sociology, scholars refer to the primacy of shareholders and their expectations of return on investment. In the contemporary period, this has driven emphasis on the investment strategies and power of institutional investors. These arguments have been developed over nearly twenty years of scholarship (e.g. Fligstein, 1990; Hoffman, 1996; Useem, 1993; Vasi & King, 2012). Although I agree that shareholders may have primacy in driving corporate behavior, my research demonstrates that there are important instances when they do not. Competitive structures are one example of an external environment that influences corporations' perceptions of stakeholder power. Although some work in economic and political sociology emphasizes the role of political-economic structures in shaping and mediating stakeholder behavior (e.g. King, 2008; Marquis & Qian, 2014; Mizruchi, 1983, 1992; Smith-Doerr & Powell, 2005; Swedberg, 2007), more work needs to be done to develop a general approach to understanding corporations' perceptions of stakeholder power. These investigations will necessarily draw attention to stakeholders' actual motivations and pathways through which they guide corporate behavior. These studies will move beyond assuming corporations only perceive stakeholders as powerful when they can diminish economic resources.

Third, my advocacy for empirical understandings of corporations' perceptions of stakeholder power also exposes the importance of individual actors who operate within corporations and/or make up certain classes of stakeholders. In Chapter Four, I argue for the empirical investigation of stakeholders' receipt of disclosed information, their understanding of that information, their expectations, and their willingness to attribute responsibility when corporations do not meet their expectations. This approach requires scholars to focus on specific stakeholders and their judgments of disclosures.

Extant research rarely investigates specific recipients of information. Rather scholars impute classes of stakeholders' expectations. For instance, Vasi and King (2008), King (2008), Clarkson et al. (2008), and Lyon and Montgomery (2015) assume that investors share a singular expectation of maximizing share value. In their reasoning, these scholars use this expectation to justify the disclosure of

environmental risk, concessions, and metrics, respectively. None of these scholars investigate whether shareholders actually had these expectations. Future works should move beyond these fairly facile assumptions to uncover shareholders' receipt, interpretation, and judgments of disclosure language.

The disclosure literature's focus on classes of stakeholders follows a larger trend in organizational research. Specifically, organizational scholars generally investigate investors, movements, and regulators as collectivities of individuals (Mizruchi, 2004; Rhee & Fiss, 2014). In doing so, they avoid confronting variation of power within classes of stakeholders. For instance, by focusing on investors as a general class, scholars generally understand the activities of majority shareholders—i.e. those shareholders that have enough shares to effect overall share value and market position. These studies do not necessarily understand the behavior of minority shareholders. Future organizational scholarship should empirically differentiate stakeholders in a manner that allows for consideration of power variation and expectations. By doing so, scholars will gain better insights into the realization and perceptions of stakeholder power and corporations differentiated responses.

The process of identifying specific stakeholders to a corporations' environmental performance, however, may produce some challenges. Environmental degradation affects human health, safety, and socio-economic resources (Hoffman, 2001; Schnaiberg & Gould, 1994; Spaargaren, 2000). Some of the effects are local and some are global. Therefore, everyone might be a stakeholder to corporate activities that impact the environment—especially when considering climate change. I argue, however, that despite the challenge of delineating stakeholders scholars must problematize stakeholder decision-making processes and power. Only by taking this first step can scholars begin to determine when and if disclosure matters for the acquisition and maintenance of corporate resources.

As a corollary, my theoretical framework calls attention to whom within corporations make disclosure decisions. With the exception of Bamber, Jiang, and Wang (2010), few scholars have investigated who makes disclosure decisions. Determining who makes disclosure decisions is important

to understanding motivations for exposing certain practices and symbols. By focusing on individuals and teams within organizations, scholars may expose networks of disclosure strategies and alternative motivations to disclose. For instance, scholars may find that corporations' environmental disclosure strategies are largely driven by professional associations or business consultants. Moreover, scholars may find that public relations offices disclose information to manage specific board members' or legislators' expectations—rather than those of an entire class of stakeholders.

Fourth, following my discussion of corporations' perceptions of power, my studies highlight when and if information is power. Many scholars assume that information is power (Kleindorfer & Orts, 1998; McDonnell et al., 2015; Pfeffer, 1992; Pfeffer & Salancik, 1978). In the context of disclosure, they argue that disclosures open the corporation to outside influence by exposing otherwise proprietary and/or hidden information. Some recent scholarship (e.g. Rosenfeld & Denice, 2015), however, demonstrates that this assumption is facile. In reality, stakeholders must use information to compel a corporation to change their activities. As I argue in Chapter Four, stakeholders must have the ability to transform discontent with corporate behavior into a sanction that damages or risks damaging economic and legitimacy resources. Additionally, when primary recipients of information do not have available and/or effective sanctions, they must be able to delegate sanctioning power to other stakeholders, e.g. certification bodies and professional societies. Therefore, I contend that scholars should investigate when disclosure is enough to push stakeholders to deploy effective sanctions and/or advocate for other stakeholders to deploy sanctions. In this situation, information is power. If stakeholders cannot deploy an effective sanctions after receiving information of corporations' actions, then information is not synonymous with power.

5.3 Disclosure as Accountability – Potential Concerns for Policy

As stated at the beginning of this dissertation, transparency—and its practical counterpart disclosure—plays an integral role in the governance of private organizations (Behn, 2001; Koppell, 2010; Manin et al., 1999). Scholars argue that transparency is essential to both democracies and markets.

Scholars argue that within democracies information empowers citizens to understand and guide the behavior of their elected officials and public agencies. Scholars generally assume that if exposed information does not align with citizens' expectations that they can use both institutional, i.e. lawsuits and elections, and extra-institutional, i.e. protests, to guide state actors' activities (Dworkin, 1977; Manin et al., 1999; Tilly, 2007). Similarly, scholars argue that within markets perfect information empowers rational actors to optimize their choices between alternatives—pushing the invisible hand of the market forward (Coase, 1960; Mas-Colell, Whinston, & Green, 1995). In the contemporary period, neoliberal policies and reliance on voluntarism have merged these arguments for transparency—ushering in a wave of mandatory disclosure laws and strengthening stakeholders reliance on voluntary disclosures (Bromley & Powell, 2012). Although these arguments demonstrate the importance of transparency, I argue that they also assume that transparency necessarily builds accountability. Accordingly, they assume that transparency offers stakeholders the ability to guide private organizations' towards socially acceptable goals, like environmental stewardship.

By situating these arguments for transparency within the larger evolution of environmental movement, regulations, and corporate environmentalism that I mentioned in my introduction, I raise concerns about the continued reliance on disclosure as a policy tool to drive contemporary corporate environmentalism. Post the 1980s, policymakers' furtherance of neoliberal principles have created a host of flexible regulatory approaches and have reinforced reliance on voluntary corporate environmentalism. Flexibility and voluntarism largely rely on the assumption that corporations can pursue economic, environmental, and social goals simultaneously—i.e. fulfilling the promises of ecological modernization (Mol, 2003; Spaargaren, 2000; Spaargaren & Mol, 1992). In practice, however, this alignment can be challenging because innovation is costly and social responsibility may not translate directly into profits. Moreover, although some scholars have argued that activities that mitigate corporations' environmental impacts improve competitive standing, many environmentalists and other corporate stakeholders remain skeptical (Aras & Crowther, 2008; Barnett, 2007; Kitzmueller & Shimshack, 2012; Pope & Wæraas,

2015). This skepticism arises because investors may not privilege environmentalism over return on investment and corporations have a legal, fiduciary duty towards investors to maximize share value. Moreover, pro-environmental stakeholders rightfully acknowledge that disclosing environmental commitments can increase a corporation's positive reputation (Barrage, Chyn, & Hastings, 2014; C. Cho et al., 2012). Therefore, scholars and stakeholder alike fear a decoupling between disclosure language and actual practices.

It is the dynamic relationship between stakeholders' reliance on disclosures and corporations' efforts to use disclosures to maintain resources that raises questions as to how and whether disclosure strengthens accountability. As I argue in Chapter Four, the presence and efficacy of sanctions directly influences this relationship and helps to ensure disclosures build accountability. These sanctions offer stakeholders power over private organizations (Pfeffer, 1992). The presence of sanctions allows for a balance between stakeholders' wishes to guide corporate behavior and corporations' goal of maintaining resources. Disclosing information that references specific and verifiable commitments to environmental sustainability offers stakeholders' the insights they require to rely on voluntary corporate activities. Essentially, it strengthens stakeholders' monitoring ability (Short & Toffel, 2008, 2010). Stakeholders empowered with formal and informal sanctioning authority can then decide to continue granting resources to a corporation or diminish the flow of resources. Corporations can maintain resources by disclosing information that avoids sanctions. Despite this purported balance between stakeholders and corporations within the context of neoliberal policy and voluntarism, I argue my findings reveal further ways that this balance can be upset—frustrating the link between disclosure and accountability.

First, corporations may use disclosures to shape stakeholders' expectations. In Chapter Two, I argue that IOUs used disclosed information to shape nascent environmental norms and regulations. As such, they attempted to shape stakeholders' expectations. Furthermore, I contend that all disclosure information—e.g. symbols, measures, and programs—can diffuse within organizational fields—creating and shaping institutions. By shaping these institutions, corporations influence stakeholders' expectations. If

corporations are successful in shaping stakeholders expectations through disclosures, then stakeholders will be less likely to sanction because they do not perceive any deviation from expected behavior. This process does not necessarily frustrate accountability. In fact accountability is still functioning—stakeholders receive information and determine if they will sanction a corporation for misaligned expectations. Considering disclosures as a tool of institutional entrepreneurship, however, exposes the ways corporations influence their accountability relationships—potentially undermining the role of stakeholders and their power to shape corporate behavior. This is most troubling when corporation use their disclosures to convince certain stakeholders to change their expectations because certain expected behaviors are too costly. This may be the case with corporate environmentalism. By using disclosures, corporations may shape the expectations of stakeholders who originally sought to stem environmental degradation.

Second, corporations use a combination of substantive and symbolic information to demonstrate alignment with a broad range of stakeholders' expectations. This information may make it difficult for stakeholders to identify actual behavior and poor environmental performance. In Chapter Three, I find that corporations disclose multiple types of information—some substantive and some symbolic—in an effort to manage impressions. Specifically, I find that IOUs increased the diversity of their disclosed environmental information between 2000 and 2010. The variation in environmental information potentially becomes more confusing when coupled with the diversity of finance, ownership, and corporate governance information frequently included in the same disclosure. The diversity of information may decreases the likelihood of sanctioning because it increases the chances that stakeholders will identify some combination of symbols, practices, and metrics that align with their expectations. Moreover, this strategy could make it difficult for stakeholders to parse out a corporation's actual values and practices (Elsbach et al., 1998; Klettner et al., 2013). Accordingly, I argue that some forms of impression management make it difficult for stakeholders to use information to mobilize sanctions because they cannot determine relative emphasis between potentially competing interests and activities.

Taken together these insights demonstrate that the presence of sanctions alone is not enough to realize the goals of ecological modernization and sustainability. Rather corporations may still have more power than stakeholders, allowing them to control stakeholders' expectations. Accordingly, I argue that a reliance on neoliberalism and voluntarism requires greater oversight than many voluntary disclosures afford. To improve this oversight, I would argue for mandatory disclosure laws that are built upon explicit stakeholder expectations. These expectations would form the baseline for required information. Moreover, policymakers must require this information be disclosed in accessible ways—empowering stakeholders to navigate complimentary and conflicting information. Finally, there must be clear and definite sanctions available to stakeholders when corporations do not meet their expectations. As I state in Chapter Four, this approach will strengthen the link between disclosure and accountability, but is not necessarily sufficient to reach the goals of sustainability. There will still be a possibility that stakeholders will not attribute fault for misaligned expectations and/or choose not to damage their own interests. In these situations, the corporation will not be sanctioned—leading to no repercussions for disclosing information that does not demonstrate the pursuit of sustainability.

5.4 Conclusion

My dissertation progresses through studies on the advent of disclosure, to the variation in strategy, and, finally, to potential repercussions. This progression mirrors the pathway through which corporations and stakeholders engage in accountability relationships. Specifically, I argue that corporations decide when and what to disclose as an attempt to mediate accountability relationships with stakeholders in an ability to gain resources and avoid sanctions. In mediating these relationships, corporations must balance empowering stakeholders with maintaining resources. The outcome of this balancing act may frustrate certain goals regarding transparency—like stronger democracy and competitive markets. Specifically, only some voluntary environmental disclosures may empower stakeholders to hold corporations accountable for their environmental behaviors. Disclosures that allow stakeholders to judge corporate activity in

relation to their expectations and attribute responsibility have the greatest likelihood of leading to accountability—assuming some risk of sanction.

For IOUs, environmental disclosures likely began as a way to engage in national environmental debates. In the contemporary period, they seem to respond to pressure from non-economic shareholders. Both of these findings demonstrate that IOUs may be more interested in shaping their regulatory, normative, and cultural environment than using disclosures to respond to stakeholders' short-term attacks. By responding to stakeholders attempts to change regulations and norms, IOUs may be attempting to mitigate growing expectations of environmental stewardship. Situating this finding within my theoretical framework, I argue that IOUs may use environmental disclosures to shape stakeholders' understandings and expectations. This may diminish the likelihood that stakeholders would deploy a sanction. This finding may not demonstrate a failure of accountability. Rather, it just changes the likelihood of sanctioning.

Moreover, my findings demonstrate the importance of state and movement stakeholders in motivating corporate environmental performance. Specifically, I demonstrate that utilities began to first acknowledge their environmental impacts when confronted with potential regulatory change. Without movements attempting to shape regulations in the 1960s, I find few other socio-political pressures led to corporations' first environmental disclosures. The power of the environmental movement as a driver of environmental disclosure continues into the contemporary period. Between 2000 and 2010, however, movement activities need not be directed at eliciting regulatory change. Rather, I find direct tactics lead utilities to increase the amount and verifiability of disclosed information. These two studies demonstrate that some corporations perceive movement actors as primary stakeholders—especially when the movement poses one of the few exogenous shocks to a corporations' political and economic dominance. Therefore, although movements may not compel corporations to change actual practice, they may compel them to acknowledge and discuss their environmental impacts.

My dissertation explores the advent, materiality, and repercussions of voluntary corporate environmental disclosure. It exposes alternative motivations for disclosure—notably an effort to change stakeholders' expectations. It also motivates future work on the repercussions of environmental disclosure. Placed within a broader context, specifically post 1980s, my findings demonstrate that transparency—operationalized through voluntary disclosure—is instrumental to the functioning of accountability relationships between corporations and regulators, movements, and shareholders. Corporations, however, may use these disclosures to shape these relationships in ways that may disempower stakeholders and make stakeholders unlikely to deploy sanctions. Therefore, I argue the reliance on voluntary disclosure should continue to be viewed skeptically by scholars and policymakers.

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