

Summary:

In recent decades, the issue of climate change has transformed into a grand challenge, or “specific critical barrier(s) that, if removed, would help solve an important societal problem with a high likelihood of global impact through widespread implementation” (George et al., 2016, p. 1880). The issue poses significant and pressing challenges to managers and organizational scholars alike because it demands the development of new value chains, approaches to decision-making, and forecasting/planning, as well as ways of living, working, and organizing (Howard-Grenville et al., 2014). According to the World Economic Forum’s 2017 Global Risks Report, a survey of 745 participants representing international businesses (47%), NGOs (12%), governments (11%), academics (9%), and others, climate change has been considered to be among the top five global risk in terms of likelihood and impact since 2011. Despite the increased attention to how the issue of climate change is affecting firms, a fundamental question remains as to whether capital markets are sensitive to firm-level disclosure of climate risks, and if so, why? Extant research on the relationship between climate-related disclosures and financial performance has provided incomplete and contradictory answers to this question (Hahn, Reimsbach, and Schiemann, 2015), suggesting that capital markets are not particularly sensitive to climate risk disclosures. In this paper, I use concepts from organizational institutionalism (Greenwood et al., 2008; 2017) to argue and provide empirical evidence for one specific mechanism through which capital markets respond to climate risk disclosures - firms that proactively disclose risks and opportunities that they are facing with respect to the issue of climate change are perceived by investors to be more proactive in managing uncertainty and complexity and, in turn, are rewarded with lower capital constraints by investors who view such proactivity as desirable.

By “capital constraints”, I refer to barriers that prevent firms from accessing finance for positive NPV projects. Capital constraints can be caused by “credit constraints or inability to borrow, inability to issue equity, dependence on bank loans, or illiquidity of assets” (Lamont, Polk, and Saa-Requejo, 2001). Firms seek capital to finance positive NPV projects to improve performance, to attain competitive advantage, and ultimately to generate profit. The ability of a firm to access capital for profitable projects depends on firm-level capital constraints, which according to economic theory depends on the capital rate of return, interest rates, and relevant tax regimes (Stein, 2003). Finance scholars have shown that cash flows are also an important parameter in the firm’s ability to secure investment (Blundell et. al., 1992; Whited, 1992; Hubbard and Kashyap 1992). When constrained, firms avoid investments in strategic projects (Hubbard, 1998; Campello et al., 2010; Carpenter et al., 1998; Himmelberg and Petersen 1994; Hall and Lerner, 2010).

The central hypothesis of this paper is that capital markets favour firms that disclose climate risks, which results in better access to finance for the disclosing firm. But why would such a phenomenon occur? Unlike previous theoretical explanations on the link between non-financial disclosures and capital constraints (Hahn et al., 2015; Cheng et al., 2014), I argue that investors confer legitimacy to firms that are proactive in managing complexity and uncertainty such as those posed by the issue of climate change, increasing the likelihood that they will provide capital. According to organizational institutionalism, field-level contradictions and uncertainty prompt organizations to continually negotiate their legitimacy, which is the perception of a firm and/or its activities being considered desirable, proper, or appropriate within a system of socially constructed norms, values, beliefs and definitions (Suchman, 1995). Firms seek to appeal to investors because they need capital from them to improve their financial performance, to gain competitive advantage, and to ultimately maximize their profits

(Summers et al., 1981; Mankiw, 2009). I argue that if a firm is perceived to more legitimate by investors, then it is more likely to face lower barriers in accessing capital resources as compared to other firms which are perceived to be less legitimate.

To investigate the response of financial markets to climate risk disclosures, I use a panel dataset of 8,513 publicly traded companies regulated by the US Securities Exchange Commission (SEC) from 2012 to 2016. The main dependent variable of interest is the WW Index, originally developed by Whited and Wu (2006) from the corporate accounting literature as a measure of capital constraint. My independent variables are climate risk disclosures made through two different channels - the voluntary Carbon Disclosure Project (CDP) and the mandatory but weakly enforced 10-k filings with the Securities Exchange Commission. Preliminary results confirm that climate risk disclosures are strongly associated with lower capital constraints. I test the robustness of my findings in a number of ways. First, I control for variables that may be associated with capital constraints including CSR performance (Cheng, Ioannou, and Serafeim, 2014), firm size (Hahn et al. 2015), industry, year, and firm fixed effects (Reid and Toffel, 2009). I also substitute the WW index with other measures of capital constraint including the "KZ index" (Kaplan and Zingales, 1997), an equally weighted KZ Index (Cheng, Ioannou, and Serafeim, 2014), and an indicator for stock repurchase activity (Hong, Kubik, and Scheinkman, 2011). In subsequent analyses, I plan to introduce controls for endogeneity in the link between disclosures and capital constraints while investigating two other independent variables of interest – the content of the disclosures and environmental performance (specifically in the form of greenhouse gas emissions). I am also in the process of conducting interviews with investment professionals that invest in publicly traded companies regulated by the US SEC to confirm and clarify the mechanisms underlying the relationship between lower capital constraints and climate risk disclosures.

In this paper, I contribute to existing academic literature on two fronts. First, contrary to existing literature on carbon disclosures, I provide empirical proof that climate risk disclosures are in fact associated with superior financial performance, specifically in the form of better access to finance. Second, I use concepts from organizational institutionalism to provide a theoretical explanation of the link between climate-related disclosures and financial performance (Hahn et al. 2015). Specifically, I argue that investors perceive disclosing firms to be capable of handling uncertainty and complexity of the form related to climate change and, as a result, are more likely to provide capital resources to disclosing firms. In subsequent analyses, I will make contributions by documenting the link between the disclosure content and financial performance, as well as the role (or absence thereof) of capital markets in shaping the firm-level relationship between disclosures and environmental performance.

First, I provide an overview of why firms choose to disclose risks and opportunities posed by the issue of climate change. In particular, I argue that institutional pressures generated by the issue of climate change create uncertainty and complexity for firms in many industries. One form of firm response to these institutional pressures is to communicate with investors the risks and opportunities associated with the uncertainty and complexity of climate change, and actions that they are taking to reduce the uncertainties associated with these pressures. The language of risk enables communication between investors and firms on this topic and, as a result, firms that disclose such information are perceived by investors as more legitimate and, hence, these firms gain easier access to capital resources controlled by investors. I then describe the data sources I use to test whether climate risk disclosures affect capital constraints; and present my preliminary results, which confirm that there is a highly significant relationship between climate risk disclosures and lower capital constraints.