How Venture Capital Improves the Market Value of Firms that Go Public

By Thomas Chemmanur, Karthik Krishnan and Qianqian Yu  November 17, 2016

It is well established that venture capitalists can improve the product market value — the quality of projects and employees — at the private firms they invest in, either by making the firms more efficient (Chemmanur, Krishnan, and Nandy (2011)) or through monitoring (see, e.g., Gompers (1995) or Lerner (1995)). However, entrepreneurs and investors also talk about venture capitalists helping to create value for the firm in the financial market at the time the firm goes public. The channels through which such value is created, however, are less well-understood. In our new paper, available here, we explore a new channel through which VCs may create value in the IPO market for the private firms that they invest in over and above any value they have created for these firms in the product market. We propose a new channel through which VCs may create value at the time of IPO for a firm that they have invested in, namely, by attracting greater investor attention to the firm’s IPO. Using pre-IPO media coverage as proxies for investor attention, we first test whether VC-backed firm IPOs are indeed associated with greater investor attention relative to non-VC-backed firm IPOs. We then develop testable predictions regarding the implications of this ability of VC-backing to attract greater investor attention to a firm going public for various specific characteristics (e.g., firm valuation at IPO) of VC-backed versus non-VC-backed firm IPOs and empirically test these predictions.

How may VC-backing affect the IPO characteristics of a firm when it goes public through the investor attention channel? To address this question, we start by assuming that for institutional investors to participate in a firm’s IPO, they not only need to receive information about various aspects of that firm from an investment bank, but also to pay attention to or “recognize” this information. This last assumption is in the spirit of Merton (1987) investor recognition or attention model, which assumes that an investor will incorporate a security into his portfolio only if he pays attention to (or acquires information about) that security. The Merton (1987) model has been extended by Van Nieuwerburgh and Veldkamp (2009), who assume that such attention/information acquisition has a cost. We make an assumption similar to the above studies about investors having to incur such an attention cost before they participate in a firm’s IPO.

We now make the additional assumption that the above attention cost for investors is lower for VC-backed IPOs compared with that for non-VC-backed IPOs. This may be because VCs are repeat players in the IPO market, so that institutional investors may have had repeated interactions with the VCs backing a given IPO firm. For example, some institutional investors may have previously invested in IPOs backed by one of the VCs backing the current IPO firm, and had a good experience from the point of view of their investment paying a high return. Alternatively, they may have heard about other institutions having made such successful investments in IPOs backed by one of the VCs backing the current IPO firm. In the context of the Merton (1987) model, the above assumption means that the cost of paying attention to VC-backed IPO firms will, on average, be lower compared with that for paying attention to non-VC-backed IPO firms. This, in turn, implies that institutions are more likely to pay attention to a particular IPO if that IPO is VC-backed.

The notion that VC-backed IPO firms may attract greater attention from institutional investors has important implications for the IPO pricing process and, in particular, for the book-building and road-show process. The literature aimed at entrepreneurs and investors points to the two-way information flow occurring during the IPO road-show and book-building process between IPO underwriters and institutions: While, on the one hand, underwriters collect (extract) information from institutions about their demand schedules for the IPO firm’s shares during this process, they also address institutions’ questions and concerns about the future strategy and performance of the IPO firm, thus disseminating information about the firm to them. We can therefore think of two ways in which the greater investor attention that may be generated by the VC-backing of IPO firms may affect the characteristics of VC-backed versus non-VC-backed IPOs. First, such greater investor attention may affect the ability of a lead IPO underwriter to disseminate information about the IPO firm
to institutional investors. Second, such attention may affect a lead IPO underwriter’s ability to extract information from institutions about their demand for the IPO firm’s equity.

We then argue in our paper that an important effect of VC-backing is to induce a larger number of institutions to pay attention to an IPO firm, thus making it easier for the lead underwriter to disseminate information about the firm to institutions and to extract information from them about their demand for the IPO firm’s equity. This has implications for various IPO characteristics such as the absolute value of IPO offer price revision; IPO and immediate secondary market valuations of the firm; IPO initial returns; and participation by institutional investors and financial analysts in the IPO or its immediate secondary market (the former by holding IPO firms’ equity and the latter by providing analyst coverage). We test these implications in our empirical analysis.

The results of our analysis of the relation between VC-backing and investor attention can be summarized as follows. First, we find that VC-backed IPOs are associated with a greater amount of investor attention as proxied by pre-IPO media coverage (the number of headlines and articles covering the IPO firm in the two months prior to the IPO date). Second, high-reputation VC-backed IPOs receive greater investor attention than low-reputation VC-backed IPOs. Third, the results of our instrumental variable analysis using the returns earned by limited partners of a venture capital firm as an instrument for VC backing confirms that the relation between VC backing and greater investor attention is causal.

We then discuss the results of our analysis of the relation between VC-backing, investor attention, and IPO characteristics. First, VC-backed IPOs are associated with larger absolute values of IPO offer price revisions. Further, our interaction tests reveal that, even after controlling for the direct effect of VC-backing, there is an incremental positive effect of higher (above median) investor attention received by VC-backed firms on the absolute value of IPO offer price revisions. Second, VC-backed IPOs are associated with greater IPO and secondary market valuations, and greater IPO initial returns. Further, our interaction tests reveal that, even after controlling for the direct effect of VC-backing, there is an incremental positive effect of higher (above median) investor attention received by VC-backed firms on IPO and secondary market valuations as well as IPO initial returns.

The above results suggest two things. First, VC-backed firms have more favorable IPO characteristics, namely IPO and secondary market valuations and IPO initial returns, than non-VC-backed firms. Second, the productivity of investor attention (in generating IPO and secondary market valuations and IPO initial returns) is greater for VC-backed than for non-VC-backed firm IPOs. This suggests that, even if part of the higher valuations (and higher IPO initial returns) of VC-backed over non-VC-backed IPO firms is due to differences in intrinsic firm quality, investor attention plays a significant role in generating higher values of these variables in VC-backed over non-VC-backed firm IPOs.

The results of our analysis of the relation between VC-backing, investor attention, and IPO characteristics. First, VC-backed IPOs have a greater number of institutional investors holding the firms’ equity and have greater analyst coverage post-IPO. Further, our interaction tests reveal that, even after controlling for the direct effect of VC-backing, there is an incremental positive effect of higher (above median) investor attention received by VC-backed firms on institutional investor participation and analyst coverage.

The results of our analysis of the dynamics of IPO firm valuation over time are also supportive of the investor attention channel. We find that the secondary market valuation of VC-backed IPO firms fall to a greater extent than from the first trading day post-IPO through the three years following the IPO date. Further, our interaction tests reveal that, even after controlling for the direct effect of VC-backing, VC-backed firms that received higher investor attention have a greater fall in valuation as time passes after IPO. These two results, taken together, suggest that the higher market valuation of VC-backed firms that we document at IPO is at least partially due to the greater investor attention received at IPO by such firms, as evidenced by their valuation falling to a greater extent as investor attention dissipates with the passage of time after IPO.

This post comes to us from Professor Thomas Chemmanur at Boston College’s Carroll School of Management, Professor Karthik Krishnan at Northeastern University and Qianqian Yu, a Ph.D. candidate at Boston College. It is based on their recent paper, “Venture Capital Backing, Investor Attention, and Initial Public Offerings,” available here.