Entrepreneurial Firms and Bank Financing:

Do Business Angels Play a Role?[o]

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ABSTRACT

This paper aims at investigating the contribution provided by Business Angels' (BAs) post-investment intervention on the interaction between young ventures and bank lending decisions within the entrepreneurial finance ecosystem. The analysis relies on a dataset comprising 1169 Italian firms, 132 of which are BA-backed in the 2010 – 2018 reference time-period, whereas the remaining 1037 constitute the propensity score matched control group. We find strong evidence that being supported by BAs facilitates raising follow-on bank financing. Additionally, we document a positive effect of both BAs' human capital (entrepreneurial experience) and BAs' investment practices (soft monitoring) on the funded ventures' capital structure choices due to their impact on information asymmetries perceived by debt providers. Results hold after several robustness tests. The paper is the first study to provide quantitative empirical evidence on the role played by informal investors in nurturing bank-firm lending relationships within the start-up ecosystem.

1. Introduction

The aim of this paper is to analyse the impact that the Business Angels' (BAs) intervention may have on the bank financing of the funded ventures, mostly thanks to the non-monetary contribution made available in the post-investment phase.

A consolidated stream of contributions within the entrepreneurial finance literature provided robust evidence on the role played by bank debt for the survivorship and growth of startup companies, both at a macro- (Black and Strahan, 2002; Cetorelli and Strahan, 2006; Kerr and Nanda, 2009; Backman, 2015; Schmalz et al., 2017) and micro-level (Cassar, 2004; Cosh et al., 2009; Huyghebaert and Van De Gucht, 2007; Robinson, 2012; Robb and Robinson, 2014; Hanssens et al., 2016; Deloof and Vanacker, 2018; Hirsch and Walz, 2019). Nowadays, the relevance of bank financing for early-stage entrepreneurial ventures is well-established and researchers believe the funding cycle for start-up firms is not as straightforward as the financing life-cycle theory would suggest, potentially leading to several competing funding trajectories across multiple follow-on rounds, involving different types of capital providers, whose comparative effectiveness has yet to be fully measured (Bonini and Capizzi, 2019; Bessiere et al., 2020; Harrison et al., 2020). Banks may make use of truly heterogeneous and flexible lending policies ultimately leading to a wide set of financing facilities well consistent with the risk profile of young ventures. For instance, they can adjust the interest rates, include covenants, use signals (Coleman, 2000; Scholtens, 1999) or rely heavily on the entrepreneur's personal assets (Avery et al., 1998). Additionally, not all new firms are based on disruptive capital-intensive technologies and some of them may be able to generate in limited time frames enough cash flow to access bank financing.

However, unlike established large-sized firms, getting access to bank debt still represents a major challenge for many startup companies. Indeed, young ventures may experience liquidity shortages due to physiologically high working capital and capital expenditure needs, limited

managerial and strategic expertise, and slow cash flow generation paths (Dunn and Cheatham, 1993; Ebben and Johnson, 2011). Given the limited initial endowment of their disposable asset base, they are also short of collaterals (Schmalz et al., 2017). Moreover, the information advantage held by the entrepreneur often gives rise to severe adverse selection and moral hazard problems, leading to opaque and low-quality financial reporting (Berger and Udell, 2002; Chua et al., 2011; Bertomeu and Marinovic, 2016). Because of these issues, and consistently with the financing life-cycle theory, bank debt has never been typically considered a feasible funding option for entrepreneurial firms (Myers and Majluf, 1984; Berger and Udell, 1998; Carpenter and Petersen, 2002; Huyghebaert and Van De Gucht, 2007). Therefore, an interesting and currently relevant research topic concerns the capability of modern entrepreneurial finance ecosystems to develop suitable solutions aimed at making it easier for startups to raise bank financing.

In this paper we investigate whether one of these solutions might by constituted by Business Angels (BAs), indeed the largest source of funding for early-stage companies that has now been widely studied and legitimized on a worldwide basis (Mason, 2006; Wong et al., 2009; OECD, 2011; Landström and Mason, 2016; Lerner et al., 2018; Bonini et al., 2019a; Cumming and Zhang, 2019). BAs are outside equity investors, often high net-worth individuals, who invest their own money in small promising companies typically assuming a minority equity stake (Mason, 2006). Their key role in the economy is to fill the so-called "primary funding gap" between, on the one hand, friends-and-family money and, on the other hand, the external financing raised from institutional venture capital (VC) firms when the size of the required equity investment is too large for the former and too small for the latter (Cassar, 2004; Bonini and Capizzi, 2019). Alongside the finance that they provide, BAs also bring valuable non-monetary resources, such as industry knowledge, management experience, mentoring, reputation, and personal networks (Avdeitchikova and Landström, 2016; Bonini et al., 2019b,

2018; Capizzi et al., 2022; Månsson and Landström, 2006; Politis, 2016, 2008). Such a combination of both BAs' human capital and post-investment involvement in the funded ventures might facilitate the capability of the latter to raise subsequent bank financing thanks to the reduced information asymmetries featuring banks' lending decisions.

To investigate the effect of BAs' intervention on the relationship between banks and entrepreneurial ventures, we rely on a unique database built from the sequential surveys administered by the Italian Business Angels Network Association (IBAN) from 2008 to 2018. The empirical analysis is based on a total dataset of 1169 Italian firms, 132 of which are BA-backed while the remaining 1037 constitute the propensity score matched control group. Confirming our main hypothesis, the results of our econometric model reveal BAs have a positive effect on the amount of bank debt raised by angel-backed companies when compared to non angel-backed ones. We also document the significant impact of certain BAs' human capital characteristics, on the one hand, and BA's post-investment active monitoring, on the other hand, on the follow-on bank financing raised by angel-backed companies.

Our research contributes to the entrepreneurial finance literature in several ways. First, it moves forward an emerging strand of contributions investigating the interconnections between different types of finance providers for entrepreneurial firms (e.g., Harrison and Mason, 2000; Cumming and Zhang, 2019; Wang et al., 2019; Bessière et al., 2020; Capizzi et al., 2022; Hellmann et al., 2021). To the best of our knowledge, this is the first study empirically investigating the interdependencies between banks and BAs in financing entrepreneurial ventures, excluding a seminal contribution based on anecdotical evidence (Sørheim, 2005). Second, this paper deepens extant research on the impact of non-monetary value-added benefits provided by BAs to the funded ventures (Mason, 2006; Politis, 2008, 2016). Finally, the paper provides new evidence highlighting the role of bank financing for entrepreneurial ventures (Robinson, 2012; Robb and Robinson, 2014; Hanssens et al., 2016; Deloof et al., 2019; Hirsch

and Walz, 2019). From a policy perspective, this study reveals the informal venture capital market might be an effective solution for improving young ventures' access to the credit market. As for entrepreneurs, our analysis uncovers the main BAs' human capital characteristics and investment practices that facilitate access to bank credit.

The rest of our paper is structured as follows. Section 2 derives our research hypotheses. Section 3 describes the dataset, the methodology and all the variables selected for the subsequent empirical analysis. Section 4 reports and discusses the results, while section 5 presents some further data and robustness tests. Finally, Section 6 concludes and provide suggestions for future research.

2. Hypothesis development

2.1. BAs' intervention and bank financing

BAs play an active role in the ecosystem for entrepreneurial businesses, providing the SMEs with both monetary and non-monetary contributions. Because of that, BAs are expected to be value adding investors as they contribute to the firm with the so-called "smart money" (Ehrlich et al., 1994; Aernoudt, 2005; Politis, 2008, 2016). In fact, in addition to the financial capital, they may also support the company with different contributions such as their managerial experience, industry knowledge, technical advice, networking skills, filling the gap in both knowledge and social capital characterizing new ventures (Ehrlich et al., 1994; Sætre, 2003; Madill et al., 2005; Sørheim, 2005; Macht and Robinson, 2009; Collewaert and Manigart, 2016). Entrepreneurial firms, particularly weak in finance and marketing area, can thus enhance the quality of their business planning. The literature on informal investors has accordingly revealed that by providing strategic and business advice (Ehrlich et al., 1994; Mason and Harrison, 1996; Landström and Mason, 2016), they establish a productive and trustful working relationship with the entrepreneur (Macht and Robinson, 2009). Furthermore, some authors found evidence that BAs introduce their investees with several management contacts and

connections in the industry: for instance, they may provide companies with the CVs of potential candidates, recommend directors, facilitate relations with potential customers or quickly establish alliances with external service providers (Collewaert and Manigart, 2016). Well-networked and reputable BAs also facilitate further additional sources of funding, either debt (Macht and Robinson, 2009; Sørheim, 2005) or additional equity (Capizzi et al., 2022; Chemmanur and Chen, 2014; Kerr et al., 2014; Macht and Robinson, 2009; Madill et al., 2005). Thus, consistently with this research perspective, angel-backed ventures may benefit of an endowment of knowledge, non-monetary contributions as well as BAs' social capital, fostering companies to be better managerially prepared to take advantage of market opportunities (Sørheim, 2003) and, therefore, being perceived as better suited to face competition and ultimately come out with positive performances. Therefore, as documented in past research, the value-added contributions provided by BAs involvement are crucial to the survival and growth of the backed companies whatever is the proxy used for measuring the success: survival, increase in revenues or profitability margins, multi-factor performance indexes, follow-on venture capital investment rounds or access to capital markets through IPOs (Lerner et al., 2018, Levratto et al., 2018; Bonini et al., 2019b, Cumming and Zhang, 2019, Croce et al., 2021, Capizzi et al., 2022). It is consequently reasonable to assume an increased credit standing due to a lower estimation of the insolvency risk when banks have to run a creditworthiness analysis following a loan application by these companies. Furthermore, the well documented knowledge and information sharing process taking places between the entrepreneurs and the BAs gives rise to a better-quality company management that improves the transparency and the information disclosure aptitude of the angel-backed venture, ultimately facilitating banks' screening and selection processes. It has also to be adequately considered the role of BAs' social capital in banks' lending decisions, which often is the result of their previous successful entrepreneurial experiences. Indeed, BAs' intervention might significatively reduce moral hazard by the

borrowing company, on one side, and monitoring costs by lenders, on the other side, widening the available amount of bank loans available to the angel-backed companies (Jensen and Meckling, 1976; Diamond, 1984, 1991; Gale and Helwig, 1985; Diamond and Rajan, 2000; Carletti, 2004; Freixas and Rochet, 2008; Cerqueiro et al., 2016; Gustaffson et al., 2021).

One major implication coming from all the above developed arguments is that, given the non-moderate intrinsic riskiness underlying the type of firms investigated in this paper, it is straightforward to argue that the presence of BAs inside the ownership base of the loan applicant is a risk mitigating factor considered by banks in their lending decision making process. As such, we can formulate the following research hypothesis:

H1. *BAs' intervention increases the amount of follow-on bank debt raised by the funded ventures*.

2.2. BAs' human and social capital endowment and bank financing

Several works have emphasized the key role of BAs' human and social capital characteristics for angel-backed companies (Collewaert and Manigart, 2016; Bonini et al., 2018, 2019b; Croce et al., 2020, 2021; Bonnet et al., 2022).

In line with the resource-based view, the BAs' human capital endowment developed through experience and education leads to an idiosyncratic information and knowledge, providing valuable and distinctive capabilities at the firm level, ensuring higher competitive advantage (Barney, 1991; Cooper et al., 1994; Conner and Prahalad, 1996). A wide body of contributions deeply investigated through survey-based analysis the impact of different attributes of BAs' human capital and identified their entrepreneurial experience as a major common trait shared by most active angel investors (e.g., Wetzel, 1981; Aernoudt, 1999; Mason, 2006, Bonini et al., 2018, Croce et al. 2021). The investors' entrepreneurial experience results in a set of tacit knowledge (know-how and noncodified components of activities) acquired on the job that differs from the explicit knowledge acquired instead through formal education. This means that

BAs' cognition, values and behaviours are certainly shaped by their past entrepreneurial background, which in turn also affects their investment practices and the way they engage and interact with the entrepreneur (Bonini et al., 2018, 2019b; Botelho et al., 2021; Croce et al., 2021). For instance, BAs that had first-hand experienced the entrepreneurial journey are more likely to use experience-based schemas or rely on their mere-intuition (i.e. "gut feel") in their decision-making process (Huang, 2018). The investor's industry knowledge is another decision making criterion frequently adopted by BAs to select their investments and then to monitor them, also providing effective value-added contributions like coaching and business relationships (Maula et al., 2005; Walske and Zacharakis, 2009; Croce et al., 2021). Indeed, entrepreneurial experience allows BAs to have a noncodified knowledge of the industry, technologies and people (Cooper et al., 1994) which arguably helps to detect profitable market niches, discriminate good investment opportunities and better manage the overall investment process until exit. The expertise and connections acquired in a similar business may also lessen the liability of newness of the new venture, enhancing its probability of success (Brüderl et al., 1992). Furthermore, when investors and entrepreneurs share a common background, they are able to create a closer connection with each other, facilitating the transfer of knowledge and shrinking information gaps (Sørheim and Landström, 2001; Croce et al., 2021; Bonnet et al., 2022). As a consequence, entrepreneurial experienced BAs provide a truly effective contribution to the future growth and performance of the funded ventures, thus positively impacting on the output of the creditworthiness analysis bank run in order to take their lending decision. Therefore, we can posit the following hypothesis:

H2a. *The higher the BAs' entrepreneurial experience, the higher the amount of follow-on bank debt raised by the funded ventures*.

A second dimension of human capital considered in our research is BAs' formal education, whose crucial role has been widely investigated by the extant literature dealing with entrepreneurship and startup financing (Deakins and Whittam, 2000; Davidsson and Honig, 2003; Bosma et al., 2004; Dimov, 2010; Rauch and Rijsdijk, 2013; Bryant, 2014). Formal education can indeed be considered a valid proxy for knowledge, skills, problem-solving ability, discipline, motivation, and self-confidence (Cooper et al., 1994; Colombo and Grilli, 2005; Unger et al., 2011). As a matter of fact, many contributions have shown that firms founded by entrepreneurs with higher levels of or more specific education have a higher probability of survival and of achieving higher performance levels (Wiklund and Shepherd, 2005; Gimmon and Levie, 2010; Brixy et al., 2012; Ganotakis, 2012; Criaco et al., 2014; Collewaert and Manigart, 2016; Tzabbar and Marolis, 2017; Linder et al., 2020). At the same time, prior contributions show human capital acts as a signal for the quality of a new venture, particularly to external equity investors as venture capitalists, business angels or crowdinvestors (Busenitz et al., 2005; Colombo and Grilli, 2010; Ahlers et al., 2015; Harrison and Mason, 2017; Ko and McKelvie, 2018; Butticè et al., 2021; Naiki and Ogane, 2022). The relevance and quality of signals appears to be particularly relevant when venture uncertainty on future survival and growth prospects is at its maximum, i.e., at the seed stage of development of a new venture. Following such an impactful stream of literature, it is rational to assume also BAs' formal level of education is a useful signal in the follow-on funding strategies young ventures run after the initial intervention of the angel investor themselves: BAs with a higher level of education have a broader knowledge base and are generally better informed than BAs with a lower level of education, thus being in a favourable condition to leverage on their contributions, both monetary and non-monetary, provided to the funded ventures. In turn, higher education might give rise to stronger learning dynamics, adaptation skills, networking opportunities and negotiation power, which are crucial when managing high risky ventures (Shane, 2000;

Colombo and Grilli, 2005; Politis, 2008; Mudd et al., 2010; Collewaert and Manigart, 2016; Bonini et al., 2019b). Accordingly, banks, when running their credit analyses, may feel reassured by the BAs' level of formal education which can be considered as a determinant of managerial quality and, therefore, as a risk mitigating factor positively contributing on their lending decisions. As such, we formulate the following research hypothesis:

H2b. *The higher the BAs' education, the higher the amount of follow-on bank debt raised by the funded ventures*.

Alongside with human capital another critical resource provided by BAs is social capital, that is "the sum of actual or potential resources associated with an enduring network of more or less institutionalized relationships of mutual understanding and recognition" (Bourdieu, 1977). It is unambiguously accepted among scholars in the field of entrepreneurial finance that the size, the width and the quality of the current and future relationship networks are major determinants of the performance and the growth trajectories available to new ventures, and of their fundraising strategies as well (Reynolds, 1992; Hansen, 1995; Uzzi, 1999; Sorenson and Stuart, 2001; Shane and Cable, 2002; Greve ans Salaff, 2003; Hsu, 2004; Hochberg et al., 2007; Jonsson and Lindbergh, 2013; Werth and Boeert, 2013; Colombo et al., 2015; Bonini et al., 2019b; Butticè et al., 2021). Furthermore, previous research has shown social capital provides benefits in terms of entrepreneurial heterogeneity in resource acquisition, identification and acquisition of market opportunities, and innovative business ideas (Stam et al., 2014; Lee et al., 2019; Xie et al., 2021). Entrepreneurs receive advisory, coaching, legitimation, business opportunities through various channels, informal relationships with people inside and outside the industry, and among them BAs are indeed a major valuable source of social capital, especially in the case of BAs affiliated with a Business Angel Network (BAN). As a matter of fact, in recent times angel investors have increasingly grouped themselves into different types

of organized or semi-structured associations, usually on a geographic or industrial basis (Mason et al., 2016; Bonini et al., 2018; 2019c; Lerner et al., 2018; Cumming and Zhang 2019; Capizzi et al., 2022). These BA groups attract a higher deal flow, perform a superior appraisal and due diligence of investment opportunities, and adopt a more professional approach in their investment practices (Mason and Harrison, 1996; Paul and Whittam, 2010; Kerr et al., 2014; Carpentier and Suret, 2015; Croce et al., 2017; Edelman et al., 2017). As a consequence, BANs are better able to raise relevant private information on young opaque ventures, ultimately facilitating the individual screening process of affiliated angels. These communities also provide coaching to novice angels and investment readiness programmes for entrepreneurs (Mason et al., 2017). Bonini et al. (2018) recently highlighted the network nature of BA groups and provided preliminary evidence that membership to a BAN is positively related to the share of personal wealth each BA is willing to invest in a given venture. Butticè et al. (2021) moved forward this line of research by demonstrating that the social capital BAs develop through the affiliation to a BAN may give rise to an information and knowledge sharing process within the BAN that positively affect the likelihood of the young venture being funded. Moreover, one important kind of relationships BAs might share with the owners and managers of a young invested venture relies on the network ties developed over time with financial institutions, often surging from previous performing lending relationships where the BAs had the opportunity to prove their capability to meet on a regular basis their contractual obligations towards lending banks. Such a peculiar social network, whose width and heterogeneity are emphasized within a BAN, might lead to an improved borrowing capacity and better contractual provisions in terms of either lower cost of debt or less restrictive covenants (Engelberg et al., 2012).

This line of reasoning is also consistent with the banking and finance literature dealing with corporate lending, which shows that the existence of an underlying trust-based relationship between a loan applicant and a bank is a powerful tool to extract private information

overcoming the drawbacks of pure quantitative models relying just on publicly available financial information, that, particularly in the case of SMEs, might be incomplete and affected by limited predictive power (Altman, 1968; Diamond, 1991; Rajan, 1992; Berger et al., 2001; Berger and Udell, 2002, 2006; Dell'Ariccia and Marquez, 2004; Howort and Moro, 2006; Altman et al., 2010; Ciampi, 2015; Lukason et Laitinen, 2019).

To conclude, we hypothesize BAs, thanks to their relationship networks provided when investing in the selected ventures, might significantly reduce information asymmetries and moral hazard perceived by banks, thus positively affecting the outcome of their creditworthiness analyses and eventually increasing the probability of favourable lending decisions. In more formal terms:

H2c. *BAs' social capital is positively related to the amount of follow-on bank debt raised by the funded ventures*.

2.3. BAs investment practices and bank financing

One major problem arising when establishing lending relationships with entrepreneurial ventures deals with moral hazard, that is the tendency to adopt opportunistic behaviour (hidden action) after the signing of the loan contracts due to ex post-information asymmetries; as a consequence, banks are unwilling to lend money, which might create severe financial frictions. Financial contracting, collaterals and monitoring are possible solutions available to lenders in order to adequately manage the moral hazard problem (Jensen and Meckling, 1976; Myers, 1977; Smith and Warner, 1979; Stiglitz and Weiss, 1981; Grossman and Hart, 1983; Jensen, 1986; Agrawal and Mandelker, 1987; Baron and Besanko, 1987; Boot et al., 1991; Diamond, 1991; Besanko and Kanatas, 1993; Petersen and Rajan, 1995; Holmstron and Tirole, 1997; Berger and Udell, 1998; Boyd et al., 1998; Carey, 1998; DeYoung et al., 2001; Foos et al., 2010; Berger and Black, 2011). As for the monitoring activity, in a context of long-term lending relationships, banks try to extract qualitative indications (called "soft information") aimed at

integrating the quantitative information offered by company financial statements and central credit registers (called "hard information), that in the case of young ventures is not sufficient to let the lenders develop a full assessment of the default risk and of its evolution over time (Voordeckers and Steijvers, 2006). Such qualitative indications depend on mutual knowledge and trust between the borrower and the lender, thanks to a reliable business network developed over time, and lenders can use those indications to reduce ex-post information asymmetries (Coleman, 2000; Scholtens, 1999). Soft information, however, is costly to obtain and verify by outsider investors. This is particularly evident in the case of startup companies because of the uncertainties related to the new business opportunity and the diffidence of these young ventures to disclose confidential information which might be spread into the market, negatively affecting their competitive advantage.

Moving from debt- to equity-financing, several studies have examined the monitoring mechanisms used to reduce ex post asymmetries in the relationship between private equity investors (mostly venture capitalists, VCs) and entrepreneurial ventures, which are largely based on financial contracting, also due to the limited collateral endowment of these companies (Kaplan and Stromberg, 2003; Cumming, 2008; Chemmanur et al., 2011; Cumming and Johan, 2014). As compared to both banks and VCs, BAs rarely design complex protective contracts, as they adopt non-aggressive and informal monitoring mechanisms based on a close post-investment involvement in the company through firm visits, interactions with entrepreneurs, and other control techniques based on trust (Ibrahim, 2008; Wong et al., 2009; Chemmanur and Chen, 2014). This kind of monitoring has been defined by scholars as "soft-monitoring" (Bonini et al., 2018; 2019b; Capizzi et al., 2022) and can be considered as another important value-adding contribution to target companies provided by angel investors (Ehrlich et al., 1994; Lumme et al., 1998; Sætre, 2003; Madill et al., 2005; Mason, 2006; Politis, 2008). Monitoring reduces agency problems between insiders and outsiders (Jensen and Meckling, 1976), and

shield both equity and debt holders from the risk of entrepreneurs' potential misbehaviours. This function is also performed by instituting proper management and accounting information systems (Mitchell et al., 1997). BAs may therefore play the role of the informed party acting as a mediator in the interaction between angel-backed companies and the banking system. Their active involvement and continuous monitoring may provide a significant amount of soft information to banks, convincing them about the business integrity and creditworthiness. In other words, BAs' active engagement reduces the risk of "hidden actions" and provides further assurance that the firm will comply with the lending contract. Summing up, banks can strongly rely on BAs' soft monitoring to alleviate the moral hazard problem, thus increasing the credit availability for angel-backed companies. As such, we formulate the following research hypothesis:

H3a. *BAs' soft monitoring is positively related to the amount of follow-on bank debt raised by the funded ventures*.

Another well consolidated strand of literature dealing with both formal and informal investors has shown that early-stage investors normally invest in their local economy (Wetzel, 1983; Lumme et al., 1998; Sohl, 1999; Sorenson and Stuart, 2001; Lindgaard Christensen, 2007; Wong et al., 2009; Cumming and Dai, 2010; Harrison et al., 2010; Colombo et al., 2019; Cowling et al., 2021). On the demand side, it has to be considered young ventures, especially those located in peripheral regions, are not used to seek VC or BAs, also due to the high opaqueness of the entrepreneurial finance ecosystem (Mason and Harrison, 2002; Bertoni et al., 2019). On the supply side, co-localization, in terms of BAs' geographical proximity to funded start-ups, facilitates the BAs' screening process, the provision of post-investment support and monitoring and, furthermore, the relationship with the banks financing the company. In other words, the geographical proximity helps minimizing both ex ante and ex post information

asymmetries and provide BAs a comparative advantage in dealing with agency problems that might arise when the strategic objectives of investors diverge from those of the entrepreneurs (Jensen and Meckling, 1976; Shane and Cable, 2002; Wong et al., 2009; Croce et al., 2018; Butticè et al., 2021). Beyond the distance, also referred to as "functional proximity", some recent studies have investigated the geographical proximity from a relational perspective, finding that the closer the distance between the BAs and the investee ventures, the more similar are the cultural, social and behavioural mindsets which are crucial in favouring the establishment of a trust-based relationship in a context of high information asymmetries and agency costs (Herrmann et al., 2016; Bonini et al., 2018; Kuebart, 2019).

Thus, the geographical proximity between investor and investee can increase the overall quality of the subsequent lending relationship, by mitigating through the soft information generated adverse selection and moral hazard behaviours between ventures and potential lenders. Geographical proximity also plays a certification role assuring the lenders about the effectiveness of BAs' post-investment involvement. In other words, banks may be sure BAs investing in entrepreneurial ventures located close to their headquarters will act as active investors (hands-on investment approach), rather than as passive investors (hands-off approach), contributing with their human and social capital to the growth and the performance of the investee companies. However, geographical proximity does not necessarily imply angel investors are going to engage in frequent company visits, because, as shown by previous contributions, this might negatively affect the trust-based relationship between the BA and the funded entrepreneur (Bonini et al., 2019b; Croce et al., 2021). Summing up, the local bias behaviour typically adopted by BAs might play a positive role in banks' lending decisions, ultimately increasing the overall efficiency of the credit market for the angel-backed companies. Therefore, we formulate the following research hypothesis:

H3b. *BAs' geographical proximity is positively related to the amount of follow-on bank debt raised by the funded ventures*.

3. Data and methods

3.1. Data source and dataset construction

We test our research hypotheses using a dataset of Italian angel-backed companies. We exploited data from the sequential surveys administered by the Italian Business Angel Network (IBAN)[1] to its associates and other unaffiliated BAs. The survey annually collects information on BAs' operations and their relative investment practices.

One major challenge in BA research is estimating the full angel market. The majority of angel investments is indeed individual and private, hence constituting an "invisible market" that is difficult to detect using simple survey techniques (Landström and Mason, 2016; Mason and Harrison, 2000). The survey method adopted by IBAN integrates the "visible market", represented by BAs and networks/groups affiliated to IBAN, with an estimation of the "invisible" component, therefore reaching a more reliable sample of the population of Italian BAs.[2]

We used data from the 2008-2018 survey waves. The initial sample available through the surveys comprised 1124 deals, representing 905 companies that were invested in by 556 BAs from 2008 to 2018. We then matched these companies with the AIDA-BVD[3] database in order to collect accounting and financial information. We preferred AIDA over other BVD's products (such as Orbis or Amadeus) because it provides more detailed accounting information for Italian companies and offers the possibility to consult the scan of the original annual reports

[1] Within the Italian context, IBAN is the reference trade association for private investors, regional BA networks, and investor clubs/groups.

[2] A full description of the survey procedure is provided by (Bonini et al., 2018).

[3] Bureau Van Dijk (BVD) Electronic Publishing. The financial data are provided by Honeyvem (www.honeyvem.it), which acquires and revises the annual reports deposited in the Italian Chambers of Commerce. For each company, AIDA includes in a single document the figures of the previous 10 years, or less depending on availability, and adds information on shareholdings and management for the first 20,000 Italian firms.

deposited in the Italian Chambers of Commerce. The matching process required a very rigorous and meticulous approach aimed at unequivocally identifying each company detected through the IBAN surveys. Since cross-country institutional differences could influence the relationship between SMEs and banks (Detragiache et al., 2000; Hernández-Cánovas and Koëter-Kant, 2010; Ongena and Smith, 2000), non-Italian BA-backed companies were excluded, bringing our final sample to 348 companies (out of the initial 905)[4].

To explore the role of BAs in influencing backed companies' bank financing, we focused on the time each firm received its first BA investment. This event can be considered as a fundamental change of status for the firm, since it will affect its subsequent growth and investment path (Capizzi et al., 2022); it allowed us to distinguish between a pre- and post-investment period. After excluding firms with non-complete or missing accounting information in either the pre- or post-investment period, we were left with 132 firms (38% of the initially identified companies) for which we had at least one observation before and after the BA's equity investment into the funded venture. This final set of firms represents our treated group. Table 1 shows the representativeness of our treated group compared to the initial IBAN sample in terms of industry distribution, geographical distribution, year of BA's intervention, and percentage of innovative start-ups or SMEs.

[Insert Table 1 here]

[4] This is not surprising considering that angel investors finance many seed and early-stage projects in which the company has not yet been founded and is therefore likely to never be founded or fail in the first year(s) (see Croce et al., 2021; Capizzi et al., 2022).

Table 2 presents some further descriptive statistics for the treated group. Panel A presents the distribution of innovative start-ups or SMEs[5] by industry, while Panel B shows the median of EBITDA by industry over time.

[Insert Table 2 here]

3.2. Control group

To properly assess the value-adding effect of BAs (RQ1) and posit a causal relationship between BA's support and bank financing, we needed to compare the level of bank debt of BA-backed companies with that of a matched control group made up of similar companies that did not receive any BA's support

To construct such control group, we employed the following methodology. First, after consulting the AIDA-BVD database, we randomly selected 65,314 non-BA-backed companies operating in Italy with similar characteristics in terms of age, industry and accounting data, and which also had more than four consecutive years of available accounting data. Second, we adopted a nearest-neighbour propensity score matching (PSM)[6] with replacement, to match each BA-financed firm at the time of getting BA funding with ten non-BA-financed firms, based on six observable characteristics: size (measured as the log of sales), growth (measured as the growth of sales, in logs, between year t and t-1), bank debt (in log form), firm age (in log form), geographical region[7] and industry. A suitable matched group of 1,037 non-BA-backed

[5] The Italian Decree Laws n. 179/2012 and n. 221/2012 (the so called "start-up Act") defines as "innovative" those companies respecting all the following criteria: i) the company should be operational for less than five years; ii) should be headquartered in Italy; iii) have an annual turnover lower than EUR five million; iv) not be the result of a branch split or merger from a previous company; v) have a mission statement explicitly related to innovation; vi) be a limited company and not publicly listed; and, vii) should not have distributed profits.

[6] Propensity score matching (PSM) equates the treatment and comparison group by using a balancing score computed on observed pre-treatment characteristics. Propensity score methods are now common in the social science research; for a similar procedure in the entrepreneurial finance literature see (Croce et al., 2021), (Croce and Martí, 2016), (Croce et al., 2013), (Puri and Zarutskie, 2012), (Chemmanur et al., 2011).

[7] Previous research has provided evidence on the effects of local banking development on the debt financing of new firms (Deloof et al., 2019).

pairs was found for the 132 BA-backed entrepreneurial ventures. Table 3 reports the composition of the final dataset comparing the treated and control groups by industry, geographical area, and age at the time of the treatment (matched year for control group companies).

[Insert Table 3 here]

3.3 Methodology and variables

Since our aim was to test the role of BAs in in making it easier follow-on bank financing for angel-backed companies, we deemed the difference-in-differences (DID) methodology to be the best approach to test our research hypotheses. The DID approach allows to determine the effect of BA's support on bank financing using a control group as a proxy for what would have occurred in the treated group if there had been no treatment. The difference in the average level of post-treatment bank financing between the treated and control groups is then used as a measure of the effect of BA's support. The DID approach is typically implemented as an interaction term between time and treatment group dummy variables in a regression model. Formally, to test Hypothesis 1, we adopted the following Equation 1:

$$\text{Bank Financing}_{it} = \alpha + \beta_1 * \text{Post}_t + \beta_2 * \text{Treatment}_i + \beta_3 * \text{Post}_t * \text{Treatment}_i + \beta_4 * f_i + \varepsilon_{it} \quad (1)$$

where the dependent variable *Bank Financing*$_{it}$ is the outcome variable, *i* is an index for firms, *t* refers to the time-period before/after[8], *Post* is a dummy variable that takes value 1 in the period after BA's intervention, *Treatment*$_i$ is a dummy variable equal to 1 for firms that are backed by

[8] We implemented a standard DID with two time-periods (before/after). Similar to (Croce et al., 2021), for each firm we used the average value of the outcome variable in the three years subsequent to the year of BA's support (matched year for control group companies) as after-treatment observation (Bank Financing$_{i,after}$), whereas the average value of the outcome variable in the two years prior to the treatment as before-treatment observation (Bank Financing$_{i,before}$).

BAs, f_i stands for the firm fixed effect to control for unobservable firm characteristics that are fixed over time and finally ε_{it} is the error term. The variable associated to the DID estimator is $Post_t * Treatment_i$, the parameter we are interested is therefore β_3.

To test Hypotheses 2 and 3, we instead adopted the following Equation 2:

$$\text{Bank Financing}_{it} = \alpha + \beta_1 * \text{Post}_t + \beta_2 * \text{Treatment}_i + \beta_3 * \text{Post}_t * \text{Treatment}_i + \beta_4 * \text{Post}_t * \text{Treatment}_i * \text{BA's characteristics}_i + \beta_5 * f_i + \varepsilon_{it} \quad (2)$$

where we added to Equation1 a new interaction variable built as the product between the variables $Post_t$, $Treatment_i$ and the vector of variables $BA's\ characteristics_i$.

As for the dependent variable, we adopted two different approaches to measure the *Bank financing*. First, we focus on the level of bank debt considering the amount of debt as reported in the company's balance sheet. [9] Given the presence of firms characterized by very different ages and sizes, we considered its logarithmic transformation (*ln_BankDebt*) (Bonini et al., 2018; Croce et al., 2021; Giraudo et al., 2019; Ivanov and Xie, 2010). This log-transformation made the error term closer to the normal distribution.

Second, to capture the relevance of bank financing within sample companies' capital structure choices, we adopted as dependent variable a relative measure of debt, as measured by the following two ratios: 1. *BankDebt_TotAssets* that is a standard leverage ratio computed as bank debt to total assets, and shows the percentage of company assets funded through bank debt; 2. *BankDebt_TotDebt* that is computed as bank debt to total debt and represents the percentage incidence of bank debt relative to the overall sources of external debt financing, which may include bonds, shareholders' loans, trade debt, debt from other lenders, advances, and negotiable instruments.

[9] We did not distinguish between short-term and long-term debt since this information was impossible to retrieve for most of the companies.

The joint analysis of the two approaches allows a deeper investigation of our research design, with the ratios shedding light on entrepreneurial ventures' funding policies and completing the picture given by the analysis of just the stock amount of bank debt. We argue the BAs' investment allows the backed companies to implement growth strategies that are not necessarily funded only by the BAs' monetary contributions, opening the possibility to an easier access to bank financing. In other words, BAs' intervention allows an increase in size and therefore it is important to understand also whether the new funds from banks are more or less than proportional than the funded venture's size and liabilities. If the coefficient of the variable of interest is positive and significant there is evidence for a multiplying effect, whereas if it is insignificant, we could state that bank debt increases as much size and/or other liabilities.

Regarding the vector of variables *BA's characteristics*, all angels' individual variables were built using the IBAN survey and, as mentioned above, they refer to the first BA-investment raised by each firm. Moreover, angel specific variables have been aggregated in the case of co-invested deals with more than one BA. Accordingly, depending on the metric, we calculated the average, the minimum, or the maximum of the individual co-investors' characteristics for these variables, as explained in the following discussion.

To test Hypothesis 2, we employed the following three different variables as representative of the BA's human capital endowment: *Entrepreneurial_exp*, *Education*, *BAN_membership*. The BA literature considers these human capital characteristics as distinctive and material elements of a BA's profile (Collewaert and Manigart, 2016; Bonini et al., 2018; Croce et al., 2021, 2020; Capizzi et al., 2022).

The variable *Entrepreneurial_exp* is a dummy variable that takes a value of 1 if the BA investing in the company was an entrepreneur at the time of the investment or before. For syndicated investments it takes a value of 1 if at least one BA co-investing in the deal was an entrepreneur at the time of the investment or before.

The variable *Education* is a dummy variable that takes a value of 1 if the BA investing in the company holds a master's degree. For syndicated investments it takes a value of 1 if at least one BA co-investing in the deal holds a master's degree.

The variable *BAN_membership* is a dummy variable which takes a value of 1 if the BA investing in the company is a BAN member. For syndicated investments it takes a value of 1 if at least one of the BAs that co-invested in the focal company is a BAN member.

To test Hypothesis 3, we adopted two different variables as a proxy for BA's capability to reduce the level of information asymmetries between banks and entrepreneurial ventures, specifically: *Soft_monitoring* and *Proximity*.[10] Previous literature has shown that these characteristics are the most relevant indicators of the level of information asymmetries between the firm and informal investors (Wong et al., 2009; Harrison et al., 2010; Croce et al., 2018; Bonini et al., 2019b; Capizzi et al., 2022).

The variable S*oft_monitoring* is a dummy variable which assumes a value of 1 for high levels of active soft-monitoring by the BA (high or constant presence of the angel at the firm) and 0 for low levels of soft-monitoring (moderate or limited involvement of the angel at the firm), calculated according to the BA's visiting frequency to the target company. For syndicated investments, we took the highest value for all BAs co-investing in a particular deal.

The variable *Proximity* is a dummy variable that indicates the co-localization in terms of BA's geographical proximity to the funded venture. It takes a value of 1 if the investing BA lives in the same region of the backed company. For syndicated investments, it takes a value of 1 if at least one co-investing BAs lives in the same region of the backed company.

Finally, as BA's control variables, we employed the following two variables: *CapitalInvested_TotalAssets* and *Coinvestors*.

[10]We did not use the BA's rejection rate [= 1 – (number of performed investments / number of considered investments)] as this variable is strongly correlated with both *Soft_monitoring* and *Proximity* in our dataset (respectively 0.7928 and 0.7244, in both cases significant at 1% level).

CapitalInvested_TotalAssets is a ratio computed as the capital invested in the year of the investment as declared by the BA divided by the size of the focal firm measured by its total assets. For syndicated investments, the capital invested is computed as the sum of the capital invested by each BA. On the one hand, the higher the amount invested with respect to the firm size, the less the company will need to access additional external financial resources in the short term, such as bank loans. On the other hand, the amount invested with respect to the firm dimension is very likely to affect the future growth of the company, and from the point of view of banks performing a creditworthiness assessment, it might be a measure of a firm's future value and consequently of its repayment capability.

The variable *Coinvestors* is a dummy variable which takes the value 1 if the investment is co-invested by more than one BA. On the one hand, when many investors are involved, banks may be less willing to provide funds since they perceive an unexploited funding capacity by the overall group of BAs. Additionally, financing contracts designed by a higher number of co-investors are generally more complex than those stipulated by solo-business angels and banks may be less willing to participate in such a complex relationship. On the other hand, co-investing also provides the target firm with a more heterogeneous pool of resources and know-how. Applying a resource-based approach to entrepreneurial finance (Cooper et al., 1994; Wright et al., 1998; Bosma et al., 2004; Colombo and Grilli, 2010; Croce et al., 2021), a firm that is supported by more than one BA can take advantage of the network of relationships built by each co-investor, increasing the probability of accessing friendly lenders.

Table 4 describes all variables used in our estimates, while Tables 5 and 6 report principal summary statistics and correlations respectively.

[Insert Tables 4 - 6 here]

4. Empirical results

This section presents the results concerning the effect of BAs' involvement, and their previously mentioned characteristics, on ventures' bank financing.

[Insert Table 7 here]

Table 7 Panel A reports the estimation outcome of Equation 1 using *ln_BankDebt* as the dependent variable. The variable $Post_t * Treatment_i$, associated to the DID estimator, has a positive and highly significant effect (1% level), indicating the level of bank debt for BA-backed firms increases more than for the control group. Interestingly, BAs' support increases the average post-treatment level of bank debt for treated firms by about 134% (= $e^{0.853}$ - 1) (see Table 7 Model 1). Hypothesis 1, which states a positive impact of BA's investment on bank financing, is thus fully supported, confirming the value-added benefits provided by BAs.

Table 7 Panel B displays the results of Equation 1 using the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as dependent variables: the significance of BAs' intervention is confirmed, but the R-square is lower. These findings must be interpreted in light of what previously outlined in section 3.3 when we showed that BAs' intervention could be a multiplier of bank debt, increasing it more than proportionally when compared to size and other liabilities. While the evidence for a relevant increase in the size is strong, the one for the multiplying effect is statistically milder.

Anyway, the 4.048 coefficient of the DID estimator in the equation with dependent variable *BankDebt_TotAssets* (see Table 7 Model 2) means that bank debt increases 4% beyond the increase of total assets following BAs' intervention: considering the pre-intervention ratio (i.e., the constant term) was 12.002, the magnitude of the increase is substantial. Likewise, the 6.721 coefficient of the DID estimator in the equation with *BankDebt_TotDebt* (see Table 7 Model 3)

proves a relevant increase in the ratio bank debt to overall liabilities, whose pre-intervention level was 16.953. That means that BAs support firm growth and improve their creditworthiness, allowing them to finance their capital expenditures through the full range of available financing facilities, being bank debt the first best option.

[Insert Table 8 here]

Table 8 Panel A presents the estimation outcome of Equation 2 using *ln_BankDebt* as the dependent variable. Model 1 tests hypothesis 2 only; Model 2 tests hypothesis 3 only; Model 3 tests jointly hypotheses 2 and 3. As for Hypothesis 2 on BAs' human capital, results reveal the variable *Entrepreneurial_exp* has a positive and significant effect on the venture's level of bank debt (see Table 8 Column 2); its significance also holds in the full model (see Table 8 Column 3). On the other hand, the variables *Education* and *BAN_Membership* are not statistically significant (see Table 8 Column 2 and 3). As for Education, maybe, we need more granular information taking into account the specific disciplines studied by the surveyed angels. As for BAN membership, the great deal of heterogeneity characterizing the many different BANs should be considered, and, furthermore, one should investigate the centrality of a given BA within his reference network (Butticè et al., 2021).

Overall, results support Hypothesis 2a, revealing BAs with an entrepreneurial background favour backed-ventures' bank-financing in absolute terms. As for Hypothesis 3 on BAs' investment practices, results show the variable *Soft-monitoring* has a positive and significant effect on the venture's level of bank debt (see Table 8 Column 1); its significance also holds in the full model (see Table 8 Column 3). The variable *Proximity* shows a positive sign (see Table 8 Column 1 and 3), but its effect on the venture's bank financing is not significant. Overall,

results support Hypothesis 3a, revealing BAs' who are capable of reducing ex-post information asymmetries through their soft-monitoring favour backed-ventures' bank-financing.

Finally, Table 8 Panel B displays the analysis by estimating Equation 2 using the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variables. Models 4 and 7 test hypothesis 2 only; Models 5 and 8 test hypothesis 3 only; Models 6 and 9 test jointly hypotheses 2 and 3. Results reveal a general lack of statistical significance of the selected explanatory variables. Given the milder effect of BAs' intervention as multiplier of bank debt shown in Table 7, it is not so surprising that an analysis breaking the overall impact of the BAs on some very specific characteristics loses significance.

5. Robustness tests

5.1. Bankruptcy firms

During the selected time horizon, some ventures go bankrupt both in the treated and control groups. To test the robustness of our results, we run the same models only on companies that are in good financial conditions over the entire period. This smaller dataset comprises 967 ventures: 111 BA-backed firms (84% of the initial treated group) and 856 non-BA-backed firms (76% of the initial control group). Table 9 presents the estimation outcome of Equation 1, testing hypothesis 1 in this sub-dataset. Table 10 presents the estimation outcome of Equation 2, testing hypotheses 2 and 3 in this sub-dataset. The findings are consistent with the original results commented in the empirical section stemming from the analysis performed on our final dataset.

5.2. VC-backed firms

To check whether the effect on ventures' bank debt was attributable to BAs' intervention only, we use the Bureau Van Dijk Zephyr database to identify ventures that raised funds in syndication with a VC fund or received follow-on VC funding within the subsequent three years after BAs' support. We further scanned companies' entire investment pattern from

Crunchbase[11] to ensure that all VC investments have been found. We identified 23 ventures, corresponding to the 17% of our treated group. We then tested the robustness of our results excluding all these VC-backed companies. Table 11 presents the estimation outcome of Equation 1, testing hypothesis 1 in this sub-dataset. Table 12 presents the estimation outcome of Equation 2, testing hypotheses 2 and 3 in this sub-dataset. Again, the findings are consistent with the original results commented in the empirical section.

6. Conclusions and suggestions for future research

In this paper, we investigated whether and how the intervention of BAs plays a positive role in the subsequent backed companies' funding strategies, with a particular focus on bank debt. Our analysis relies on a unique dataset of Italian companies that received their first BA round in the period 2010-2018. We find strong evidence that, in comparison to a matched control group of Italian ventures that did not receive any financing from BAs, being supported by BAs makes it easier raising follow-on bank financing. Additionally, we document a positive effect of characteristics associated to both BAs' human capital (entrepreneurial experience) and BAs' investment practices (soft monitoring). The analysis also shows statistically milder evidence that BAs' support plays a multiplying effect of bank debt, increasing it more than proportionally when compared to total assets and to other liabilities, therefore further confirming the importance of BAs in companies' growth.

We argue that BAs' involvement, with their value-added contribution, improve SME's skills and strategic capabilities to set up a successful business model. This in turn reduces the operating and informative risk perceived by the banks and improves the SMEs' bank financing.

[11] Crunchbase is an online database on start-ups managed by TechCrunch, containing information on investments and funding rounds. Crunchbase data have been employed in several studies in entrepreneurial finance (e.g., Capizzi et al., 2022; Cumming et al., 2019, 2016).

This study extends our understanding of the interplay between different finance providers within the entrepreneurial ecosystem, moving beyond the extant literature and demonstrating that BAs make it easier raise follow-on bank debt financing, besides equity financing. It extends current research on the translation and impact of value-added benefits provided by BAs. Moreover, from a policy perspective, this study reveals the informal venture capital market is a valid tool for improving the efficiency of the credit market and further incentive schemes could be developed to enhance both BAs' investments and startup financing.

The present study opens up many avenues for future research. First, our analysis is based on one European country only, therefore future works could extend the results to other countries. Since the heterogeneity of the banking industry within different countries affect ventures' bank financing, it is reasonable to expect that the role of BAs as catalyst of bank financing may be influenced as well. Banks are a very heterogeneous group (local vs national, domestic vs foreign, highly technological vs traditional, etc.) and their relationship with the informal venture capital market may differ accordingly. Second, future studies could consider in-depth characteristics of bank financing contracts such as the maturity, the presence of collaterals, the applied interest rates, or even distinguish between different types of contracts such as overdrafts, bridge loans, factoring, leasing and commercial mortgages. Moreover, future research could also investigate whether the effect on bank financing holds in the long term and whether the disinvestment by BAs has an opposite effect on ventures' bank debt level. Finally, future research could consider the differential contribution provided by other BAs' characteristics or by the affiliation to heterogeneous forms of angel investment organizations (such as clubs, groups or syndicates), and their interplay with bank financing decisions.

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Table 1
Comparison between our treated group of BA-backed firms and the IBAN sample.

Panel A. Industry (NACE Rev2 code)

	Our treated group		IBAN sample	
	Freq.	%	Freq.	%
C - Manufacturing	25	18.94%	60	17.24%
D - Electricity, gas, steam and air conditioning supply	0	0.00%	3	0.86%
F - Construction	2	1.52%	8	2.30%
G - Wholesale and retail trade	9	6.82%	32	9.20%
H - Transportation and storage	0	0.00%	1	0.29%
I - Accommodation and food service activities	3	2.27%	6	1.72%
J - Information and communication	47	35.61%	128	36.78%
K - Financial and insurance activities	4	3.03%	11	3.16%
L - Real estate activities	0	0.00%	2	0.57%
M - Professional, scientific and technical activities	37	28.03%	71	20.40%
N - Administrative and support service activities	4	3.03%	15	4.31%
P - Education	1	0.76%	4	1.15%
Q - Human health and social work activities	0	0.00%	4	1.15%
R - Arts, entertainment and recreation	0	0.00%	2	0.57%
S - Other service activities	0	0.00%	1	0.29%
Total	132	100.00%	348	100.00%

Panel B. NUTS statistical regions of Italy (NUTS1)

	Our treated group		IBAN sample	
	Freq.	%	Freq.	%
ITC - Northwest Italy	58	43.94%	162	46.55%
ITF - South Italy	14	10.61%	36	10.34%
ITG - Insular Italy	4	3.03%	13	3.74%
ITH - Northeast Italy	32	24.24%	70	20.11%
ITI - Central Italy	24	18.18%	67	19.25%
Total	132	100.00%	348	100.00%

Panel C. Year of financing

	Our treated group		IBAN sample	
	Freq.	%	Freq.	%
2008	0	0.00%	5	1.44%
2009	0	0.00%	41	11.78%
2010	9	6.82%	42	12.07%
2011	24	18.18%	44	12.64%
2012	28	21.21%	41	11.78%
2013	15	11.36%	36	10.34%

2014	19	14.39%	37	10.63%
2015	20	15.15%	49	14.08%
2016	12	9.09%	30	8.62%
2017	4	3.03%	9	2.59%
2018	1	0.76%	14	4.02%
Total	132	100.00%	348	100.00%

Panel D. Innovative start-ups or SMEs

	Our treated group		IBAN sample	
	Freq.	%	Freq.	%
Non-Innovative	97	73.48%	253	72.70%
Innovative	35	26.52%	95	27.30%
Total	132	100.00%	348	100.00%

Note: This table presents a comparison between our treated group of BA-backed firms and the IBAN sample in terms of industry distribution (*Panel A*), geographical distribution (*Panel B*), year of BA's financing (*Panel C*), and percentage of innovative start-ups or SMEs (*Panel D*).

Table 2
Analysis of the treated group.

Panel A: Innovative start-ups or SMEs by industry

	Non-innovative Freq.	Innovative Freq.	Total
C - Manufacturing	18	7	25
F - Construction	2	0	2
G - Wholesale and retail trade	6	3	9
I - Accommodation and food service activities	3	0	3
J - Information and communication	31	16	47
K - Financial and insurance activities	4	0	4
M - Professional, scientific and technical activities	30	7	37
N - Administrative and support service activities	2	2	4
P - Education	1	0	1
Total	97	35	132

Panel B: Median of EBITDA over time (in thousands of euros)

	Time						
	-2	-1	0	1	2	3	Total
C - Manufacturing	-0.540	-0.794	-2.268	1.845	22.310	7.571	-0.169
F - Construction	-107.284	-94.157	-34.846	-178.074	26.589	-132.151	-107.036
G - Wholesale and retail trade	15.167	8.284	-26.340	5.410	6.508	-3.468	6.157
I - Accommodation and food service activities	-834.399	-3.467	-187.762	-70.823	-171.123	-224.366	-150.473
J - Information and communication	-0.831	-1.257	-47.681	-33.112	0.669	1.378	-6.299
K - Financial and insurance activities	-10.666	-153.547	-422.676	-259.156	-268.537	-68.906	-68.906
M - Professional, scientific and technical activities	-13.784	-10.163	-23.551	-33.685	-23.590	-2.822	-14.984
N - Administrative and support service activities	-206.481	-9.266	-2.639	94.345	130.060	37.629	0.553
P - Education		28.053	15.922	2.150	252.694	25.047	25.047
Total	-2.623	-2.217	-26.929	-26.783	-2.547	-1.681	-5.385

Note: This table presents additional descriptive statistics for the treated group. Panel A shows the distribution of innovative start-ups or SMEs by industry. Panel B instead shows the median of EBITDA by industry over time (where T=0 is the year of BA's intervention).

Table 3
Final dataset: comparison between treated and control groups.

Panel A. Industry (NACE Rev2 code)

	Treated group		Control group	
	Freq.	%	Freq.	%
C - Manufacturing	25	18.94%	239	23.05%
F - Construction	2	1.52%	35	3.38%
G - Wholesale and retail trade	9	6.82%	108	10.41%
I - Accommodation and food service activities	3	2.27%	14	1.35%
J - Information and communication	47	35.61%	258	24.88%
K - Financial and insurance activities	4	3.03%	52	5.01%
M - Professional, scientific and technical activities	37	28.03%	258	24.88%
N - Administrative and support service activities	4	3.03%	54	5.21%
P - Education	1	0.76%	19	1.83%
Total	132	100.00%	1,037	100.00%

Panel B. NUTS statistical regions of Italy (NUTS1)

	Treated group		Control group	
	Freq.	%	Freq.	%
ITC - Northwest Italy	58	43.94%	469	45.23%
ITF - South Italy	14	10.61%	95	9.16%
ITG - Insular Italy	4	3.03%	35	3.38%
ITH - Northeast Italy	32	24.24%	226	21.79%
ITI - Central Italy	24	18.18%	212	20.44%
Total	132	100.00%	1,037	100.00%

Panel C. Firm age at the time of the treatment

	Treated group		Control group	
	Freq.	%	Freq.	%
Firm age ≤ 2	43	32.58%	30	2.89%
$2 <$ Firm age ≤ 4	44	33.33%	367	35.39%
$4 <$ Firm age ≤ 6	21	15.91%	271	26.13%
$6 <$ Firm age ≤ 8	12	9.09%	175	16.88%
$8 <$ Firm age ≤ 10	4	3.03%	60	5.79%
Firm age > 10	8	6.06%	134	12.92%
Total	132	100.00%	1,037	100.00%

Note: This table presents the final dataset composition comparing the treated and control groups by industry (*Panel A*), geographical area (*Panel B*), and age of the firm at the time of the treatment (matched year for control group companies) (*Panel C*).

Table 4
Definition of variables.

Variables	Description	Data Source
ln_BankDebt	Amount of bank debt in thousands of Euros as reported in the balance sheet of the company (in logarithmic form).	AIDA-BVD
BankDebt_TotAssets	% Ratio computed as the amount of bank debt to total assets.	AIDA-BVD
BankDebt_TotDebt	% Ratio computed as the amount of bank debt to total debt.	AIDA-BVD
Post	Dummy variable that takes a value of 1 in the period after BA's intervention, and 0 otherwise.	-
Treatment	Dummy variable equal to 1 for firms that belong to the treated group, and 0 for firms that belong to the control group.	-
Entrepreneurial_exp	Dummy variable that takes a value of 1 if the BA investing in the company was an entrepreneur at the time of the investment or before, and 0 otherwise. For syndicated investments it takes the value 1 if at least one BA co-investing in the deal was an entrepreneur at the time of the investment or before.	IBAN survey
Education	Dummy variable which assumes a value 1 if the BA investing in the company holds a master's degree. For syndicated investments it takes a value of 1, if at least one BA co-investing in the deal holds a master's degree.	IBAN survey
BAN_membership	Dummy variable that takes a value of 1 if the BA investing in the company is a BAN member. For syndicated investments it takes a value of 1, if at least one of the BAs that co-invested in the focal company is a BAN member.	IBAN survey
Soft_monitoring	Dummy variable which assumes a value of 1 for high levels of active monitoring (high or constant presence of the angel at the firm) and 0 for low levels of monitoring (moderate or limited involvement of the angel at the firm), according to the frequency of the visits that the BA made to the target company. In case of syndicated investments, the highest value for all BAs co-investing in a particular deal is considered.	IBAN survey
Proximity	Dummy variable which assumes a value of 1 if the BA investing in the firm live in the same region of the funded venture. For syndicated investments, it takes a value of 1 if at least one BAs co-investing in the deal live in the same region of the firm.	IBAN survey
CapitalInvested_TotAssets	% Ratio computed as the capital invested in the year of the investment as declared by the BA divided by the size of the focal firm measured by its total assets. For syndicated investments the numerator is computed as the sum of the amount invested by each co-investor.	IBAN survey, AIDA BVD
Coinvestors	Dummy variable which assumes a value of 1 if the investment is co-invested by more than one BA.	IBAN survey

Note: This table presents the definition for all variables used in our models.

Table 5
Descriptive statistics.

	N	Mean	SD	Min	Median	Max
ln_BankDebt	2338	2.062	2.604	0	0.017	9.768
BankDebt_TotAssets	2338	12.463	19.842	0	.002	100
BankDebt_TotDebt	2338	17.157	25.331	0	.021	100
Post	2338	0.500	0.500	0	0.5	1
Treatment	2338	0.113	0.317	0	0	1
Entrepreneurial_exp	2338	0.029	0.168	0	0	1
Education	2338	0.029	0.167	0	0	1
BAN_membership	2338	0.027	0.162	0	0	1
Soft_monitoring	2338	0.037	0.188	0	0	1
Proximity	2338	0.038	0.191	0	0	1
CapitalInvested_To~s	2338	1.257	7.698	0	0	91.326
Coinvestors	2338	0.033	0.177	0	0	1

Note: This table presents the descriptive statistics for all variables in the final dataset. Descriptive statistics include: number of observations (N), mean, standard deviation (SD), minimum, median and maximum. The full dataset includes 2338 observations for 1169 unique firms over the period 2010-2018. Definitions for all variables are reported in Table 4.

Table 6
Correlation matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) ln_BankDebt	1.000											
(2) BankDebt_TotAs~s	0.780*	1.000										
(3) BankDebt_TotDebt	0.765*	0.873*	1.000									
(4) Post	0.047	0.017	0.002	1.000								
(5) Treatment	-0.074*	-0.066*	-0.063*	0.000	1.000							
(6) Entrepreneuria~p	0.032	0.017	0.027	0.173*	0.485*	1.000						
(7) Education	-0.018	-0.042	-0.028	0.172*	0.481*	0.489*	1.000					
(8) BAN_membership	0.016	-0.012	0.005	0.166*	0.466*	0.458*	0.526*	1.000				
(9) Soft_monitoring	-0.002	-0.019	-0.011	0.195*	0.548*	0.575*	0.620*	0.571*	1.000			
(10) Proximity	-0.022	-0.029	-0.026	0.199*	0.558*	0.577*	0.569*	0.533*	0.662*	1.000		
(11) CapitalInvest~s	-0.022	-0.028	-0.024	0.179*	0.500*	0.599*	0.521*	0.481*	0.648*	0.554*	1.000	
(12) Coinvestors	-0.007	-0.027	-0.009	0.183*	0.514*	0.657*	0.633*	0.535*	0.528*	0.581*	0.570*	1.000

Note: This table presents the correlation matrix for all variables. Significance level: *p < 0.01.

Table 7
Effect of BAs' support on firms' bank financing.

Panel A. Amount of bank debt

	ln_BankDebt
	(1)
Post	0.370***
	(0.046)
Treatment	
Post*Treatment	0.853***
	(0.176)
Constant	1.963***
	(0.023)
Observations	2,338
R-squared	0.108
Number of groups	1,169

Panel B. Composition of financial sources - Ratios

	BankDebt_TotAssets	BankDebt_TotDebt
	(2)	(3)
Post	0.059	-0.694
	(0.347)	(0.539)
Treatment		
Post*Treatment	4.048***	6.721***
	(1.353)	(1.829)
Constant	12.002***	16.953***
	(0.171)	(0.258)
Observations	2,338	2,338
R-squared	0.014	0.014
Number of groups	1,169	1,169

Note: This table presents regression results of Equation 1 testing the effect of BAs' support on firms' bank financing using diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 1 using *ln_BankDebt* as the dependent variable. Panel B reports some additional analysis by estimating Equation 1 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. *Post* is a dummy variable assuming value 1 in the period following the BA intervention. *Treatment* is a dummy variable equal to 1 for firms that are backed by BAs. *Post ∗ Treatment* is the variable associated to the DID estimator. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.

Table 8
Effect of BAs' characteristics on firms' bank financing.

Panel A. Amount of bank debt

	ln_BankDebt		
	(1)	(2)	(3)
Post	0.370***	0.370***	0.370***
	(0.048)	(0.048)	(0.048)
Treatment			
Post*Treatment	0.696**	0.270	0.064
	(0.313)	(0.385)	(0.413)
Post*Treatment*Entrepreneurial_exp	0.644**		0.583**
	(0.286)		(0.286)
Post*Treatment*Education	0.059		-0.079
	(0.279)		(0.283)
Post*Treatment*BAN_membership	0.260		0.225
	(0.272)		(0.272)
Post*Treatment*Soft_monitoring		0.775***	0.743**
		(0.292)	(0.298)
Post*Treatment*Proximity		0.301	0.290
		(0.290)	(0.290)
Post*Treatment*CapitalInvested_TotAssets	-0.002	-0.002	-0.004
	(0.006)	(0.006)	(0.006)
Post*Treatment*Coinvestors	-0.472	-0.114	-0.270
	(0.293)	(0.278)	(0.301)
Constant	1.963***	1.963***	1.963***
	(0.032)	(0.032)	(0.032)
Observations	2,338	2,338	2,338
R-squared	0.113	0.115	0.119
Number of groups	1,169	1,169	1,169

Panel B. Composition of financial sources - Ratios

	BankDebt_TotAssets			BankDebt_TotDebt		
	(4)	(5)	(6)	(7)	(8)	(9)
Post	0.059	0.059	0.059	-0.694	-0.694	-0.694
	(0.362)	(0.362)	(0.362)	(0.549)	(0.549)	(0.549)
Treatment						
Post*Treatment	5.896**	3.469	2.783	8.060**	6.200	4.561
	(2.356)	(2.897)	(3.119)	(3.569)	(4.392)	(4.726)
Post*Treatment*Entrepreneurial_exp	2.823		2.627	5.819*		5.626*
	(2.151)		(2.157)	(3.257)		(3.268)
Post*Treatment*Education	1.404		1.190	-1.257		-1.374
	(2.100)		(2.138)	(3.181)		(3.239)
Post*Treatment*BAN_membership	-0.439		-0.340	1.544		1.726
	(2.047)		(2.053)	(3.100)		(3.111)
Post*Treatment*Soft_monitoring		1.162	0.832		0.338	0.192
		(2.198)	(2.249)		(3.332)	(3.407)
Post*Treatment*Proximity		3.610*	3.476		4.578	4.446
		(2.183)	(2.189)		(3.310)	(3.316)
Post*Treatment*CapitalInvested_TotAssets	-0.062	-0.048	-0.057	-0.098	-0.072	-0.089
	(0.045)	(0.045)	(0.046)	(0.069)	(0.069)	(0.070)
Post*Treatment*Coinvestors	-3.929*	-2.437	-3.459	-3.423	-1.720	-3.032
	(2.202)	(2.097)	(2.272)	(3.335)	(3.180)	(3.443)
Constant	12.002***	12.002***	12.002***	16.953***	16.953***	16.953***
	(0.241)	(0.241)	(0.241)	(0.365)	(0.366)	(0.365)
Observations	2,338	2,338	2,338	2,338	2,338	2,338
R-squared	0.019	0.019	0.021	0.019	0.018	0.021
Number of groups	1,169	1,169	1,169	1,169	1,169	1,169

Note: This table presents regression results of the influence of BAs' characteristics on firms' bank financing using diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 2 when using *ln_BankDebt* as the dependent variable. Panel B reports some additional analysis by estimating Equation 2 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. Models 1, 4, 7 test the variables *Entrepreneurial_exp*, *Education*, *BAN_membership,* and controls. Models 2, 5, 8 test the variables *Soft_monitoring*, *Proximity,* and controls. Models 3, 6, 9 test all variables and controls. All variables are defined in Table 4. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.

Table 9

Robustness test for Hypothesis 1: excluding firms that go bankrupt.

Panel A. Amount of bank debt

	ln_BankDebt
	(1)
Post	0.430***
	(0.053)
Treatment	
Post*Treatment	0.903***
	(0.200)
Constant	1.909***
	(0.026)
Observations	1,934
R-squared	0.124
Number of groups	967

Panel B. Composition of financial sources - Ratios

	BankDebt_TotAssets	BankDebt_TotDebt
	(2)	(3)
Post	-0.005	-0.505
	(0.395)	(0.619)
Treatment		
Post*Treatment	3.549**	6.770***
	(1.411)	(1.883)
Constant	11.395***	16.430***
	(0.191)	(0.292)
Observations	1,934	1,934
R-squared	0.010	0.014
Number of groups	967	967

Note: This table presents regression results of Equation 1 testing the effect of BAs' support on firms' bank financing in a smaller dataset of firms that are in good financial conditions over the entire period. Diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 1 using *ln_BankDebt* as the dependent variable. Panel B reports some additional analysis by estimating Equation 1 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. *Post* is a dummy variable assuming value 1 in the period following the BA intervention. *Treatment* is a dummy variable equal to 1 for firms that are backed by BAs. *Post ∗ Treatment* is the variable associated to the DID estimator. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.

Table 10
Robustness test for Hypotheses 2 and 3: excluding firms that go bankrupt.

Panel A. Amount of bank debt

	ln_BankDebt		
	(1)	(2)	(3)
Post	0.430***	0.430***	0.430***
	(0.055)	(0.055)	(0.055)
Treatment			
Post*Treatment	0.728**	0.516	0.415
	(0.338)	(0.432)	(0.460)
Post*Treatment*Entrepreneurial_exp	0.924***		0.896***
	(0.326)		(0.329)
Post*Treatment*Education	0.236		0.110
	(0.323)		(0.328)
Post*Treatment*BAN_membership	0.094		-0.002
	(0.308)		(0.311)
Post*Treatment*Soft_monitoring		0.968***	0.915***
		(0.328)	(0.334)
Post*Treatment*Proximity		-0.095	-0.221
		(0.343)	(0.348)
Post*Treatment*CapitalInvested_TotAssets	-0.002	-0.003	-0.005
	(0.007)	(0.007)	(0.007)
Post*Treatment*Coinvestors	-0.657*	-0.158	-0.478
	(0.344)	(0.317)	(0.353)
Constant	1.909***	1.909***	1.909***
	(0.037)	(0.037)	(0.036)
Observations	1,934	1,934	1,934
R-squared	0.133	0.133	0.139
Number of groups	967	967	967

Panel B. Composition of financial sources - Ratios

	BankDebt_TotAssets			BankDebt_TotDebt		
	(4)	(5)	(6)	(7)	(8)	(9)
Post	-0.005	-0.005	-0.005	-0.505	-0.505	-0.505
	(0.407)	(0.406)	(0.407)	(0.621)	(0.622)	(0.622)
Treatment						
Post*Treatment	5.609**	2.074	2.207	8.153**	6.266	6.281
	(2.499)	(3.199)	(3.417)	(3.815)	(4.894)	(5.220)
Post*Treatment*Entrepreneurial_exp	1.144		0.632	6.776*		6.541*
	(2.413)		(2.441)	(3.685)		(3.730)
Post*Treatment*Education	2.372		1.726	1.124		0.605
	(2.391)		(2.433)	(3.651)		(3.717)
Post*Treatment*BAN_membership	-1.011		-0.942	-1.255		-1.469
	(2.280)		(2.305)	(3.480)		(3.523)
Post*Treatment*Soft_monitoring		2.614	2.424		3.200	3.027
		(2.428)	(2.479)		(3.714)	(3.787)
Post*Treatment*Proximity		2.954	2.641		1.407	0.317
		(2.537)	(2.587)		(3.882)	(3.953)
Post*Treatment*CapitalInvested_TotAssets	-0.027	-0.026	-0.028	-0.053	-0.044	-0.062
	(0.049)	(0.050)	(0.050)	(0.075)	(0.076)	(0.077)
Post*Treatment*Coinvestors	-4.431*	-2.818	-3.525	-5.382	-2.478	-4.651
	(2.545)	(2.344)	(2.622)	(3.886)	(3.586)	(4.006)
Constant	11.395***	11.395***	11.395***	16.430***	16.430***	16.430***
	(0.271)	(0.270)	(0.271)	(0.413)	(0.414)	(0.414)
Observations	1,934	1,934	1,934	1,934	1,934	1,934
R-squared	0.014	0.016	0.016	0.019	0.016	0.020
Number of groups	967	967	967	967	967	967

Note: This table presents regression results of the influence of BAs' characteristics on firms' bank financing in a smaller dataset of firms that are in good financial conditions over the entire period. Diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 2 using the *ln_BankDebt* as dependent variable. Panel B reports some additional analysis by estimating Equation 2 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. Models 1, 4, 7 test the variables *Entrepreneurial_exp*, *Education*, *BAN_membership,* and controls. Models 2, 5, 8 test the variables *Soft_monitoring*, *Proximity,* and controls. Models 3, 6, 9 test all variables and controls. All variables are defined in Table 4. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.

Table 11

Robustness test for Hypothesis 1: excluding VC-backed firms.

Panel A. Amount of bank debt

	ln_BankDebt
	(1)
Post	0.370***
	(0.046)
Treatment	
Post*Treatment	0.861***
	(0.192)
Constant	1.992***
	(0.023)
Observations	2,292
R-squared	0.102
Number of groups	1,146

Panel B. Composition of financial sources – Ratios

	BankDebt_TotAssets	BankDebt_TotDebt
	(2)	(3)
Post	0.059	-0.694
	(0.347)	(0.539)
Treatment		
Post*Treatment	3.853**	6.497***
	(1.500)	(2.060)
Constant	12.197***	17.216***
	(0.172)	(0.261)
Observations	2,292	2,292
R-squared	0.011	0.012
Number of groups	1,146	1,146

Note: This table presents regression results of Equation 1 testing the effect of BAs' support on firms' bank financing in a smaller dataset of firms that are supported by BAs only. Diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 1 using *ln_BankDebt* as dependent variable. Panel B reports some additional analysis by estimating Equation 1 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. *Post* is a dummy variable assuming value 1 in the period following the BA intervention. *Treatment* is a dummy variable equal to 1 for firms that are backed by BAs. *Post ∗ Treatment* is the variable associated to the DID estimator. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.

Table 12
Robustness test for Hypotheses 2 and 3: excluding VC-backed firms.

Panel A. Amount of bank debt

	ln_BankDebt		
	(1)	(2)	(3)
Post	0.370***	0.370***	0.370***
	(0.048)	(0.048)	(0.048)
Treatment			
Post*Treatment	0.460	0.130	-0.160
	(0.331)	(0.413)	(0.441)
Post*Treatment*Entrepreneurial_exp	0.878***		0.791**
	(0.316)		(0.317)
Post*Treatment*Education	0.395		0.224
	(0.307)		(0.319)
Post*Treatment*BAN_membership	0.213		0.172
	(0.299)		(0.299)
Post*Treatment*Soft_monitoring		0.852***	0.727**
		(0.322)	(0.336)
Post*Treatment*Proximity		0.342	0.317
		(0.314)	(0.315)
Post*Treatment*CapitalInvested_TotAssets	-0.002	-0.001	-0.004
	(0.006)	(0.006)	(0.006)
Post*Treatment*Coinvestors	-0.525*	-0.074	-0.350
	(0.315)	(0.299)	(0.322)
Constant	1.992***	1.992***	1.992***
	(0.032)	(0.032)	(0.032)
Observations	2,292	2,292	2,292
R-squared	0.109	0.109	0.114
Number of groups	1,146	1,146	1,146

Panel B. Composition of financial sources – Ratios

	BankDebt_TotAssets			BankDebt_TotDebt		
	(4)	(5)	(6)	(7)	(8)	(9)
Post	0.059	0.059	0.059	-0.694	-0.694	-0.694
	(0.360)	(0.360)	(0.360)	(0.550)	(0.549)	(0.549)
Treatment						
Post*Treatment	5.939**	3.049	2.515	8.011**	4.937	3.487
	(2.497)	(3.119)	(3.331)	(3.807)	(4.755)	(5.078)
Post*Treatment*Entrepreneurial_exp	4.180*		3.875	6.206*		5.904
	(2.385)		(2.400)	(3.636)		(3.659)
Post*Treatment*Education	0.801		0.540	-0.485		-0.441
	(2.315)		(2.412)	(3.530)		(3.677)
Post*Treatment*BAN_membership	-0.977		-1.161	0.825		0.607
	(2.260)		(2.263)	(3.445)		(3.451)
Post*Treatment*Soft_monitoring		2.030	1.739		1.269	0.997
		(2.431)	(2.541)		(3.707)	(3.874)
Post*Treatment*Proximity		3.453	3.345		5.634	5.327
		(2.371)	(2.379)		(3.615)	(3.628)
Post*Treatment*CapitalInvested_TotAssets	-0.060	-0.044	-0.057	-0.098	-0.071	-0.089
	(0.048)	(0.049)	(0.049)	(0.074)	(0.074)	(0.075)
Post*Treatment*Coinvestors	-5.213**	-3.398	-4.589*	-4.619	-2.380	-3.991
	(2.374)	(2.259)	(2.437)	(3.620)	(3.443)	(3.716)
Constant	12.197***	12.197***	12.197***	17.216***	17.216***	17.216***
	(0.242)	(0.242)	(0.242)	(0.370)	(0.370)	(0.370)
Observations	2,292	2,292	2,292	2,292	2,292	2,292
R-squared	0.017	0.017	0.019	0.016	0.016	0.018
Number of groups	1,146	1,146	1,146	1,146	1,146	1,146

Note: This table presents regression results of the influence of BAs' characteristics on firms' bank financing in a smaller dataset of firms that are supported by BAs only. Diff-in-diff estimation with firms fixed effects. Panel A reports the estimation results from Equation 2 using *ln_BankDebt* as the dependent variable. Panel B reports some additional analysis by estimating Equation 2 using alternatively the ratios *BankDebt_TotAssets* and *BankDebt_TotDebt* as the dependent variable. Models 1, 4, 7 test the variables *Entrepreneurial_exp*, *Education*, *BAN_membership,* and controls. Models 2, 5, 8 test the variables *Soft_monitoring*, *Proximity,* and controls. Models 3, 6, 9 test all variables and controls. All variables are defined in Table 4. Clustered standard errors in brackets. Significance levels: *10%, **5%, ***1%.