

Contents lists available at [ScienceDirect](#)

J. Account. Public Policy

journal homepage: www.elsevier.com/locate/jaccpubpol

Full length article

Market response to expected regulatory costs related to haze

Chao Kevin Li^a, Jin-hui Luo^b, Naomi Siegel Soderstrom^{c,*}^a School of Accounting, Business School, University of New South Wales Sydney, Australia^b Department of Accounting, School of Management, Xiamen University, China^c Department of Accounting, Faculty of Business and Economics, University of Melbourne, Australia

ARTICLE INFO

Article history:

Available online xxxxx

Keywords:

Regulatory costs

CSR disclosure

Polluting industries

State-Owned Enterprises

Haze

ABSTRACT

One of the consequences of rapid industrialization and urbanization of China has been a significant increase in air pollution, frequently at levels that are hazardous to health. On 2 December 2013, pollution reached new levels, with the air quality index crossing the threshold from “very unhealthy” into “hazardous”. We take this exogenous event, along with related increases in outrage and governmental attention, as an opportunity to explore market valuation of expected regulatory costs. Contrary to research indicating government protection of state-owned enterprises (SOEs) (e.g., Berkman et al., 2010), we find evidence supporting market expectations of larger haze-related regulatory costs for SOEs versus non-state-owned enterprises (NSOEs). We also find evidence that the market initially expected firms that provide corporate social responsibility (CSR) reports and firms in high polluting industries would be relatively shielded from higher regulatory costs. However, this changed following increased outrage and government attention to haze, with resulting larger expected regulatory costs. Our evidence is also consistent with initial market expectation that firms located closer to Beijing would be shielded, but this expectation changed over time. Overall, expected regulatory costs appear to have increased over time, reducing the market valuation of SOEs, CSR reporters, and firms in polluting industries over the longer term. Increased occurrence of haze events in other countries (e.g., more recent events in India, Indonesia) will likely result in similar expected increases in regulatory costs. Further, our study underscores the existence of material impacts on firms related to environmental events that are beyond firms’ control.

© 2017 Elsevier Inc. All rights reserved.

1. Introduction

Over the past few decades, the rapid industrialization and urbanization of China has occurred at the expense of environmental protection. Air pollution levels and haze have increased, particularly in China’s largest cities (Chang et al., 2009). On December 2, 2013, pollution reached new levels, with the air quality index crossing the threshold from “very unhealthy” into “hazardous” with an air quality index (AQI) of 317 (Zhang, 2013).¹ As air quality deteriorated further over the next few days, some of the worst polluting factories in Shanghai were told to limit or stop production. Building and road construction were halted, flights were cancelled, and nearly a third of government cars were forbidden to operate (Chen, 2013). The haze event

* Corresponding author.

E-mail addresses: k.li@unsw.edu.au (C.K. Li), jinhuiluo@xmu.edu.cn (J.-h. Luo), naomiss@unimelb.edu.au (N.S. Soderstrom).¹ The Air Quality index is used to communicate pollution levels. A reading of 300 corresponds to severe pollution, indicating that breathing the air is hazardous to health.

impacted cities in several Eastern provinces and drew both national and international attention. A few days after the event, the number of times that the word “haze” appeared in the Chinese press skyrocketed to over 30,000 per day, indicating increased sensitivity to the issue. In addition, local governments started discussing the haze issue during their annual provincial political conferences, which took place shortly after the event; for the first time, haze had a prominent place on the agenda for 29 of the 31 annual provincial conferences in China.

Unlike environmental disasters typically examined in the accounting literature (e.g., [Blacconiere and Patten, 1994](#); [Bowen et al., 1983](#)), this series of “haze events” was not initiated by the actions of a specific firm. There was no specific physical damage to any facilities, nor was the event caused by illegal activities or carelessness. Instead, the event was due to an unexpected confluence of weather patterns and ongoing industrial and commercial activities.

Other than the immediate impact of the temporary stoppage of industrial activities, the primary effect on firms should be in the form of future regulation to reduce pollution. Haze in China is arguably driven by the government’s economic policies, which have neglected environmental protection in favor of economic growth ([Wong, 2011](#)). However, with an increasing number of haze events and growing sensitivity to environmental issues worldwide, there is increasing domestic and international pressure on the Chinese government to implement stronger environmental regulation, necessarily imposing regulatory costs on firms. Because the haze event we study was the first such event in China and thus was unanticipated, it provides an interesting setting in which to examine market perceptions of expected regulatory costs.²

In alignment with our argument that the primary impact of haze on firm value will be related to the market’s perception of future regulatory costs, we further argue that expected regulatory costs should vary according to firm characteristics, including industry, state ownership, corporate social responsibility (CSR) disclosure, and firms’ geographic proximity to Beijing. Firms in more polluting industries arguably have played a larger role in producing the pollution that relates to haze, so regulation can have a more significant impact on future levels of pollution. Firms that have higher CSR disclosure may be viewed as better “citizens” and thus, shielded from regulation. Firms that are closer in proximity to the central government in Beijing are more likely to be of concern to regulators (both from the perspective of regulator familiarity with the firm and the local impact of pollution stemming from firm operations). However, given that the Chinese government has historically prioritized industrial activities over environmental and health concerns, the nature and extent of resulting regulatory costs for firms with these characteristics are uncertain. Thus it is an empirical question how the market views the probability and magnitude of expected regulatory costs resulting from haze-related events.

We investigate market returns surrounding three periods related to this dramatic environmental event: (1) the first time that the haze was stated to have exceeded the “hazardous” threshold; (2) a subsequent period of intense discussion in the Chinese media about haze; and (3) a period encompassing increased government discussions of haze issues during the provincial conferences that occurred soon after the initial haze event. Our cross-sectional tests investigate whether the level of government scrutiny impacts market expectations of regulatory costs. While we find an overall negative market reaction on the day of the initial haze event,³ companies in more heavily-polluting industries, non-state-owned enterprises (NSOEs), and companies issuing CSR reports experienced a relatively less negative reaction. As further events unfolded, however, we find evidence that these categories of firms experienced continuing negative cumulative abnormal returns (CARs). Market valuation tests indicate lower longer-term valuations for all of these categories of firms relative to the rest of the market. In addition, we find that firms located more closely to Beijing, and thus potentially facing different levels of government scrutiny, initially had negative CARs following the haze event. This disadvantage does not appear to have continued in the longer term.

This paper contributes to the literature in a number of ways. We explore market perceptions of regulatory costs in a unique setting, where expected regulatory costs result from an exogenous event, which is not triggered by any unique firm. This characteristic of the event provides us an opportunity to explore the implication of expected regulatory costs for a much broader cross-section of firms and underscore the existence of material impacts on firms related to environmental events that are beyond firms’ control.⁴ Further, because of the Chinese government’s approach to environmental issues, the nature and extent of regulatory costs are particularly uncertain. This allows us to explore how the market’s perception of expected regulatory costs changes over time. Our results also extend our understanding of how developing markets outside of the U.S. view CSR disclosures and environmental events, since China is frequently omitted from cross-country analyses (e.g., [Dhaliwal et al., 2014](#)) due to its many institutional differences from other countries.

Our investigation broadens our understanding of the relation between the Chinese government and state-owned enterprises (SOEs). [Berkman et al. \(2010\)](#) find that the Chinese government is viewed as being less likely to enforce regulation against SOEs. In our setting, we document opposite findings, that is, the market expects SOEs to suffer greater regulatory costs associated with haze. These results are not necessarily inconsistent with [Berkman et al. \(2010\)](#), who find lower expected enforcement for SOEs of regulation regarding related-party transactions. In their setting, regulation was not focused on an issue that directly affects public welfare, so the SOEs were viewed as the focal stakeholder. In our setting, how-

² Our study investigates the first haze event (the first time the AQI passed into the “hazardous” level) in China as an exogenous shock. Subsequent events should be anticipated and perhaps, more predictable, making them less favorable candidates to explore cross-sectional market expectations of regulatory costs.

³ We note that on 2 December, IPOs were restarted in the Chinese market. Although not completely unanticipated, this event likely caused some of the negative total market reaction on the day of our first event. For the categories of firms that we examine (State Owned Enterprises, polluting industry members, CSR reporters), we have no reason to believe that the IPO event would differentially affect stock market reactions in the cross-section, as the concern was primarily related to market liquidity.

⁴ Prior studies focus on a specific industry to examine the effect of an environmental disaster (triggered by a unique firm) on industry peer firm valuation within short-term windows based on the regulatory cost argument ([Patten and Nance, 1998](#); [Bowen et al., 1983](#); [Blacconiere and Patten, 1994](#)).

Download English Version:

<https://daneshyari.com/en/article/5107701>

Download Persian Version:

<https://daneshyari.com/article/5107701>

[Daneshyari.com](https://daneshyari.com)