Introduction

1. INTRODUCTION

1.1 Relevance

As we move into the goals of the Lisbon Strategy of mobilizing and exchanging the knowledge and good practice of academia and industry, the role of entrepreneurship, innovation and the financing of such activities becomes more important. The objective is no longer reduced to fostering the creation of new and technology-based firms, but to make these firms grow to be able to compete in the European and global market. Central to achieving this goal is the issue of how to transfer technology from universities to the market, how to manage professionally these new firms, and how to facilitate growth processes within these firms.

1.2 Context and Objective

Researchers in the area of entrepreneurship and innovation often come from different academic disciplines and there is no instrument that ensures the dissemination of their findings to other interested parties, in particular to policy makers. The organization of specialized research workshops and the publication of the workshop proceedings facilitate the exchange of knowledge in the entrepreneurship field and channel this knowledge towards European politicians, more in particular the European Commission's DG Enterprise and Industry.

The central theme for this research workshop was 'Managing growth: the role of private equity'. The objective of the specialized research workshop is to collect the insights of leading academics and researchers on the subject; in casu to promote a better understanding of the role of private equity providers in the development of growth-oriented start-ups and the management of growth processes.

The purpose of this book is to translate the body of scientific and fundamental knowledge that was presented at the workshop into more practice-oriented findings and papers, which are useful for the larger G2G community including investors, entrepreneurs, business owners, policy makers and academia.

Contributions were selected through a three-stage review process (abstract, 2000 word summary and full paper). In total more than 40 proposals were submitted in this highly specialized field of venture finance, high-tech start-ups and growth. In the end 12 papers were selected and distributed over three different streams, each one of them illuminating a different perspective on the role and relevance of private equity for starting and growing new ventures: ‘the venture capitalist’s perspective’, ‘the entrepreneur’s perspective’ and ‘the role of government’. At the end of the workshop, three papers received a 2004 European Best Paper Award (an activity also funded by the Gate2Growth Academic Network): Clarysse, B., Knockaert, M. and Lockett A., ‘How do early stage high technology investors select their investments?’ (First Rank), Murray, G. and Dimov, D., ‘Through a glass darkly: new perspectives on the equity gap’ (Second Rank), and Lockett, A. and Wright, M., ‘Resources, capabilities, risk capital and the creation of university spin-out companies’ (Third Rank). The review and selection of the best papers was based on more than 20 different parameters, including the level of contribution to the body of knowledge on the topic, the soundness of the research methodology and the newness, importance and significance of the research findings, in particular with respect to the EC. Also, the research is post-doctoral in nature and has not yet been published or accepted for publication by any journal or book publisher.

2. ENTREPRENEURSHIP AND THE FINANCIAL COMMUNITY

In the introduction we want to highlight the importance of the topic and give a more general description of the evolution of the venture capital industry. The main argument is that in the early 1990s, practitioners in the industry pointed out screening and analysis of opportunities as their main competitive advantage. Today, they see themselves as hands-on investors capable of delivering value added. But do they really add value? This book has three main parts, each part representing new research findings relating to one specific perspective on the role of private equity in managing start-ups and firm growth.

2.1 Part I: The Financial Community’s Perspective on the Role of Private Equity

Financial institutions, corporations and wealthy individuals are at the origin of the supply side of the venture capital and private equity market.

Although venture capital might represent only a small percentage of an overall assets portfolio, private investors are aware that superior returns will be obtained only if they successfully cherry-pick the best investment teams in the market.

In Chapter 1, Barnes and Menzies show how limited partners follow clear procedures for managing the annual allocation of capital to venture capital as an asset class. The authors demonstrate that investors use different selection methods which can be either subjective or objective.

According to the authors, the process followed by investors to select funds can be broken down into various stages. The process starts with two types of screening. In the initial screening investors revise the documentation of the fund, while in the following screening stage personal, but informal, meetings with venture capitalists (VCs) take place. The selection criteria at the overall screening stage are magnitude and consistence of returns, top quartile returns, limited partners (LPs) diversification strategy, and value-adding capacity of general partners (GPs). These screening steps are followed by a process of ratification, in which the investors carry out intense due diligence. The process ends with the evaluation stage, when investors select the funds where they will invest. The main criteria applied for this selection are: experience, stability and homogeneity of the team, the track record of the team, consistency of the strategy proposed with previous experience of the same team, and fund terms.

One of the observations is that the team of LP analysts builds consensus on the selected funds early in the process, in particular at the ratification stage. LP analysts appear to track and then back a core group of VCs with whom they develop long-term relationships. For this reason, new venture capital teams encounter special difficulties to raise funds, as many investors have made their decision before these new VCs approach them.

In Chapter 2, Clarysse et al. bring some novel insights into the long period between fundraising and exit. Considering the debate as to whether venture capitalists generate superior returns from their selection, deal structuring or added-value capabilities, the chapter investigates the investment decisions of early-stage VCs. In particular the authors analyse how venture capital managers select their investments, what selection criteria they apply and what factors influence different selection behaviour observed. The authors present four dimensions decisive to the investment decision, namely, team, market, product and financing methods. According to the relevance that different investors attach to these four criteria, the results of the chapter indicate the raising of three major types of investors. They group these investors into ‘technology’ investors, ‘people’ investors, and ‘financial’ investors and rank the main investment criteria differently.

According to the authors, investors in the first group focus primarily on

protectability and uniqueness of the technology and the relationship that can be established with the entrepreneur/s. The team characteristics are not that important for them. These VC funds have managers with strong technical profiles. The second group, people investors, place their emphasis on human capital factors while protectability of technology is considered less important. Investment managers in the group of financial investors focus heavily on the potential returns expected from the business proposals. The last group of investors identified requires a well-built team, whose members must be experienced and complementary; in the absence of these, it will be difficult to raise capital from financial investors.

Continuing with the value creation process for their LP base, venture capital investors contribute to the companies where they invest in different ways. Among others, these investors use extensive monitoring devices to control and follow up their portfolio firms. In Chapter 3, Beuselinck et al. approach unsolved questions as to how private equity investors monitor and control their portfolio firms and to what extent these efforts influence the corporate governance system in place in the companies. The authors also research to what extent private equity investors' involvement affects their portfolio firm's further development and professionalization.

The research carried out by Beuselinck et al. distinguishes Anglo-Saxon from continental investors with respect to the frequency and intensity of their monitoring and communication practices with investees. They suggest that it is more common for Anglo-Saxon investors to appoint a representative to the board. And meetings of this board are more frequent in companies backed by these investors. The authors also prove that for Anglo-Saxon investors the information reported by companies to fund managers is identical to the information that these sent to the board, which is not the case for continental ones (perhaps because board meetings are less frequent). *Ad hoc* contact is more frequent with Anglo-Saxon investors, and it encompasses a broader number of firm directors (other than the chief executive officer (CEO) and the chief financial officer (CFO) for continental investors). A final, but equally important contribution of this chapter is the presentation of the impact of private equity monitoring and control on the portfolio firms' financial reporting, that is, considering the extent of earnings management, earnings conservatism and disclosure of information as indicators of financial reporting quality. The findings indicate that private equity-backed firms have higher levels of earnings management in the pre-financing years than non-backed ones, suggesting that entrepreneurs use earnings to attract investors. Also, private equity-backed firms have a higher tendency to report losses in good time compared to non-private equity-backed equivalents from the private equity financing

year onwards. The results of Beuselinck et al. show that firms looking for private equity voluntarily disclose more information than legally required to signal their quality to outsiders.

It is a long time before private equity investors get their money back. Those investors who have been in the industry for a long time know that the short repayment periods for funds created in the second half of the 1990s will not come again soon. In Chapter 4, Kaserer and Diller bring new insights into the performance measures of equity funds, whose factors impact on these returns, and further, to what extent it might be possible to predict such returns. In particular, their objective is to test the ‘money-chasing deals’ phenomenon, that is, the effect of cash inflows into private equity funds on an individual fund performance. Their perspective is completed with the analysis of the impact of fund managers’ skills on performance. The results show that a fund formed in periods of high absolute inflows (originated by economic prospects) and low relative inflows (signal of low intensity of deal competition) obtains relatively high returns compared to funds founded in years with low absolute inflows (hence no extraordinary economic perspectives) and high relative inflows directed to a fund (signal of high competition for deals) obtain low returns.

Prior to testing the money-chasing deals phenomenon, the authors propose a new way to avoid the shortcomings of the usual internal rate of return (IRR) measure: the excess IRR, the price market on earnings (PME) and the undiscounted payback period methods. They also suggest adjusting returns for management fees and conclude that the PME is the most adequate method. Finally, sustaining the evidence proposed by Barnes and Menzies (Chapter 1), the authors suggest that funds tend to maintain their status as high or low performers. Hence, the common strategy among LP analysts is reinvesting in funds with which they had good experiences proofs positive.

Informal investors, or ‘business angels’, complete the spectrum of external equity financing available for new and young ventures (called the ‘early-stage market’). These investors do not make the headlines because they invest their own money directly and hence do not need to market their activity, or establish any reputation in the market; moreover, often they wish to keep their investment activities unknown.

An ongoing concern is the relatively lower development of the European informal market as compared to that in the US. In Chapter 5, Roure et al. suggest that one of the reasons for the scarcity of business angels in the EU landscape is the lack of individuals with specific investment expertise. The authors underline that there are many potential investors, all with relevant industry, sector knowledge or entrepreneurial experience, often

lacking the necessary capabilities to face investing in new, innovative and often technology-based business.

Roure et al. identify significant differences between potential (those who have not yet closed the first deal) and active investors. While both types, ‘virgin’ and active angels, have similar wealth profiles and investment preferences (in terms of amount, sector or stage), the proportion of business owners and entrepreneurs is notably higher among active angels. According to the authors there are important benefits for business schools in training potential investors in the management of the entire investment process. The authors also explore the benefits for active and virgin angels from joining a business angel academy. In particular, academies provide a first starting point to help angels to identify and evaluate investment proposals. Those investors that are already active find it an excellent place to exchange experience with other active angels and to improve certain aspects of investment management.

2.2 Part II: The Entrepreneur’s Perspective on the Role of Private Equity

This middle part of the book includes four chapters that cover the ways in which entrepreneurs and new venture managers approach the venture capital acquisition process and the impact of correctly managing the relationship with investors on performance. First, we recall the direct link between venture capital and growth. A potential source of growth for companies is the development of international activities. Venture capitalists can support companies along this process by providing their experience and networks. In an increasingly pan-European venture capital market, investors find an increasing facility to move cross-border. Many decide to establish a foreign representative office, a subsidiary office or, on the contrary, manage investments from their home country.

Using a novel theoretical approach, the means–end chain from marketing disciplines, Morandin et al. (Chapter 6) investigate the motivations of entrepreneurs to engage in a search for venture capital. Their model places motives not so much in reference to internal stimuli *per se*, but in terms of achieving goals. In their study, they present three broad categories of motives to use venture capital. One category is linked to market and business dimensions, the second contains firm variables while the third is linked to the entrepreneur *per se*, with aspects reflecting personal goals and one’s family. Morandin et al. recognize that an important drawback of their research is the thin line between the first and the second categories. Their chapter shows that the main motivations for demanding venture capital are firm growth, competitiveness and managerial competence, respectively. However, these motives are not stand-alone elements; on the contrary, there

are significant links between them. For instance, growth and competitiveness are difficult to disentangle. It is important to note that in their study the authors do not propose up-front categories of motivations to entrepreneurs surveyed and interviewed, rather, entrepreneurs were asked to list their personal reasons for choosing a goal, the importance of this goal and to explain why such a goal was important.

From the contribution by Hogan and Hutson (Chapter 7) we learn that the use of venture capital seems to be related to certain traits of the lead founder, the funding team, product lead times, start-up costs and willingness to relinquish control. Research on the inclination of management teams to use venture capital has led to surprising results. The authors believe that entrepreneurs with previous start-up experience do not use more venture capital than entrepreneurs with no prior start-up experience. These findings are inconsistent with the traditional wisdom suggesting that previous experience is critical to attract venture capital.

For Hogan and Hutson, clearly, the factors for granting venture capital are not the same factors as for demanding it. Related to the background of founders and the use of venture capital, the authors find mixed evidence, there is no relation between education beyond degree level and venture capital backing. However, there seems to be a positive relationship between such backing and degree-level qualification. A further finding in relation to the founding team concerns its size, which seems to bear no implications for demanding venture capital. Hogan and Hutson claim that the lead time does not seem to influence entrepreneurs' attraction towards venture capital. Finally, the authors find a positive and strong relationship between venture founders' willingness to relinquish control and venture backing. The results show that many experienced teams eschew venture capitalists. They conclude that many new technology-based firms do not make themselves available for venture capital funding.

In Chapter 8, Mäkelä and Maula explore the role of foreign-based VCs in supporting the internationalization of new software ventures. Hence their study claims an active role for the venture itself to look for investors that might grant them relationships with other agents in an unknown environment for them and to select the best-positioned investor to contribute to their internationalization plans. For Mäkelä and Maula, the presence of foreign investors is likely to lead to a process in which the investee firm becomes more similar to companies in the geographic areas where the investors have a presence. This chapter outlines how the benefits of cross-border investors are realized: increasing venture legitimacy by providing endorsement, providing knowledge of the business and legal environment, and bringing international social capital. The authors suggest that cross-border venture capital investors will decrease the liability of foreignness.

The authors do not neglect negative costs associated with the participation of cross-border VCs, the most important being the push to internationalize to ‘incorrect’ markets, that is, to markets not optimal for the growth of the venture, which might be the case of a market where the investor is based or present. It is very important that the new venture chooses investors located in markets central to their internationalization strategy; that is, investors must ensure target market fit, and be willing and able to help ventures to expand there. They claim that if this market fit does not exist, the presence of cross-border venture capital might bring increased costs or incorrect internationalization. They add that entrepreneurs should look for investors able to provide endorsement, international social capital, and foreign organizing knowledge.

Part II ends by recalling some of the elements discussed with regard to performance measurement by venture capitalists developed previously by Kaserer and Diller (Chapter 4). Here the researchers introduce an element of subjectivity in measuring the performance achieved. In Chapter 9, De Clercq et al. approach the issue from a crucial angle for entrepreneurs and managers. The authors demonstrate that higher levels of trust, social interaction and goal congruence in the relationship between the investor and the investee company result in higher perceived performance. Also the same effect emanates from a high commitment, defined as the intensity of the relationship between both parties, on the part of the VCs. The authors found that the existence of a relationship in the above terms helps the VCs understand the operations and needs of the company and positively colours perceptions of performance. The reverse argument is more straightforward, if the relationship with the investee is bad, poor performance will look worse to VCs; if the relationship is good, VCs might give poor performers the benefit of the doubt and judge good performers even better. Nevertheless De Clercq et al. do not claim that VCs assess company performance based on whether they ‘like’ the company or not. On the contrary, they identify learning effects on discerning actual performance, which ultimately dominate their judgement. Finally, the authors advise entrepreneurs seeking to maximize their benefit from the venture capital provider to be willing to build strong interpersonal relationships with representatives of the venture capital firm. In a broader sense, their findings suggest that companies may increase their reputation in the venture capital community by engaging in open communication with their investors.

2.3 Part III: Private Equity and the Role of Public Policy in Europe

For the third part of this book we have reserved four chapters that explore two key issues that have received extensive attention from our policy makers:

spin-out companies and the equity gap. Chapters 10 and 11 cover the problematic regarding the creation and growth of companies transferring university-developed technology to the market, and Chapter 12 revises the accepted wisdom on the equity gap. The concluding chapter brings both issues together and places them in a European context.

In Chapter 10, Wright and Lockett deepen the insights advanced in the contribution of Harrison and Leitch, including the perspectives of the parties involved in spin-out development investors and technology transfer offices (TTOs). The authors conceptualize the problems faced by entrepreneurs in a system of critical junctures: opportunity recognition, entrepreneurial commitment, credibility and sustainability. The study proposes that spin-outs secure a strong partnership base with different kinds of agents in their environment, attract a champion committed to the entrepreneurial development (whether this champion is initially internal or external to the venture), and demonstrate the viability of their business proposal, for instance in terms of intellectual property protection or proof of concept. To earmark sustainability, the spin-out needs accessing and integrating resources and capabilities. Due to from the above-mentioned critical junctures that spin-outs must overcome, investors look carefully for certain assets within the investment proposals they receive.

Wright and Lockett highlight the perceived difference in the risk/return relationship of investors between spin-outs and other technology ventures and propose that in particular, those investors less prone to spin-out investment should demand a relevant size of the potential market, joint ownership of intellectual property rights (IPRs) with a university, existence of a prototype, and 'identifiability' of key decision makers or perspectives for the development of a sophisticated product or service. Last but not least, the quality and composition of the management team is an essential part of the investment decision when screening proposals. The authors acknowledge that not a few efforts have been dedicated to highlighting the importance of investment readiness of business proposals, especially important in the case of early investment in general and spin-outs in particular. The authors put forward a criterion that all investors have in mind, whether they have a higher or lower propensity towards spin-out investment, that is, the time to realize their investment through an exit, or at least the stage when the venture can attract other co-investors to share the risk and provide follow-on finance. In fact the authors remind us that too often spin-out ventures cannot promise/deliver the speed of development that would attract VCs.

Public policy makers, whether at regional, national or European level have recognized the difficulties of new and young ventures to attract finance. This inefficiency of the market to provide finance, between the stage where entrepreneurs' and their family wealth is sufficient to fund the

business and the stage when venture capital funds are broadly interested in investing, is referred to as the 'equity gap'.

In Chapter 11, Harrison and Leitch hint at the contribution that spin-out companies make to the development of the regions where they are located. The findings of their study lead them to think that many university spin-outs are more like technology lifestyle ventures rather than entrepreneurial businesses. Hence, also from the university point of view spin-outs are not likely to be a major source of income as compared to licensing or other technology transfer activities.

The authors point out the specific difficulties of spin-outs, for instance when trying to channel the evolution of an initial idea into a non-commercial environment and becoming established as competitive rent-generating firms. The authors find that one of the origins of the lack of growth orientation among university spin-outs is related to the presence of 'academic' entrepreneurs, less ambitious than classic entrepreneurs, and perhaps also less aware of their business's innovation and development needs. For Harrison and Leitch, these academic entrepreneurs often conceive their business opportunity in terms of a strong technological advance, rather than on the consideration of the market need for such a product. The research carried out suggests that company spin-outs are based on the exploitation of very small portfolios of protectable intellectual property (IP).

With regard to the role played by the universities, the chapter indicates that spin-outs value in particular university support for their entrepreneurial efforts to exploit technology, clarifying the legal IP position and providing pre-company formation business advice. Indeed, the authors maintain that there is room for improvement within universities regarding identification and exploitation of market opportunity for the technology in different ways and in providing alternative career options.

In Chapter 12, Murray and Dimov investigate the factors that influence early-stage investment and the factors that contribute to a more intensive activity within the early-stage market. Contrary to the belief that it is the smaller venture capital funds that invest in the earlier stages, the authors suggest that older and larger funds seem to be taking the initiative in this segment of the market. In this line, their findings might throw some doubts on the public policy towards venture capital in place in most European countries and at EU level. The chapter reminds us that current policies place smaller and technology-oriented funds at the core of policy instruments and this might not deliver the sought benefits.

Murray and Dimov provide evidence of the existence of a minimum and a maximum scale efficiency in making seed investments. Hence, up to a certain portfolio size, the larger a fund is the more prone it would be to invest in the early stage. Once the portfolio exceeds that maximum activity,

its investments in the seed stage will decrease. On the contrary, the relationship between the total amounts invested by the fund suggests a minimum size to start considering seed investments. Nevertheless, the authors claim that the characteristics of the fund *per se* are not sufficient to explain early-stage activity.

Other elements, such as the education and industry experience of the top management team members, influence this propensity. Executives with a background in finance tend to be more reluctant to invest in the earlier stage, probably due to their conservative objective, more related to minimizing losses, or bankruptcies, than to maximizing success. Further, the authors point out that previous experience is critical not only as to how investments are perceived or chosen, but also regarding their management, pointing to a highly subjective investment process within the venture capital industry.

Finally, the predispositions of an individual investor or an investment analyst are important to understand which proposals make it through the first cut in the screening selection process within a VC fund. These individual characteristics are difficult for entrepreneurs approaching venture capital funds, making passing the first selection cut highly dependent on the proposal reaching the right hands.

The concluding chapter by Schamp (Chapter 13) deals with the European challenge formulated by the Lisbon European Council of 2000, setting the strategic goal for the European Union to become the most competitive and dynamic knowledge-based economy in the world by 2010. Europe's researchers are among the world's leaders in many areas of technological research and development but much of their exploitable work never reaches the marketplace. Improving the commercialization rate of inventions and research-based innovation is one way for Europe to raise its competitive performance. Taking an innovation from the laboratory to the point at which private commercial investors are willing to fund it as a start-up requires a variety of inputs that in many cases can be supplied with a relatively modest amount of finance. The private sector, acting alone, tends – for sound economic reasons – to produce a rate of throughput that is sub-optimal from the public policy viewpoint. Responses to the problem across and outside Europe have taken a wide variety of financial, institutional and organizational approaches. Many programmes have been initiated over the past five years.

While presenting some of the main outcomes and conclusions of the PAXIS and Gate2Growth initiatives Schamp also discusses the European agenda for stimulating academic entrepreneurship, creating a more entrepreneurial culture at European universities and research centres, leading to more effective technology transfer and more successful spin-out programmes and for bridging the finance gap.

In general, there is a long way to go in order to maximize benefits from university and public research through the creation of spin-outs. Therefore it is necessary to increase efforts to make technology transfer offices more professional. These, before all other parties concerned, should inform academic entrepreneurs and tech start-ups of the differences between potential investment channels and the impact of this on their venture and on how to approach VCs. There is a strong need to revise public policy with regard to venture capital, including to refocus on small funds and increase efforts with regard to the business angel community.