Determinants of Venture Capital Performance: Europe and the United States

(Executive summary)

Compared with the United States, Venture capital funding is still a nascent industry in Europe, and a venture capital industry geared towards innovation and early-stage financing has really taken off only in the late 1990s, reaching an aggregate investment volume of 12 billion euros in 1999, roughly a quarter of the US level. Europe has been considered as an emerging market as far as venture capital is concerned, and there also is a dearth of empirical research of the characteristics of the European venture capital. The contracting, organization of VC firms, exit decisions etc., and the peculiarities of Europe as compared with the United States are poorly understood. Rigorous comparative studies directly comparing the US to non-US VC industry are virtually absent.

In this paper, we undertake a comparative micro-level study of the performance of venture financing between the United States, the prime example of a mature venture capital market, and Europe, arguably the most important region representing the emerging markets for venture financing. Trade associations and data providers have long indicated a considerable gap in realized returns between both continents, and practitioners in Europe have pointed to this gap as the reason for their hesitation to enter early-stage financing. If the prior of such a performance gap is confirmed in the data, what explains it? And is the performance gap still true for the period since the late 1990s, when early stage financing increased rapidly in Europe?

The purpose of this paper is to analyze drivers of venture capital success on a micro-level basis, by identifying characteristics in the relationship between venture capital firms and portfolio companies (the term universally used for VC-funded start-ups) and investigating empirically how they contribute to the success of the funded projects. To the best of our knowledge, this is the first comparative research based on data that have been collected in a truly comparable and identical way on both sides of the Atlantic. By doing so, we also attempt to remedy the virtual absence of knowledge on the organization of venture capital markets outside the United States. Furthermore, we pursue a new agenda on studying the microeconomics of venture capital: by mapping contractual features (conditions and covenants in the explicit VC contract, and also implicit arrangements, like management turnover, staging, investor continuity, and monitoring intensity.) and firm characteristics into return and success measures, we seek to identify and quantify the determinants of venture capital performance.

To circumvent the problem of getting access to performance-sensitive data, we have taken a two pronged approach. On the one hand, we have directly contacted a large number of venture capital firms with a questionnaire asking them to provide details of their contractual practice, experience and scope. On the other hand, we use the *VentureXpert* database that provides for a large number of portfolio companies and worldwide details of investments, participants and valuations in every financing round.

For the hand-collected questionnaire dataset, proxies for performance have been gathered only in a rather indirect way, by asking about the exit routes taken and the conditions surrounding the exit decision. This indirect approach has been undertaken in order to secure a high participation rate of respondents. Data are aggregated by venture capitalists and represent a VC firm-based rather than a project-based data cut on the population (i.e., exit decisions are explained by VC characteristics rather than project characteristics). The VentureXpert dataset offers a window to a project-oriented analysis, but it does not contain many of the important variables on the financing relationship

collected in the questionnaire, like the use of control features such as hybrid securities and management turnover. The two datasets are thus quite complementary in the characteristics they record and they omit. The VentureXpert database allows us to measure the performance of a firm by the Internal Rate of Return (IRR) of the project between the first financing round and the last self-reported valuation of the project. This represents a departure from the existing literature and allows us to quantify the impact of VCs' behavior on the profitability of their project.

Our main results are the following. As a starting point, our data confirm that there is a significant gap in performance between US venture capital firms and their European counterparts, both in terms of type of exit and of rate of return. We find hints that the difference is attributable, at least to an important extent, to important differences in the contractual relationship between venture capitalists and entrepreneurial teams, like the frequency and effectiveness of the use of instruments asserting an active role of venture capitalists in the value creation process.

We identify the following determinants. First, venture capitalists in the United States appear to be significantly more assertive in reserving contingent control rights: they use more systematically financial instruments that convey residual control in case of poor performance, namely convertible securities, and they activate contingent control more frequently, as measured by the replacement of entrepreneurs. Second, it seems that US VCs have sharper screening skills than their European counterparts. A better average quality of selected projects in the United States is consistent with our findings that a larger fraction of the total investment invested in the initial round. Finally, there is some evidence for a more effective management of financing relationship and participation of different groups of investors in the United States. Interestingly, our results suggest that relationship financing, which is more pronounced for European companies, does not have any significant impact on performance there.