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The effect of trade secret legal protection on venture capital investments: Evidence from the inevitable disclosure doctrine

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ABSTRACT

This study investigates how the inevitable disclosure doctrine, a form of trade secret legal protection, affects venture capital (VC) investment. Using a data set of VC deals realized in the United States from 1980 to 2012, we find that a rule in favor of inevitable disclosure increases the amount of VC investment. We address mechanisms that can explain these findings by assessing how the inevitable disclosure doctrine (a) displays a different impact on VC investments according to the characteristics of the state and the industry where the start-ups operate and (b) affects the performance of VC-backed firms. We also discuss managerial and policy implications of our findings.

1. Executive summary

We discuss and empirically test how the Inevitable Disclosure Doctrine (IDD) – which is a particularly strong form of trade secret legal protection available in some US states – affects Venture capital (VC) investments. In states where the IDD is embraced through a court precedent, a firm might in fact obtain a court injunction to prohibit a departing employee from walking out with valuable trade secrets and joining a competitor or founding a rival firm. Therefore, we argue that a judicial precedent clearly in favor of the IDD possibly enhances VC investments, as it reassures VC investors about the possibility to keep the VC-backed firms' key trade secrets and employees.

We test our argument in the US venture capital industry from 1980 to 2012. We take advantage of the fact that, in the considered time period, some US states have embraced the inevitable disclosure doctrine whereas other states have clearly rejected it or still have an unclear position. Results show that a precedent in favor of the IDD exerts a positive effect on VC attraction, and particularly so in industries where patents are less used – and so trade secrets are likely to be more important – and in states where alternative legal means to block employee mobility – such as non-compete agreements – are less enforceable.

Overall, this paper contributes to a better understanding of the relationship between the institutional environment and VC investments in particular, and, more in general, on entrepreneurship. Previous studies have found that institutional factors that limit

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employee mobility might be detrimental for the formation of new firms; however, their effect might be more nuanced than it is often assumed when considering other measures of the entrepreneurial ecosystem performance. Our findings suggest in fact that states constraining employee mobility might display less new companies, but, at the same time, more of those companies might become attractive to VC investors.

2. Introduction

VC plays a critical role in fostering entrepreneurship, innovation, and, ultimately, economic growth (Samila and Sorenson, 2011a). Given its importance, scholars and policy makers have been trying to better understand the factors that may condition the development of VC in a given geographic area, be it a country or a region. Prior work—mainly at the country level—has considered several factors possibly enhancing VC investment, including efficient financial markets (Jeng and Wells, 2000), a favorable taxation regime (Keuschnigg and Nielsen, 2003), and the extent to which the legal environment protects and enforces property rights in general (Cumming et al., 2010) and—given that the assets of VC-backed firms are mainly intangible (Croce et al., 2013)—intellectual property rights (IPR) in particular.

With respect to the role of IPR in VC, particular attention has been paid to the patent system (e.g., Hsu and Ziedonis, 2013; Mann and Sager, 2007), an important dimension of the IPR environment. Despite their role, patents are only part of IPR. A further dimension of IPR policy and practice is represented by trade secrets, defined as any information that derives independent economic value, actual or potential, from not being generally known.[1] Given the breadth of knowledge potentially covered by the term, Halligan (2008: 3) argues that "the vast bulk of intangible assets are trade secret assets," whereas Risch (2007: 656) notices that trade secrets are "the most important and most heavily litigated intellectual property rights." Therefore, it appears significant to extend this line of inquiry into how legal protection associated with trade secrets might influence the presence and role of VC in a geographic area.

To help fill this gap, we focus on the IDD whose rule determines whether the owner of a trade secret can (if the rule is in favor of the IDD) or cannot (if the rule is against the IDD) obtain a court injunction to prohibit a departing employee from working for a competitor or founding a rival firm, on the grounds that she could inevitably disclose trade secrets (Lowry, 1988). The IDD can thus allow a company not only to protect its extant trade secrets but also to avoid the loss of valuable human capital to a competing firm.

In the United States, where the IDD has predominantly been developed, the extent to which a state jurisdiction embraces it varies. Through its court precedents, a state may adopt (a) a rule clearly in favor of inevitable disclosure, (b) a rule clearly against it, or (c) no clear rule. These scenarios could condition the decisions of venture capitalists (VCs) to invest in a state. In particular, we argue that a state embracing a rule clearly in favor of the IDD should attract VC investments more than any other possible scenario (against, or no clear rule), for reasons related to the likelihood of obtaining a court injunction to restrict employee mobility.

Given the VCs' ability to select high-quality companies, for VC-backed firms the possibility of avoiding any knowledge leakages due to outbound employee mobility is likely to be more substantive than the possibility of receiving knowledge inflows from inbound mobility (Chemmanur et al., 2011; Sorensen, 2007).[2] Therefore, VC investors would generally prefer to invest in a legal environment where key employees of an invested firm cannot easily leave the company to pursue opportunities in competition with the former employer (Baron et al., 2001). In this respect, a precedent in favor of inevitable disclosure increases the likelihood that a VC-backed firm obtains a court injunction against a former employee hired by a competitor (Png and Samila, 2015). Furthermore, given that a state court will tend to make decisions consistent with the precedent in any similar case at hand, a case clearly in favor of inevitable disclosure also enhances the predictability of this court injunction. Higher predictability is desired not only by risk-averse VC investors, who prefer a more stable institutional environment (Malesky and Samphantharak, 2008), but also by risk-neutral investors, who might otherwise prefer to wait and see how the regulatory environment evolves before making investments (Bloom et al., 2007).

To empirically assess whether and how rulings on inevitable disclosure stimulate investment from VCs, we exploit longitudinal variation in inevitable disclosure rules in U.S. states, as determined by court precedents (Kahnke et al., 2008; Klasa et al., 2014; Malsberger, 2011; Milgrim and Bensen, 2015; Png and Samila, 2015; Quinto and Singer, 2009; Wiesner, 2012). We find that a rule in favor of inevitable disclosure significantly increases the amount of VC available for local start-ups compared with where there is no rule or where the rule is against inevitable disclosure.

3. Theory: Trade secret legal protection, inevitable disclosure doctrine, and venture capital

It is well established that the extent to which formal institutions protect and enforce property rights might play a crucial role for VC attraction, as most investees' assets are in fact intangible (Cumming et al., 2010; Croce et al., 2013). In this respect, trade

[1] More precisely, the U.S. Uniform Trade Secrets Act, §1.4, defines a trade secret to mean "information, including a formula, pattern, compilation, program device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."

[2] The papers of Sorensen (2007) and Chemmanur et al. (2011) refer to the United States, where most value created by a VC-backed start-up was already present when VCs began investing. However, an important caveat is that this finding does not hold in Europe (e.g., Croce et al., 2013), neither for traditional VC (Cumming et al., 2014) nor for other types of VCs, such as corporate VCs (Colombo and Murtinu, 2016), governmental VCs (Grilli and Murtinu, 2015, 2014), or bank-affiliated VCs (Cumming and Murtinu, 2016).