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Birds of a feather or celebrating differences? The formation and impacts of venture capital syndication ☆

Qianqian Du [1]

School of Accounting and Finance, Hong Kong Polytechnic University, Hong Kong

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ABSTRACT

This paper examines the preferences of venture capital firms for syndication partners and the impacts of syndication partners on venture capital firms. Co-investing with similar partners may reduce transaction costs, but it may also limit opportunities for learning. Based on U.S. data on venture capital investments, I find that, on average, venture capital firms are more likely to syndicate with partners that are similar to them, consistent with prior theoretical predictions. In the long term, however, venture capital firms may benefit more from co-investing with partners that are different from them.

1. Introduction

Venture capital firms (VCs) provide equity capital to early-stage companies and can earn profits if their portfolio companies go public or are acquired by other companies. Venture capital investments are often syndicated; that is, two or more VCs co-invest in the financing round of a company. For example, approximately 60% of VC-backed companies in the U.S. have received at least one syndicated financing round in the past two decades. VCs form syndications for different reasons: to share investment risks and capital needs with syndication partners (Wilson, 1968), to obtain a second opinion on the quality of their investments (Lerner, 1994), and to gain access to their partners' complementary skills and resources (Brander et al., 2002).

It is possible that syndicated investments outperform standalone investments, and VCs that are better networked through syndication outperform peer firms (e.g., Brander et al., 2002; Hochberg et al., 2007). However, research has given less attention to how investment performance varies across different types of syndicates and to what extent the structure and success of syndicates depend on the characteristics of syndication partners. To understand these broad issues, this paper studies two specific questions: (1) what are the preferences of VCs for partners when forming a syndication? (2) Do

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E-mail address: qianqian.du@polyu.edu.hk

[1] Author can be reached at the Li Ka Shing Tower, School of Accounting and Finance, Hong Kong Polytechnic University, Hung Hom, Hong Kong.

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syndication partners have any impacts on the investments of VCs?

As suggested by the venture capital literature, more experienced VCs are better at selecting profitable companies to invest in and provide more valuable advice to their portfolio companies after the investment. The experience of a VC has been widely used in prior research on the investments and performance of VCs.[2] Therefore, this paper also uses the VC's experience as the key criterion for choosing partners.

Prior theoretical work predicts that experienced VCs should syndicate with experienced VCs. Casamatta and Haritchabalet (2007) model syndication as a mechanism to prevent competition between VCs after investment opportunities are disclosed. Compared with inexperienced VCs, experienced VCs generate a more precise signal regarding the quality of the potential investment target. Therefore, experienced VCs are reluctant to disclose their signal and syndicate; they syndicate only when their partners are more experienced. Cestone et al. (2007) model syndication based on a two-sided asymmetric information model in which the signals held by the lead VC and potential syndication partners are non-verifiable and manipulable. Their model suggests that the optimal level of syndication partners' experience increases with the lead VC's experience. Both Casamatta and Haritchabalet (2007) and Cestone et al. (2007) imply that VCs with similar levels of experience that have lower agency costs and less asymmetric information are more likely to syndicate.

In addition to the theoretical work, empirical studies also provide evidence of the benefits of similarity. For example, compared to heterogeneous management teams, homogeneous management teams communicate with each other more often and experience less turnover (Smith et al., 1994; Wagner et al., 1984). It is possible that VCs with similar levels of experience can communicate and coordinate more effectively and provide more effective monitoring and advising to their portfolio companies.

In contrast, prior literature also documents the benefits of diversity, which may offer valuable learning opportunities necessary to solve complex problems. Hong and Page (2001) model the decision-making process of heterogeneous economic agents. They propose that individuals holding different perspectives can improve upon each other's solutions and often identify optimal solutions to difficult problems. Lab experiments have yielded supporting empirical evidence indicating that heterogeneous teams produce higher-quality solutions to complex problems and that, in economic transactions, firms that learn from the acquisitions completed by heterogeneous partners not only acquire targets with lower costs but also have better-performing acquisitions (e.g., Hoffman and Maier, 1961; Beckman and Haunschild, 2002). Given the high risks involved with early-stage ventures, even experienced VCs have limited capabilities to gather and process all relevant information to make decisions. It can be beneficial for VCs to syndicate with partners that contribute different perspectives on the technology, market, and industry prospects for their syndicated investments. Ultimately, the question of which type of partners VCs prefer to form syndications with and which types of partners are more beneficial is subject to empirical investigation.

I focus on venture capital investments made to all U.S. companies between 1980 and 2008 from the Thomson One database (formerly known as VentureXpert). The data on venture performance are extended to June 2013. To predict which syndicate is more likely to be formed, I need to identify realized syndicates reported by the Thomson One database and construct hypothetical syndicates that are not realized. The hypothetical syndicates are constructed for each *portfolio company* and are formed by *a group of VCs*.

I find that syndicates are more likely to be formed among VCs with similar levels of experience, consistent with the predictions of Casamatta and Haritchabalet (2007) and Cestone et al. (2007). This finding remains robust when I control for company fixed effects, geographical distances between VCs and companies, geographical distances among VCs in a syndicate, the network positions of VCs, and the prior syndication history among VCs in a syndicate. This finding is unlikely to be driven by a particular matching method upon which the hypothetical syndicates are constructed.

To examine the impacts of syndication partners, I study both their short-term effects on syndicated investments and their long-term effects on VCs' future investments. I find that homogeneous syndicates, which are preferred by VCs in general, do not lead to better performance.[3] This finding could be driven primarily by the selection effect: heterogeneous syndicates may attract better-quality entrepreneurs. To mitigate this concern, I construct an instrumental variable (IV) following Nanda and Rhodes-Kropf (2013). I use the total amount of investments made by all U.S. leveraged buyout (LBO) funds in the past five years to instrument for the heterogeneity of VCs' experience in the company. On the one hand, the fundraising of both VC funds and LBO funds is affected by how limited partners allocate assets to the broader asset class of private equity. The amount of investments made by LBO funds in the past should be correlated with the amount made by VC funds and, thus, the characteristics of VC syndicates. On the other hand, investment targets and investment cycles are very different for VC funds and LBO funds. Therefore, aggregated LBO investments in the past may not directly affect the future success of a particular VC-backed company. Instrumentation does not change the main predictions.

To examine the long-term effects of syndication partners on VCs, I construct a panel dataset to track the investment activities of VCs. I find that VC firms whose syndication partners are more heterogeneous are likely to survive longer. This finding remains robust when I control for VC fixed effects, the number of syndication partners, and the fixed effects of local markets. To further mitigate the endogeneity concern that successful VCs survive longer and simultaneously attract partners

[2] For theoretical work, see Casamatta and Haritchabalet (2007) and Cestone et al. (2007). For empirical work, see Baker and Gompers (2003), Gorman and Sahlman (1989), Hellmann and Puri (2002), Lerner (1995), Lindsey (2008), Megginson and Weiss (1991) and Sorensen (2007).

[3] For brevity, in the remainder of the paper, homogeneous (heterogeneous) syndicates refer to syndicates formed by VCs with similar (different) levels of experience.