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Legal framework quality and success of (different types of) venture capital investments

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ABSTRACT

Drawing on an analysis of 8,270 companies from 41 countries, I explore the relationship between success of venture capital investments and legal frameworks in the investment countries. Legal framework quality is related to success, but the effect varies with the deal type. First, the significant and positive relationship between legal framework quality and success is more pronounced for domestic deals than for international deals. Further investigations suggest that international venture capitalists often exit their portfolio companies abroad, particularly when these companies are located in countries with inefficient legal frameworks. In addition, the results lend support to the view that international venture capitalists have a greater experience and reputation. Second, legal framework quality seems to be more important for success in syndicated than in standalone deals. This finding supports the view that a sound legal framework may improve the benefit–cost balance of syndication, while an inefficient legal framework may tend to increase costs in syndicated deals.

1. Introduction

Research that links legal institutions and finance has been evolving since the 1990s. Studies in this rapidly developing research area have concluded that national differences in legal origins, rules, and law enforcement affect investor protection, capital structure and payout decisions of companies, as well as their performance (e.g., La Porta et al., 1997; 1998; 2000; Klapper and Love, 2002). The consensus is that laws and regulations that reduce the costs of bureaucracy, safeguard property rights, increase the protection of investors, and support the power of courts affect the investment climate positively and encourage the competitiveness of enterprises (for a survey, see Choi, 2002). Many of the earlier works in this field focus on publicly traded companies. In contrast, my analysis concentrates on venture capital investments in private companies. Drawing on global data, I examine the relationship between legal framework quality in the investment countries and success of venture capital investments. While success analysis of worldwide venture capital investments has been a popular research topic in recent years, we know surprisingly little about how the relationship between success and legal framework quality varies with the type of the venture capital deal.

My first research question is whether an inefficient legal framework in an investment country harms international venture capitalists (VCs) more or less than their domestic counterparts. The answer is not straightforward a priori because different effects are at play. On the one hand, domestic VCs, that are familiar with country norms and institutions and have closer connections with local authorities, might more easily find ways to mitigate the difficulties resulting from an inefficient legal framework in their home country than VCs coming from abroad, that face the "liability of foreignness" (Zaheer, 1995). On the other hand, international VCs may be harmed less by problems arising from an inefficient legal framework because their portfolio companies will probably be oriented more strongly toward foreign countries than their domestically financed counterparts. For example, portfolio companies backed by international VCs relocate (Cumming et al., 2009) or are exited (Bertoni and Groh, 2014) in a foreign country more often than their peers. Moreover, unlike domestic VCs, international VCs may be experienced and reputable enough to develop effective alternative control mechanisms to cope with an inefficient legal framework (Dai et al., 2012; Chemmanur et al., 2016). Also, VCs coming from countries with better legal frameworks may themselves operate more efficiently than VCs located in countries with an inefficient legal framework because in the latter case, the relationships

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between VCs and their investors will likely be ruled by suboptimal contracts and incur higher costs of bureaucracy (Cumming and Johan, 2006; 2009).

The second research question is how the impact of an inefficient legal framework differs in regard to syndicated and standalone investments. Once more, the expected effect is unclear. Syndication incurs costs that do not exist in standalone investments, because syndicate formation (Cestone et al., 2007) and operation (Wright and Lockett, 2003) may be plagued by information problems and misaligned incentives between participating VCs. VCs close contracts to mitigate these problems (Bachman and Schindele, 2006; Cestone et al., 2007). An inefficient legal framework may give rise to suboptimal contracts, increase the risk that contracts will be broken, lead to delays in the syndication process, and thus raise costs in syndicated investments. In contrast, a superior legal framework may facilitate syndicate relations. Consequently, an inefficient legal framework could have a stronger negative effect on syndicated than standalone deals. However, it is also possible that an inefficient legal framework may have a weaker negative effect on syndicated than standalone deals. This is because different VCs may have complementary know-how and expertise (e.g., Manigart et al., 2006), which could better equip a syndicate than a standalone VC to cope with an inefficient legal framework.

To answer these two questions and to understand which effects prevail, I analyze the success of 8270 venture-backed companies from 41 countries. Following much of the literature on venture capital investment performance (e.g., Hochberg et al., 2007; Sorensen, 2007; Das et al., 2011; Dai et al., 2012; Nahata et al., 2014), I use the exit event to distinguish between successful and unsuccessful investments. Usually, VCs only derive returns when they sell their stakes in companies, because companies do not pay dividends to them during the investment period.

I address the omitted variables problem and a potential selection bias. In all regressions, I control for a multitude of observable VC and country characteristics. To account for unobservable time-invariant industry and country characteristics, I include industry and country dummies. To control for unobservable worldwide developments in time I add time dummies. I am aware of a potential endogeneity of internationalization and syndication. More specifically, I have concerns that international VCs (that tend to be of higher quality) could finance high-quality companies, whose success chances are greater than those of lower-quality companies. This would be consistent with the finding that high-quality companies match with high-quality VCs (e.g., Hsu, 2004). Also, I have concerns that syndicates are likely to have greater selection capabilities (Lerner, 1994; Casamatta and Haritchabalet, 2007) than standalone VCs. I address this issue in the robustness section where I use an instrumental variable approach to account for these problems. To create instruments for international and syndicate VC backing, I use variables that reflect the level of internationalization, resp. syndication of the local VC industry at the time of the particular deal. These variables are highly correlated with the likelihood that the particular deal will be financed by an international VC, resp. by a syndicate. At the same time, these variables are not directly related to the success of a particular deal.

Overall, this study contributes to several strands of literature. First, it extends the literature on law and finance—particularly the literature on how legal factors relate to the performance of venture capital investments. Cumming (2008) and Cumming and Johan (2008) relate different types of contracts to different types of exits. Groh et al. (2010), among others, show that legal framework affects the attractiveness of a country for VC investments. VCs active in countries where the legal framework is inefficient tend to close suboptimal contracts with entrepreneurs (Lerner and Schoar, 2005; Balcarcel et al., 2010), which may negatively affect investment success. In addition, an inefficient legal framework increases the risk of contract repudiation and leads to delays in selection, investment, and exit processes, for example through slow bureaucracies (Cumming et al., 2010). Lerner and Schoar (2005) report that VC investments in countries with inefficient legal frameworks have lower valuations, and Nahata et al. (2014) demonstrates that they turn out to be less successful investments than those in countries with better legal frameworks. Cumming et al. (2006) consistently find that stronger legal institutions are associated with a higher likelihood of an initial public offering (IPO). However, Dai et al. (2012) do not find a clear relation between stronger legal institutions and VC investment success. Although the relationship between legal framework quality and success of VC investments has been studied in several papers, we do not fully understand why different types of deals might be affected differently. To the best of my knowledge, my study is the first to investigate whether legal framework quality relates differently to the performance of international and domestic investments, as well as syndicated and standalone ones, and, if so, in which way.

Related studies use a wide variety of measures as proxies for legal framework quality and these proxies usually do not vary over time. Most studies either use a multitude of historical factors from La Porta et al. (1997; 1998) or build an index that combines these factors. More specifically, Balcarcel et al. (2010) use the rule of law, common law, antidirector rights and the one-share-one-vote rule as separate variables, while Lerner and Schoar (2005) rely on legal origin dummies. Cumming et al. (2006) introduce a legality index, which combines six of La Porta et al.'s factors. This index has also been used in later studies (e.g., Dai et al., 2012). Recently, Nahata et al. (2014) constructed an index (and three subindices) from 12 different La Porta et al.'s variables. In contrast to these studies that rely on constant historical variables, I employ a measure—the "legal and regulatory framework" index provided by the IMD *World Competitiveness Yearbook*—that captures the time-varying quality of the overall legal and regulatory environment in each country. This index covers different aspects of the legal environment and is available on an annual basis for all sample countries. I am convinced that it is advantageous to employ a time-varying measure of legal framework quality because legal changes in several countries have substantially influenced the performance of VC industries in these countries (Armour and Cumming, 2006; Cumming and Knill, 2012).

Second, I contribute to the emerging literature that focuses on VC activity outside the US. Evidence from outside the US is important because other countries have distinctive characteristics and legal frameworks that differ from those prevailing in the US, which may influence the way how VC industry performs. My dataset includes domestic as well as international investments worldwide. Most existing studies that examine the relationship between legal framework quality and success of venture capital investments concentrate on investments from the US only or exclude domestic investments. For example, Nahata et al. (2014) focus on US international investments; Dai et al. (2012) examine international investments in Asia.

This study, third, adds to the literature on internationalization within venture capital industries. The available empirical evidence supports the view that the involvement of international VCs is conducive to success. It attributes this effect to the benefits that international VCs offer their portfolio companies, such as richer experience combined with access to broader networks or to foreign product, capital, and exit markets (Dai et al., 2012; Humphery-Jenner and Suchard, 2013b; Bertoni and Groh, 2014). My study finds another benefit that international VCs bring about: they may mitigate the negative effects that inefficient legal environments in investment countries have on companies' success.

Fourth, my analysis contributes to the literature on VC syndication. Many works investigate benefits associated with syndication