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Three essays on venture capital contracting

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Summary

This dissertation consists of three essays on venture capital contracting in addition to a general introduction to research in the field. The focus of the dissertation is on the various asymmetric information problems that stem from the value enhancing activities venture capitalists perform at entrepreneurial firms. Specifically, the three essays explore the question: what form of financial intermediation and what type of financial contracts would entrepreneurs prefer if information asymmetries in relation to financing decisions were two-sided? A summary of the main results and implications of each essay is provided below.

Chapter 2 entitled ‘Advice and Monitoring: Venture Financing with Multiple Tasks’ focuses on the dual role of venture capitalists as both advisors and monitors in entrepreneurial firms. In contrast to earlier contributions that account for either the support or the control function, the model introduced in Chapter 2 recognizes both tasks: it considers venture capitalists as multitask financiers. In line with the view that entrepreneurs like advice but dislike intervention, the model identifies advising as an activity that is congruent, while monitoring as an activity that is dissonant with respect to entrepreneurial preferences.

Based on this distinction between the two tasks, the analysis derives insights concerning the type of financier a capital constrained entrepreneur will approach and the form of financial contract (cash-flow and control allocation) he will offer, in order to increase his welfare to the highest possible level. The main finding is that highly wealth-constrained
entrepreneurs will be funded by multitask financiers (venture capitalists). Entrepreneurs with more self-financing approach financiers that perform exclusively the advising task (angel investors or corporate venturers). From a wider perspective, this result implies that multitask (venture capital) financing expands funding possibilities more than other forms of active financial intermediation, which may explain why capital poor entrepreneurs are usually funded by venture capitalists. The financial contracting implications of the model suggest that, in order to obtain funding, highly wealth-constrained entrepreneurs offer convertible securities (or a mixture of debt and equity contracts) and provide their financiers control over decision-making. Entrepreneurs with more self-financing may retain control and still be eligible for funding. In equilibrium, they provide their financiers with equity contracts. Overall, the results point out that poorer entrepreneurs tend to receive less attractive deals from venture capitalists, for they are given more intense monitoring and less intense advising, which is to the detriment of their welfare. The implications of the model suit the evidence that most venture capitalists finance capital-poor start-ups, acquire convertible securities, and demand a variety of control rights. Furthermore, they account for the simultaneous participation of various value enhancing financiers in the capital market, including venture capitalists, angel investors, and corporate venturers.

The essay in Chapter 3 entitled ‘Venture Capitalists’ Value Adding: Do Financial Contracts Matter?’ is an empirical study. Analyzing a hand-collected sample of 74 investments by 14 venture capital funds in Europe, it examines the impact of financial contracting on the involvement of venture financiers in their entrepreneurial firms. In particular, it considers whether the use of specific securities and various control rights increases the contribution of venture capitalists to the development of the firms they finance. The results suggest that financial contracting does have a role in enhancing venture capitalists’ value adding. The use of control rights turns out to be especially important in this respect. Venture financiers with veto rights in relation to asset sales, asset purchases, changes in control, and new equity issues spend on average 6 hours more every week with their entrepreneurial firms and regard their contribution as 35%
more important than venture capitalists without such rights. Furthermore, one additional board seat in a five member company board implies 1.5 hours more weekly involvement by the venture capital fund. The results concerning the impact of cash-flow rights are less obvious. Contrary to the intuition that financial participation increases incentives to add value, the extent of equity ownership turns out to be irrelevant. The use of convertible instruments, however, does have a significant impact: venture investors that hold convertible debt or convertible preferred equity contribute 10% more than investors that hold simpler financial contracts such as common or preferred equity, or debt. These empirical results reflect that both control rights and security choice matter for venture capitalists' value adding and provide support for several major theories of the field.

Chapter 4 of the dissertation focuses on the possibility for idea theft by venture capitalists and its impact on entrepreneurial incentives to carry out research and product development. Being involved in a portfolio of investments, a venture capitalist may be interested in using his entrepreneur's idea or interim (thus non-patentable) research results in an outside project. The analysis in Chapter 4 points out that even if the venture capitalist is honest, the mere possibility for idea theft has damaging consequences on both parties' active involvement in the start-up firm. In particular, the entrepreneur's expectation that theft would occur and thus the rewards of his research efforts would be lost decreases his contribution in both the research and development phases of project realization. Moreover, the anticipation of a depressed firm value lowers the venture capitalist's incentives to exert development stage effort. The analysis shows that whenever litigation against the thief is possible, investment syndication that is the involvement of additional venture capitalists in the start-up firm may solve the incentive problems that arise from the possibility for idea theft. Syndication with high reputation venture capitalists implies an increase in the collective reputation put at stake in the start-up firm. Since litigation results in a loss of reputation, by increasing the reputation at stake syndication mitigates the lead venture capitalist's incentives for idea stealing. This enhances both parties' contribution and thus the expected value of the start-up firm. The model
provides new insights for the literature by pointing out the incentive effect of reputation in preserving and increasing investors' commitment to R&D. Moreover, the model has the following testable implications: i) syndication enhances innovation, ii) projects aiming at more fundamental research will be syndicated more frequently, iii) at early stages, only good reputation venture capitalists will be involved as syndication partners, iv) more reputable venture capitalists form smaller syndicates. Most of these hypotheses have so far remained untested in the empirical literature.