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Angels don't always lead to heaven. Business performance and BA presence: evidence from France[1]

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Abstract. Business angels enjoy a strong reputation among policy makers, practitioners and scholars. They have a good reputation for being more efficient than other investors in terms of returns or stock-market valuation thanks to their roles as mentors and advisors. However, due to the limited availability of specific financial data, previous research has barely assessed the impact of angels on companies' performance. This paper seeks to bridge this gap by providing evidence from a unique dataset made up of 300 angel-backed French companies which are compared to two control groups, one randomly selected and another one consisting of similar enterprises. This double comparison process enables us to purge our analysis of structural effect and to demonstrate the importance of the methodology in generating the sample. Indeed, the results we obtain differ significantly depending on the control group. Our results show that the positive influence of angels highly depends on the condition of the comparison. The set of BA-backed companies is more likely to exhibit superior performance when it is compared to a random sample whereas the companies' performance is either identical or worse when it is compared to a sample composed of k–nearest neighbors. In addition, using a quantile regression technique makes it possible to differentiate the effect of business angels based on the distribution of the value of the growth rate.

Keywords Business Angels, Equity investors, Firm performance, Quantile estimations.

[1] This paper results from a research project on Business Angels in France, in cooperation with Neovian, funded by the Ministry of Economy. We thank the members of the expert committee that monitored this study, as well as the participants of the Research Network on Innovation, 2014, who gave us valuable suggestions on this paper. All the opinions expressed are those of the authors and not those of the French Ministry of Economy. The usual disclaimers apply.

JEL Classification G24, D24, M13, C23.

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1 Introduction

It is broadly admitted that economic growth results less from entrepreneurship measured by a global entry rate than from innovative entrepreneurship (Stam, 2013). Recognizing the role young and innovative companies play in the growth process is not straightforward. Various studies have reported the common problems faced by new high-tech firms in obtaining bank credit (Guiso 1998, Scellato 2007). The lack of interest shown by banks in financing new enterprises obliges governments and policy makers to promote the development of alternative means of financing. Among the available alternative sources, private equity investors seem the most suitable in meeting the financial needs of young and innovative companies (OECD, 2015). Indeed, these investors are geared towards long-hold, multiple-year investment strategies in illiquid assets (whole companies, large-scale real estate projects, or other tangibles not easily converted to cash), where they may control and influence operations or asset management to influence their long-term returns.

Among the different players in this field, venture capitalists are by far the ones which have raised the greatest interest in the academic world (Rosenbusch et al. 2013). However, VCs cannot cover all the financial requirements necessary to nurture expansion, new-product development or the restructuring of a company's operations, management, or ownership. In addition, venture capital firms are, for the most part, focused on later stage start-ups and, therefore, have left a significant funding gap at the seed and early stage. The remaining funding gap faced by nascent entrepreneurs involved in the conception or the early stages of business creation has thus still to be bridged. Angel investors intervene on this segment and form groups and syndicates to pool funds to fill this gap (OECD, 2011).

This paper focuses on these not so new, but still largely unknown, players of the financing system. Very few studies show their crucial role as providers of financial resources (Mason and Harrison 1995) and mentors (Politis 2008) in accompanying young and innovative companies. A huge majority of these papers analyze the success of BA intervention from the point of view of the BA. Many are qualitative and are based on interviews (Macht et Robinson, 2009). Others estimate the added value of the BA's presence considering the difference in IPO values (Chahine et al. 2007) and the level of the internal rate of return observed in BA organizations (Heukamp et al. 2007; Mason and Harrison 2002; Capizzi 2015). These studies, however, leave unresolved the measurement of the net advantage for the firms they back compared to those which are not. Our research seeks to provide some evidence in this field by proposing an empirical analysis of the performance observed in BA-backed companies versus that measured in non-supported ones.

This paper takes a fresh look at the question of whether entrepreneurial financiers affect the growth of companies in which they invest. In order to assess the advantage of being accompanied by a BA, we consider the company perspective. Studying the impact of the participation of a BA in a company's equity on company performance is a rather innovative approach, uncommon in the existing literature, in so far as we consider three ratios to depict company performance (the changes in the number of employees, in sales and in the tangible capital assets). To carry out this study, and this is the second novelty of the paper, we propose to investigate the differences between BA-backed companies and two control groups. This analysis is possible thanks to the use of a unique data set containing 300 companies backed by institutional French BAs over the 2004-2007 period. We also have financial information available for these companies taken from the balance sheets and the profit and loss statements for 2008 and 2009.

From this initial population, and this is a third originality of the paper, we created two control groups composed of an exhaustive dataset of companies whose annual financial statements are made available by the French Tax Administration and the National Institute of Statistics (INSEE). One group has been randomly selected whereas the other is made up of nearest neighbors, i.e. similar firms in terms of size, age, industry, location and capital structure. This double comparison process allows us to purge our analysis of structural effect and to provide evidence about the importance of the methodology in composing the sample.

Our results show that while being funded by a BA is hardly neutral, the effect obtained is not necessarily favorable. The differences in the performance observed in the test group significantly vary depending on the control group considered. The set of BA-backed companies is more likely to exhibit superior performance when compared to a random sample whereas the performance of these companies is, at best, identical when compared to a sample composed of k–nearest neighbors. When one controls for the profile of the companies, our result show that angels does not significantly permit to improve performance.

The remainder of the paper is structured as follows. Section 2 presents the literature on the influence of BAs on company performance. Section 3 defines the main hypotheses tested in our study. Section 4 describes the dataset and section 5 the econometric strategy adopted accordingly. Section 6 depicts and comments the results of the empirical analyses. We conclude considering the implications of our findings for policy makers and advisors in the business creation process.

2 Survey of empirical literature on BAs contribution to performance

The reputation of BAs as savvy investors can be partly attributed to comparative studies which aim to demonstrate their ability to reduce risk or to improve the return that is expected or earned by themselves or other investors, such as VCs, in particular. The literature mainly consists of surveys carried out by sending questionnaires to non-randomly selected entrepreneurs and/or business angels rather than of studies based on exhaustive or representative analysis. This quite contradictory situation is visible when looking at the literature on BAs. Two types of papers are available: the first type is devoted to the qualitative outcome for the whole entrepreneurial process, whereas the second seeks to measure the performance of BAs mainly from the investor point of view.

2.1 BAs, more than financial investors

Business angels (BAs) comprise a promising class of private investors who provide risk capital to new and growing businesses in which they have no family connection (Mason and Harrison 1995, 2002). They directly invest their own money, along with their time and expertise, in unquoted companies in the hope of financial gains (Mason 2007). The presence of a BA on a board is considered as an advantage for a start-up because it increases its probability of survival and facilitates the commitment of VCs and other financial investors in the financing of future investments. BAs thus play a crucial role during the early stages of a company's creation. However, their role is not limited to the accompanying of nascent companies. As a part of the “funding escalator” system (Gregson et al. 2013), they also determine their future and growth path.

BAs' first singularity is being investors not only concerned with financing but also with the whole entrepreneurial process. Like VCs, they monitor, control and help with recruitment and additional fundraising (Hellmann and Puri 2002). Due to their similar roles, we can thus expect that BAs will affect business performance in much the same way as VCs: according to a survey performed on a sample of entrepreneurs, BAs'

strong involvement in a company's life leads to an improvement in the company's performance measured by the change in the number of employees or in sales growth (Davila et al. 2003).

The first research is based on 14 previous qualitative studies and provides an analysis and an appreciation of the contribution of BAs to a company. They play multiple roles: sounding board, strategist, supervisor, monitor, resource acquisition enabler and mentor (Politis 2008). The investor provides strategic advice to the entrepreneur based on his or her extensive business know-how and management expertise. Their contribution is extended through a variety of hands-on roles ranging from board membership to less structured consulting activities and formalized part-time assignments. The impact of this hands-on involvement on the performance of the business remains, however, unclear.

In the second study, Macht and Robinson (2009) interviewed managers in 9 BA-backed companies about the advantages of such a financing scheme. Their contribution to the life of a business is both financial and non-financial. They help overcome funding gaps, fill knowledge and experience gaps, provide contacts and leverage further funding. The quality of the relationship between the investor and the investee is a crucial condition for such advantages to occur. The authors also show that BAs, who are mainly motivated by the return on their investment, do not become actively involved to a great extent and, consequently, are no different from other money providers.

If BAs are not involved, their contribution is considered as similar to that of VCs. According to the literature, VCs exert influence on sales (Bertoni et al. 2013), on employee growth (Davila et al. 2003) and finally for Puri and Zarutskie (2012), on both sales and employment. It is, however, difficult to admit that the effects of the ownership structure on the different performance ratios are strictly proportional (Murphy, Trailer and Hill 1996). For example, a growth in sales can be achieved at the cost of reduced firm profitability. Therefore, it is highly unlikely that the use of a single measure of firm performance could sufficiently capture the effects of business angels' hands-on involvement.

If BAs are involved, their impact on a firm's performance cannot be strictly similar to those attributable to a VC because BAs are not perfect copies of VCs. As non-professional investors, BAs face difficulties in gaining access to financial information (Gompers and Lerner 2001). Consequently, they tend to invest close to home, typically within a day's drive (Freear et al. 2002 ; Berchicci et al. 2011) and their dealings of sourcing and investing remain a face-to-face exercise (Sohl 2006). Being more likely to invest on « gut feeling » (Mason and Harrison, 2002, p. 220), BAs are also less investment-efficient.

Despite the insights on BAs' motivation and behavior provided by these studies, the literature on BAs still omits some important points. That is why, as recommended by Politis (2008), future research on business angels and their added value should include a wide range of theoretically relevant performance criteria when empirically testing for the effect of business angels' hands-on involvement on the performance of a business.

2.2 The superior capability of BAs as investors, a disputed question

Contrary to previous research, which considers how BAs add value to companies, the papers surveyed in this section deal with performance. Some investigate investor return on investment; others focus on performance when the backed company has access to the equity market. There is only one which takes the investor's point of view. The results obtained are, however, quite ambiguous.

A first set of papers approximates performance by measuring the Internal Rate of Return (IRR) (Capizzi 2015 ; Heukamp et al. 2007 ; Mason and Harrison 2002). Based on different methodologies and

samples, they obtain different results. Capizzi (2015) analyses the determinants of IRR using a dataset containing the details of 119 disinvestments[3] carried out in Italy during the 2007–2011 period. The results of the econometric estimation lead him to conclude that experience measured by the number of investments made by a BA matters in determining IRR but, like in Capizzi (2011), this effect vanishes beyond a threshold. The selection process also matters since the returns earned by investors who are more selective with the projects they evaluate are higher than the returns earned by less selective ones. The third variable, which still has a positive but less significant effect, is the length of the financial relationship. Indeed, investors who maintain their financial resources in the investee company for more than 3 years are more likely to earn higher returns than investors who hold their investment for less than 3 years.

The capacity of experienced BAs to perform better is largely called into question by Heukamp et al. (2007), who adopt a radically different methodology. To assess the added value provided by BAs, they conducted a survey on 59 VCs located in German-speaking countries. A section of the questionnaire concerns the point of view of the VC on the influence that a BA may exert on the IRR of the companies in which they invest. A large majority of respondents consider that when they compare them to solo investments, co-investments with BAs do not generate higher returns. The explanation of this negative perception of the BAs' capacity to improve the return of an investment lies in their specific appreciation of risk and the resulting behavior as investors. This is shown by Mason and Harrison (2002). They compare the return profile of 127 mail-surveyed BAs to the results of Murray (1999), who analyses the risk profile of three UK early-stage specialist venture capital funds. They conclude that business angels' portfolios present a lower share of investments in which they lose money, and a significantly higher proportion of investments generating modest returns compared to those held by VCs.

A second set of papers assesses the performance of entrepreneurial IPOs. Chahine et al. (2007) measure the performance as the IPO initial pricing related to BA retained ownership, whereas Johnson and Sohl (2006) observe the differences between the ranking of underwriters of firms that are angel-backed and that exhibited by those which are not. Both show that BA-backed companies have a lower score except in the French case where there is no significant difference (Chahine and al. 2007). They mainly explain this underperformance by the poor capacity of BAs to generate a strong reputation for taking high quality firms public. In the French case, the non-significant effect difference could be due to the stronger commitment in "grandstanding" (Chahine and al. 2007 p. 524). The main limit of these studies comes from the selection of a set of companies able to enter on financial markets. The samples considered are thus highly biased toward the very best companies and, thus, cannot be considered as representative of the population of companies benefiting from the mentoring and financial support of a BA.

The better performance of a BA-backed company is also considered by Ahmed and Cozzarin (2009) in an empirical study consisting in the estimation of the influence of financing structure on the performance of 52 companies operating in the biotechnology industry. They use two performance indices, the rate of change in sales and a ratio reporting the sales growth to the R&D capital over the 1999-2001 period. They conclude that sales growth merely depends on conventional (bank) capital and that angel capital has the second greatest impact

[3] The econometric model is estimated with 81 exits because not-significant variables (with less than three data) have been excluded from the sample.

with venture capital third. But sales growth is the only performance dimension considered, and a wide range of performance criteria should be included as recommended for instance by Macht and Robinson (2009).

Looking at the literature, it is obvious that the advantages of business angel activity are still questionable and that a lot remains to be done to understand better their influence on business performance.

3 Hypotheses

As emphasized in the previous Section, the literature on business angels considers that their net contribution to economic life is twofold. They not only provide financial resources to the companies in which they invest, but they also take an active part in the monitoring and reorganization of the companies in which they participate (Sapienza & Gupta, 1994). They mentor the entrepreneur, and open access to providers and potential customers thanks to their network (Macmillan, Kulow, & Khoylian, 1989; Bygrave & Timmons, 1992). These advantages make it possible to significantly improve the performance of angel-backed companies. This conclusion mostly refers to studies dealing with venture capital. Davila et al. (2003), and Alemany and Marti (2005) empirically show that VC-backed firms have significantly higher revenues and employment growth rates than nonVC-backed firms. Chemmanur et al. (2011) find that VC-backed firms have higher operating efficiency than nonVC-backed firms whereas Puri and Zarutskie (2012) report a performance gap between VC and nonVC financed firms.

The theoretical argument underlying this positive appreciation lies in the agency costs, which has been the dominant concept in explaining the investor – entrepreneur relationship (Kelly and Hay, 2001; van Osnabrugge, 2000). The central place occupied by the agency theory comes from its capacity to provide both predictions and prescriptions for explaining individual behavior when outside ownership is involved. In its two dimensions, normative and positive, agency theory succeeds in explaining why and how equity investors may reduce or even solve the agency problems traditionally arising between an investor and an entrepreneur. It grants the congruence between the goals targeted by the entrepreneurs and the investors through a double process happening ex-ante and ex-post.

When an active investor enters into a company, he/she behaves like outside stakeholders who carefully observe the firm to track its business potential and monitor agent behavior to protect against opportunism. Information asymmetry may thus lead to sub-optimal choices ex ante, but a VC typically conducts a due diligence assessment of the venture and the entrepreneur (Tyebjee and Bruno 1984), a precautionary measure which reduces the risk of adverse selection. Once the investment has been made, the active monitoring operated by the investor reduces the risk of moral hazard. We could expect these same arguments to apply to the BA-entrepreneur relationship. As a consequence, BA-backed companies should perform better than non-backed ones.

The lack of empirical evidence on the superior return earned by VC-backed companies has raised some doubts about the validity of the agency theory applied to VC-entrepreneur relationships. As mentioned by Arthurs and Busenitz (2003), two main arguments support this theory in justifying the reduction of ex-post agency problems. On one hand, after the investment decision, the VC is likely to change from being a wary investor to a willing collaborator (Sapienza, 1992). On the other hand, even if the founding entrepreneur owns a reduced percentage of the equity, he/she may wish to maintain strong individual-specific investments in the venture. Conflicts may thus arise and give rise to 'horizontal' agency costs (Colombo et al. 2014), related to the fact that different principals have heterogeneous interests, preferences and objectives. Accordingly, there is no

reason to expect that companies having active investors on the board should exhibit different performance than other ones.

At this stage, the same theory is of no help in deciding whether firms accompanied by an equity investor perform better or not than those that are unaccompanied. There is, however, a third possibility induced by the application of the agency theory to the financing relationship.

The relevance of agency theory, rooted in the separation between ownership and control in large corporations (Jensen and Meckling, 1976), in the financing of small and early-stage companies has often been contested because such companies are often closely held. But, despite this tight equity structure, information asymmetry remains a valid assumption when investors are non-professional. This is indeed the case with Angels who mainly come from the entrepreneurial world (Gompers and Lerner, 2001). This feature is a real drawback as it prevents BAs from accessing financial information, understanding the strategic choices of the founding entrepreneur and assessing the reliability of his or her expectations. BAs are thus led to compensate for their lack of knowledge and skills by strengthening their requirements towards the entrepreneur. It takes time for the entrepreneur to comply to these increased requirements, to explain his/her choices and to justify himself/herself, precious time which could perhaps otherwise be devoted to managing the business and looking for new business opportunities. Such coordination problems are likely to degrade the performance of the investee company so that, as mentioned by Capizzi (2015) and Van Osnabrugge (2000), firms having a BA on the board may exhibit lower performance than those without one.

Consequently, this paper analyses two related questions: the existence of superior economic impact on BA-backed firms and its relationship with BA funding. To assess the contribution of Angels to a company's performance, we consider several different ratios, following the point of view of practitioners according to whom growth is a complex phenomenon (Achtenhagen et al. 2010), not only reflected by sales or employment growth but one which also requires us to pay attention to internal development. Thus, following Murphy et al. (1996), who consider that sales and employment are both satisfying proxies of firm performance, we estimate to what extent being backed by an Angel may increase the performance of a company. We examine successively these two ratios, even if it has been shown that they can be correlated (Coad, 2009) to capture the different points of view on performance. To complete this external perspective, we introduce a third ratio, namely the growth of tangible capital assets, a factor which approximates the capacity of a firm to extend its market size.

The first hypothesis to be tested is thus:

H1: Angel-backed companies are more likely to present higher performance than non-backed ones.

H1.a: they exhibit a higher rate of growth of employment,

H1.b: they have a higher rate of growth of sales

H1.c: they present a higher rate of growth of tangible capital assets.

In addition to this first level difference, we also introduce a second hypothesis to capture the performance induced by the accompanying process implemented by a BA. It is expressed as:

H2: Among the BA-backed companies, those with a long lasting financing relationship are likely to have greater performance than those with a short financial relationship.

As in the previous hypothesis, performance is approximated by employment, sales and tangible capital assets rate of growth.

4 Dataset and descriptive statistics

Previous comparative studies generally agree to consider that a BA's involvement in the definition and implementation of the company's strategy enables it to reach a higher level of performance than non-backed companies. This favorable appreciation mainly rests upon surveys or empirical analysis whose robustness is in doubt. There are two basic reasons for the lack of robustness of the results obtained in previous studies. First, the lack of data to identify the complete population, given that BAs are non-financial institutions and, thus, not obliged to provide detailed information of their investment portfolios. Second, the difficulty of accessing financial information on privately held BA-backed firms. One reason is that BAs are supposed to keep this information secret and the disclosure of financial data might compromise a relationship resting upon trust. Another reason comes from the smallness of the BA-backed companies which are not obliged to file their financial statements with the commercial court registries. As private datasets are composed of the information provided by the commerce courts, they contain neither the balance sheet nor the profit and loss statement account of these very small companies.

We confront these criticisms by testing the previous hypotheses on the French case using a unique data set consisting in the merging of three different sources. France is worth studying empirically because the country has one of the most active business angel markets in Europe: in 2009, 81 networks/groups were active, positioning the country in second place behind the US (350) and before the UK (74) (OECD 2011)[4]. However, the impact of these equity investors group on firm performance has been barely tested, and the rare attempts proposed are based on a sample composed solely of IPO firms so that they yield biased results.

4.1 Data sources

Our dataset is build up from the merging of three data sets provided by the French National Institute of Statistics[5] and one by the network France Angels. The first one, is named FARE (Fichier Approché de Résultats d'Entreprises). It contains the tax report, mainly composed of the balance sheet and the profit and loss statement of any taxable corporate company located in France, which is about 3 million enterprises. The second source is the Register of Businesses and Establishments (REE or Répertoire des Entreprises et des Etablissements), which provides information on the age of the companies. The third one is the LiFi dataset of firms' ownership and foreign financial linkages. They are merged with a list of 300 companies backed by a business angel member of the network France Angels[6] over the 2003-2007 period. In addition to the i.d. number of the companies supported, this dataset provides information about the length of the relationship between the company and the BA.

We are thus endowed with a sample of 300 enterprises funded by an angel member of the network France Angels for which we have also obtained the whole tax report. This sample represents 79% of the total number of companies funded by this network in 2009. This test group is compared to two reference groups extracted from the FARE dataset. The first one contains 1,799 similar companies, based on the number of employees, the age, the location[7], the industry in which they operate[8], and the capital structure. They have been selected using the *k*-

[4] From the point of view of the total amount invested, France and UK are almost equivalent. Appendix 1 presents some key figures of the different European markets.
[5] We are grateful to the Statistical Confidentiality Committee (Comité du Secret Statistique), the French body supervising access to data, for providing the data bases under strict confidentiality agreements.
[6] We thank the members of France Angels for their support to this project and their willingness to share the data.
[7] We adopted the 2nd level of the Nomenclature of Units for Territorial Statistics (NUTS).

nearest neighbours method introduced by Weiss and Kulikowski (1991)[9]. The second control group comprises 1,830 companies randomly selected among a population 465,744 of companies having 100 employees or less operating in the market sector excluding farm, financial, and rental industries.

The comparison with two reference groups makes it possible to control the influence of the selection process implemented by angels. As investors, they do not choose the project in which they invest at random. On the contrary, they prefer investing in industries in which they have previous experience, innovative projects with a low exposure to competition within an existing market, high or medium growth firms whose sales expectations are favorable and in ventures run by a talented team. Using a reference group composed of 6-nearest neighbors controls for the bias resulting from the BA preference system, while putting some emphasis on the risks of a comparison with a randomly selected reference group (Kerr et al. 2011). This double comparison also makes it possible to assess the extent to which the structure of the reference group influences the evaluation of the performance induced by Angels when they invest in a company.

4.2 Measuring firm growth

The definition of the best index to measure firm growth has long been disputed in the literature. The debates are motivated by a twofold problem. Firstly, as a complex phenomenon, growth can be measured by various criteria. Secondly, the construction of the index may also influence the result measured. We will examine these two aspects successively.

Sales and employment measures are the most widely used in empirical growth studies (Delmar 1997). The indicator chosen depends on the field covered. Industrial economists referring to Gibrat's law mainly use the employment growth rate (Coad, 2009), which is also easily accessible and applies to all types of firms. Scholars closer to business administration consider that turnover growth is a better index since it is a key target for the entrepreneurs themselves and is simultaneously closely observed by shareholders and equity investors (Ardichvili et al. 1998). Petersen and Ahmad (2007) state that while gross added value or profits are a highly meaningful growth variable, appropriate data for cross-nation or even cross-industry evaluations are rarely available. On the other hand, indicators such as market share and physical output can be compared only within firms or industries with a similar product range (Delmar et al. 2003). Coad (2007) provides evidence about the strong correlation between these indicators. In addition to these indicators, Baumol (1962) states that capital assets, which can be expected to be closely related to turnover, are a leading indicator of firm growth and, for this reason, are a highly meaningful growth variable. In order to capture various aspects of the firm growth phenomenon, we use them concurrently.

The hypotheses are thus tested using three explained variables: the growth rate of employment, the growth rate of sales and the growth rate of tangible capital assets. In order to circumvent the problems of bias towards small companies raised by the use of relative ratios to measure firm growth,[10]we compute firm growth rate as a logarithmic difference, a common method in firm growth analysis (Coad 2009).

$$\text{Var}Empl = lnEmpl_t - lnEmpl_{t-1}$$

[8] To define the industries, we adopt the French Classification system which is strictly equivalent to the European standard classification of productive economic activities (NACE). We took the second level, which consists of headings identified by a two-digit numerical code (divisions).

[9] This subset has been composed thanks to a SAS « CAHQUAL » procedure made available by the INSEE (1994). For a more detailed presentation of the SAS procedure used to compose this reference group see Appendix 2.

[10] Small initial size means that large relative growth is easier to achieve with quite small absolute growth whereas large initial size demands for large absolute growth in order to reach high relative growth.

$$\text{Var}Sales = lnSales_t - lnSales_{t-1}$$

$$\text{Var}Ass = lnAss_t - lnAss_{t-1}$$

Where *Empl* stands for the number of employees, *Sales* for sales, and *Ass* for tangible capital assets. The index *t-1* denotes for a lagged variable.

These continuous variables risk causing a decrease in the number of observations to estimate the models. To minimize this risk, we also create categorical variables, named Var_Y_t, which makes it possible to estimate multinomal logit models, as in the following examples:

$$Cl\_Var\_Y_t = 0 \text{ if } Y_{i,t} - Y_{i,t-1} < 0$$
$$Cl\_Var\_Y_t = 1 \text{ if } Y_{i,t} - Y_{i,t-1} = 0$$
$$Cl\_Var\_Y_t = 2 \text{ if } Y_{i,t} - Y_{i,t-1} > 0$$

where *Y* denotes alternatively *Eff,* the number of employees, *CA,* the turnover, and *ImmC,* the tangible capital assets. As previously, *t-1* designates a lagged variable.

4.3 Descriptive statistics

Table 1 provides descriptive statistics for the main explained and explanatory variables. It appears that business angels invest in a large variety of industries, including those with a low level of innovation. They, however, tend to be over-represented in the communication industries.

Table 1 Sectoral structure of the three samples

	Nearest neighbors sample		BA sample		Random sample	
Section	**Freq.**	**Pourcentage**	**Freq.**	**Pourcentage**	**Freq.**	**Pourcentage**
Manufacturing	180	10.00	30	10.00	44	2.40
Electricity, gas, steam and air conditioning supply	6	0.33	1	0.33	8	0.44
Water collection, treatment and supply	12	0.67	2	0.67	10	0.55
Construction	24	1.33	4	1.33	244	13.33
Wholesale and retail trade and repair of motor vehicles	204	11.33	34	11.33	490	26.78
Transportation and storage	12	0.67	2	0.67	5	0.27
Accommodation and food services	6	0.33	1	0.33	18	0.98
Information and communication	774	43.00	129	43.00	220	12.02
Professional, scientific and technical	414	23.00	69	23.00	485	26.50
Administrative and support service activities	54	3.00	9	3.00	67	3.66
Education	48	2.67	8	2.67	128	6.99
Human health and social works activities	18	1.00	3	1.00	2	0.11
Arts, entertainments and recreation	30	1.67	5	1.67	48	2.62
Others service activities	18	1.00	3	1.00	61	3.33
Total	1800	100.00	300	100.00	1830	100.00

Sources: INSEE and France Angels; computations are ours.

Figure 1 represents the kernel density estimation of the three explained variables growth rate of employment, of sales and of tangible assets) for the three populations under review. The distribution of the different growth rates displays a characteristic tent-shaped probability density and looks like the Laplace distribution with fat tails. Table 2 presents the main characteristics of the three populations. The correlation matrix is available in Appendix 2.

Table 2 Descriptive statistics of the main explanatory variables according to the sample

	Mean	**St. Dev.**	**P10**	**P90**
Nearest neighbors sample				
Empl08	6.130	12.092	0.000	19.000
Sales08	968.853	3271.479	0.001	2349.626
Ass08	181.557	1499.382	0.001	259.935
Var_Empl	0.021	0.447	-0.405	0.405

Var_Sales	0.649	3.716	-0.664	2.273
Var_Ass	0.810	3.846	-0.227	7.648
FinIndep	329.577	7066.103	0.000	0.552
Sales_Ass	28934.434	367796.062	1.000	16853.000
Age	5.732	3.735	2.000	11.000
BA sample				
Empl08	7.530	11.461	0.000	19.000
Sales08	699.456	2123.984	0.001	1566.244
Ass08	154.708	1078.830	0.001	223.673
Var_Empl	0.122	0.523	-0.405	0.693
Var_Sales	0.518	4.328	-1.835	3.149
Var_Ass	0.579	3.707	-0.404	3.565
FinIndep	1758.696	16960.535	0.000	0.978
Sales_Ass	3135.840	36117.071	0.139	57.235
Age	5.713	4.096	2.000	10.000
Random sample				
Empl08	2.336	7.144	0.000	5.000
Sales08	454.971	2135.124	8.525	761.492
Ass08	80.931	1036.408	0.001	89.066
Var_Empl	-0.031	0.430	-0.651	0.405
Var_Sales	-0.072	2.279	-0.611	0.772
Var_Ass	1.404	4.285	-0.217	10.275
FinIndep	-43.349	9510.880	0.000	0.445
Sales_Ass	31813.618	462663.788	1.529	29379.500
Age	6.622	4.081	2.000	13.000

Sources: Insee and France Angels, computations are ours.

5 The empirical model

To test our first hypotheses, we consider the following empirical equation:

$$Y_{i,t} = \alpha\, c\;\; \beta BA_i\, c\;\; \sum_k \gamma_k\, Account_{i,t-1}\, c\;\; \gamma_2 ln12ze\, c\;\; \gamma_3 ln12ze\, c\;\; \sum_j \gamma_j 1_j\, c\;\; \varepsilon_{it} \qquad A1\sum$$

where $Y_{i,t}$ represents alternatively the employment, the sales and the tangible capital assets growth rate computed at the firm level or the categorical variable. BA is a dummy variable equal to 1 when the company is backed by a business angel, 0 otherwise. *Account* is a vector of accounting ratios whereas *Tail* represents the firm size defined either by the turnover, by the number of employees, or the total of tangible assets depending on the explained variable used. *Age* is the age of the company computed as the difference between *t and* the year of foundation of the company. *S* is a dummy variable which represents the industry within which the company operatesS_j, j={1,…, 5}.

The second hypothesis is tested using equation (2) similar to the first one, with one major exception. It includes an additional variable, named *length*, to measure the duration of the financial relationship between a company and an angel. It is written as:

$$Y_{i,t} = \alpha\, c\;\; \beta length\, c\;\; \sum_k \gamma_k\, Account_{i,t-1}\, c\;\; \gamma_2 ln12ze\, c\;\; \gamma_3 ln12ze\, c\;\; \sum_j \gamma_j 1_j\, c\;\; \varepsilon_{it} \qquad A2\sum$$

where the variables have the same definition as in equation (1).

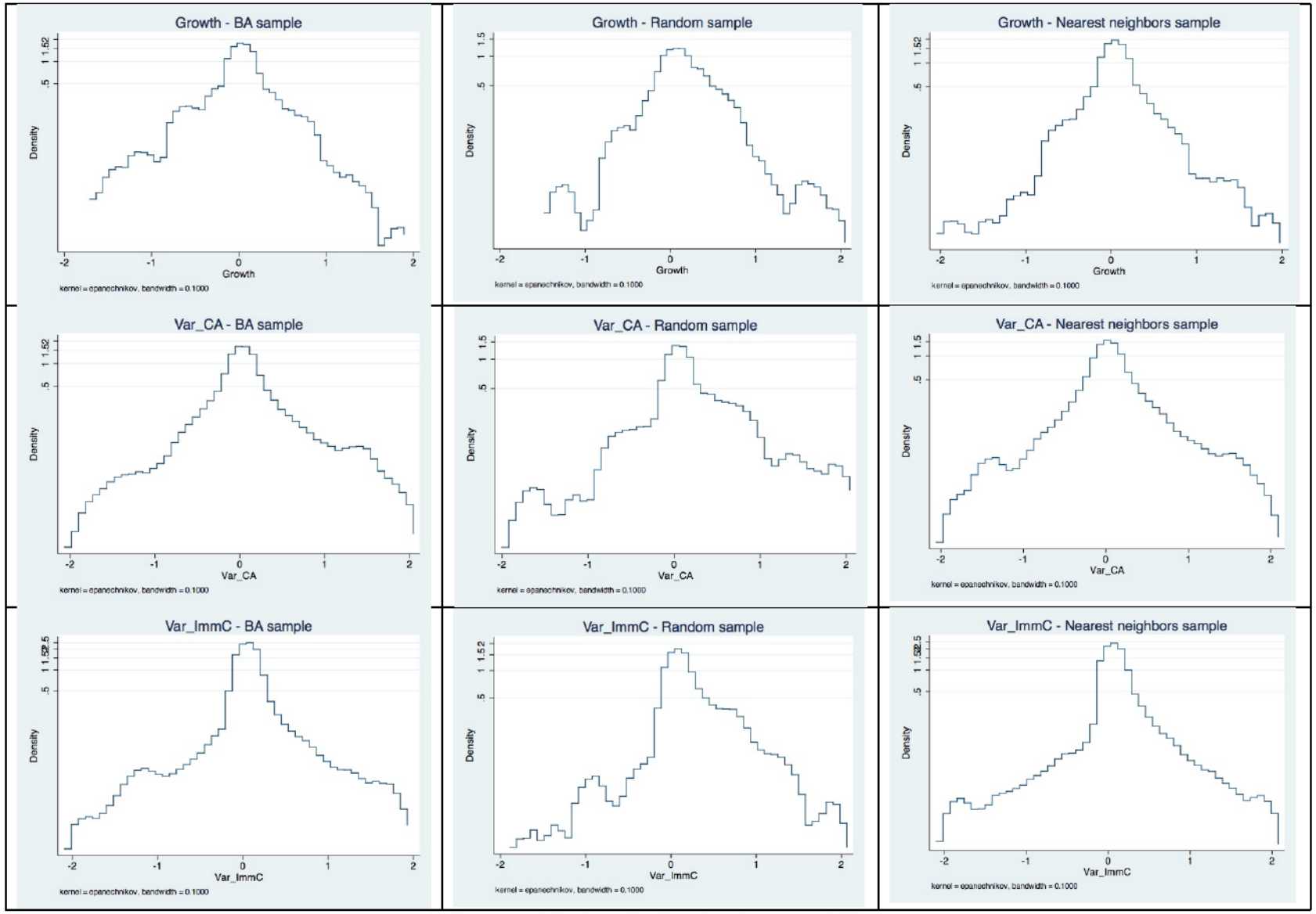

Fig. 1 Kernel density estimation of explanatory variables

Notes: The Kernel density is computed using Epanenchnikov kernel. Y-axis is in log scale.
The graph is estimated using the "kdensity package" available in STATA 12.1 software.

We have run the estimations using different techniques. This mix also enables us to test the robustness of our results. The distribution of the explained variables rules out any possibility of using standard regression estimators which are not robust to outliers and heavy-tailed distributions. In such a case, Coad and Rao (2008) and Coad and Hölzl (2012) highlight the superiority of simple QR to estimate a firm growth model. The authors mention three main advantages to this technique. Firstly, it allows for the keeping of high growth firms in the sample instead of considering them as outliers and dropping them. Since the correlation coefficients are estimated along the conditional distribution of the dependent variable, this prevents misleading results caused by the estimation of average effects of the explanatory variables, as ordinary OLS method does, when high growth firms are kept in the dataset. Secondly, QR estimator guarantees the robustness of the estimation results when errors are not normally distributed. This is the case here because growth rate distribution follows a Laplace distribution with fat tails (Figure 1). Thirdly, QR does not require error terms to be identically distributed at all points of the conditional distribution of the dependent variable. Eliminating this constraint enables us to estimate the effects of the regressors at any point along the distribution of growth rate. In order to keep the maximum observation in the estimation, we also estimate the model using level variables, a technique which enables us to keep in the samples companies with no employees, which would otherwise be excluded from the estimation since the continuous variable is computed as a logarithmic difference. We use a multinomial logistic regression to make the estimation because, as pointed out by Liao (1994), the logit model is more robust than the probit model in the presence of outliers.

6 Results and discussion

This Section presents the results of the estimations of the different models using two comparison levels. In the first one, the 300 BA-backed companies, BA sample hereafter, are compared to a randomly selected sample, random sample below, whereas in the second one they are compared to a 6-nearest neighbors sample, neighbor sample below, over the 2008-2009 period. Because of the tent-shaped distribution of the explained variables, the models are estimated using a quantile regression technique. They have also been estimated by Ordinary Least Squares (OLS)[11] and logistic estimation for comparison purposes.

It is worth noting that whatever the estimation technique used, the results are convergent. Concerning the first hypothesis, there is a consistent finding that the advantages provided by angels to the investee companies are highly sensitive to the test group. Indeed, we find that BA-backed companies perform better than non-backed ones only when they are compared to a randomly selected control group. On the contrary, when we compare the test group to a set composed of similar companies (nearest neighbors sample), the advantage mostly disappears. Using quantile regression technique enriches the empirical analysis as it makes it possible to differentiate the impact of BAs along the distribution of the value of the growth rate. This higher degree of precision is of high interest because gazelles are supposed to be the targeted group for BAs.

Because of the convergence of the results obtained, we only interpret the results provided by the quantile regression estimation technique. Indeed, it provides additional information, as it evaluates the correlations between a given regressor and the dependent variable along the different quantiles of its distribution. Figure 2 presents the estimated coefficients of the presence of a BA on the board as a function of employment, turnover

[11] We report the OLS estimation results only for comparison purposes.

and tangible assets growth rate distribution. We only provide graphs for this variable of interest. Tables 7 to 13 in Appendix 4 provide the detailed results.

6.1 BA-backed companies do not perform better than non-backed ones

Our first hypothesis is about the role played by BAs in firm performance. Figures 2a-2c quantify the relationship between angel group financing and outcomes when the set of BA-backed companies is compared to a random one whereas figures 3a-3c compare the test group to the 6-neareast neighbors set. Looking at the value and the significance of the coefficients of the binary variable depicting whether a BA is on board of the company or not, it is clear that the control population matters in the results obtained. BAs' impact on performance is more significant, mainly on sales, when the test population is compared to a random sample than to the nearest neighbors sample.

Our estimations show that BAs positively contribute to employment growth on the right side of the distribution. This confirms only partially our first hypothesis (H1a). Indeed, the estimated coefficients of the dummy variable (*Rand_pop* or *Neigh_pop*) are positive and significant from the 50th quantile of the conditional distribution of the employment growth whereas their effect is significantly positive between the 75th and 90th quantile only when the comparison is made against a set of nearest neighbors. However, their influence depends on the value of the growth rate; as shown by the positive slope of the curve between the 50th (resp. 75th) and the 90th quantiles. This result enables us to consider that BAs demonstrate an entrepreneurial orientation (Lindsay 2004), leading them to facilitate the growth process of the most successful companies.

The difference is even stronger when one considers the sales and tangible assets growth rate. Indeed, whereas a positive effect is observed on the right side of the distribution when one compares BA-backed companies to the random sample, the coefficients are no longer significant when the test group is compared to the nearest neighbors group. Hypothesis H1b is invalidated whereas H1c is only confirmed in the central part of the distribution which corresponds to a null growth rate.

Considering the superior robustness of the comparison to a group composed of similar companies, one may consider that our results confirm doubts regarding the capacity of BAs to raise the performance of the companies in which they invest (Cowling et al., 2008; Carpentier and Suret, 2013) and the findings from the most recent empirical literature on VCs (Alperovych et al., 2015).

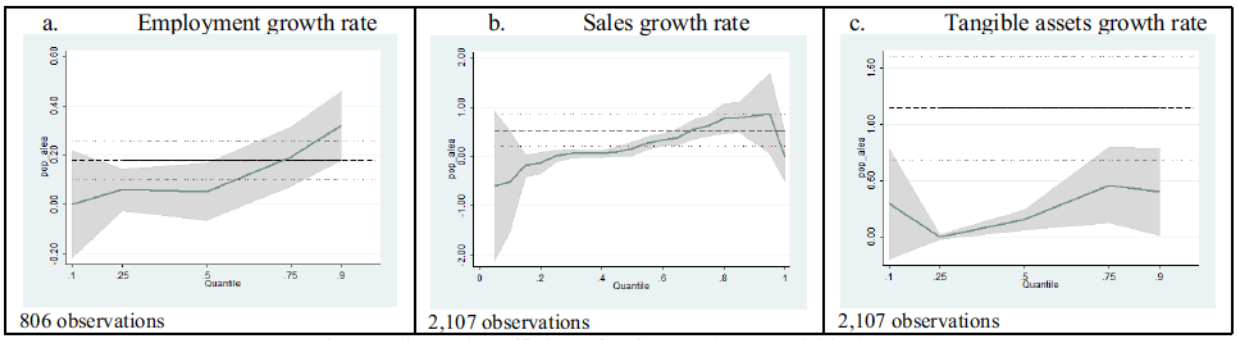

Fig. 2 Estimated coefficients for the *Rand_pop* variable (Q.Reg.)

The graph shows the values of the estimated coefficient of the *Rand_pop* variable as a function of the conditional distribution of the employment, sales and corporate assets growth rates. The bold, dotted horizontal line is the OLS estimated coefficient. The thin, dashed parallel lines represent the confidence intervals of the fixed-effects estimation. The graph was estimated using the "grqreg" package in STATA 12 software.

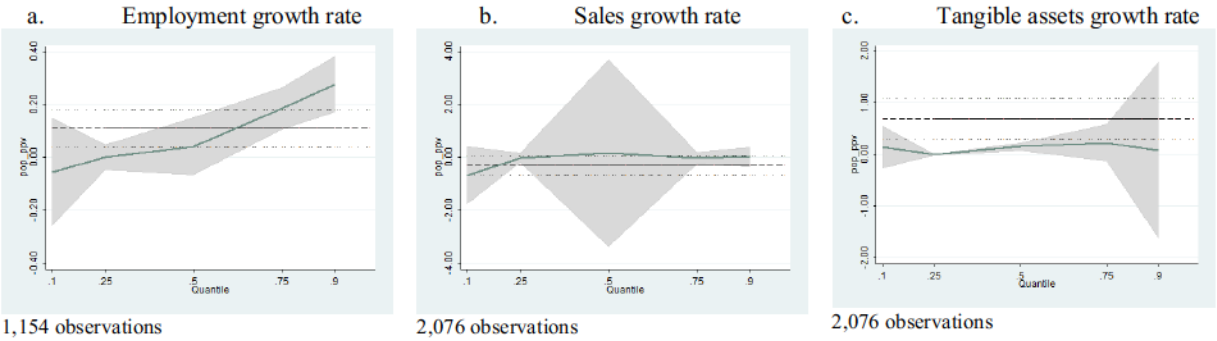

Fig. 3 Estimated coefficients for the *Neigh_pop* variable (Q.Reg.)

The graph shows the values of the estimated coefficient of the *Neigh_pop* variable as a function of the conditional distribution of the employment, sales and corporate assets growth rates. The bold, dotted horizontal line is the OLS estimated coefficient. The thin, dashed parallel lines represent the confidence intervals of the fixed-effects estimation. The graph was estimated using the "grqreg" package in STATA 12 software.

We may also observe that these results contradict the findings of other valuable studies such as those of Ahmed and Cozzarin (2009), Kerr et al. (2014) and Macht & Robinson (2009), which point to a positive impact of BAs on the investee companies. The methodological difference between these studies and ours may be responsible for these opposite conclusions. Indeed, our empirical analysis is based on the financial and accounting data of companies operating in different industries. Ahmed and Cozzarin (2009) only focus on the biotech industry, whereas Kerr et al. (2014) made up their own dataset from the Internet and, lastly, Macht & Robinson (2009) proceed with nine in-depth telephone interviews.

The results of our estimations also confirm the role of a firm's characteristics in determining employment growth. When measured by the lagged value of the explained variable in the models explaining employment and sales growth rates, initial size (*lnEmpl08, lnSales08* and *lnImmC08*) presents the usual negative sign. The reversion to the mean phenomenon, often mentioned in the literature (see, among many, Evans 1987; Oliveira and Fortunato 2006; Fagiolo and Luzzi 2006), is thus confirmed. The variable *lnAge* does not have the negative influence currently mentioned by the literature (see Evans 1987 and Navaretti et al. 2014). In most cases, it is non-significant and negative on the right extreme of the distribution of the employment growth rate. The accounting variables depicting the financial independence of the company (*FinIndep*) and the capital rotation rate approximated by *Sales_Ass* do not determine the firm growth rate when the industry in which it operates is controlled for.

These empirical results lead us to draw several conclusions. Firstly, BAs' support between 2008 and 2009 had only a slightly positive effect on the employment growth rate of French companies. Secondly, the positive effect of BAs' intervention on firms' growth rate depends essentially on their economic performance. BAs tend significantly to strengthen the growth rate of firms which are thriving, whereas their effect is null for the companies which experienced decreasing employment. Their influence completely vanishes when firm performance is measured by sales and tangible assets growth rate. Finally, the firm growth process is far from being solely explained by the presence of an equity investor on a board of directors. On the whole, other characteristics such as size, age and industry or sector of activity play a role in determining economic performance.

6.2 The length of financing relationship does not matter at all

This Section considers the second hypothesis, according to which, a longer financing relationship enables the backed companies to exhibit higher performance. Since the previous estimations have shown that BAs only

impact employment growth rate, this Section only considers this performance ratio. Figure 4 presents the value of the coefficient of the variable *length*, measuring the number of years a company has been backed by an angel, along the distribution of the firm employment growth rate.

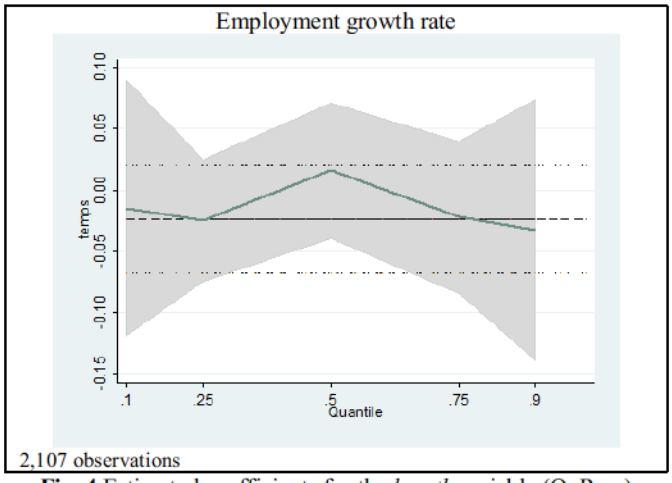

Fig. 4 Estimated coefficients for the *length* variable (Q. Reg.)

The graph shows the values of the estimated coefficient of the length variable as a function of the conditional distribution of the employment, sales and corporate assets growth rates. The bold, dotted horizontal line is the OLS estimated coefficient. The thin, dashed parallel lines represent the confidence intervals of the fixed-effects estimation. The graph was estimated using the "grqreg" package in STATA 12 software.

When controlled for size, age and industry, the length of the financial relationship between an angel investor and an investee does not play any role in determining the employment growth rate. This result is quite contradictory with the idea according to which trust is an asset whose accumulation takes time (Dasgupta 1990), but also that during periods of economic turmoil, in particular, investors who have reliable and pertinent information at their disposal are more likely to accompany the investee than outsiders hampered by information asymmetry. The advantages of long-term relationships, well-established for banks (Guo at al. 2013), have no equivalent on the informal investors market. Indeed, our results do not confirm the positive effect of a long-lasting financial relationship, whatever the employment growth rate observed and the estimation technique used. Hypothesis 2 is thus rejected.

This rather deceiving result echoes some previous findings in the literature. One possible explanation may consist in the fact that BAs are not only oriented towards a financial return but that their motivation is much more complex than that of professional investors and encompasses psychological or emotional aspects (Ibrahim 2008). However, it is somehow contradictory with research papers showing the better return on informal investments made by business angels than those made by non-angels (Riding 2008), but the control group is radically different as it is composed of ventures backed by non-professional angels.

7 Conclusion

This paper investigates whether angel-backed firms exhibit better performance than non-backed ones and to what extent a longer relationship between an investor and an investee provides an advantage. The results of our empirical exercise only partially support our prediction that BAs provide an advantage to the venture in which they invest. This study contributes to research on Business Angels with three important results. Angel-backed firms tend to benefit from BAs support when they have higher employment growth rates. This effect is

not significant for other firms. Angel-backed firms present higher sales growth rates only on the middle part of the distribution, and lastly, angel-backed firms do not invest more than other firms.

The advantage BAs provide is marginal and strictly limited to a small part of the investee companies. This may be explained by the fact that BAs are non-professional investors and that their past experience as entrepreneurs does not help them make appropriate choices. In addition, we find no evidence that a longer financial relationship grants a better result. Possibly, angels are not only motivated by helping firms to grow fast but are also interested in strictly financial results or in the psychological benefits of the relationship with an entrepreneur.

The strategy and policy implications of our results are potentially important.

For policy-makers, our results imply that institutional BAs do not perform systematically better than other investors. This is a serious point to integrate when determining entrepreneurship policies. Indeed, by law, BAs benefit from significant tax rebates in order to guide idle savings towards promising ventures. The cost of these policies is often considered as over proportionate to their return (Carpentier and Suret 2013, OECD 2011) and the risk of adverse effect is often neglected. Indeed, if it is broadly admitted that granting high net worth individuals greater incentives may increase the number of financial investors. But, these investors should presumably be providing expertise and contacts in addition to money. First, most programs are open to all informal investors, without consideration of their capacity to provide advice and guidance to start-ups. Second, they are not focused on good quality high growth companies, which provide most of the job creation and economic growth effects. Our results present arguments in favor of better-designed programs able to select sophisticated investors looking for economic performance more than for tax relief.

Finally, since our study is one of the first attempts to compare the performance of companies backed by a BA with that of a group of similar ones that have not benefited from such support, it naturally points to research issues that need further attention. Among them, we add to the research agenda the inclusion of additional sources of finance, like venture capital or public subsidies, and the need for a more clear-cut identification of causal effect. Another serious challenge also lies in the lack of data on Business Angels. The existing data represent a small fraction of the market termed the “visible” market. While methods of estimating the invisible market, and, therefore, the full angel market size, are currently more art than science, it has been demonstrated through various studies over the past several years that total angel investment is likely greater than VC investment in terms of its total amount. Lastly, as the economic downturn after 2008 could have introduced a significant bias on firms' performance, the next step for our analyses will consist in extending the covered period.

8 Appendices

Appendix 1 - Comparison of the business angels markets in Europe

Table 3 – Characteristics of the Business Angels (BAs) in Business Angels Networks (BANs)

	Number of BANs responding	Total number of BAs in network	Number of BAs per network	Number of active BAs	% of active BAs	Number of BAs investing in companies through the network	Average number of BAs per investment round in 2010
France	66	4,030	61,1	3,015	75%	2,400	5
Germany	13	407	31,3	218	54%	60	1,9
Italy	10	301	30,1	200	66%	126	3
Netherlands	11	2,375	215,9	1070	45%	109	3
Spain	13	807	62,1	276	34%	82	1
Sweden	5	135	27	57	42%	26	1
UK	22	537	24,4	177	33%	43	3

Source: National data in the basis EBAN survey, 2010

Appendix 2 - Composition of the three samples

Data collected for each company combine general descriptive information (activity, size, age, type, legal status, etc.), financial data (balance sheet and income statements), and information on the ownership structure. This ownership information allows us to identify two populations within our different samples. First are affiliated companies, operating in private, domestic and foreign business groups, named *group*. The second are the stand-alone companies named *stand-alone*.

The third one is a random sample of 1,830 firms. We first selected a population of 465,744 companies from FARE data set (*FARE, Fichier Approché des Résultats d'Entreprises*) of less than 100 employees operating in all tradeable sectors except agriculture, forestry and fishing, mining and quarrying, financial and insurance activities and real estate activities. Business Angels investors were not involved in bigger firms or in these specific sectors. We generated a random number associated to each firm Id and chose an upper limit value in order to obtain 1,830 observations from the initial firm population, a size equivalent to our second nearest neighbor sample.

To determine the k–nearest neighbors sample, we use two SAS macros named «CAHQUAL» and «PARTQUAL», developed by Isnard and Sautory (1994)[12]. Following criteria of statistical proximity, the first SAS macro allows us to find a better way to consolidate enterprises with the heuristic "step by step" approach of an ascending hierarchical classification (AHC). The SAS macro CAHQUAL produces an ascending hierarchical classification on a contingency table using qualitative variables. We defined proxies for industry, size, age and location of companies. Based on the initial results, the second macro PARTQUAL enables us to define and separate different classes of enterprises. Each enterprise belonging to the nearest neighbor sample is randomly selected from the reference population in the same class as its BA-backed equivalent.

Criteria used to set up the partition:

Industry : The sectoral structure of the three samples is defined on a 30 tradable sectors basis using the classification of French industries from the French National Institute for Statistics and Economic Research (INSEE Rev. 2008), consistent with the statistical classification of economic activities in the European Union (NACE Rev.2) used by Eurostat. 14 aggregated sectors were used in this study; the non-tradable sectors: agriculture, forestry and fishing, mining and quarrying, financial and insurance activities, real estate activities and public administration and social security are excluded from analysis.

Location : the breakdown corresponds to the 22 administrative regions of France. 18 regions were used in this paper.

Size is defined with 5 classes:

No paid employees
1 to 9 employees
10 to 19 employees
20 to 49 employees
50 to 99 employees

Age of the enterprise:

Less than one year
from 1 to 5 years
from 5 to 10 years

[12] For a detailed description, http://www.insee.fr/fr/methodes/outils/analyse_donnees/analyse_donnees_doc.pdf

10 years and over
Capital structure is defined with 5 classes based on size and level of control:
Stand-alone enterprise
Minority control
Domestic group
Foreign group
Domestic micro-group

Appendix 3 - Correlation matrices

Table **4 – BA and nearest neighbors samples**

	Growth	Var_Sales	Var_Ass	lnEmpl08	lnSales08	lnImmC08	lnAge	Gr	Neigh_pop	FinIndep	Sales_Ass
Growth	1.000										
Var_Sales	0.069*	1.000									
Var_Ass	0.058*	0.579***	1.000								
lnEmpl08	-0.222***	-0.019	-0.026	1.000							
lnSales08	-0.115***	-0.619***	-0.419***	0.367***	1.000						
lnImmC08	-0.087**	-0.362***	-0.514***	0.433***	0.618***	1.000					
lnAge	-0.078**	-0.284***	-0.170***	0.270***	0.381***	0.281***	1.000				
Gr	-0.029	-0.035	-0.090***	0.305***	0.177***	0.254***	0.148***	1.000			
Neigh_pop	0.083**	-0.012	-0.021	0.026	-0.103***	0.080***	0.021	0.022	1.000		
FinIndep	-0.010	-0.030	-0.025	-0.019	0.001	0.031	-0.013	-0.034	0.054*	1.000	
Sales_Ass	0.042	-0.014	0.000	-0.081**	0.057**	-0.120***	0.005	0.052*	-0.026	-0.004	1.000

Number of observations = 2,076
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table **5 – BA and random samples**

	Growth	Var_Sales	Var_Ass	lnEmpl08	lnSales08	lnImmC08	lnAge	Gr	Rand_pop	FinIndep	Sales_Ass
Growth	1.000										
Var_Sales	0.073*	1.000									
Var_Ass	0.069	0.314***	1.000								
lnEmpl08	-0.180***	0.048	0.030	1.000							
lnSales08	-0.134***	-0.374***	-0.243***	0.302***	1.000						
lnImmC08	-0.042	-0.119***	-0.569***	0.367***	0.489***	1.000					
lnAge	-0.093**	-0.089***	0.055*	0.121***	0.140***	0.027	1.000				
Gr	0.006	0.063**	-0.077***	0.413***	0.102***	0.209***	0.032	1.000			
Rand_pop	0.145***	0.077***	-0.068**	0.242***	-0.125***	0.163***	-0.068**	0.277***	1.000		
FinIndep	-0.054	-0.012	0.034	0.001	0.013	0.013	0.008	-0.006	0.056**	1.000	
Sales_Ass	-0.013	-0.065**	0.003	0.025	0.065**	-0.089***	0.003	0.057**	-0.023	-0.001	1.000

Number of observations = 2,107
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table **6 – BA sample**

	Growth	Var_Sales	Var_Ass	lnEmpl08	lnSales08	lnImmC08	lnAge	Gr	Interv	FinIndep	Sales_Ass
Growth	1.000										
Var_Sales	0.067**	1.000									
Var_Ass	0.060*	0.421***	1.000								
lnEmpl08	-0.194***	0.004	-0.008	1.000							
lnSales08	-0.112***	-0.535***	-0.334***	0.368***	1.000						
lnImmC08	-0.069**	-0.238***	-0.546***	0.415***	0.558***	1.000					
lnAge	-0.077**	-0.208***	-0.037*	0.182***	0.266***	0.134***	1.000				
Gr	-0.012	0.016	-0.095***	0.359***	0.151***	0.239***	0.066***	1.000			
Interv	-0.055	-0.085	-0.107	0.162*	-0.021	-0.041	0.200***	0.052	1.000		
FinIndep	-0.006	-0.020	0.013	-0.011	0.007	0.018	-0.001	-0.012	-0.055	1.000	
Sales_Ass	0.026	-0.038*	0.000	-0.041	0.061***	-0.103***	0.004	0.053***	-0.037	-0.002	1.000

Number of observations = 277
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Appendix 4 - Estimation results

Table 7 **Estimation of the employment growth rate for the BA and the nearest neighbors samples**

	Quantile regression					OLS	Logit model	
Variables	10% Empl.*	25% Empl.*	50% Empl.*	75% Empl.*	90% Empl.*	Empl.*	Decrease Empl.*	Increase Empl.*
lnEmpl08	-0.0271	-0.0463***	-9.82e-07	-0.0594**	-0.175***	-0.0939***	0.778***	0.721***
	(0.0463)	(0.00571)	(0.00149)	(0.0241)	(0.0155)	(0.0139)	(0.0735)	(0.0754)
lnAge	0.106**	6.30e-11	-9.21e-07	-0.0606***	-0.0683**	-0.0150	0.111	-0.118
	(0.0485)	(0.00574)	(0.000626)	(0.0221)	(0.0275)	(0.0198)	(0.123)	(0.128)
Gr	0.0901	8.17e-08	2.95e-07	-0.0173	0.0117	0.0468	-0.142	-0.0346
	(0.0765)	(0.0109)	(0.0119)	(0.0232)	(0.0343)	(0.0286)	(0.163)	(0.166)
Neigh_pop	-0.0543	1.39e-09	0.0426	0.185***	0.277***	0.111***	0.594***	0.996***
	(0.105)	(0.0263)	(0.0521)	(0.0467)	(0.0545)	(0.0384)	(0.210)	(0.206)
FinIndep	-1.67e-06	-1.28e-06	-6.57e-07	2.25e-06	-7.50e-07	-6.62e-07	2.30e-05***	1.03e-05
	(2.84e-06)	(2.31e-06)	(2.85e-06)	(3.02e-06)	(2.91e-06)	(1.47e-06)	(8.46e-06)	(1.24e-05)
Sales_Ass	-2.42e-07	0	1.44e-07	1.56e-07	1.43e-07	7.40e-08	-4.57e-08	1.04e-06***
	(2.66e-07)	(1.72e-07)	(1.16e-07)	(1.55e-07)	(1.65e-07)	(9.56e-08)	(1.06e-06)	(3.69e-07)
Manuf	-0.118	8.23e-08	-2.60e-06	-0.161***	-0.159**	-0.139**	-0.215	-0.920**
	(0.116)	(0.0657)	(952.4)	(0.0614)	(0.0649)	(0.0587)	(0.372)	(0.372)
Building	-0.00930	2.98e-08	-4.22e-06	-0.148	-0.211	-0.0919	-0.506	-1.339*
	(0.157)	(0.114)	(470.4)	(0.183)	(0.344)	(0.106)	(0.705)	(0.807)
Trade&Transp.	0.0268	1.14e-07	-2.05e-06	-0.0871	-0.188***	-0.0742	-0.104	-0.297
	(0.135)	(0.0611)	(952.4)	(0.0563)	(0.0668)	(0.0563)	(0.379)	(0.362)
Bus. Serv.	-0.0626	3.11e-08	-3.06e-06	-0.112**	-0.128***	-0.0936**	-0.161	-0.603*
	(0.0817)	(0.0599)	(952.4)	(0.0521)	(0.0494)	(0.0462)	(0.324)	(0.311)
Constant	-0.464***	-3.12e-08	3.30e-06	0.498***	0.985***	0.281***	-1.211***	-0.515
	(0.159)	(0.0604)	(952.4)	(0.0882)	(0.0798)	(0.0593)	(0.370)	(0.356)
Observations	1,154	1,154	1,154	1,154	1,154	1,154	1,261	1,261
R^2	0.0136	0.0369	0.0019	0.0610	0.1463	0.065		
Pseudo R^2							0.0804	0.0804

* Empl. stands for the employment growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 8 **Estimation of the sales growth rate for the BA and the nearest neighbors samples**

	Quantile regression					OLS	Logit model	
Variables	10% Sales*	25% Sales*	50% Sales*	75% Sales*	90% Sales*	Sales*	Decrease Sales*	Increase Sales*
lnSales08	-0.0601***	-0.0183**	-0.246	-0.709***	-0.823***	-0.572***	0.57***	0.39***
	(0.0102)	(0.00785)	(0.181)	(0.0239)	(0.0161)	(0.0272)	(0.037)	(0.037)
lnAge	0.310***	-0.00881	-0.163	-0.0717	0.00154	-0.179	-0.48**	-0.87***
	(0.106)	(0.0222)	(0.417)	(0.0764)	(0.108)	(0.125)	(0.188)	(0.179)
Gr	0.0157	0.00977	0.377	0.977***	0.927***	0.639***	-0.68**	-0.42
	(0.103)	(0.0397)	(0.547)	(0.101)	(0.134)	(0.169)	(0.339)	(0.327)
Neigh_pop	-0.672	-0.0115	0.156	-0.0239	0.0252	-0.285	-0.48	-0.10
	(0.502)	(0.0798)	(0.930)	(0.122)	(0.182)	(0.213)	(0.388)	(0.371)
FinIndep	-1.79e-05	5.81e-08	-3.14e-06	-1.13e-06	-5.37e-06	-1.13e-05	-0.00**	-0.00***
	(3.46e-05)	(2.85e-05)	(2.11e-05)	(9.60e-06)	(7.03e-06)	(1.15e-05)	(0.000)	(0.000)
Sales_Ass	3.20e-08	2.01e-08	8.34e-08	1.29e-07	9.98e-08	2.00e-07***	-0.00	0.00
	(3.19e-07)	(1.30e-07)	(5.24e-07)	(1.45e-07)	(1.25e-07)	(3.57e-08)	(0.000)	(0.000)
Manuf	-0.621	-0.107	-0.0999	0.204	0.671*	-0.147	0.23	-0.31
	(1.254)	(0.0695)	(1.253e+15)	(0.191)	(0.353)	(0.345)	(1.053)	(1.039)
Building	-0.537	0.0112	0.0532	0.303	0.721	0.695	-1.04	-1.28
	(0.442)	(0.226)	(1.253e+15)	(0.437)	(0.545)	(0.510)	(1.341)	(1.236)
Trade&Transp.	-0.125	0.0173	0.0108	0.466***	0.843***	0.331	-0.79	-0.99
	(0.185)	(0.0411)	(1.253e+15)	(0.157)	(0.276)	(0.285)	(0.950)	(0.933)
Bus. Serv.	-0.513***	-0.123***	-0.217	-0.0340	0.363*	-0.165	-0.51	-0.98
	(0.188)	(0.0438)	(1.253e+15)	(0.139)	(0.217)	(0.240)	(0.860)	(0.847)
Constant	-0.520**	0.0171	1.771	4.672***	5.730***	3.122***	3.68***	5.47***
	(0.251)	(0.0568)	(1.253e+15)	(0.200)	(0.247)	(0.289)	(0.912)	(0.894)
Observations	2,076	2,076	2,076	2,076	2,076	2,076	2,076	2,076
R^2	0.0225	0.0097	0.0470	0.3506	0.6346	0.428		
Pseudo R^2							0.1562	0.1562

* Sales stands for the sales growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 9 **Estimation of the tangible assets growth rate for the BA and the nearest neighbors samples**

	Quantile regression					OLS	Logit model	
	10%	25%	50%	75%	90%		Decrease	Increase
Variables	Assets *	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*
lnEmpl08	-0.0599***	-1.94e-05	-3.68e-08	-0.722***	-0.800	-0.452***	0.38***	0.11***
	(0.0137)	(0.496)	(0.000537)	(0.0682)	(0.799)	(0.0229)	(0.029)	(0.016)
lnAge	0.117	-0	-1.31e-06	0.0661	0.00859	-0.0815	-0.74***	-0.48***
	(0.114)	(0.800)	(0.00748)	(0.142)	(0.948)	(0.133)	(0.129)	(0.088)
Gr	0.0478	-0	2.37e-06	0.665***	0.774	0.360**	0.21	0.44***
	(0.0736)	(1.653)	(0.00440)	(0.120)	(3.018)	(0.158)	(0.165)	(0.130)
Neigh_pop	0.142	0.000164	0.154***	0.227	0.0876	0.690***	0.05	0.72***
	(0.193)	(12.61)	(0.0401)	(0.166)	(0.413)	(0.180)	(0.228)	(0.175)
FinIndep	-1.14e-05	-0	-6.54e-07	-1.53e-07	-3.12e-06	-4.44e-06	-0.00	-0.00***
	(2.96e-05)	(4.92e-05)	(7.07e-06)	(7.93e-06)	(7.66e-06)	(9.08e-06)	(0.000)	(0.000)
Sales_Ass	-2.10e-08	0	-0	-6.36e-07	-7.83e-07	-7.52e-07**	-0.00	-0.00
	(8.84e-08)	(1.16e-06)	(9.29e-09)	(1.41e-06)	(1.67e-06)	(3.41e-07)	(0.001)	(0.000)
Manuf	-0.0459	0.000170	0.0294	0.160	0.765	0.521	0.22	0.56*
	(1.087)	(0.0442)	(0.0254)	(0.301)	(9.759e+14)	(0.389)	(0.381)	(0.293)
Building	-0.154	-0	-0.0227	-1.000**	-1.093	-0.238	-0.29	-1.05**
	(0.346)	(0.189)	(0.278)	(0.395)	(9.759e+14)	(0.586)	(0.626)	(0.494)
Trade&Transp.	-0.0173	-0	-0.0227	-0.127	0.0669	0.278	-0.31	-0.26
	(0.227)	(10.07)	(0.0184)	(0.349)	(9.759e+14)	(0.353)	(0.366)	(0.266)
Bus. Serv.	-0.0590	-0	-0.0227	-0.831***	-0.424	-0.285	-0.16	-0.44**
	(0.193)	(0.199)	(0.0169)	(0.249)	(9.759e+14)	(0.300)	(0.304)	(0.224)
Constant	-0.623**	-0.000134	0.0227	3.759***	4.759	1.253***	0.02	1.32***
	(0.286)	(9.628)	(0.0252)	(0.309)	(9.759e+14)	(0.349)	(0.348)	(0.246)
Observations	2,076	2,076	2,076	2,076	2,076	2,076	2,076	2,076
R^2						0.291		
Pseudo R^2	0.0227	0.0000	0.0020	0.2088	0.5613		0.1335	0.1335

* Assets stands for the tangible assets growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 10 **Estimation of the employment growth rate for the BA and the random samples**

	Quantile regression					OLS	Logit model	
	10%	25%	50%	75%	90%		Decrease	Increase
Variables	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*	Empl.*
lnEmpl08	-0.144**	-0.102	-9.25e-07	-0.0229	-0.158***	-0.104***	0.94***	0.85***
	(0.0679)	(0.353)	(0.00641)	(0.0324)	(0.0219)	(0.0171)	(0.104)	(0.109)
lnAge	0.0569	-0	-4.29e-08	-0.101***	-0.115**	-0.0398	-0.08***	-0.09***
	(0.0762)	(0.220)	(0.00622)	(0.0384)	(0.0512)	(0.0262)	(0.022)	(0.025)
Gr	0.256*	0.0524	1.42e-06	0.0547	0.0787	0.0620	-0.17	0.34
	(0.149)	(1.927)	(0.0665)	(0.0801)	(0.0626)	(0.0461)	(0.288)	(0.282)
Rand_pop	-5.74e-06	0.0594	0.0513	0.192**	0.319***	0.180***	0.16	0.74***
	(0.128)	(1.684)	(0.0997)	(0.0912)	(0.0695)	(0.0445)	(0.244)	(0.244)
FinIndep	1.90e-06	-2.79e-06	-5.21e-06	-6.98e-06	-8.73e-06	-4.31e-06***	0.00	-0.00
	(1.26e-05)	(0.000114)	(1.07e-05)	(0.0379)	(1.38e-05)	(5.26e-07)	(0.000)	(0.000)
Sales_Ass	-1.00e-06	0	-0	-2.17e-09	-1.27e-08	3.73e-09	0.00	0.00
	(7.18e-07)	(0.000114)	(7.50e-08)	(1.76e-07)	(6.31e-07)	(8.65e-08)	(0.000)	(0.000)
Manuf	-0.251	-0.0594	-1.55e-06	-0.223	-0.138	-0.0872	0.56	0.15
	(0.303)	(1.079e+15)	(0.0464)	(0.172)	(0.151)	(0.0934)	(0.509)	(0.543)
Building	-0.251	-2.97e-07	-2.50e-07	-0.179	-0.0761	-0.0531	0.52	0.18
	(0.267)	(1.079e+15)	(0.0363)	(0.174)	(0.104)	(0.0745)	(0.415)	(0.463)
Trade&Transp.	-0.231	-0.0594	-5.63e-07	-0.200	-0.127	-0.0970	0.60	0.12
	(0.234)	(1.079e+15)	(0.0365)	(0.154)	(0.0826)	(0.0706)	(0.389)	(0.435)
Bus. Serv.	0.0626	-2.97e-07	-2.44e-07	-0.130	-0.0974	-0.0201	0.38	0.27
	(0.230)	(1.079e+15)	(0.0365)	(0.168)	(0.0891)	(0.0681)	(0.379)	(0.415)
Constant	-0.382	2.97e-07	1.67e-06	0.489**	0.947***	0.214***	-0.90**	-1.04**
	(0.275)	(1.079e+15)	(0.0384)	(0.204)	(0.125)	(0.0825)	(0.395)	(0.421)
Observations	806	806	806	806	806	806	913	913
R^2						0.084		
Pseudo R^2	0.0381	0.0600	0.0032	0.0634	0.1292		0.1008	0.1008

* Empl. stands for the employment growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 11 **Estimation of the sales growth rate for the BA and the random samples**

	Quantile regression					OLS	Logit model	
	10%	25%	50%	75%	90%		Decrease	Increase
Variables	Sales*	Sales*	Sales*	Sales*	Sales*	Sales*	Sales*	Sales*
lnSales08	-0.0446***	-0.0224***	-0.00388	-0.176	-0.637***	-0.332***	0.67***	0.58***
	(0.00829)	(0.00273)	(0.00315)	(1.614)	(0.0488)	(0.0333)	(0.055)	(0.056)
lnAge	0.200**	-0	-0.0270**	-0.224	-0.0786	-0.103	-0.07	-0.52*
	(0.0782)	(0.00828)	(0.0121)	(1.344)	(0.0902)	(0.0915)	(0.269)	(0.270)
Gr	-0.0822	-0.0149	-0.0120	0.355	1.543***	0.824***	-0.18	0.12
	(0.211)	(0.0482)	(0.0315)	(7.131)	(0.251)	(0.251)	(0.588)	(0.581)
Rand_pop	-0.511	0.0105	0.154**	0.622***	0.938***	0.530**	0.73	1.34***
	(0.510)	(0.0593)	(0.0710)	(0.121)	(0.220)	(0.214)	(0.457)	(0.451)
FinIndep	3.81e-06	1.00e-07	-9.66e-07	-3.58e-06	6.73e-07	-2.33e-06	-0.00***	-0.00***
	(7.09e-06)	(3.48e-06)	(2.48e-06)	(1.94e-05)	(8.77e-06)	(2.23e-06)	(0.000)	(0.000)
Sales_Ass	-6.66e-07	-3.21e-07	-3.35e-07**	-3.29e-07	-9.13e-08	-2.88e-07***	-0.00***	-0.00*
	(5.91e-07)	(3.19e-07)	(1.57e-07)	(4.81e-05)	(2.46e-07)	(3.45e-08)	(0.000)	(0.000)
Manuf	-3.213	-0.241	-0.0108	0.206	0.916*	-0.412	-0.76	-0.82
	(2.310)	(0.164)	(0.0397)	(1.049e+15)	(0.527)	(0.429)	(0.736)	(0.726)
Building	-0.0738	-0.0456	0.0221	0.312	1.017***	0.604***	-0.72	-0.42
	(0.0973)	(0.0368)	(0.0217)	(1.049e+15)	(0.201)	(0.183)	(0.757)	(0.756)
Trade&Transp.	-0.0245	0	0.00454	0.238	1.025***	0.400***	-0.57	-0.94
	(0.109)	(0.0216)	(0.0117)	(1.049e+15)	(0.204)	(0.151)	(0.632)	(0.636)
Bus. Serv.	-0.423***	-0.159***	-0.0119	0.227	0.719***	0.194	-0.58	-0.59
	(0.143)	(0.0254)	(0.0137)	(1.049e+15)	(0.167)	(0.149)	(0.549)	(0.551)
Constant	-0.555***	0.00449	0.0499	1.289	3.615***	1.102***	3.38***	4.26***
	(0.192)	(0.0140)	(0.0325)	(1.049e+15)	(0.269)	(0.203)	(0.731)	(0.728)
Observations	2,107	2,107	2,107	2,107	2,107	2,107	2,107	2,107
R^2						0.181		
Pseudo-R^2	0.0391	0.0200	0.0200	0.0761	0.3427		0.1626	0.1626

* Sales stands for the sales growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 12 **Estimation of the tangible assets growth rate for the BA and the random samples**

	Quantile regression					OLS	Logit model	
	10%	25%	50%	75%	90%		Decrease	Increase
Variables	Assets*	Assets*	Assets*	Assets*	Assets*	Assets*	Assets*	Assets*
lnImmC08	-0.0795***	-3.46e-07	0	-0.855***	-0.839***	-0.526***	0.39***	0.04***
	(0.0189)	(111.6)	(0.0164)	(0.0175)	(0.0138)	(0.0200)	(0.040)	(0.015)
lnAge	0.211	-0	0	0.198*	-0	0.423***	-0.47***	-0.18**
	(0.162)	(202.7)	(0.00657)	(0.105)	(0.0475)	(0.126)	(0.125)	(0.076)
Gr	-0.00280	4.26e-07	-0	1.235	1.262	0.463**	-0.10	0.37*
	(0.151)	(2.751)	(0.0249)	(2.398)	(2.310)	(0.224)	(0.263)	(0.206)
Rand_pop	0.295	2.91e-06	0.154***	0.462	0.404	1.148***	0.25	1.15***
	(0.242)	(9.021e+14)	(0.0491)	(2.407)	(2.164)	(0.182)	(0.242)	(0.187)
FinIndep	4.32e-06	0	-0	-2.64e-06	-3.94e-06	1.26e-05*	-0.00	-0.00***
	(1.39e-05)	(0.0679)	(1.30e-05)	(2.32e-05)	(1.97e-05)	(7.51e-06)	(0.001)	(0.000)
Sales_Ass	-2.97e-08	0	0	-5.74e-07	-6.00e-07	-5.23e-07**	-0.00	-0.00
	(1.89e-07)	(0.0613)	(2.02e-07)	(1.42e-06)	(3.24e-06)	(2.16e-07)	(0.002)	(0.000)
Manuf	-0.0327	2.48e-06	-0.0391	-0.0401	0.249	-0.180	-0.52	-0.32
	(1.381)	(460.6)	(0.0711)	(0.328)	(0.384)	(0.442)	(0.433)	(0.286)
Building	0.187	-4.26e-07	-0.0404	-0.606***	-0.657**	-0.236	-0.28	-0.43**
	(0.220)	(9.021e+14)	(0.0701)	(0.196)	(0.323)	(0.316)	(0.339)	(0.208)
Trade&Transp.	0.115	-0	-0.0380	0.341**	-0	0.617**	0.33	0.08
	(0.142)	(9.021e+14)	(0.0664)	(0.147)	(0.170)	(0.308)	(0.319)	(0.176)
Bus. Serv.	0.000441	0	-0.0404	-1.051***	-0.615***	-1.079***	-0.13	-0.71***
	(0.0347)	(927.4)	(0.0857)	(0.199)	(0.159)	(0.287)	(0.302)	(0.161)
Constant	-1.074**	-2.39e-06	0.0404	3.616***	4.561***	0.700**	-0.61*	0.81***
	(0.467)	(9.021e+14)	(0.103)	(0.162)	(0.365)	(0.345)	(0.367)	(0.198)
Observations	2,107	2,107	2,107	2,107	2,107	2,107	2,107	2,107
R^2						0.378		
Pseudo-R^2	0.0320	0.0000	0.0013	0.4122	0.5899		0.1305	0.1305

* Assets stands for the tangible assets growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

Table 13 **Estimation of the employment growth rate according to the length of the financial relationship**

	Quantile regression					OLS	Logit model	
Variables	10% Empl.*	25% Empl.*	50% Empl.*	75% Empl.*	90% Empl.*	Empl.*	Decrease Empl.*	Increase Empl.*
lnEmpl08	-0.0287	-0.0436	-0.0190	-0.134**	-0.232**	-0.135***	0,7202 ***	0,6696731***
	(0.251)	(0.0318)	(4.249)	(0.0622)	(0.0945)	(0.0456)	(0,229)	0,232
lnAge	-0.161	-0.00771	-0.0602	-0.00602	-0.125	-0.0532	-0,0236	-0,0444
	(0.315)	(0.0811)	(1.060)	(0.162)	(1.886)	(0.0617)	(0,041)	0,042
Gr	0.0474	-0.00251	0.0877	0.00881	0.152	0.0891	0,0366	0,5220
	(0.186)	(0.0854)	(5.666)	(0.117)	(0.189)	(0.0762)	(0,497)	0,473
length	-0.0147	-0.0251	0.0159	-0.0221	-0.0327	-0.0234	0,2384*	0,1245
	(0.131)	(0.0308)	(2.599)	(0.0331)	(0.0455)	(0.0234)	(0,126)	0,125
FinIndep	-3.61e-06	-4.08e-06	-5.43e-06	-7.49e-06	-8.42e-06	-5.03e-06***	0,0030	0,0011
	(0.158)	(0.110)	(0.0959)	(0.116)	(0.126)	(7.71e-07)	(0,096)	0,018
Sales_Ass	6.27e-07	8.82e-08	-1.66e-07	-8.61e-07	-1.58e-06	-4.24e-07**	0,0000	-0,0001*
	(0.179)	(0.000255)	(0.604)	(0.000452)	(0.00377)	(1.90e-07)	(0,020)	0,000
Manuf	0.448	0.109	0.103	-0.197	-0.186	0.0160	0,8446	0,5881
	(2.819e+14)	(3.077e+12)	(1.951e+15)	(0.273)	(4.493e+14)	(0.186)	(1,067)	1,088
Building	0.554	0.101	0.0162	-0.364	-0.412	-0.150	-0,4693	-1,1022***
	(2.819e+14)	(3.077e+12)	(2.141e+14)	(0.337)	(4.493e+14)	(0.238)	(1,230)	1,150
Trade&Transp.	0.525	0.121	0.179	-0.134	-0.145	0.0227	0,5099	0,4310
	(2.819e+14)	(3.077e+12)	(1.951e+15)	(0.245)	(4.493e+14)	(0.167)	(1,052)	1,047
Bus. Serv.	0.400	0.110	0.141	-0.230	-0.128	-0.000145	0,5076	0,5048
	(2.819e+14)	(3.077e+12)	(1.951e+15)	(0.219)	(4.493e+14)	(0.147)	(0,894)	0,930
Constant	-0.413	-0.0455	-0.00631	0.950***	1.527	0.500**	-10,6450	-0,9042
	(2.819e+14)	(3.077e+12)	(1.951e+15)	(0.288)	(4.493e+14)	(0.197)	(0,979)	1,030
Observations	202	202	202	202	202	202	229	229
R^2						0.107		
Pseudo-R^2	0.0667	0.0494	0.0241	0.0847	0.1503		0.0839	0.0839

* Empl. stands for the employment growth rate
Standard errors estimated by the Bootstrap methodology are in parentheses (number of Bootstrap samples = 500).
The stars indicate the degree of significance (*for 10%, **for 5% and ***for 1%).

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