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Is venture capital a regional business? The role of syndication

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Is Venture Capital a Regional Business? The Role of Syndication

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Abstract

We investigate whether the supply of Venture Capital (VC) in Germany is driven by spatial influences. The study is based on information from more than 300 VC investments made in Germany in the years 2004 and 2005. We find evidence that the geographical distance between a VC company and the portfolio firm is not an important factor for German VC investments. Syndication of investments helps to overcome the problem of distance to portfolio firms if one of the investors is located close to the investment. Altogether, we find no evidence for a severe regional equity gap for young and innovative companies in Germany.

Zusammenfassung

"Ist Venture Capital ein regionales Geschäft ? Die Rolle der Syndizierung"

Wir untersuchen, inwieweit das Angebot an Venture Capital (VC) in Deutschland räumlichen Einflüssen unterliegt. Die Studie basiert auf Informationen über mehr als 300 VC Investitionen, die während der Jahre 2004 und 2005 getätigt wurden. Unsere Analyse ergibt, dass die räumliche Entfernung zwischen einer VC Gesellschaft und einer Portfoliofirma für VC Investitionen in Deutschland unbedeutend ist. Syndizierung von Investitionen kann dann dazu beitragen, Probleme großer räumlicher Distanz zu bewältigen, wenn einer der Investoren seinen Standort in der Nähe der Portfoliofirma hat. Alles in allem finden wir keinen Beleg dafür, dass Beteiligungskapital für junge und innovative Unternehmen in bestimmten Regionen Deutschlands nicht in ausreichendem Maß verfügbar wäre.

1. Introduction

Sufficient supply of capital is a crucial ingredient for prospering entrepreneurial activity in a region. Equity capital, especially Venture Capital (VC), plays a main role in this respect; particularly for young and innovative start-ups which are facing severe problems of accessing other means of financing. It is often assumed that regional disparities in the supply of equity capital exist that lead to an 'equity gap' in certain regions. This hypothesis is based on two assumptions. First, suppliers of VC are clustered in just a few locations. Second, spatial proximity between a VC investor and its portfolio firms is needed for the emergence and successful maintenance of a VC partnership. As a consequence, undersupply of sufficient equity for start-ups may occur in those regions where no or only few VC companies are located. It is the combination of regional clustering of VC firms *and* a need of spatial proximity for VC investment that may cause an equity gap working as an impediment for entrepreneurial activity in certain regions.

In this paper we analyze the importance of spatial proximity for the emergence of VC investments and the role of syndication for overcoming problems of geographical distance. Syndication means that "… two or more venture capital firms come together to take an equity stake in an investment" (Wright and Lockett, 2003, 2074). The results will help to judge if there are regional equity gaps for innovative start-ups in Germany. The remainder of the paper is organized as follows. Based on a short review of the relevant literature (section 2), we introduce the data (section 3) and discuss possible reasons for a regional lack of VC (section 4). The results of the empirical analyses on the importance of spatial proximity for a syndication of VC investments are presented in section 5. Section 6 provides an overview of the regional distribution of VC suppliers and VC investments in Germany. Finally, we summarize the results and discuss policy implications.

2.   The role of spatial influences for the regional supply of VC

The role of regional proximity for the supply of equity for young and innovative start-ups has been intensely discussed in the literature.[1] It was found that the locations of VC companies are highly clustered in space in most countries. For the VC market in the USA, several studies show a high degree of spatial clustering of suppliers at the East and West Coast of the country (Sorensen and Stuart, 2001; Powell et al., 2002; Florida et al., 1991; Leinbach and Amrhein, 1987). The VC market in the UK, which is the largest in Europe, is also highly clustered around London and the southern part of the country (Mason and Harrison, 1999, 2002a; Martin, 1989; Martin et al., 2005). For VC markets in continental Europe, such as France and Germany, Martin et al., (2002) found a considerable degree of spatial clustering of suppliers although this concentration was not as pronounced as in the case of the USA or the UK.

Several studies investigated the role of spatial distance between VC supplier and investment, which might determine the regional supply of VC (see Fritsch and Schilder, 2006, for an overview). The more important the proximity between the investor and the financed firm, the more likely it is that regional disparities in the supply of VC occur given the clustering of the VC firms in just a few locations. If regional proximity is important for VC investments then VC companies are faced with spatial limitations with regard to their field of activity. The main rationale for regional proximity being important here are activities that the VC firms frequently perform in conjunction with the investment of capital. These activities which include consulting and monitoring of the respective firm can be rather time consuming and may, particularly, require direct personal interaction (Gompers, 1995; Lerner, 1995; Sapienza and Gupta, 1994; Petersen and Rajan, 2002). The transaction costs of the interaction are higher when the location of an investment is further away (Mason and Harrison, 2002a; Sorensen and Stuart, 2001). Therefore, spatial proximity between investor and investment may be needed to ensure sufficient management support and control for making

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[1] See for example Florida et al., (1991), Fritsch and Schilder (2006), Gupta and Sapienza (1992), Martin et al., (2002; 2005), Mason and Harrison (2002a), Powell et al., (2002), Sorensen and Stuart (2001).

VC investments profitable. In an attempt to assess the geographical field of activity for informal VC investors (private individuals), Masons and Harrison (2002b) identified a circumference within a two-hour travel time as the spatial limit. Zook (2002) arrives at a distance of a one-hour trip for formal VC companies in Silicon Valley. In contrast to these studies, Fritsch and Schilder (2006) presented evidence that regional proximity is not an important factor for VC investments in Germany.

3. The database

Our analysis is based on a data set containing details about German VC investments at the micro-level. The data are provided by *VC facts*, a company which collects information about VC investments in Germany. We use the data for the years 2004 and 2005 which comprise information about 134 and 179 VC investments, respectively. This equals nearly half of the early stage investments that are recorded by the German Private Equity and Venture Capital Association (2005). This sample appears representative for the overall VC investment in Germany during the time period under investigation. We have at least no indication of any bias. For the purpose of this paper, we focus on detailed information about the location of an investment, the number of investors involved and their location, the overall amount of money invested, and the age of the financed company. Based on the addresses of the VC firms and the investments, we are able to calculate the average traveling distances between an investor and a portfolio company. We also calculated the shortest traveling time by car using the internet-based route planner *map24.de*.

236 of the 313 VC investments in the sample are syndicated, i.e., there is more than one investor involved. Hence, we can identify 825 pairs of investors and the respective portfolio company. Due to some missing values, most of our analysis is based on 569 and 427 such pairs. The missing information mainly concerns the addresses of informal VC investors and of foreign investors. Consequently, these investors are not included in our analysis.

Table 1: Descriptive statistics

	Mean	Median	Minimum	Maximum	Standard deviation
Age of portfolio company (years)	4.86	4.00	0	36.00	3.84
Number of employees in portfolio company	36.90	28.00	2.00	481.00	34.55
Overall amount of capital invested (million €)	8.21	5.00	0.15	35.00	8.61
Number of investors per investment	4.22	3.00	1.00	12.00	2.66
Geographical distance to VC company (km)	247.22	167.90	0	828.61	236.89

Table 1 shows descriptive statistics for the main characteristics of the sample. All figures refer to the point in time when the investment is made. On average, the financed companies were almost five years old and had 37 employees. The average amount invested per financed company and per investment amounts to a little more than eight million Euros. Almost two thirds of the investments are syndicated. On average, the number of investors for the syndicated investments is about 4.2. There is a clear focus of investment in certain industries. More than 36 percent of the investments are in the biotechnology industry, followed by investments in software related businesses (14 percent). Around six percent of the financed start-ups are active in the communication business as well as in medical technologies.

Since our main interest is the analysis of the role of spatial proximity between VC investors and portfolio firms, we look closely at the distance between the two parties of a VC partnership. Table 2 shows the distribution of the spatial distance between the VC companies and their portfolio firms in kilometers as well as in terms of travel time. We find that only 40 percent of the investments are located within a distance of 100 kilometers and slightly more than 50 percent are within 200 kilometers. This means that almost half of the VC investments are

located more than 200 kilometers away. In most of these cases, this is more than a two-hour trip by car: what was assessed by Mason and Harrison (2002b) as the regional restriction for a VC investment. The average distance between a specific VC company and its investment is 247 kilometers. Looking at the shortest travel time between VC companies and portfolio firms, we find that only one third of the investments are within a circumference of a one-hour trip, which was the critical distance according to Zook (2002). The two-hour-rule covers less than 50 percent of the investments. The average travel time between the VC investor and the financed firm is approximately to two hours and 40 minutes.

Table 2: Distance and travel time between VC company and portfolio firm*

Number of investments within a certain distance:							
	<100km	100 - 200km	200-300km	300-400km	400-500km	500-600km	600-700km	>700km
Number of investments	231	68	61	42	50	66	30	21
Percentage	40.60	11.95	10.72	7.38	8.79	11.60	5.27	3.69
Number of investment within a certain travel time:							
	< 1h	1-2hs	2-3hs	3-4hs	4-5hs	5-6hs	6-7hs	> 7hs
Number of investments	193	89	65	39	57	60	43	23
Percentage	33.92	15.64	11.42	6.85	10.02	10.54	7.56	4.04

*Number of observations: 569

The distribution of geographical distance and travel time between VC investors and their investments indicates that regional proximity is not as important for VC investments in Germany as is widely believed. Furthermore, it shows that regions that are located far away from the centers of VC suppliers might not face a regional disadvantage in attaining equity for young and innovative companies.

4. What influences the distance between VC firms and VC investments?

There are two characteristics of an investment which might influence the distance between a VC company and its portfolio firm: the age of the portfolio firm and the amount of capital that is invested. A young company which is in the early stage of its technical and organizational development and that does not generate considerable turnover or profit is likely to require more involvement by the VC firm than a company at a later stage (Gupta and Sapienza, 1992). This hypothesis is based on the assumption that a lack of business and management skills may, particularly, be a problem in young innovative companies, which are often run by engineers or natural scientists (Gupta and Sapienza, 1992). Furthermore, young and innovative companies are faced with high uncertainty with regard to the technical and the economic success of their project (Sapienza et al., 1996). Therefore, the monitoring and supervising activities by the VC supplier may be more time-consuming and may cause considerably higher transaction costs for the investments in earlier development stages of the portfolio firm versus in the case of an investment in a later stage. For these reasons, spatial proximity between the VC company and the portfolio firm is expected to be more important for early stage investments (Sorensen and Stuart, 2001).

The size of the investment may influence the necessity of consulting and monitoring and, therefore, the importance of regional proximity in two converse ways. First, the larger the investment the higher the expected profit is (Martin et al., 2005). Hence, VC companies will be willing to undertake more effort to ensure the success of a project for a large investment as compared to a smaller one. Moreover in the case of a large investment, the investor can more easily afford the higher transaction costs for monitoring and advising of a portfolio firm that is located far away. Therefore, regional proximity between VC suppliers and financed firms may be less important for larger investments. Second, larger investments reduce the ability of the VC company to spread the risk over several different investments (Robinson, 1987; Robbie et al., 1997). Due to the relatively high losses of a large investment that has failed, VC investors might want to undertake great effort for minimizing the risk of failure. This might raise the importance of spatial proximity as monitoring and advising is easier for

investments located nearby. Due to these contradicting effects, the direction of the relationship between size of an investment and the importance of spatial proximity is a priori unclear.

Table 3: Correlation coefficients of main variables regarding spatial proximity

	Age of portfolio company	Amount of capital invested	Geographical distance to investment	Travel time to investment
Age of portfolio company (years)	1.00			
Overall amount of capital invested (million €)	0.04	1.00		
Geographical distance to investment (km)	-0.03	0.15**	1.00	
Travel time to investment (hours)	-0.03	0.14**	0.99**	1.00

** Statistically significant at the 1%-level; * Statistically significant at the 5%-level;
Number of observations: 569

The correlation coefficients between the age of the financed firms at the time of the investment and the geographical distance between the VC company and the portfolio firm are not statistically significant (table 3). The same holds for the correlation between the age of investment and the travel time. This can partly be explained by the composition of the sample. Around 93.5 percent of the portfolio firms in our study were not older than ten years at the time when the investment was made. In an, admittedly, rather wide definition, this can still be regarded as young. Because nearly all of the investments are in an early stage of their development, they may have similar needs of monitoring, consulting, and, as a consequence, of spatial proximity. The amount of an investment is positively correlated with the distance between investor and investment (table 3). The larger the investment the greater the distance to the VC firm is.

5. The role of syndication for regional VC supply

One possibility for VC companies to overcome the problems of great geographical distance to an investment is syndication (Sorensen and Stuart, 2001). Fritsch and Schilder (2006) find strong evidence that syndication can, at least partly, be used as a substitute for regional proximity. If one of the syndication partners is located close to the investment, he can do most of the monitoring and consulting involved. The co-investors can then behave more or less passively (Gupta and Sapienza, 1992; Wright and Lockett, 2003). If this assumption is correct, syndicated investments can be located in greater geographical distances from the VC companies in comparison to investments which are only undertaken by a single investor. This hypothesis can even be extended by assuming that the probability for syndication of an investment will increase with the geographical distance between the financiers and the portfolio firm. We may, therefore, expect that investors which are located far away from an investment to search for syndication partners close to the portfolio firm to do most of the monitoring and consulting. Consequently, if syndication is used as a substitute for regional proximity, one of the investors should be located close to the investment. As a result, the shortest distance between the financed firm and one of the syndicated VC companies involved in the investment should be rather small. It may be even smaller than that of a non-syndicated investment with only a single VC investor.

Correlation coefficients show a statistically significant positive relationship between geographical distance to a portfolio company and the number of investors that are engaged in the investment (table 4). This indicates that VC companies tend to syndicate investments that are located far away. This interpretation is supported by the negative correlation between the number of investors involved and the minimum distance between one of the investors and the portfolio firm. The higher the number of investors, the greater the spatial proximity of one of the investors to investment is. On average, the minimal distance between the syndication partner, which is located closest to the investment and the portfolio firm, is 106 kilometers for syndicated investments. Investments with a single investor show an average distance of 182 kilometers. There is a pronounced positive correlation between the minimal distance within a

syndicated investment and the distance between an individual VC company and the portfolio firm. This seems to indicate that the further away the investment is located, the greater the distance of the closest investor to the portfolio firm is. However, this positive correlation is a statistical artifact that has no meaningful interpretation.[2]

Table 4: Correlation coefficients of variables regarding syndication and the distance between VC company and portfolio firm

		1	2	3	4	5
1	Number of investors	1.00				
2	Age of portfolio company (years)	0.04	1.00			
3	Overall amount of capital invested (million €)	0.66**	0.05	1.00		
4	Distance to specific investment (km)	*0.15**	-0.03	*0.15**	1.00	
5	Minimal distance to investment (km)[a]	-0.13**	-0.06*	-0.01	0.52**	1.00
6	Distance to investment: minimal distance to investment [a]	0.24**	0.04	0.17**	0.70**	-0.24**

[a] Syndicated investments only, ** Statistically significant at the 1%-level; * Statistically significant at the 5%-level; Number of observations: 569

The difference between the geographical distance of a VC firm to an investment and the distance of the syndication partner that is located closest to the portfolio firm indicates the two distance-related benefits of syndication in one variable. The larger this difference is, thus, the more advantageous the syndication is if the partner located close by does the monitoring and consulting. If a VC firm is located closest to an investment as part of a syndicate, it has no distance related

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[2] Since the distance of a VC firm to the investment cannot be smaller than the minimum distance, the observations all lie in the upper or lower part of a scatter plot of these two variables. Because of this type of distribution, a simple correlation coefficient must assume a positive value.

incentive for syndication. This is confirmed by the significantly positive correlation of this variable with the number of investors (table 4). The negative correlation of the difference to minimal distance within a syndicate and the minimal distance indicates that the search for syndication partner that are located close to the investment is more important for those investors which are located far away. The further a VC firm is located away from an investment, the larger the distance to the syndication partner that is located closest to the investment is.

The results of an independent samples t-test that compares the means of different variables of syndicated and non-syndicated investments (table 5) are in line with this interpretation. We find that syndicated investments are, on average, significantly larger in terms of the overall amount of capital invested. Furthermore, the distance of a VC company to a syndicated investment is greater that that of a single investment, whereas the minimal distance within a syndicate is smaller for syndicated VC investments. The results indicate that VC companies which are located far away from the portfolio firm tend to syndicate their investments with at least one of the syndication partners located close to the target firm. As a consequence, the minimal distance of a syndicated investment to a target firm is significantly smaller than for projects with a single investor. However, we do not find significant differences with regard to the age of the financed companies. This may be due to the structure of the sample that contains almost exclusively early stage investments.

Table 5: Independent samples t-test for comparing investments with a single
investor and syndicated investments

		Mean	t for H_0: mean(0) != mean(1)	Number of observations
Age of portfolio company (years)	Single investor	4.23	-1.81	105
	Syndicated investments	4.95		711
Overall amount of capital invested (million €)	Single investor	1.74	-2.80**	53
	Syndicated investments	5.08		580
Distance to a specific investment (km)	Single investor	183.59	2.55*	77
	Syndicated investments	257.16		493
Minimal distance to investment (km)	Single investor	182.07	3.40**	77
	Syndicated investments	106.71		493

** Statistically significant at the 1%-level; * Statistically significant at the 5%-level

The interpretation of the correlation analysis and the t-tests is confirmed by multivariate negative binomial and logistic regressions (table 6 and 7). The three models of table 6 show the results of the logit estimations regarding the influence of the distance between a VC company and the portfolio firm on the probability of syndication. The dependent variable is the syndication-dummy, which assumes the value one if an investment is syndicated and the value zero if not. Due to some missing values of both variables, the estimations are only based on 426 observations. According to the estimates, the age of the portfolio company has no statistically significant effect on the syndication of an investment, whereas the probability of syndication rises with the amount of capital that is invested. The latter result can be explained by a higher need for risk sharing within larger investments. Furthermore, a single VC company may not have the amount of capital available that is required for a larger investment. The results for model I in

table 6 indicate that the distance between a VC company and a portfolio firm has no effect on the decision for syndication. However, when adding the minimal distance between one of the syndication partners and the investment (model II), the influence of the distance between investor and investment becomes significantly positive. Furthermore, the minimal distance between a VC company and the financed firm has a significantly negative influence on the probability of syndication. This indicates two effects: first, the geographical distance between a VC company and a portfolio firm has a significant impact on the decision to syndicate an investment. The greater the geographical distance to an investment, the higher the propensity to syndicate that investment is. Second, the decision to syndicate an investment is linked to the opportunity of having a syndication partner involved that is located close to the investment. The negative sign for the minimal distance implies that the probability of syndication is higher the closer one of the partners is located to the investment.

Table 6: The effect of spatial proximity on the probability of syndication (logit estimation)

	Probability of syndication		
	I	II	III
Age of portfolio company (years)	-0.014 (0.33)	-0.025 (0.58)	-0.015 (0.36)
Overall amount of capital invested (million €)	0.376** (4.19)	0.323** (3.70)	0.328** (3.76)
Geographical distance to investment (km)	0.001 (1.34)	0.027* (2.12)	
Minimal distance to investment (km)		-0.027* (2.19)	
Distance to investment: minimal distance to investment			0.025* (2.18)
Constant	0.769* (2.02)	0.802* (2.14)	0.552 (1.66)
Pseudo R-squared	0.164	0.294	0.286

** Statistically significant at the 1%-level; * Statistically significant at the 5%-level;
Number of observations: 427

The variable for the distance to investment minus minimal distance of a syndication partner is supposed to represent the two distance related effects. Including this variable in the analysis, we have to omit the two other distance related variables due to the threat of multicollinearity. The significantly positive coefficient for this variable confirms our interpretation. According to model III, the probability of syndication rises with the distance between the investor and the existence of a syndication partner located close to the investment. An increase of this geographical spread by one kilometer raises the odds of syndication by a factor of 1.03 (0.025 ex). As a comparison, each additional 1,000 Euros invested in a project raise the probability of syndication by a factor of 1.0004.

Table 7: The effect of spatial proximity on the number of syndication partners
            (negative binomial regression)

	Number of co-investors		
	I	II	III
Age of portfolio company (years)	0.0128 (1.47)	0.0094 (1.12)	0.0102 (1.19)
Overall amount of capital invested (Million €)	0.0442** (12.99)	0.0420** (12.89)	0.0415** (12.63)
Geographical distance to investment (km)	0.0002 (1.18)	0.0005** (3.84)	
Minimal distance to investment (km)		-0.0011** (5.52)	
Distance to investment: minimal distance to investment			0.0007** (4.84)
Constant	0.7851** (11.74)	0.8277** (12.75)	0.7516** (12.22)
Pseudo R-squared	0.077	0.093	0.088

** Statistically significant at the 1%-level; * Statistically significant at the 5%-level;
Number of observations: 427

The same results are achieved when the number of co-investors, which are syndicated in an investment, is taken as the dependent variable (table 7). The

negative binomial regression was applied here as estimation method because of the integer character of this variable. Like the probability of syndication, the number of co-investors rises with the invested amount and is not significantly affected by the age of the portfolio company. Furthermore, the number of co-investors tends to increase with growing geographical distance between an investor and the location of the respective investment. Again, the effect of the distance only becomes significant when the minimal distance between one of the investors and the financed company is accounted for in the model (model II). Similar to the logit regressions (table 6), the number of co-investor increases with the distance to the investment and decreases with the minimal distance of a syndication partner. This is confirmed by the statistically significant influence of the spread between the distance of a VC company to the portfolio firm and the minimal distance in a syndicated investment (model III).

The results of our analysis show that syndication is used to overcome the problems involved with geographical distance between a VC investor and the investments. The probability of syndication rises with the distance of the VC company to the portfolio firm. At the same time, one of the investors participating in the syndication has to be located close to the investment. This indicates that the supply of VC in a region can be multiplied with the help of syndicated investments even if there are only a few VC companies present in that region. Thus, capital for young and innovative companies is available in a region without large VC clusters. However in a syndicated investment, one of the investors should be closely located to the portfolio company. Therefore, one may suspect that there is an equity gap in regions with no VC supplier. However, given the average minimum distance of 106 kilometers for the closest VC-investor within syndicated investments and 184 kilometers for investments with a single investor, the occurrence of such an equity gap in Germany may appear to be quite unlikely. One factor that determines the danger of a regional equity gap is the distribution of VC firms in space. This will be examined in the next section.

6. Are there white spots on the map of VC supply in Germany?

Figure 1 shows the regional distribution of VC companies in Germany. The black spots indicate the number of VC companies.[3] The larger the spot signifies the greater number of VC companies located in a certain district. The flags represent the regional distribution of German Business Angels Networks.[4] Although, these networks only represent a small fraction of the informal VC investors, they, nevertheless, indicate the regional distribution of a market segment that has significant effects. The circles mark a circumference of 150 kilometers around the main German VC centers. However, this circumference is even smaller than the average distance of 247 kilometers between a VC company and its portfolio firms in our data set; it indicates the average minimum distance within an investment. The 150 kilometers circumference lies between the average minimum distance of VC companies and their portfolio firms for syndicated investments and the average distance to non-syndicated investments (see chapter 5).

According to figure 1, most parts of the country lie within these circles. Mainly, a small area in the center of Germany seems to experience a gap or a white spot on the map. However, even in these regions some "stand-alone" VC firms exist (for example in Jena, Erfurt, and in Dresden) which may at least be used as an anchor for syndicated investments. As we have argued above (section 5), even large amounts of VC may be made available in such regions by syndication of an investment.

The assumption of good availability of VC in most German regions is confirmed by the spatial distribution of VC investments as contained in our data set (figure 2). The dark spots represent the total number of VC investments in a district in the years 2004 and 2005. The larger a spot indicates that more investments have been made in the region. Although, the distribution of VC investments corresponds to the distribution of VC firms (figure 1) there are some

[3] Members of the German Private Equity and Venture Capital Association (*Bundesverband Deutscher Kapitalbeteiligungsgesellschaften*) in January 2006
[4] Members of the German Business Angels Network association (*Business Angels Netzwerk Deutschland e.V.*)
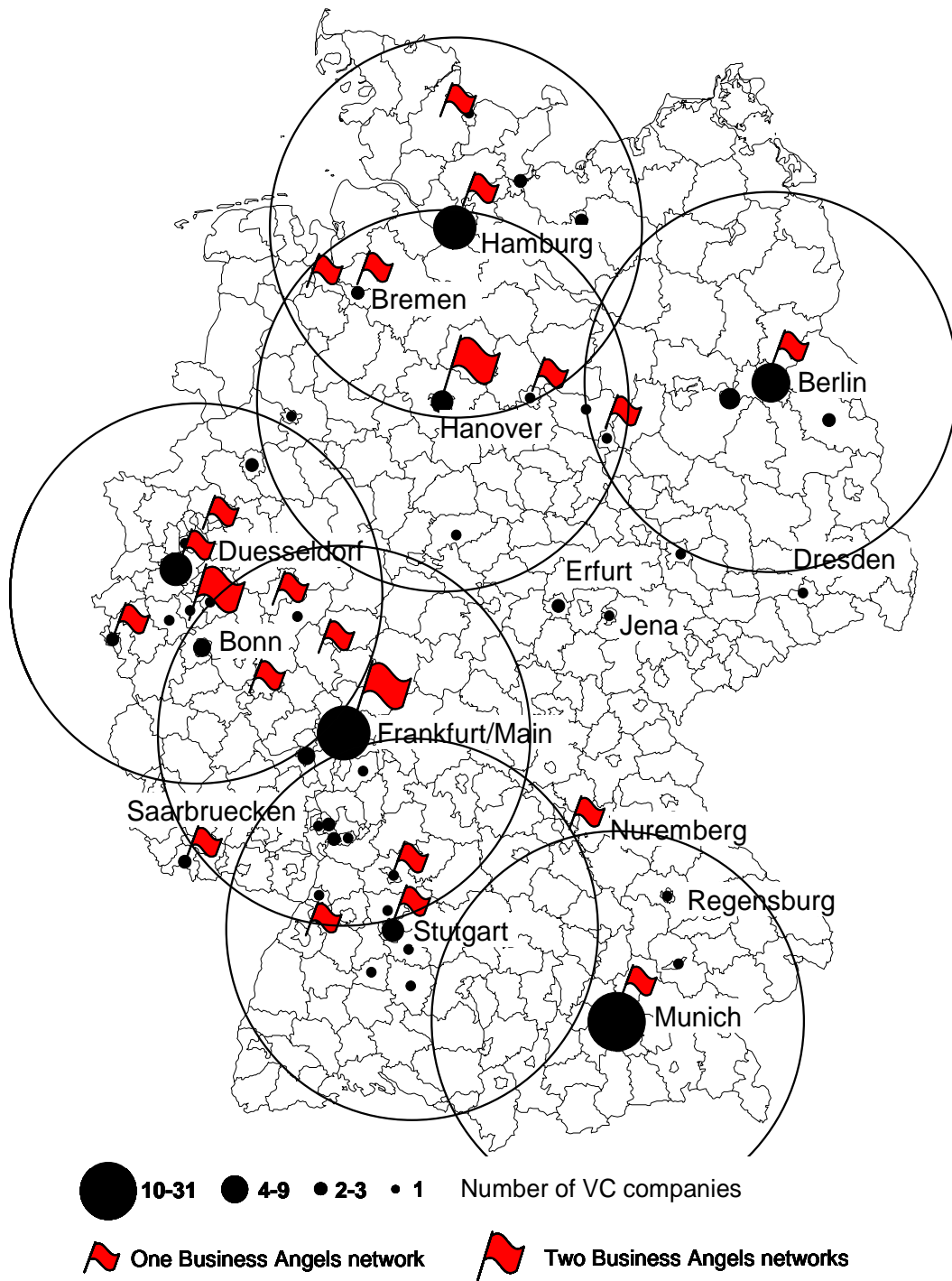
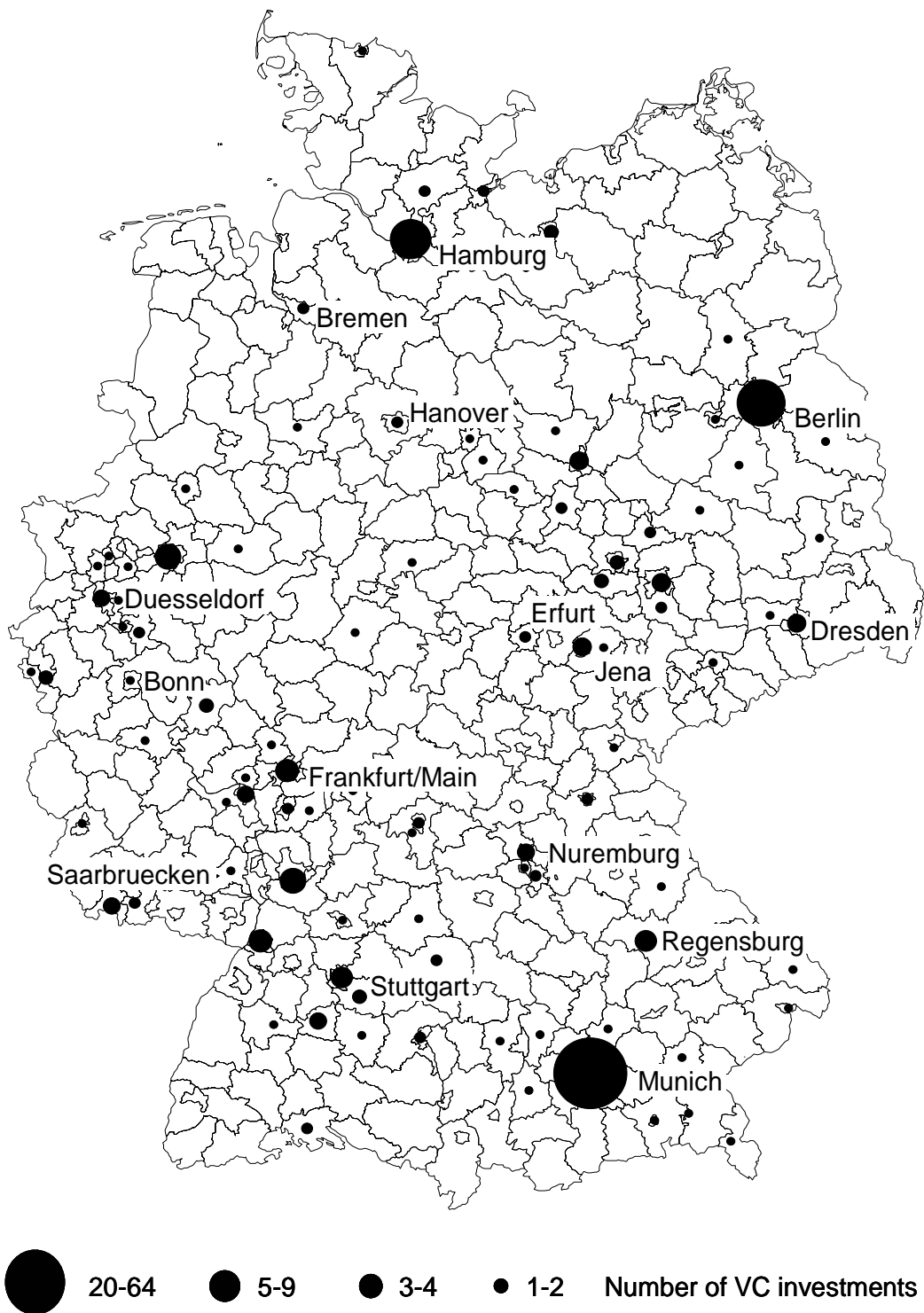Figure 1: The regional distribution of VC companies and Business Angels networks in Germany

Figure 2: The regional distribution of VC investments in Germany[5]

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differences. Figure 2 indicates that those regions, which seem to be disadvantaged by the location of VC companies, are at least not completely ignored by VC investment. This is particularly true for some parts of Eastern Germany, such as the areas around Jena and Dresden. In contrast, almost no VC investment are made in the region in the center of Germany between Duesseldorf, Frankfurt, Erfurt, and Hanover which are in close proximity to a large number of VC companies.

Altogether, we see no strong indication for a severe regional undersupply of VC which might hamper the entrepreneurial and innovative activity in a region. In fact, VC is available all over the country and regional disparities in VC investment are obviously caused by determinants other than the lacking presence of VC suppliers.

7. Conclusion and policy implications

We have investigated the role of spatial influences on the regional dimension of VC supply in Germany. In line with an earlier study (Fritsch and Schilder, 2006), we show that regional proximity between a VC company and a portfolio firm is not important for German VC investments. Based on a data set that contains more than 300 VC investments made in Germany in the years 2004 and 2005 we find evidence that the regional supply of VC is not mainly determined by location. The average distance between investor and investment is about 250 kilometers, and nearly 50 percent of the investments are made in locations more than 200 kilometers away from the financier. Expressed in terms of average travel time by car, less than 50 percent of the investments are made within a two-hour trip.

We can show that the syndication of VC investments is used to overcome the problems attached to investments that are located far away. The greater the geographical distance between investor and investment and, at the same time, the more closely a syndication partner is located to the portfolio firm, the more likely the syndication of an investment is. We find the same results for the number of co-investors participating in a syndicated investment.

The results of our analysis clearly show that there is no severe regional equity gap for young and innovative start-ups in Germany for at least three

reasons. First, regional proximity is not an important factor for VC investments in Germany. Second, syndication may help to overcome the problems of an investment in a distant location. Third, within a range of 150 kilometers around the core VC centers in Germany, almost every region is covered. The regions that are not within this circumference have at least some isolated VC companies which may act as a syndication partner for other investors located in more distant places. Moreover, the region with nearly no VC investment in the center of Germany is well accessible for a large number of VC firms. Altogether, our results indicate that the supply of VC in Germany is not a main obstacle for a sufficient entrepreneurial and innovative activity. Therefore, the promotion of the VC market will not be a solution to problem of lacking entrepreneurship and innovation in some regions. Other types of policy are required to attack such types of deficits.

References

Florida, Richard L., Donald F. Smith and Elizabeth Sechoka (1991): Regional patterns of venture capital investment, in: Green, Milford (ed.), Venture Capital: International Comparisons, London and New York: Routledge 1991, 102-133.

Fritsch, Michael and Dirk Schilder (2006): Does Venture Capital Investment Really Require Spatial Proximity? An Empirical Investigation, Technical University Bergakademie Freiberg, Faculty of Economics and Business Administration,Working Paper 07/2006.

German Private Equity and Venture Capital Association (2005): Statistics, http://www.bvk-ev.de.

Gompers Paul A. (1995): Optimal Investment, Monitoring, and the Staging of Venture Capital, *The Journal of Finance,* 6, 1461-1489.

Gupta, Anil K. and Harry J. Sapienza (1992): Determinants of Venture Capital Firms' Preferences Regarding the Industry Diversity and Geographic Scope of their Investments, *Journal of Business Venturing*, 7, 347-362.

Leinbach, Thomas R. and Carl Amrhein (1987) A Geography of the Venture Capital Industry in the U.S., *Professional Geographer*, 39(2), 146-158.

Lerner, Joshua (1995): Venture Capitalists and the Oversight of Private Firms, *Journal of Finance,* 50, 301-318.

Martin, Ron (1989): The Growth and Geographical Anatomy of Venture Capitalism in the United Kingdom, *Regional Studies,* 23, 389-403.

Martin, Ron, Peter Sunley, Dave Turner (2002): Taking Risks in Regions: the Geographical Anatomy of Europe's Emerging Venture Capital Market, *Journal of Economic Geography*, 2, 121-150.

Martin, Ron, Christian Berndt, Britta Klagge, Peter Sunley (2005): Spatial Proximity Effects and Regional Equity Gaps in the Venture Capital Market: Evidence form Germany and the United Kingdom, *Environment and Planning A*, 37, 1207-1231.

Mason, Colin M and Richard T. Harrison (1999): Financing Entrepreneurship: Venture Capital and Regional Development, in: Martin, Ron (ed.), Money and the Space Economy, Chichester: Wiley, 157-183.

Mason, Colin M and Richard T. Harrison (2002a): The Geography of Venture Capital Investments in the UK, *Transactions of the Institute of British Geographers*, 27, 427-451.

Mason, Colin M and Richard T. Harrison (2002b): The Barriers to investment in the informal venture capital sector, *Entrepreneurship and Regional Development*, 14, 271-287.

Petersen, Mitchell A. and Raghuram G. Rajan (2002): Does Distance Still Matter? The Information Revolution in Small Business Lending, *Journal of Finance*, 57, 2533-2570.

Powell Walter W., Kenneth W.Koput, Bowie James I. and Laurel Smith-Doerrs (2002): The Spatial Clustering of Science and Capital: Accounting for Biotech Firm-Venture Capital Relationships, *Regional Studies*, 36(3), 291-205.

Robbie, Ken, Mike Wright and Brian Chiplin (1997): The Monitoring of Venture Capital Firms, *Entrepreneurship: Theory and Practice*, 21, 9-28.

Robinson, Richard B. (1987): Emerging strategies in the venture capital industry, Journal of Business Venturing, 2, 53-77.

Sapienza, Harry J. (1992): When Do Venture Capitalists Add Value, *Journal of Business Venturing*, 7, 9-27.

Sapienza, Harry J. and Anil K. Gupta (1994): Impact of Agency Risks and Task Uncertainty on Venture Capitalis – CEO Interaction, *Academy of Management Journal*, 37 (6), 1618-1632.

Sapienza, Harry J, Sophie Manigart and Wim Vermeir (1996): Venture Capitalist Governance and Value Added in Four Countries, *Journal of Business Venturing*, 11, 439-469.

Sorensen, Olav and Toby E Stuart (2001): Syndication Networks and the Spatial Distribution of Venture Capital Investments, *American Journal of Sociology,* 106, 1546-1588.

VC facts (2004): Yearbook 2004, Gaggenau.

VC facts (2005): Yearbook 2005, Gaggenau.

Wright, Mike and Andy Lockett (2003): The Structure and Management of Alliances: Syndication in the Venture Capital Industry, *Journal of Management Studies*, 40, 2073-2102.

Zook, Matthew (2002): Grounded capital: Venture financing and the geography of the internet industry, 1994-2000, *Journal of Economic Geography*, 2, 151-177.

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