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Directors' and officers' liability insurance and the cost of equity☆

Zhihong Chen[a,*], Oliver Zhen Li[b], Hong Zou[c]

[a] Hong Kong University of Science and Technology, Hong Kong, China
[b] National University of Singapore, Singapore
[c] Faculty of Business and Economics, University of Hong Kong, Hong Kong, China

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ABSTRACT

We examine whether directors' and officers' (D&O) liability insurance affects a firm's cost of equity. We find a positive association between D&O insurance and the cost of equity. Information quality and risk-taking appear to be two underlying channels through which D&O insurance affects the cost of equity. Further tests suggest that this positive association is not due to optimal risk-taking, as evidenced by a negative market reaction to an increase in D&O insurance coverage, a lack of improvement in firms' cash flow and a low valuation associated with high D&O insurance. Overall, our evidence is consistent with the notion that D&O insurance weakens the disciplining effect of shareholder litigation, leading to an increase in the cost of equity.

1. Introduction

Private enforcement via shareholder litigation is important to investor protection and stock market development (La Porta et al., 2006). Prior literature suggests that cross-country variation in shareholder litigation threat affects the cost of equity (Hail and Leuz, 2009; Khurana and Raman, 2004). However, there is relatively scant evidence on how firm-level mechanisms affect the disciplining role of shareholder litigation and therefore the cost of equity. This research question is important as the cost of equity is a summary measure of how investors perceive the risk and return tradeoff of investing in a

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* Corresponding author. Department of Accounting, HKUST, Clear Water Bay, Kowloon, Hong Kong, China. Tel.: +852 2358 7574; fax: +852 2358 1693.
E-mail addresses: aczh@ust.hk (Z. Chen), bizzhenl@nus.edu.sg (O.Z. Li), hongzou@hku.hk (H. Zou).

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firm (Francis et al., 2004). In addition, the cost of equity plays a key role in corporate financing and capital budgeting decisions. In this study, we examine how directors' and officers' liability insurance (D&O insurance) affects a firm's cost of equity.

D&O insurance is a policy purchased by a firm to cover defense cost and potential damage award when its directors and officers (D&Os) are sued. By effectively shielding D&Os from bearing personal financial liabilities, D&O insurance reduces the disciplining effect of shareholder litigation (Baker and Griffith, 2010). We hypothesize that D&O insurance increases a firm's cost of equity via two important channels. First, as shareholder litigation encourages managers to increase transparency (Ball, 2001), D&O insurance can result in poor financial reporting and disclosure quality, leading to a higher cost of equity (Leuz and Wysocki, 2008). Second, as D&O insurance limits the expected legal liabilities associated with bad outcomes of D&O decisions, it encourages risk-taking (Baker and Griffith, 2010; Core, 1997). To the extent that risk-taking results in a higher exposure to market risks, the cost of equity is higher.

Using a large manually collected dataset on D&O insurance from Canada, we find that D&O insurance coverage is positively associated with the ex ante cost of equity implied in stock prices and analyst forecasts. This association is robust to firm fixed effects regression and alternative cost of equity measures. It is also economically significant. Based on our baseline model, an increase in D&O insurance coverage by one standard deviation is associated with an increase in the cost of equity of about 7% of the sample mean.

The positive association between D&O insurance and the cost of equity can be driven by endogeneity as D&O insurance purchase is a firm's choice. It can be the case that high risks lead to both high D&O insurance coverage and a high cost of equity. We conduct extensive tests to mitigate this concern. First, we control for economic determinants of liability coverage and corporate governance quality (Chen et al., 2011; Core, 1997, 2000). We continue to find a positive association between D&O insurance and the cost of equity. Second, we conduct a lead-lag change analysis. If it is risk, which is already known by investors and manifested in the cost of equity, determines a firm's decision to purchase D&O insurance, then a change in the cost of equity should precede a change in D&O insurance. In contrast, our hypothesis predicts that a change in the cost of equity follows a change in D&O insurance coverage. We find that a change in the cost of equity follows, but not precedes, a change in D&O insurance coverage.

Next, we examine the market reaction to the release of proxy circulars that contain D&O insurance information. A short-term market event study is less likely to suffer from the omitted correlated variable bias. If investors charge a high cost of equity for firms with a high level of D&O insurance coverage, then they would react negatively to the disclosure of an increase in D&O insurance. Our finding is consistent with this prediction.

It is also possible that the D&O insurance purchase decision is based on D&Os' private information that is learnt by investors subsequently (the risk anticipation argument).[1] If this is the case, we can still observe that a change in the cost of equity follows, but not precedes, a change in D&O insurance coverage. In addition, the disclosure of an increase in D&O insurance can reveal D&Os' private information on an increase in risk and therefore lead to a negative market reaction. While the risk anticipation argument and our hypothesis are not mutually exclusive as a change in D&O insurance can reveal both D&Os' private information and an expected change in D&Os' behavior, empirically distinguishing them is difficult as D&Os' private information is not directly observable. Nevertheless, we conduct several tests to address this concern. First, we control for an ex ante measure of litigation risk developed by Kim and Skinner (2012) and continue to find a positive association between D&O insurance and the cost of equity. Second, we test a cross-sectional prediction of the risk anticipation argument. If the association between D&O insurance and the cost of equity is driven by D&Os' private information, then it should be more pronounced when D&Os have more private information. Following Chen et al. (2007), we develop proxies for D&Os' private information based on earnings surprises and CEOs' insider trading activities. We do not find a more pronounced association between D&O insurance and the cost of equity for firms with D&Os having more private information.

Ideally, to clearly distinguish the risk anticipation argument from our hypothesis, one needs to identify a change in D&O insurance not driven by D&Os' private information. However, we are not aware of decent instrumental variables that are capable of providing such identification. As an alternative, we conduct a test of the effect of an exogenous reduction in D&Os' personal legal liabilities on the cost of equity. Nevada swiftly changed its corporate law in 2001 in order to attract more firm incorporations. Before the change, Nevada's corporate law imposed similar fiduciary duties on D&Os as those under the Delaware corporate law. After the law change, D&Os are only liable if their behaviors involve both a breach of the duty of loyalty and an intentional fraud (or a knowing violation of the law). This implies that D&Os are no longer liable for a breach of the duty of care (Barzuza, 2012). We argue that this law change has a similar effect on reducing D&Os' personal legal liabilities as an increase in D&O insurance coverage. As the legislation process was very short, it is unlikely that firms could anticipate the law change and quickly reincorporate into Nevada. Thus, this change in D&Os' legal liabilities is exogenous.

Using a difference-in-differences analysis, we find that the change in the cost of equity after this law change is significantly higher for Nevada-incorporated firms than that for a sample of non-Nevada-incorporated firms matched on industry, firm size, and the average cost of equity before the law change. We observe a similar result when focusing on Nevada-incorporated firms that mainly operate outside Nevada. Thus, this result cannot be attributed to changes in macroeconomic conditions in Nevada that coincided with the law change. Taken together, although it is difficult to

[1] We thank an anonymous reviewer for suggesting this possibility.