The syndication of venture capital investments in Europe: evidence from five European countries

Manigart, S.; Lockett, A.; Meuleman, M.; Landström, Hans; Desbrieres, P.

Published in:
Frontiers of Entrepreneurship Research: Proceedings of the Twenty-Second Annual Entrepreneurship Research Conference

2002

THE SYNDICATION OF VENTURE CAPITAL INVESTMENTS IN EUROPE: EVIDENCE FROM FIVE EUROPEAN COUNTRIES

Sophie Manigart, Vlerick Leuven Gent Management School and Ghent University, Belgium
Andy Lockett, CMBOR, University of Nottingham, UK
Miguel Meuleman, Ghent University, Belgium
Hans Landström, Institute of Economic Research, Lund University, Sweden
Philippe Desbrières, Université de Bourgogne, France

ABSTRACT

Financial theory, resource-based theory and deal flow generation are used to explain syndication practices among venture capitalists in Belgium, France, The Netherlands, Sweden and the UK. Similar motives drive syndication in the five countries: the desire to share risk and increase portfolio diversification is more important than the desire to access additional intangible resources or deal flow. When resource-based motives are more important, however, the propensity to syndicate increases. Syndication practices are more important in young venture capital (VC) firms and in VC firms with more portfolio companies.

KEY-WORDS

Venture Capital, Investment, syndication

INTRODUCTION

VC firms provide companies that have high growth potential with finance and business skills to exploit market opportunities. Recent events like the burst of the internet bubble and the slowdown of the economy have highlighted the high risks that VC firms bear as they seek high rates of return. In order to accommodate these risks VC firms have developed various strategies, one of which is the syndication of investments (Wright & Robbie, 1998). An equity syndicate involves two or more VC firms taking an equity stake in an investment. Table 1 shows the importance of syndication practices in the five European countries (Belgium, France, The Netherlands, UK and Sweden) that are covered in the present study, based on statistics of the European Venture Capital Association (EVCA) in 2000. It is clear that syndication is a quite common practice in these countries: in Europe more than 25 % percent of the amount invested and more than 30 % of the number of deals is syndicated. Syndication is even more common in Belgium, both in terms of relative amounts invested through syndicates (66%) as well as in terms of relative number of investments that are syndicated (54%). Furthermore, the figures for the UK and the Netherlands are lower than for the other countries as a result of continual decreases in syndicated activity throughout the 1990s (Lockett & Wright, 2001). Syndication practices in France and Sweden are in between.

Despite the importance of syndication activity in the VC sector, surprisingly little is known on the motives for syndication. Lockett and Wright (2001) have shown that the dominant motive for VC firms in the UK to syndicate their deals is spreading financial risk through risk sharing. This paper extends the Lockett & Wright (2001) UK study to an international context. We explain why VC firms syndicate their investments, using three different frameworks. The traditional approach, originating from finance theory, has been to view syndication as a means of risk sharing via portfolio diversification (Smith & Kiholm Smith, 2000). In contrast, the resource-based perspective views syndication as a response to the need to share/access information in the selection and management of investments (Bygrave, 1987 and 1988) and is especially important in early stage investments (Lockett & Wright, 2001). Finally, access to deal flow may be a motivation for syndicating out a deal. We further investigate whether there is a relation between the propensity to syndicate deals and the dominant motives for syndication within a VC firm. Manigart et al. (2002) show that consistent with resource-based theory, specialisation appears more effective at controlling risks or adding value than the finance theory view that diversification would be useful in spreading risk. Our study provides an extension to the debate regarding the relative importance of finance versus resource based explanations of the behaviour of VC firms and hence helps to shed further light on their ability to add value through their specialist skills (Barney et al., 2001).

This study is important, as it furthers our knowledge on VC syndication practices in different European countries. After the UK-based Lockett and Wright (2001) study, this is the second study on VC syndication practices outside the US.

Other international studies on VC practices have shown that US findings are not necessarily valid outside the US, due to economic, legal, cultural and institutional differences in the environments in which non-US VC firms operate (Manigart et al., 2002; Sapienza et al., 1999). Extending our knowledge on VC practices outside of the US is therefore relevant and timely. Apart from identifying motives for syndication, we build on previous studies by identifying factors that influence the propensity to syndicate. This has never been researched before.

The paper is structured as follows. First, the theoretical perspectives on syndication are presented and hypotheses developed. Thereafter, the method used to investigate the hypotheses is outlined and the results are presented. The final section discusses implications for researchers and practitioners.

THE SYNDICATION OF VENTURE CAPITAL INVESTMENTS

Two dominant competing views exist as to why VC firms syndicate investments. The traditional perspective developed from finance theory views syndication as a means of risk sharing via portfolio diversification (Bygrave, 1987 and 1988; Smith & Kiholm Smith, 2000). In contrast, the resource-based perspective views syndication as a means to share resources such as information in the selection (before the investment is made) and management (after the investment is made) of investments. A third view, related to the resource-based view, sees syndication as a mean to assure, increase or reciprocate deal flow of the VC firm.

The finance perspective

The traditional finance perspective shows that by building a well-diversified portfolio risk can be reduced without giving up return – which is desirable to rational, risk-averse investors. The risk of any investment can be subdivided in a firm specific component (non-systematic) and a market component (systematic). The firm specific component can be eliminated by holding a well diversified portfolio of investments. By spreading investment across a greater number of investments that do not co-vary, syndication has the potential to reduce risk considerably (Wilson, 1968). This means that the variation in returns is reduced without reducing the expected return of the portfolio. However, market risk cannot be eliminated and the risk that remains for a well-balanced portfolio is hence the market risk component (Smith & Kiholm Smith, 2000).

In general, a fully diversified portfolio is more difficult to obtain for VC firms compared to institutional investors who invest in listed stock. This occurs partly because of the presence of ex-ante asymmetric information in VC investment decisions, which is less of a problem in listed companies, and partly because of fund size (Reid, 1998; Sahlman, 1990), preventing VC funds to obtain a well diversified portfolio. Syndication gives the VC firm the opportunity for investing in a larger number of portfolio companies than it could do without syndication, thereby increasing diversification and reducing the overall risk of the fund.

A second finance-related motive for syndication is caused by the illiquidity of VC investments (Lockett & Wright, 2001). The VC market is less liquid than the stock market. Minimum investment periods make equity illiquid in the short to medium term thus equity cannot be continuously traded, unlike the shares traded on the stock market. Due to ex-ante informational asymmetry, the real risk of the investment may only become clear once the investment has been made. If the risk associated with the investment turns out higher than anticipated, it may be difficult to adjust the portfolio by divesting because of the illiquid nature of the VC market. Therefore, syndication provides a means of sharing risk on a deal-by-deal basis that may help to reduce overall portfolio risk.

A third finance-related explanation for syndication proposed by Lerner (1994) emerges from the requirement to raise funds in future periods. In order to avoid systematically underperformance of their peers, VC firms may syndicate. However, the more investments the VC firm has, the higher the cost associated with the ex-post management of investments and transacting. A trade-off will be made between risk reductions and transaction costs associated with any additions to the portfolio. This discussion leads to the following hypothesis:

> *Hypothesis 1*: Syndication is a response by VC firms to the need to share risk via portfolio diversification.

The resource-based perspective

Although the VC firm has been traditionally viewed as a financial intermediary, it may also be thought of as a "collection of productive resources" (Penrose, 1959). A resource is considered to be anything that could be thought of as a strength or a weakness of a given firm (Wernefelt, 1984), with syndication being a method of accessing specific resources from other firms. The resource base of the VC firm can be sub-divided into financial and non-financial resources, the latter being largely intangible in nature such as market information. Resources are required for reducing the various dimensions of company specific risk at both ex-ante and ex-post decision making stages in the venture capital process. Ex-ante decision making relates to the selection of investments, whereas ex-post decision making relates to the subsequent management of the investment.

The potential for adverse selection will be reduced by syndicating at the deal selection stage through superior selection of investments (Sah & Stiglitz, 1986). The reputation of the parties involved in the syndicate will be important at this stage. The better-established firms with a track record of success (i.e. better judgement/management of investments) will have a more valuable reputation and will become a more attractive partner for others. This is supported by Lerner's study

(1994) of the biotechnology industry which found evidence to suggest that in first round investments established VC firms syndicate with one another, and in later rounds with less established organizations. This finding is consistent with the view that syndication allows established VC firms to obtain information when evaluating risky investment decisions. However, the superior selection of investments theory does not hold in cases where the lead investor underwrites the whole deal and then subsequently syndicates down the investment to other firms.

In addition, resources may be required for the ex-post management of investments. This need for specialist expertise in the ex-post management of investee companies can be met by the own resource base or from outside industry specialists. If the VC firm lacks resources, it may benefit from the resources of other VC firms through syndication. US research by Bygrave (1987 and 1988) showed that syndication is both a function of the desire to spread financial risk as well as the need to share information with uncertainty and syndication being positively related. Syndication may therefore be viewed as a response to the need to access additional resources in the selection and management of investment opportunities. Hence:

> *Hypothesis 2*: Syndication is a response to the need to share information resources in the ex-ante selection, and ex-post management of investments.

Deal flow explanations for syndication

As it is important for VC firms to have access to as many potentially interesting deals as possible in order to pick up the best investments, deal flow is a highly valued intangible resource of a VC firm. Deal flow becomes increasingly important in times when the competition for deals is great and the pressure to invest funds is high. The reciprocation of syndicated deals between VC firms may mean that deal flow can be maintained even when an individual venture firm may not be the originator of the deal (Bovaird, 1990). A steady flow of investment opportunities is essential for the VC firm. It is anticipated that by syndicating out deals, firms are intending to create an expectation to reciprocate the gesture in the future. If so, the firm may be invited to join other syndicates as a non-lead in the future, and deal flow is increased. Hence:

> *Hypothesis 3*: Syndication is a response to the need to access/ reciprocate deal flow.

Early Stage and Later Stage Investors

Rather than treating the whole sample of VC firms as a homogeneous group, the behaviour of VC firms may be different depending on the investment stage in which they are involved (Bygrave & Timmons, 1992; Manigart et al., 2002; Wright & Robbie, 1998). UK research (Lockett & Wright, 2001) shows that motives for syndication are different for those VC firms who only invest at a later stage compared to those who invest in all stages. The investment stage in which a VC firm engages may influence its attitude towards risk. The financial motive for syndicating a deal may therefore be different between VC firms involved in early stage transactions compared to those involved in later stage transactions. Lockett and Wright (2001) argue that because of the high risk nature of smaller early stage deals, VC firms whose portfolio includes early stage deals will be more motivated to syndicate in order to spread the high specific risks involved. Through this they are able to create a better diversified portfolio. Hence:

> *Hypothesis 4*: The financial motive (portfolio diversification) for syndication will be more important for early stage investors than for later stage investors.

The risky nature of early stage investments means that in addition to the increased need to spread risk when investing in early stage opportunities, there is an increased need to reduce risk (Lockett & Wright, 2001). As later stage companies already have management structures in place, have an established market presence and have existing suppliers and customers, the need for these resources is lower (Barry, 1994). Therefore, it is anticipated that the resource-based motive for syndicating a deal be especially important for VC firms that invest in early stage investments when compared to those that do not. Hence:

> *Hypothesis 5*: The resource-based motive for syndicating deals will be more important for early stage investors than for later stage investors.

Finally, early stage investors have a more narrow investment focus than more general later stage investors. Developing diversified routes to generate deal flow may therefore be more important for early stage investors than for general investors. It is therefore expected that the deal flow motive will be more important for early stage investors.

> *Hypothesis 6*: The deal flow motive for syndicating deals will be more important for early stage investors than for later stage investors.

The propensity to syndicate

Evidence from the UK shows that VC firms differ in their propensity to syndicate deals. EVCA statistics show that syndication is generally less prevalent in the UK compared to the other countries covered in this study (see table 1). This calls into question why some firms syndicate more than others. We postulate that a VC firm's propensity to syndicate will be positively associated with finance-based, resource-based and deal flow motives for syndication, controlling for firm-level characteristics. If the aforementioned motives are more important for a VC firm, then its propensity to syndicate will be higher. This leads to:

> *Hypothesis 7a*: The importance of finance-based, resource-based and deal flow based motives will be positively related to a VC firm's propensity to syndicate a deal.

Although the finance-based, resource-based and deal flow based motives for syndication may all have a positive relationship with a VC firm's propensity to syndicate, this does not mean that all the motives are equally important. UK research indicates that the finance-based motive for syndication is the dominant motive for syndication (Lockett & Wright, 2001). Therefore, we hypothesize the finance-based motive will be the most important factor influencing a VC firm's propensity to syndicate. Hence:

> *Hypothesis 7b*: The finance-based motive is a more important factor positively influencing a VC firm's propensity to syndicate a deal than resource-based motives and deal flow motives.

RESEARCH METHOD AND SAMPLE DESCRIPTION

A questionnaire was designed and pretested with UK VC managers, advisors and academics (Lockett & Wright, 2001). A questionnaire-based methodology was employed because the different theoretical perspectives on syndication were anticipated to be multidimensional. Therefore, it was deemed necessary to ask respondents a number of different questions relating to each of the perspectives. The questionnaires were translated into French, Dutch and Swedish. The questionnaire was administered by post to the head offices of all 106 VC firms in the UK, identified using the British Venture Capital Association (BVCA) handbook and Centre for Management Buy-out Research (CMBOR) records, in 1998. In the other countries covered in this study questionnaires were sent out in the autumn of 2001. Questionnaires were sent to 79 Belgian VC firms, identified through the membership list of the Belgian Venturing Association (BVA) and the EVCA, and through a self-developed database, to 120 French VC firms (the full members of the "Association Française des Investisseurs en Capital Risque"), to 169 Swedish VC firms, identified through the membership list of the Swedish Venture Capital Association (SVCA), the membership list of the Swedish National Board of Technical and Industrial Development (NUTEK) and a self-developed database and to 54 Dutch VC firms, mainly identified through the membership list of the Dutch Association of Venture Capitalists. In all countries, a follow-up was done either by sending reminders or by calling the VC firms after 3 to 6 weeks. Responses were sought from individuals at the level of investments executives upwards. An early pilot study in the UK (Lockett & Wright, 2001) showed that the issues examined here were generally driven by organization-wide policies.

Table 2 shows the response rates: 42 completed and usable replies out of 79 questionnaires sent in Belgium (53% response rate); 49 of 120 in France (41% response rate); 66 of 167 in Sweden (39% response rate); 31 out of 54 (57% response rate) in the Netherlands and 60 out of 106 in the UK (57% response rate). The high response rates suggest high reliability of the results. In Belgium, France, Sweden and the Netherlands, more than 90% of the respondents had ever been involved in a syndicate. The representativeness of the sample was tested for each country separately using firm specific characteristics available for the population. In Belgium, France and the Netherlands, no significant differences were found between respondent and non-respondents. In Sweden and the UK, the only significant difference between respondents and non-respondents is that the respondents' maximum investment preference is significantly (5% confidence level) larger than that of non-respondents. This means that the sample is generally representative for the VC industry in the five countries of the study.

The VC firm characteristics of the sample are shown in table 3. Belgian and Swedish VC firms are very similar, while VC firms in the UK and The Netherlands are on average older (consistent with the fact that the VC industry in the UK and the Netherlands is older than in the rest of Europe) and larger in terms of investment preferences and number of investment executives. France is in between.

In order to examine H4, H5 and H6, the sample is split according to the investment stage preferences of the VC firms. Investment stage is proxied by the size of the investment, the two being highly correlated. Therefore the VC firms are divided into two groups depending on the minimum investment preference: those that prefer to invest € 1 million or more (later stage investors) and those that invest less than € 1 million (early stage investors).[1]

Respondents were asked to indicate how important they found different factors in their decision to syndicate deals. The scale used in the questionnaire is made up of 17 different items, each of them relating to one of the perspectives discussed above (see table 4). For each perspective, the items were summed and the average computed. The scales were highly reliable with a Cronbach's alpha of 0.71 for the finance perspective (5 items), 0.82 for the resource-based perspective of 0.82 (6 items) and 0.83 for the deal flow perspective (2 items).

Pairwise differences between the scales are tested with Wilcoxon Matched Pairs tests, suited for non-normal data (H1, H2 and H3). Mann-Whitney U tests are used to test H4, H5 and H6, as the underlying data are not normally distributed and the two groups are independent. In order to test hypotheses 7a and 7b, an ordinal regression model is run in which the VC firm's propensity to syndicate a deal (categorical variable) is the dependent variable, as well as a logistic regression. In the latter, the dependent variable is zero if the VC firm syndicates less than 40% of its

[1] As there is no "natural" cut-off point in the data, the size cut-off point used to split up the sample is set rather arbitrarily. We reran the analyses with different cut-off points, but the basic results do not change.

deals, while it is one if the VC firm syndicates more than 60% of its deals. The independent variables of interest are the scale scores of the finance-based, resource-based and deal flow based motives for syndication. In addition, VC firm level control variables are included in the model: the log of the minimum investment preference, of the number of years in operation and of the number of investments in portfolio, and the degree of industry, stage and geographical specialisation.

RESULTS

Table 5 shows the results relating to venture capitalists' decisions to syndicate out a deal for the sample as a whole and in the different countries separately. Consistent with previous findings in the UK (Lockett & Wright, 2001), the traditional finance motive for syndication is significantly more important than the other perspectives for the sample as a whole, while the deal flow perspective is more important than the resource-based perspective.

It is striking that the motives to syndicate out a deal are consistent across all countries of the study. In all the countries the finance perspective is significantly more important than the other perspectives (1% significance level). The deal flow perspective is significantly (1% significance level) more important than the resource-based perspective as a motive for syndication both in France and the UK. In Sweden, Belgium and the Netherlands, there is no significant difference between these two perspectives, although the scales point in the same direction as in the former countries. Overall, the results indicate strong support for the financial (portfolio diversification) motive for syndication (H1) over the resource based perspective (H2) or reciprocation of deal flow (H3) in a firm's decision to syndicate out a deal. The results also highlight the fact that VC practices are very similar in different countries.

Table 6 shows the importance of the syndication motives for VC investors investing less than € 1 million (early stage investors) and those investing more than € 1 million (later stage investors). The Mann-Whitney tests indicate that the finance perspective and the resource based perspective are significantly more important (5% level) for early stage investors than for later stage investors, providing strong support for hypotheses 4 and 5. Sharing risks by creating a well-diversified portfolio is more important for VC firms who mainly invest in smaller, early stage deals. Early stage investors are, moreover, more motivated to syndicate to gain access to additional resources than later stage investors. Hypothesis 6 is not supported: there is no difference between the two groups of VC firms with respect to the deal flow perspective as a motive for syndication.

The propensity to syndicate (H7a and H7b) is analysed in table 7. The results of the ordinal regression and of the logistic regression are consistent, but more coefficients are significant in the logistic regression. We will concentrate on the latter. Hypothesis 7a is partly supported: VC firms for whom the resource based view is more important have a higher propensity to syndicate. The importance of the finance based view and of the deal flow perspective, however, has no impact on the propensity to syndicate. Hypothesis 7b is therefore not supported. Although the finance based motive is the most important motive to syndicate deals, it does not affect the propensity to syndicate. Rather, the results indicate that VC firms that need access to additional resources other than financial resources have a higher propensity to syndicate.

A number of interesting relations emerge with the control variables. The longer a VC firm is in operation, the lower is its propensity to syndicate. Young VC firms in particular seek partners with whom to syndicate. This yields further support for the foregoing resource based view: young VC firms are more likely to lack important intangible resources and, especially, legitimacy and reputation in the finance community. Syndicating deals may be an important way to access these resources.

A larger VC firm, with more investments in its portfolio, has a higher propensity to syndicate. This is contrary to the finance perspective: more investments means a higher degree of diversification and therefore a lower need to syndicate. However, the causality of the argument might be reversed. It may well be that the VC firms have a larger number of investments in their portfolios, thanks to syndication. The present research design does not allow us to differentiate between both explanations.

CONCLUSIONS

The study highlights a number of key findings. First, the evidence presented here regarding syndication broadly supports earlier work by Bygrave and Timmons (1988), Wright and Robbie (1996, 1998) and Lockett and Wright (2001). The motives for syndicating a deal are driven much more by finance considerations than by the exchange of firm specific resources or deal flow. This is consistent for the five countries in our study. Yet, the propensity to syndicate is driven more by resource based considerations than by financial considerations. VC firms that think that increasing resources is an important motive to syndicate deals will syndicate more than VC firms that stress financial motives.

The foregoing perspectives are more important than deal flow considerations. This result is consistent with research from the VC industry in the US that found that syndication is especially a function of the desire to spread financial risk as well as the need to share information (Bygrave, 1988). Further, both the finance and the resource based perspectives are more important for VC firms that mainly invest in early stage deals than for those that invest in later stage deals. This finding may help to understand previous findings that quoted early stage VC funds in Europe do not have higher market risk than non-specialised or than later stage VC funds, although they yield significantly higher returns (Manigart et al., 1994). Financial motives to syndicate deals and decrease overall portfolio risk are apparently well understood. Yet, stage specialisation does not lead to a higher propensity to syndicate.

The present study has implications for both researchers and practitioners. Previous studies have suggested that the behaviour of VC firms may differ, depending on their preference for investment stage. This paper confirms this finding for the case of syndication. Different approaches are adopted by VC firms depending on the investment stage they are focusing on, with both financial and resource based motives being more important for early stage investors. Our study provides further evidence on the relative importance of finance versus resource based explanations of VC firm behaviour beyond the evidence on the association between stage diversification and specialisation on required returns (Manigart et al., 2002).

Our results also show that VC practices and norms are similar across different European countries. This indicates a high degree of institutionalisation of an accepted way of working throughout the European VC industry. Despite the difference between the financial industry in the UK on the one hand and in the other countries covered in this study on the other hand, and notwithstanding the different degrees of maturity of the VC markets in the different countries of our study, our results are remarkably consistent. VC practices have spread across Europe, without taking national boundaries into consideration. The VC industry appears to be evolving towards a uniform pan-European industry, with the same methods of working. Comparing VC syndication practices between Europe, the US and Asia would be an interesting avenue for further research. Comparative research on syndication practices may be especially important as evidence from Venture Economics indicates that over 60 per cent of VC investments in the US in 2000 were syndicated. This figure compares with EVCA data of 13 per cent in the UK and 30 per cent across Europe as a whole. The VC market in the US is more dominated by earlier stage investments than is the case in Europe. Previous research has shown that there are important differences between US, European and Asian VC industry practices. Investigating similarities and potential differences in syndication motives and propensity might yield interesting insights.

CONTACT

Sophie Manigart, Vlerick Leuven Gent Management School and Ghent University, Kuiperskaai 55E, 9000 Gent, Belgium; (T) 003292643508; (F) 003292643577; sophie.manigart@rug.ac.be. We acknowledge financing from the Faculty of Economics & Business Administration, Ghent University, for part of the research project.

REFERENCES

Barney, J., M. Wright, & D. Ketchen (2001). "The Resource Based View of the Firm: Ten Years After 1991." *Journal of Management* 26(4): 625-641.

Barry, C. (1994). "New Directions on Research in Venture Capital Finance." *Financial Management* 23 (3): 3-15.

Bovaird, C. (1990). *Introduction to Venture Capital Finance.* London: Pitman.

Bygrave, W. D. (1987). "Syndicated Investments by Venture Capital Firms: A Networking Perspective." *Journal of Business Venturing* 2: 139–154.

Bygrave, W. (1988). "The Structure of Investment Networks in the Venture Capital Industry." *Journal of Business Venturing* 3: 137-157.

Bygrave, W. D., & J. A. Timmons (1992). *Venture Capital at the Crossroads.* Harvard Business School Press, Boston: Massachusetts.

Chiplin, B., K. Robbie, & M. Wright (1997). "The Syndication of Venture Capital Deals: Buy-outs and Buy-ins." *Entrepreneurship: Theory and Practice* 21(4): 9-28.

Elango, B., V. Fried, R. Hisrich, & A. Polonchek (1995). "How Venture Capital Firms Differ." *Journal of Business Venturing* 10(2): 157-179.

European Venture Capital Association (2001). *EVCA Yearbook*. Zaventem: EVCA.

Huntsman, B., & J. Hoban (1980). "Investment in New Enterprises: Some Empirical Observations on Risk, Return and Market Structure." *Financial Management* 9 (Summer): 44-51.

Lerner, J. (1994). "The Syndication of Venture Capital Investments." *Financial Management* 23 (3): 16-27.

Lockett, A., & M. Wright (2001). "The Syndication of Venture Capital Investments." *OMEGA: The International Journal of Management Science* 29: 375-390.

Manigart, S., P. Joos, & D. De Vos (1994). "The Performance of Publicly Traded European Venture Capital Companies." *The Journal of Small Business Finance* 3(2): 111-125.

Manigart, S., K. De Waele, M. Wright, K. Robbie, P. Desbrieres, H. Sapienza, & A. Beckman (2002). "Determinants of Required Returns in Venture Capital Investments: A Five Country Study." *Journal of Business Venturing* 17(4): 291-312.

Murray, G. (1999). "Early Stage Venture Capital Funds, Scale Economies and Public Support." *Venture Capital: International Journal of Entrepreneurial Finance* 1(4): 351-384.

Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: Sharpe.

Reid, G. (1998). *Venture Capital Investment: An Agency Analysis of Practice*. London: Routedge.

Sah, R. K., & J. E. Stiglitz (1986). "The Architecture of Economic Systems: Hierarchies and Polyarchies." *American Economic Review* 76 (4): 716-727.

Sahlman, W. A. (1990). "The Structure and Governance of Venture Capital Organizations." *Journal of Financial Economic* 27: 473-521.

Sapienza, H., S. Manigart, & W. Vermeir (1996). "Venture Capitalist Governance and Value-Added in Four Countries." *Journal of Business Venturing* 11(6): 439-470.

Smith, J. K., & L. S. Smith (2000). *Entrepreneurial Finance*. New York: Wiley.

Wernefelt, B. (1984). "A Resource Based View of the Firm." *Strategic Management Journal* 5: 171-180.

Wilson, R. (1968). "The Theory of Syndicates." *Econometrica* 36(1): 119-132.

Wright, M., & K. Robbie (1996). "Venture Capitalists, Unquoted Equity Investment Appraisal and the Role of Accounting Information." *Accounting and Business Research* 26(2): 153-168.

Wright, M., & K. Robbie (1998). "Venture Capital and Private Equity: A Review and Synthesis." *Journal of Business, Finance and Accounting* 25 (5) & (6): 521-570.

Table 1

Syndication practices across different countries in 2000 (Yearbook EVCA 2001)[1]

	Total investment by VC industry (1)	Amount Syndicated (2)	(2)/(1) %	Number of investments (4)	Number of investments syndicated (3)	(3)/(4) %	% Early stage[2]
Belgium	564,771	373,617	66.1	483	253	52.4	54.2
France	5,304,090	2,362,144	44.5	2994	1,075	35.9	44.5
Sweden	2,103,982	639,951	30.4	702	287	40.9	64.9
The Netherlands	1,916,486	314,230	16.4	789	145	18.4	31.9
UK	13,167,414	1,876,395	14.3	1980	259	13.1	36.2

[1]All amounts in 1000 EURO
[2]Measured by number of investments

Table 2

Response rates

	Belgium	France	Sweden	The Netherlands	UK	Total sample
Number of responses	42	49	66	31	60	248
Response rate	53 %	41 %	40 %	57 %	57 %	47 %
Number of respondents that syndicate	39	47	60	30	N/A	N/A
% of respondents that ever syndicated	93 %	96 %	91 %	97 %	N/A	N/A

Table 3

Characteristics of the sample

Firm Characteristics	N	Mean	Median	S.D.	Min	Max
Number of investment executives	244	7.34	4	11.55	0	130
Number of investments in current portfolio	249	47.80	15	196.80	0	3000
Number of years firm has been in operation	250	11.048	9.5	12.68	1	112
Minimum investment preference[1]	243	3.81	0.5	12.10	0.00	108.52
Maximum investment preference[1]	237	23.98	4	56.32	0.07	327.06
Maximum investment firm could underwrite[1]	214	41.96	5.71	110.64	0.00	900
How specialised is your firm's investment preferences in terms of (please rate from 1-5, 1 = highly specialised … 5 = highly unspecialised)						
Industry sectors	248	2.95	3	1.42	1	5
Finance stages	247	2.36	2	1.15	1	5
Geographical regions	245	2.63	2	1.44	1	5

[1] in million EURO

Table 4

Items used for calculating the different factors

How important are the following factors in your decision to syndicate a deal? (Please rate from 1-5, 1 = very important … 5 = very unimportant)
Traditional Finance Perspective
The large size of the deal in proportion to the size of funds available
The requirement for additional rounds of financing
The large size of the deal in proportion to the firm's average deal size
The large size of the deal in proportion to the largest deal previously undertaken by your firm as a sole investment
A high degree of specific risk associated with the deal
Deal Flow Perspective
The possibility of the future reciprocation of deals (deal flow)
The reciprocation of past deal flow
Resource-Based Perspective
The need to access specific skills in order to manage the investments
Difficulty in bringing in industry experts from outside
The deal is outside the investment stage(s) in which you usually invest
The deal is outside the industries in which you usually invest
The deal is located outside of the geographical region(s) in which you usually invest
The need to seek the advice of other VC firms before investing

Table 5

Motives for syndicating a deal (1 = very important … 5 = very unimportant)

Motive		Finance	Resource	Deal Flow	Wilcoxon signed rank test Z statistics: Resource-Finance	Deal Flow-Finance	Deal Flow-Resource
Total Sample	N	216	201	223			
	Mean	2.29	3.52	3.28	-10.153***	-8.965***	-2.255**
	S.D	0.81	1.05	1.16			
Belgium	N	32	31	34			
	Mean	2.24	2.97	3.32	-3.312***	-4.050***	-1.040
	S.D	0.70	0.98	1.07			
France	N	44	38	44			
	Mean	2.21	3.61	3.05	-4.886***	-4.342***	-2.702***
	S.D	0.84	1,00	1.02			
Sweden	N	55	53	55			
	Mean	2.27	3.47	3.53	-5.164***	-4.647***	-0.507
	S.D	0.83	0.98	1.17			
The Netherlands	N	27	27	29			
	Mean	2.41	3.49	3.28	-2.83***	-2.59***	-1.13
	S.D	0.74	1.12	1.31			
UK	N	57	51	60			
	Mean	2.34	3.84	3.22	-5.614***	-4.565***	-2.725***
	S.D	0.88	1.06	1.22			

*Significant at the 10% level;** Significant at the 5% level;*** Significant at the 1% level

Table 6

Finance motives for syndicating a deal (1 = very important … 5 = very unimportant)

Motives for syndicating a deal	Small investments pref. < € 1 m		Min. inv.	Large investments pref. ≥ € 1 m		Min. inv.	Mann-Whitney Z-statistic
	N	Mean	S.D.	N	Mean	S.D.	
Finance	146	2.20	0.77	64	2.49	0.89	-2.24**
Deal Flow	150	3.35	1.10	67	3.10	1.27	-1.24
Resource	135	3.40	1.05	60	3.79	1.03	-2.37**

*Significant at the 10% level;** Significant at the 5% level;*** Significant at the 1% level

Table 7

Regression

	Ordinal regression (N = 182) Dependent variable = % of deals syndicated (ordinal variable 1-5)		Logistic regression (N = 151) Dependent variable is 0 if 40% or less of total deals is syndicated, and 1 if more than 60% of deals is syndicated.	
	B	S.E.	B	S.E.
Constant			2.988**	1.204
Finance-based view	-0.228	0.177	-0.098	0.234
Resource-based view	-0.213	0.137	-0.307*	0.184
Deal flow	-0.107	0.124	-0.187	0.172
Log(Minimum investment preference)	-0.016	0.084	0.052	0.112
Log(Number of years in operation)	-0.584***	0.176	-0.723***	0.246
Log(Number of investments in portfolio)	0.252*	0.143	0.415**	0.207
Industry specialisation	-0.145	0.103	-0.225	0.139
Stage specialisation	-0.152	0.134	-0.261	0.184
Geographical region specialistaion	0.007	0.098	-0.013	0.129

*Significant at the 10% level;** Significant at the 5% level;*** Significant at the 1% level