

Why Do European Venture Capital Companies Syndicate?

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Abstract	Financial theory, resource-based theory and access to deal flow are used to explain syndication practices among European venture capital (VC) firms. The desire to share risk and increase portfolio diversification is a more important motive for syndication than the desire to access additional intangible resources or deal flow. Access to resources is, however, more important for non-lead than for lead investors. When resource-based motives are more important, the propensity to syndicate increases. Syndication intensity is higher for young VC firms and for VC firms, specialised in a specific investment stage. Finally, syndication strategies are similar across European countries, but differ from North American strategies.	
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WHY DO EUROPEAN VENTURE CAPITAL COMPANIES SYNDICATE?

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WHY DO EUROPEAN VENTURE CAPITAL COMPANIES SYNDICATE?

ABSTRACT

Financial theory, resource-based theory and access to deal flow are used to explain syndication practices among European venture capital (VC) firms. The desire to share risk and increase portfolio diversification is a more important motive for syndication than the desire to access additional intangible resources or deal flow. Access to resources is, however, more important for non-lead than for lead investors. When resource-based motives are more important, the propensity to syndicate increases. Syndication intensity is higher for young VC firms and for VC firms, specialised in a specific investment stage. Finally, syndication strategies are similar across European countries, but differ from North American strategies.

WHY DO EUROPEAN VENTURE CAPITAL COMPANIES SYNDICATE?

EXECUTIVE SUMMARY

Venture capital (VC) firms provide companies that have high growth potential with finance and business skills to exploit market opportunities. An important strategic decision a VC firm has to make, is whether or not it will syndicate its deals and if so, to what extent. An equity syndicate involves two or more VC firms taking an equity stake in an investment, either in the same investment round or, more broadly defined, at different points in time (Brander, Amit & Antweiler, 2002), for a joint payoff (Wilson, 1968). This paper investigates first the motives of VC managers to syndicate out deals in six European countries and thereafter the determinants of the propensity to syndicate.

The statistics of the European Venture Capital Association (EVCA) show that almost 30% percent of the amount and of the number of deals invested by European VCs were syndicated in 2001. Despite the importance of syndication activity in the VC sector, surprisingly little is known on the motives for syndication. The traditional approach, originating from finance theory, has been to view syndication as a means of risk sharing via portfolio diversification (Smith & Smith, 2000). In contrast, the resource-based perspective views syndication as a response to the need to share or access information in the selection and management of investments (Bygrave, 1987 and 1988; Brander et al., 2002). Finally, access to future deal flow may be a motivation for syndicating out a deal (Lockett & Wright, 2001; Sorenson & Stuart, 2002).

This is the first study that looks at the motives on syndication in several Continental European countries. We further acknowledge that motives to syndicate out a deal as a lead investor may well be different than those to join a syndicate as a non-lead investor. Moreover, we explain why some VC firms syndicate more than others, either as lead or as non-lead investor. A questionnaire-based methodology is used because the different theoretical perspectives on syndication were anticipated to be multidimensional. In total, the sample consists of 317 usable responses (44% response rate) and is representative for the VC industry in each of the different countries.

Major findings

The motives for syndicating a deal in Europe are driven much more by finance considerations than by the wish to exchange firm specific resources or by deal flow considerations, in contrast with practices in North America. Resource based motives are more important for VC firms that are more active

as non-lead investors than as lead investors. Yet, the propensity to syndicate increases especially when the resource-based motive is stronger. A stronger resource-based motive leads moreover to a lower percentage of investments as lead investor.

Young VC firms syndicate more than older VC firms, both as lead and as non-lead investors. European VC managers clearly understand that syndication with respected partners increases their legitimacy and reputation in the VC and in the entrepreneurial community. Furthermore, through syndication young VC firms may seek to build central network positions. Larger VC firms syndicate more than smaller VC firms. This finding is contrary to the financial motive to syndicate: small VC firms benefit more from syndication as syndication allows them to achieve higher levels of diversification. Our results may be caused by the fact that larger VC firms are more established firms in the investment community and therefore are more approached as syndication partners (Chiplin, Wright and Robbie, 1997). Moreover, large VC firms often have central network positions and by syndicating they are able to hold on to these positions.

VC firms investing larger amounts in a single project do not syndicate more than VC firms investing smaller amounts, but they act more often as leads of their syndicates. This is an indication that the amount of money that an investor is able to bring to the table is related to its power in a syndicate (Wright and Lockett, 2002). Furthermore, lead investors often initiate the investment and by investing larger amounts can signal their belief in the project to other potential investors. We speculate that investors contributing small amounts – often early stage investors – lose their position as lead investor in subsequent investment rounds, when larger amounts are invested. Finally, European VC executives syndicate less, either as lead or as non-lead investor, when they manage more portfolio companies, in contrast with what the resource based view would suggest and in contrast with North American practices (Jääskeläinen et al., 2002, and Cumming, 2002). The latter studies have shown that syndication increases the number of investments a VC manager can efficiently manage. It seems either that European VC firms adopt a suboptimal investment strategy, or that performance dynamics in the European VC industry are different from those in North America.

Implications

The present study has implications for both researchers and practitioners. First, our results show very similar syndication practices across different European countries. This contrasts with findings in earlier studies on the European VC industry, which found important differences in the way VC firms work in different European countries (Sapienza et al., 1996; Manigart et al., 2002). Despite the difference

between the market-driven financial system in the UK on the one hand and the bank-driven financial system in the other European countries 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 across countries. The VC industry appears to be evolving towards a uniform pan-European industry, with the same methods of working. It is likely that syndication practices have helped to spread common norms and behaviour (Sorenson and Stuart, 2002).

Further, European VC managers should more explicitly formulate their syndication strategies. It seems that European VC managers are well aware of the financial benefits that syndication may yield, but they seem to underestimate the importance of additional benefits, such as getting access to additional resources, building strong and trustworthy networks and increasing deal flow. Their North-American colleagues seem to be aware of these benefits.

Comparing VC syndication practices between Europe, North America and Asia is clearly 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 almost 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.

We have shown that the decision to syndicate as lead and as non-lead are different decisions. Not only does the propensity to syndicate differ across VC firms, but also the proportion they syndicate as lead and as non-lead investors. Future studies should take these differences into account. We clearly have not unravelled all factors that influence the proportion of investments that VC firms syndicate, nor those that influence the proportion of investments as lead and as non-lead investors. We call for more studies on syndication, specifically disentangling lead and non-lead investment strategies. Syndications may change between different rounds of investment. Analysis of this aspect of syndication was beyond the scope of this paper, but the dynamics of the rationale for syndication would appear to be an interesting area for further research. Finally, there is more work to be done on the relation between syndication strategies and performance, both on the level of the portfolio companies and on the level of a VC firm.

WHY DO EUROPEAN VENTURE CAPITAL COMPANIES SYNDICATE?

1. INTRODUCTION

Venture capital (VC) firms provide companies that have high growth potential with finance and business skills to exploit market opportunities. VC firms have developed various strategies to deal with this high risk environment, 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, either in the same investment round or, more broadly defined, at different points in time (Brander, Amit & Antweiler, 2002), for a joint payoff (Wilson, 1968).

Syndication is a common practice in the VC industry, both in North America and in Europe. For example, Tornado Insider, a European trade journal focusing on start-ups, recently identified 100 promising technology-based companies throughout Europe (Tornado Insider, 2002). At least 92 of these companies were funded with VC, and at least 85 received financing from more than one VC investor. The statistics of the European Venture Capital Association (EVCA) show that almost 30 % percent of the amount invested by European VCs and of the number of deals were syndicated in 2001 (see table 1). In the countries of the present study, syndication is most common in Belgium in terms of amounts invested through syndicates (66%). However, in terms of deals syndicated, Belgium is in the middle (24.0%). In Sweden, the amount syndicated (9.0%) is remarkably lower compared to the number of deals syndicated (39.9%). Syndication practices in the UK and the Netherlands are low both in terms of amount invested as well as the number of deals as a result of continual decreases in syndicated activity throughout the 1990s (Lockett & Wright, 2001). The figures for France and Germany are in between.

Insert table 1 here

Despite the importance of syndication activity in the VC sector, surprisingly little is known on the motives for syndication. At first sight, the act of syndicating a deal seems to be counter-intuitive. VC firms will only invest if they believe the potential return adequately compensates for the investment risk. Why, then, do VC firms give up potential return by not investing the whole amount needed by the portfolio company, but rather seek another VC firm to co-invest and thereby share in the potential gains (or losses)? What are the perceived benefits that compensate for the loss of some of the value created by the portfolio company?

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 & Smith, 2000). In contrast, the resource-based perspective views syndication as a response to the need to share or access information in the selection and management of investments (Bygrave, 1987 and 1988; Brander et al., 2002). Finally, access to future deal flow may be a motivation for syndicating out a deal (Lockett and Wright, 2001; Sorenson & Stuart, 2002).

Second, we develop previous work by acknowledging that motives to syndicate deals may be different for lead and non-lead investors. We further investigate the relation between the dominant motives for syndication and the propensity to syndicate deals, both in general and as lead or non-lead investor.

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 the ability of VC managers to add value through their specialist skills (Barney, Wright & Ketchen, 2001).

There is growing attention to the differences between venture capital markets in different countries (Black and Gilson, 1998; Jeng and Wells, 2000). 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 North America. Other international studies on VC practices have shown that findings on VC practices in North America are not necessarily valid outside that region, due to economic, legal, institutional and cultural differences in the environments in which non-North American VC firms operate (Manigart et al., 2002; Sapienza, Manigart & Vermeir, 1996). Extending our knowledge on VC practices outside of North America is therefore relevant and timely.

The paper is structured as follows. First, 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.

2. MOTIVES FOR SYNDICATING 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 & 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 (Lerner, 1994; Lockett and Wright, 2001; Brander et al., 2002). A third view, related to the resource-based view, sees syndication as a means to assure, increase or reciprocate deal flow of the VC firm (Lockett and Wright, 2001; Sorenson & Stuart, 2002).

The finance perspective

The traditional finance perspective shows that by building a well-diversified portfolio, risk can be reduced without reducing return. The risk of any investment can be subdivided into a firm specific component (non-systematic risk) and a market component (systematic risk). The firm specific component can be eliminated by holding a well diversified portfolio of investments. By spreading investments 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 this risk remains for a well-balanced portfolio.

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 large ex-ante asymmetric information problems in VC investment decisions, which is less of a problem in listed companies, and partly because of the capital constraints, due to the relatively small size of a VC firm or fund (Reid, 1998; Sahlman, 1990). If the VC firm is not large enough, given the project size, then syndicating the deal may well be the only way to invest in that particular deal. Moreover, 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. For example, Cumming (2002) has empirically shown that the number of portfolio companies in Canadian VC funds increases when they actively syndicate, all other things being equal, while Zacharakis (2002) has shown that there is less syndication in riskier US early stage deals than in less risky but larger expansion stage deals. The latter is explained by the fact that syndication is a means to manage the level of concentration of the VC portfolio.

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 be fully revealed once the investment has been made. If the risk associated with the investment turns out to be 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. Brander et al. (2002) have shown that the volatility of the performance of Canadian syndicated investments is larger than that of stand-alone investments, implying that syndicated investments are the more risky investments.

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 underperforming their peers, VC firms may syndicate to window-dress their performance: syndication partners may seek to invest in a later stage in successful ventures, even though much of the value building may already have occurred.

However, the more investments the VC firm has, the higher the cost associated with the management of investments and transacting. A trade-off will be made between risk reduction and transaction costs associated with additions to the portfolio (Kanniainen & Keuschnigg, 2000). Syndicating with the same partners builds trust in their investment appraisal, monitoring and value adding capabilities, thereby reducing the need for the VC firm to actively do so (Sorenson & Stuart, 2002; Wright and Lockett, 2002).

The foregoing 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 a 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. US research by Bygrave (1987 and 1988) showed that syndication is both a function of the desire to spread financial risk (financial motive) as well as the need to share information, with uncertainty and syndication being positively related.

The potential for adverse selection may be reduced by syndicating at the deal selection stage through superior selection of investments (Sah & Stiglitz, 1986). Syndication is a way to better assess the information provided by potential portfolio companies (Lerner, 1994). This will be especially important for projects where an informed second opinion is valuable, i.e. in cases where VC managers cannot outright decide to accept (high quality projects) or reject (low quality projects) the investment proposal (Brander et al., 2002).

The reputation of the parties involved in the syndicate will be important in this process (Sorenson & Stuart, 2002; Wright and Lockett, 2002). The better-established firms with a track record of success (i.e. better judgement or management of investments) will have a more valuable reputation and will become a more attractive partner for others. The reputation of a VC is hence a proxy for its managerial resources. This is supported by Lerner's study (1994) of the biotechnology industry which found evidence that in first round investments established VC firms syndicate with one another, and in later rounds they syndicate 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 (i.e. syndicates the deal after closure).

Apart from selection skills, specialised resources may be required for the ex-post management of investments (Sapienza et al., 1996). This need for specialist expertise in the ex-post management of portfolio companies can be met by the VC's own resource base or from outside industry specialists (Brander et al., 2002). If the VC firm lacks resources, it may benefit from the resources of other VC firms through syndication. VC managers can only manage a certain number of investments optimally due to resource constraints (Kanniainen & Keuschnigg, 2000). By syndicating deals VC firms are able to increase the portfolio they can optimally manage through resource sharing. Jääskeläinen et al. (2002) have empirically shown that the number of IPOs of portfolio companies of US VC managers increases when they manage more companies, up to a certain "optimum". Beyond this optimum, the number of IPOs decreases if more companies are added to the portfolio of a VC manager. However, the number of portfolio companies a US VC manager can "optimally" manage is moderated by syndication activity: the

more a VC syndicates, the higher is its optimal portfolio size.¹ Brander et al. (2002) argue that the need to access specific resources for the ex-post management of investments, rather than for the selection of investments, is a more important driver for syndication, based on their empirical finding that Canadian syndicated VC deals have higher rates of return than stand-alone projects.

Here, we do not distinguish between the different types of resources that may be accessed through syndication, but we contrast resource acquisition with financial and deal flow motives for syndication. Syndication may thus be 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.

Access to deal flow

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 projects, good quality deal flow is a highly valued and important intangible resource of a VC firm. A steady flow of investment opportunities is essential for the VC firm. Sorenson and Stuart (2002) show, however, that the likelihood that a VC invests in a new venture declines sharply with geographic and “industry” distance.² They explain this finding inter alia by the fact that individuals prefer to interact with similar persons. Opportunities to interact, and thus to exchange information, are therefore more frequent among individuals in the same geographic area or in related industries. This suggests that VC firms are not likely to identify interesting investment opportunities that lie outside their natural investment area. Yet, the propensity to invest locally is less pronounced for well-established and highly experienced venture capitalists (Sorenson & Stuart, 2002).

Syndication is a powerful way to extend the geographical and industry investment scope of VC firms. This is important, as Manigart, Joos and De Vos (1994) have shown that European VC firms with a local investment scope have a lower return than companies with a broad geographical investment scope. By frequently syndicating investments, a dense interfirm network is created, that disseminates information across geographic and industry boundaries (Sorenson & Stuart, 2002). A well-connected VC firm will have higher chances of being invited to join future syndicates, even in distant portfolio companies. 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).

¹ One should be careful, however, with taking “number of IPOs of portfolio companies” as a measure of the performance of a VC fund. It may well be that VC firms syndicate just before the IPO in order to window-dress their investment strategy. This investment behaviour will of course not lead to impressive returns.

In this way, the VC firm increases its investment opportunities in areas it would have difficulties to access otherwise. Sorenson and Stuart (2002) have shown that the probability that a VC firm will invest in a distant company increases if there is a syndicate partner with whom they have previously co-invested, and if that syndicate partner is located near the target company. The more repeated syndicate partners a VC firm has, the stronger this effect is, as the focal VC firm has in this way access to a significant amount of information on investment opportunities. Having a strong syndication network further increases the status and visibility of a VC firm (Lerner, 1994), increasing its likelihood of being invited into a syndicate network.

It is anticipated that by syndicating out deals, VC firms are intending to create an expectation to reciprocate the gesture in the future by placing them in a central and trusted position. If so, the VC firm may be invited to join other syndicates as a non-lead in the future, and deal flow is increased.³ Hence:

Hypothesis 3: Syndication is a response to the need to access or reciprocate deal flow.

Lead versus non-lead syndicate investors

Motives for syndication may be different when initiating an investment syndicate as a lead investor, compared to joining a syndicate as a non-lead partner. First, anecdotal evidence suggests that lead investors initiate the deal and proactively seek partners, while non-leads react to an offer made to them by a lead investor. The ex-ante decision process for lead and non-lead investors is therefore likely to be different. A lead investor may decide to syndicate out a deal in order to reduce its financial risk, especially when the deal is considered to be a high risk project (Brander et al., 2002). This enables the lead investor to optimally balance its portfolio, given its investment strategy. We therefore expect the financial motive to be more important for lead investors than for non-lead investors. Hence:

Hypothesis 4a: Financial motives are more important for lead investors than for non-lead investors.

We hypothesise the resource-based motive may be more important for non-lead investors than for lead investors. Joining a syndicate that is initiated by a respected lead investor may increase the legitimacy of the non-lead investor. The fact that a syndicate partner is chosen by a respected lead investor may be a signal of its quality and of the value of the resources it brings to the syndicate. Through

² Industry distance is defined as “the level of dissimilarity between the venture capital firm’s previous investment experiences in the industry of a given target company” (Sorenson and Stuart, 2002).

³ There may be other motives for syndication that we will not consider in the present paper. For example, VC firms may syndicate in order to decrease competition for a deal and thereby increase their bargaining power (Brander et

the syndicate, investors will moreover be able to learn from other syndicate members. This suggests that VC firms may join syndicates when they feel the need to access additional resources (e.g. legitimacy). On the other hand, lead investors will have ex-post more involvement with the portfolio company and will put in more time and effort in co-ordinating the syndicate than non-leads (Wright and Lockett, 2002). They take their responsibility for close monitoring, board interaction, informal relationship building, working towards an exit, etc., while non-leads will rely more on the lead partner and on contractual agreements for ex-post monitoring and value adding. This indicates that lead investors will be considered by the other syndicate members to be responsible for the ultimate performance of the investment. They will therefore only syndicate out a deal if they feel that they have the necessary resources to manage it successfully. If not, they might risk losing their reputation in the investment community. .

Hypothesis 4b: Resource based motives are more important for non-lead investors than for lead investors.

Finally, deal flow motives are expected to be equally important for lead and for non-lead investors. In order to maintain or increase future deal flow, a VC firm may actively seek syndication partners with whom it regularly co-invests. For example, the same well-known group of VC firms regularly co-invests with each other in the Netherlands. In this way, they build trust in their relationship. Learning about behaviour and strengths of their partners will increase their efficiency in managing syndicated deals. However, a relationship does not endure if it is one-sided. A syndicate member cannot expect to remain in a well-functioning syndicate if he does not contribute to the syndicate, especially by syndicating out interesting deals himself. Moreover, syndicating with partners that are geographically far away is a powerful strategy to expand a VC firm's geographical boundaries (Sorenson and Stuart, 2002). Hence:

Hypothesis 4c: Deal flow motives are equally important for lead investors and for non-lead investors.

Impact of the importance of motives to syndicate on the propensity to syndicate

VC firms differ in their propensity to syndicate deals. For example, EVCA statistics show that syndication is generally less prevalent in the Netherlands and 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

al., 2002). Or it may be the entrepreneur who initiates syndication, in order to retain more control rights or not to concentrate too much power in the hand of a single financial partner.

aforementioned motives are more important for a VC firm, then its propensity to syndicate will be higher. This leads to:

Hypothesis 5: The importance of finance, resource based and deal flow motives is positively related to a VC firm's propensity to syndicate a deal.

Again, the importance of the motives for syndication will be an important driver of the propensity to syndicate as lead and as non-lead investor. Consistent with hypothesis 4, we postulate that the financial motive will be more positively related to the propensity to syndicate as lead investor than as non-lead investor, while the resource based motive will be more positively related to the propensity to syndicate as a non-lead investor. If an investment proposal comes along that fits with the financial limits of a VC firm, then risk spreading and risk reduction are less of a problem and the VC firm will not syndicate out the deal. Hence, when syndicating as a lead investor, financial motives will be especially important. When joining an investment syndicate as a non-lead, however, it may well be that the deal initially fits the investment scope, risk profile and resource base of the VC firm. Financial motives are therefore likely to be less important for non-lead investors. For the same reasons as before, we hypothesize that resource based motives will more strongly influence the propensity to syndicate as a non-lead investors than as a lead investors, while we expect no difference in the importance of the deal flow motive on the propensity to syndicate as lead or as non-lead investor.

Hypothesis 6a: Financial motives are more positively related to a VC firm's propensity to syndicate as a lead investor than as a non-lead investor.

Hypothesis 6b: Resource based flow motives are more positively related to a VC firm's propensity to syndicate as a non-lead investor than as a investor.

Hypothesis 6c: Deal flow motives are as strongly related to a VC firm's propensity to syndicate as a lead investor than as a non-lead investor.

3. RESEARCH METHOD AND SAMPLE DESCRIPTION

Data collection

In order to test the foregoing hypotheses, 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. We administered the questionnaire in the UK and in 5 Continental

European countries, ranging from Northern Europe (Sweden) to central countries as France, Germany, the Netherlands and Belgium. Our sample thus includes countries in different parts of Europe, where the VC industry is since long established and industry practices have matured.⁴

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. The questionnaires were then translated into Dutch, French, German and Swedish. 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 (full members of the Belgian Venturing Association (BVA) and the EVCA, and some personally-known VC firms), to 120 French VC firms (the full members of the “Association Française des Investisseurs en Capital Risque” (AFIC)), to 191 German VC firms (the members of the “Bundersverband Deutscher Kapitalbeteiligungsgesellschaften” (BVK)), to 169 Swedish VC firms (full members of the Swedish Venture Capital Association (SVCA) or VC members of the Swedish National Board of Technical and Industrial Development (NUTEK), and some personally-known VC firms) and to 54 VC firms in The Netherlands (full members of the Dutch Association of Venture Capitalists, NVP). 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 organisation-wide policies.

Insert table 2 here

Response rates were satisfactory (see table 2), ranging from a low of 39% in Sweden to a high of 59% in the UK. The high response rates suggest high reliability of the results. The total sample consists of 317 usable responses (44% response rate). 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 (minimum investment preference, maximum investment preference and the number of staff members) available from the national and European venture capital directories. In Belgium, France, Germany and the Netherlands, no significant differences were found between respondent and non-respondents. In Sweden and the UK, the respondents’ maximum investment preference is significantly (5% confidence level) larger than that of non-respondents. This indicates that the sample is representative for the VC industry in the six countries of the study.

⁴ It is not the purpose of the paper to investigate potential between-country differences.

Dependent variables

Respondents were asked to indicate how important they find different factors in their decision to syndicate deals (5-point Likert scales). 17 items are included, each of them relating to one of the perspectives discussed above (see table 3). Factor analysis revealed that the items load on the three factors defined a priori (finance-based, resource-based and deal-flow perspectives), indicating that the measures are reliable. For each perspective, the items were summed and the average computed. The internal reliability of the scales is high, with a Cronbach's alpha of 0.69 for the finance perspective (5 items), 0.80 for the resource-based perspective (6 items) and 0.83 for the deal flow perspective (2 items).⁵

Insert table 3 here

The propensity to syndicate was measured on a 5-point categorical scale. Respondents indicated whether the percentage of syndicated deals in their current investment portfolio is less than 20% (category 1), between 21% and 40% (category 2), between 41% and 60% (category 3), between 61% and 80% (category 4) or more than 80% (category 5). The average VC firm in the sample syndicates between 20% and 40% of its deals (see table 4). The same question was asked for the number of deals syndicated as lead investor, as a percentage of the number of deals syndicated (categorical 1-5 variable, same categories as above). On average, VC firms in our sample are the lead investors in between 40% and 60% of the syndicated deals. We computed the variable “% of total number of deals syndicated as lead” by multiplying the propensity to syndicate and the percentage of deals syndicated as lead investor and dividing the result by 5, yielding an almost normal distributed variable that varies between 0.2 and 5. On average, VC firms in the sample take the lead in between 0% and 20% of their deals.

Insert table 4 here

For some of the analyses, we transform the three foregoing variables (percentage of syndicated deals in portfolio, percentage of deals syndicated as lead investor (as percentage of the number of deals syndicated) and percentage of deals syndicated as lead investor (as percentage of the total number of deals in portfolio)) into dummy variables. A value of 0 indicates that the VC firm syndicates less than 40% of its (syndicated) deals (as lead), and a value of 1 indicates that the VC firm syndicates more than 60% of its (syndicated) deals (as lead). This yields a variable that differentiates between VC firms with low syndication activity (as lead) and those with high syndication activity (as lead).⁶

⁵ In order to check the consistency of the data across the countries, we recomputed the scales in the different countries separately. The scales are reliable in all countries.

⁶ Note that sample elements are lost in this way, as the category of “average” (between 40% and 60%) syndicators is left out. 40 observations are lost in the dummy variable “% of deals syndicated”, 44 in the dummy variable “% of syndicated deals, syndicated as lead” and 67 in the dummy variable “% of total number of deals syndicated as lead”.

Control variables

In order to analyse the impact of the importance of syndication motives on the propensity to syndicate, control variables relating to characteristics of the VC firm and its investment strategy were added. Sorenson and Stuart (2002) have shown that younger and less experienced VC firms have a more narrow investment scope than older VC firms, but that syndication can overcome this liability of newness. Syndication may increase future deal flow outside their natural investment boundaries. Moreover, the development of a set of trusted colleagues in the investment industry increases the expansion and the status of a VC firm. There is evidence of a positive relationship between the centrality of a VC firm in its network of syndicate partners and its current and future performance (Seppä and Jääskeläinen, 2002). Therefore, new VC firms may find it rewarding to seek central network positions by actively building exchange relationships through syndication. It is therefore expected that especially younger VC firms will actively search for syndication partners, in order to increase their own standing and legitimacy in the VC and entrepreneurial community. The average VC firm in the sample is old (10.5 years in operation on average – see table 4), implying that the answers should reflect investment policies of mature, established companies. The standard deviation of this variable is high, however, yielding enough variation and capturing very young as well as quite old VC firms.

Larger VC firms will have fewer incentives to syndicate, as the finance motive is likely to be less important for them. They can achieve higher degrees of diversification within their portfolio compared to smaller VC firms. We have several measures of VC firm size: number of investment executives, number of portfolio companies, and minimum and maximum investment preference. On average, a VC firm in our sample has 9 investment executives and 47 investments in its portfolio. The minimum investment preference of the VC firms in our sample is €4.46 million on average, while the maximum investment preference is €28.44 million. The variation in minimum and maximum investment preferences is again quite high.

When a VC manager has to monitor more portfolio companies, the urge to access additional resources provided by partners will be larger. A high number of investments per investment manager is expected to have a positive influence on the propensity to syndicate, as Jääskeläinen et al. (2002) have shown that syndication increases the number of portfolio companies a VC manager can optimally manage.⁷ Table 4 shows that an investment executive manages on average 5.73 investments.

Given the relatively high number of observations lost, we report the results of the analyses with both the categorical variable (1-5 or 1-25) and the dummy variable.

⁷ However, the causal relation might also be reversed: the more a VC firm syndicates, the higher the number of investments per investment executive is likely to be.

VC firms with a specific investment scope, either in terms of geographical reach, industry or stage specialisation, will benefit more from syndication than general VC firms (Sorenson & Stuart, 2002), as syndication increases their investment scope. We therefore expect that more specialised VC firms will have a higher propensity to syndicate. Respondents were asked to indicate on a 5-point Likert scale how specialised their VC firm's investment preference is in terms of industry sector, investment stage and geographical region. The specialisation in terms of investment stages and geographical regions is quite high,⁸ while the specialisation in terms of industry sector is average. Again, the variation in these variables is adequate.⁹

Insert table 5 here

Table 5 gives the correlation between all variables. The maximum investment preference, the number of investment executives and the number of investments in the current portfolio are highly correlated: the three variables are an indication of the size of the VC firm. Therefore, we will only use the number of investment executives (logged) in the multivariate analyses.¹⁰ Minimum and maximum investment preferences are, quite logically, also highly correlated; we will only use minimum investment preference as an indicator of VC investment strategy. The correlations between the other independent variables are weak.

Pairwise differences between the motive-scales are tested with Wilcoxon Matched Pairs tests, suited for non-normal data (H1, H2 and H3). We test hypothesis 4 with correlations and with pairwise differences between lead and non-lead investors (Mann-Whitney test). In order to test H5 and H6, an ordinal regression model is run with the VC firm's propensity to syndicate a deal (as lead investor) as dependent (categorical) variable. We run binomial logit regressions with the dummy variables "propensity to syndicate (as lead)" as dependent variable. Finally, an OLS regression is run with the total number of deals syndicated as lead as dependent variable. The independent variables of interest are the scale scores of the finance, resource-based and deal flow motives for syndication. In addition, VC firm level control variables are included in the model: the number of years in operation, the number of investment managers (as proxy for size of VC firm), the minimum investment preference (as proxy for early stage investment preference), and the degree of industry, stage and geographical specialisation.

⁸ The average of the measures of specialisation in both investment stages and geographical regions is significantly (5% level) different from 3, where 3 stands for "average specialisation".

⁹ The between-country differences are not shown in table 4. Belgian and Swedish VC firms are the smallest, while VC firms in the UK and The Netherlands are on average older and larger in terms of investment preferences and number of investment executives. This is consistent with the fact that the VC industry in the UK and the Netherlands is older than in the rest of Europe. French and German VC firms are in between.

¹⁰ Analyses with the variable "number of investments in the current portfolio" or "maximum maximum investment preference" instead of "number of investment executives" yield consistent results.

4. RESULTS

Motives for syndication

Table 6 shows the importance of the different motives relating to venture capitalists' decisions to syndicate out a deal for the sample as a whole and for the different countries separately. Consistent with 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. 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 finance motive is the only motive that scores significantly (1% level) higher than 3 (average importance). This indicates that the financial motive is the only important motive European VCs consider when syndicating, contrary to earlier U.S. results where the resource based motive is also very important (e.g. Bygrave, 1987) but in line with recent U.S. evidence in Zacharakis (2002).

Insert table 6 here

It is striking that the motives to syndicate out a deal are so consistent across all countries. In all countries the finance perspective is significantly more important than the two 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 Germany the deal flow motive is only marginally significantly more important than the resource based perspective. 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. The results further highlight the fact that VC practices are very similar in different European countries. This strengthens the validity of our approach to pool respondents from the different countries into one sample for further analyses.

Insert table 7 here

The importance of the different motives to syndicate as lead or as non-lead investor (H4) is analysed in table 7. The finance and deal flow motives are equally important for lead and for non-lead investors, thereby supporting hypothesis 4c, but not 4a. The resource based motive is significantly more important for non-lead investors than for lead investors, supporting hypothesis 4b. Overall, support for hypothesis 4 is mixed.

Propensity to syndicate

Results of the multivariate analyses explaining the propensity to syndicate (H5 and H6) are given in table 8. Ordinal and OLS regressions on the one hand and logit regressions on the other hand yield consistent results. Hypothesis 5 is supported (model 1): VC firms for whom the different motives for syndication are more important have a higher propensity to syndicate their deals. All coefficients are positive, while four out of the six coefficients are significant. European VC firms view financial motives as important drivers of their decision to syndicate deals; the stronger they believe that finance motives are important, the more they will syndicate. Although the resource based and deal flow motives are not considered to be important on average, a VC firm will nevertheless syndicate more if it finds these motives to be more important.

Insert table 8 here

Model 2 shows that none of the different motives for syndication influence the proportion of deals that is syndicated as lead or as non-lead, as a percentage of the total portfolio of the VC firm. Model 3, however, suggests that given a certain proportion of the portfolio of a VC firm being syndicated, a more important finance motive leads to a higher proportion of investments as lead investor (hypothesis 6a), while the reverse is true for the resource based motive (hypothesis 6b).¹¹ The importance of the deal flow motive does not influence the proportion of lead investments (hypothesis 6c). There is therefore strong support for hypothesis 6.

VC firm characteristics that influence the propensity to syndicate

The control variables yield further interesting relations. We only discuss the significant findings here. The longer a VC firm is in operation, the lower is its propensity to syndicate in general (model 1), consistent with Sorenson and Stuart (2002). Young VC firms in particular seek partners with whom to syndicate, as they are more likely to lack legitimacy and reputation in the VC and entrepreneurial community thereby seeking strong network positions (Seppä and Jääskeläinen, 2002). Inexperienced VCs may further seek to join syndicates in order to gain access to resources they lack, without which they might not be able to do a particular investment. Younger firms have a higher proportion of lead investments in their total portfolio (model 2), but the proportion of lead investments in their portfolio of syndicated investments does not depend on the experience of the VC firm (model 3). This indicates that new VC firms very actively start syndicating early on, both as lead and as non-lead investors. Syndication

¹¹ The coefficients of the finance and resource based motives have the same sign in the ordinal and in the logit regression. They are significant in the logit regression, but not in the ordinal regression. Therefore, interpretation should be cautious.

activity decreases as the firm matures, but the proportion lead/non-lead appears to remain constant over time.

Surprisingly, a larger VC firm, with a larger number of VC executives, has a higher propensity to syndicate.¹² This is contrary to the finance perspective: more investments yield a higher degree of diversification and therefore the need to syndicate is smaller for larger VC firms. This may, however, be tied to the resource based and deal flow perspectives. It may well be that by syndicating investments, large VC firms are able to hold on to their central network positions which are positively associated with performance (Seppä and Jääskeläinen, 2002). The number of lead investments as a proportion of the total portfolio (model 2) and as a proportion of syndicated deals (model 3) are not significantly influenced by the number of VC executives. Larger firms syndicate more, but the proportion they syndicate as lead remains constant. This is comparable with the findings on the age of the VC firm.

Contrary to the findings of Jääskeläinen et al. (2002) and Cumming (2002) in North America, more investments per investment manager is negatively associated with the propensity to syndicate in general and to syndicate as lead investor. The proportion of lead investments in the total portfolio is not affected by the number of investments per executive. The minimum investment preference of a VC firm does not influence its propensity to syndicate in general (model 1), but it has a positive influence on its proportion of deals as lead investor (both as a proportion of its total portfolio and as a proportion as its portfolio of syndicated deals – models 2 and 3).

Finally and consistent with Sorenson and Stuart (2002), the more a VC firm is specialised in terms of industry sector, the higher its propensity to syndicate in general (model 1) and as lead investor (model 2). Other specialisation dimensions (investment stage, geographical scope) have no impact on the propensity to syndicate, neither in general nor specifically as lead investor.

¹² Note that age is significantly positively correlated with all size variables (table 5). The multivariate analyses show that age and size have, however, an opposite effect on the propensity to syndicate. Although this might seem contradictory, it need not be : in the multivariate analyses, the effect of one variable is measured, holding all other variables constant.

5. CONCLUSIONS AND DISCUSSION

Motives for syndication

The study highlights a number of key findings. First, the evidence presented here regarding syndication in the European VC industry supports earlier work on syndication in Europe by Chiplin, Robbie and Wright (1997) and Lockett and Wright (2001). The motives for syndicating a deal are driven much more by finance considerations than by the wish to exchange firm specific resources or by deal flow considerations. Resource based motives are more important for VC firms that are more active as non-lead investors than as lead investors. Joining a respected VC syndicate as a non-lead investor is expected increase the resources of the VC firm, such as legitimacy and reputation. Interaction with the other VCs in the syndicate is likely to help its VC managers to learn about the business. Overall, we may conclude that VC managers in Europe thus perceive syndication to be especially a function of the desire to spread financial risk. This is consistent for all countries in our study.

The strength of the motives to syndicate has a positive impact on the propensity to syndicate. More deals will be syndicated, especially when the resource-based motive is stronger. However, a stronger resource-based motive also leads to a lower percentage of investments as lead investor. Our study indicates that VC firms will mostly join VC syndicates as non-lead investors rather than initiate syndicates as lead investors when they feel they have to access additional resources. On the other hand, VC firms will invest relatively more as lead investors when they feel financial motives to be more important. In order to build a financially well-balanced investment portfolio, they will actively search to syndicate out investment proposals in which they want to retain the lead position. Our results further suggest that the most important decision for a VC firm is whether or not to syndicate a deal. Being the lead or not follows rather naturally from whether or not the portfolio company directly approached the VC firm.

We stress that our results go against most North American findings on syndication practices. Although some studies, e.g. Bygrave and Timmons (1992) and Zacharakis (2002), acknowledge that financial considerations are important drivers of syndication in the American VC industry, Lerner (1994) shows that syndication in the US is a way to better assess the information provided by potential portfolio companies. Syndication thus brings in more investment appraisal resources. More recently, Brander et al. (2002) show that syndication in Canada leads to a higher performance of the portfolio company. They therefore conclude that syndication partners add value - and thus provide additional resources - beyond those of the lead investors. In the same vein, Jääskeläinen et al. (2002) show that US VC executives are able to efficiently manage a larger number of portfolio companies if they syndicate, thanks to additional

resources brought in by syndication partners. Resource based motives thus may well be more important than financial motives for syndication in North America, in contrast to our strong and consistent findings in the present European study. Apart from resource based motives, syndication in the US is also driven by the desire to increase access to investment opportunities (Sorenson and Stuart, 2002), in contrast to our finding that deal flow motives are not considered to be important in the European VC industry. Clearly, more cross-country evidence is needed to fully understand the drivers of syndication in the VC industry worldwide.

One important methodological remark has to be made, however: in the present study, perceptual data are used, while the aforementioned North American studies use outcome data (performance or investment patterns) and infer investment decisions from the outcomes. This might partly explain the differences found. Maybe European VC managers unconsciously underestimate the importance of access to resources and deal flow, but their actions might nevertheless reflect the fact that these are important. However, if this is true, then European VCs should be made more conscious of the potential benefits syndication may yield, beyond financial risk reduction considerations. In this way, they might more consciously develop a strategy relating to this important dimension of managing a VC firm.

VC firm characteristics that influence the propensity to syndicate

We have shown that young VC firms syndicate more than older VC firms, both as lead and as non-lead investors. European VC managers clearly understand that syndication with respected partners increases their legitimacy and reputation in the VC and in the entrepreneurial community. Syndication is thus a strategy to overcome the liability of newness. We further show that the proportion of lead and non-lead syndicated investments remains rather constant as a VC firm matures; only its total proportion of syndicated deals decreases over time.

Larger VC firms syndicate more than smaller VC firms. Again, the proportion of lead and non-lead syndicated investments does not change as the size of the VC firm increases. The finding that larger VC firms syndicate more, everything else equal, goes against the financial motive to syndicate. In the financial view, small VC firms benefit more from syndication as syndication allows them to achieve higher levels of diversification. In this way, risk can be reduced without having to give up return. It may well be that larger VC firms are more established firms in the investment community and therefore are more solicited as syndication partners. This finding may thus be a result of spontaneous internal industry dynamics, rather than of a well-planned strategic decision. Alternatively, this finding may be the outcome of a well-planned strategic action. Managers of large VC firms may actively seek to syndicate, in order to retain a central position in their network of colleagues. Interestingly, larger VC firms also retain their initial proportion of lead investments.

VC firms investing larger amounts in a single project do not syndicate more than VC firms investing smaller amounts, but they act more often as leads on their syndicates. This is an indication that the amount of money that an investor is able to bring to the table is related to its power in a syndicate (Wright and Lockett, 2002). Furthermore, it is often the lead investor who initiates the investment; by investing a larger amount, a lead investor can signal its belief in the project's outcome to other potential investors. We may speculate that investors contributing small amounts – often early stage investors – lose their position as lead investor in subsequent investment rounds, when larger amounts are invested.

Our study shows that European VC executives syndicate less, either as lead or as non-lead investor, when they manage more portfolio companies, in contrast with what the resource based view would suggest and in contrast with North American findings (Jääskeläinen et al., 2002, and Cumming, 2002). The latter studies have shown that syndication increases the number of investments a VC manager can efficiently manage. It seems either that European VC firms adopt a suboptimal investment strategy, or that performance dynamics in the European VC industry are different from those in North America.

Implications for practitioners

The present study has implications for both researchers and practitioners. First, we stress the fact that our results show very similar syndication practices across different European countries. This indicates a high degree of institutionalisation of an accepted way of working throughout the European VC industry. This contrasts with findings in earlier studies on the European VC industry, which found important differences in the way VC firms work in different European countries (Sapienza et al., 1996; Manigart et al., 2002). Despite the difference between the market-driven financial system in the UK on the one hand and the more bank-driven financial system (Black and Gilson, 1998) in the other European 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 across countries. VC practices have clearly 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. It is not unlikely that syndication practices have helped to spread common norms and behaviour (Sorenson and Stuart, 2002).

We would like to urge European VC managers to formulate explicit strategies with respect to syndication. It seems that European VC managers are well aware of the financial benefits that syndication may yield, but they seem to underestimate the importance of additional benefits, such as getting access to additional resources, building strong and trustworthy networks and increasing deal flow. Their North-American colleagues seem to be aware of these benefits. But we are not blind to the fact that

more partners in a syndicate means also more complex managerial issues after the investment has been made and more dilution of ownership (Wright and Lockett, 2002). The trade-off between benefits and costs of syndication is clearly perceived differently in Europe and in North America. More research is needed to assess where the optimal trade-off point lies.

Avenues for future research

Comparing VC syndication practices between Europe, the US and Asia is definitively 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. We call for studies looking at perceptions of North American and Asian VC managers on motives for syndication, but also for European and Asian studies based on “hard” data, such as investment patterns and investment outcomes. The former will allow comparison of the results of the present study across continents, while the latter will allow a better comparison of European syndication practices and outcomes with what is known from North American studies.

We have shown that the decision to syndicate as lead and as non-lead are different decisions. Not only does the propensity to syndicate differ across VC firms, but also the proportion as lead and non-lead. Future studies should take these differences into account. We clearly have not unravelled all factors that influence the proportion of investments that VC firms syndicate, nor those that influence the proportion of investments as lead and as non-lead investors. We call for more studies on syndication, specifically disentangling lead and non-lead investment strategies.

Finally, there is more work to be done on the relation between syndication strategies and performance, both on the level of the portfolio companies and on the level of a VC firm. As stated, the trade-off between the benefits of syndication and the costs associated with managing more complex situations is not well understood yet. Therefore, we need to know more on the management of syndicates. All this will undoubtedly lead to a better understanding of the fundamental trade-off each venture capital firm has to make between running the VC firm as a traditional hands-off financial intermediary on the one hand, where financial risk-return considerations are the most important management criteria, and running it as a hands-on value-added investor on the other.

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Table 1: Syndication practices in different countries in 2001 (Yearbook EVCA 2002)¹

	Total investment by VC industry (1)	Amount Syndicated (2)	(2)/(1) %	Number of investments (4)	Number of investments syndicated (3)	(3)/(4) %
Europe	24,331,362	6,979,829	28.7	3,053	10,672	28.7
Belgium	409,554	220,942	53.9	329	79	24.0
France	3,286,795	1,403,012	42.7	1,926	769	39.9
Germany	4,434,890	1,458,850	32.9	2,311	866	37.5
Sweden	2,042,647	168,176	8.2	619	247	39.9
The Netherlands	1,887,241	422,267	22.4	593	142	23.9
UK	6,925,946	1,334,641	19.3	2,054	281	13.7

¹All amounts in €1000

Table 2: Response rates

	Belgium	France	Germany	Sweden	The Netherlands	UK	Total sample
Number of questionnaires	79	120	191	169	54	106	719
Number of responses	42	49	68	66	29	63	317
Response rate	53 %	41 %	36%	40 %	54 %	59 %	44%
Number of respondents that syndicate	39	47	61	60	29	N/A	N/A
% of respondents that ever syndicated	93 %	96 %	97 %	91 %	100 %	N/A	N/A

Table 3: Items used to calculate the constructs “motives for syndication”

How important are the following factors in your decision to syndicate a deal? (Please rate from 1-5, 1 = very unimportant ... 5 = very important)

Finance Motive

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

Resource-Based Motive

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

Deal Flow Motive

The possibility of the future reciprocation of deals (deal flow)

The reciprocation of past deal flow

Table 4: Description of the variables

	N	Mean	Median	S.D.	Min	Max
<i>Motives for syndication (1=very unimportant...5=very important)</i>						
Finance motive	269	3.67	3.80	0.80	1	5
Resource based motive	253	2.47	2.50	1.00	1	5
Deal flow motive	277	2.71	3.00	1.11	1	5
<i>Propensity to syndicate</i>						
Number of deals syndicated (1 = 0-20%, ..., 5 = 80%-100%) (1)	285	2.73	3	1.40	1	5
Percentage of syndicated deals as lead (1 = 0-20%, ..., 5 = 80%-100%) (2)	218	3.21	3	1.41	1	5
Percentage of total number of deals as lead ((1) x (2))/5	217	1.89	1.60	1.18	0.20	5
<i>Control variables : VC firm characteristics</i>						
Number of investment executives	304	9.05	5	18.42	0	250
Number of investments in current portfolio	312	47.05	15	180.49	0	3000
# Investments/ investment executive	302	5.73	3.50	7.83	0.00	65
Number of years firm has been in operation	313	10.51	7	12.04	1	112
Minimum investment preference ¹	304	4.46	0.50	15.38	0.00	150
Maximum investment preference ¹	299	28.44	5	80.89	0.07	900
Investment specialisation in terms of (1 = highly unspecialised ... 5 = highly specialised)						
Industry sectors	308	3.15	3	1.39	1	5
Investment stages	309	3.74	4	1.08	1	5
Geographical regions	307	3.47	4	1.36	1	5

¹in €million

Table 5: Correlation matrix

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Finance motive	-								
2. Resource based motive	0.177***	-							
3. Deal flow motive	0.185***	0.220***	-						
4. % of deals syndicated	0.172***	0.153**	0.097	-					
5. % of total number of deals as lead	0.085	-0.027	0.066	0.640***	-				
6. % of syndicated deals as lead	-0.007	-0.197***	0.015	-0.173**	0.562***	-			
7. Log(Minimum investment preference)	-0.221***	-0.191***	0.133**	-0.086	0.125	0.321***	-		
8. Log(# years in operation)	-0.010	-0.040	0.051	-0.232***	-0.211***	-0.013	0.133**	-	
9. Log (# Investment executives)	-0.150**	-0.089	0.101	-0.071	-0.079	-0.057	0.520***	0.347***	-
10. Log(# investments in portfolio)	0.062	0.027	0.120**	-0.054	0.087	0.250***	0.075	0.588***	0.621***
11. Log(Maximum investment preference)	-0.204***	-0.132**	0.121**	-0.073	0.053	0.171**	0.833***	0.246***	0.653***
12. # Investments / investment executives	0.113*	0.071	-0.013	-0.018	-0.172**	-0.246***	-0.273***	0.293***	0.463***
13. Industry specialisation	0.004	0.026	-0.066	0.211***	0.190***	0.12	-0.121**	-0.208***	-0.048
14. Stage specialisation	0.077	-0.071	0.015	0.085	0.140**	0.122*	0.162***	-0.018	-0.077
15. Geographical region specialisation	0.092	0.031	-0.054	0.052	0.024	-0.010	-0.178***	-0.084	-0.079
	10.	11.	12.	13.	14.				
11. Log(Maximum investment preference)	0.291***	-							
12. # Investments / investment executives	-0.236***	-0.201***	-						
13. Industry specialisation	-0.159***	-0.024	-0.138**	-					
14. Stage specialisation	0.099	0.105	-0.231***	0.220***	-				
15. Geographical region specialisation	-0.240***	-0.206***	0.125**	0.080	0.212***				

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

Table 6: Motives for syndicating
(1 = very unimportant ... 5 = very important)

Motive		Finance	Resource Base	Deal Flow	Wilcoxon signed rank test Z statistics		
					Resource-Finance	Deal Flow-Finance	Deal Flow-Resource
Total Sample	Mean	3.67	2.47	2.71			
	S.D.	0.80	1.00	1.11	-11.398***	-10.158***	-2.704***
	N	269	253	277			
Belgium	Mean	3.76	3.03	2.67			
	S.D.	0.70	0.98	1.07	-3.312***	-4.050***	-1.040
	N	32	31	34			
France	Mean	3.79	2.39	2.95			
	S.D.	0.84	1.00	1.02	-4.886***	-4.342***	-2.702***
	N	44	38	44			
Germany	Mean	3.46	2.48	2.73			
	S.D.	0.76	0.84	0.89	-4.842***	-4.388***	-1.851*
	N	53	52	54			
Sweden	Mean	3.74	2.51	2.48			
	S.D.	0.82	0.98	1.16	-5.246***	-4.698***	-0.319
	N	56	54	56			
The Netherlands	Mean	3.64	2.43	2.58			
	S.D.	0.69	1.08	1.27	-3.316***	-3.219***	-0.900
	N	27	27	29			
UK	Mean	3.66	2.16	2.78			
	S.D.	0.88	1.06	1.22	-5.614***	-4.565***	-2.725***
	N	57	51	60			

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

Table 7: Motives for syndicating a deal as lead or non-lead investor
(1 = very unimportant ... 5 = very important)

Motives for syndicating a deal	Non-lead investors ¹			Lead investors ²			Mann-Whitney Z-statistic
	N	Mean	S.D.	N	Mean	S.D.	
Finance	64	3.669	0.829	89	3.706	0.790	-0.223
Resource Based	60	2.775	0.925	81	2.245	1.016	-3.106***
Deal Flow	66	2.644	1.063	92	2.636	1.170	-0.152

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

¹ A non-lead investor is a respondent who acts as lead investor in less than 40% of its syndicated deals

² A lead investor is a respondent who acts as lead investor in more than 60% of its syndicated deals

Table 8 : Multivariate analyses of the propensity to syndicate

Dependent variable	Model 1		Model 2		Model 3	
	% of deals syndicated	0 if < 40 % is syndicated, 1 if ≥ 60 % syndicated	% of total n° of deals syndicated as lead	0 if < 40 % total n° of deals is syndicated, 1 if ≥ 60 % of total n° of deals is syndicated	% of deals syndicated as lead	0 if < 40 % is syndicated as lead, 1 if ≥ 60 % is syndicated as lead.
Type of variable	categorical variable, 1-5	dummy	Variable, 0.2-5 ¹	dummy	categorical variable, 1-5	dummy
Type of regression	Ordinal	Logit	OLS	Logit	Ordinal	Logit
Constant	-	-3.860***	-	2.622	-	-0.909
Finance motive	0.296*	0.201	0.056	-0.778	0.318	0.608*
Resource based motive	0.247**	0.329*	0.034	-0.354	-0.205	-0.396*
Deal flow motive	0.183	0.266*	0.064	-0.252	-0.087	-0.086
Log(Minimum investment preference)	-0.061	-0.067	0.174*	0.402	0.364***	0.494***
Log(Number of years in operation)	-0.530***	-0.642***	-0.271***	-1.797***	-0.091	-0.041
# Investments/ investment executive	0.024	0.026	-0.004	0.074	-0.061**	-0.069
Log (# Investment executives)	0.144	0.470**	0.161	0.121	0.258	0.266
Industry specialisation	0.234**	0.288**	0.160**	0.706**	-0.040	0.083
Stage specialisation	0.112	0.183	0.049	-0.214	0.054	0.190
Geographical region specialisation	-0.076	-0.051	-0.022	0.029	0.048	0.008
% deals syndicated	-	-	-	-	-0.207*	-0.172
(Pseudo) adjusted R ²			0.101			
N	227	187	171	104	171	127

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

¹The variable is treated as normal

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