IMPACT INVESTING AND THE FOSTERING OF BUSINESS VENTURES' FINANCIAL PERFORMANCE AND SOCIAL IMPACT IN DISADVANTAGED URBAN AREAS

ROMAIN BOULONGNE
IESE Business School
rboulongne@iese.edu

RODOLPHE DURAND
HEC Paris
durand@hec.fr

CAROLINE FLAMMER
Boston University
cflammer@bu.edu

October 2021

ABSTRACT

We examine whether impact investing is more effective in fostering business venture success and social impact when investments are directed toward ventures located in disadvantaged urban areas (that is, areas with high crime, unemployment, and poverty) compared to similar investments directed toward ventures located outside these areas. We explore this question in the context of loans made to business ventures in French "banlieues" vs. "non-banlieues." We find that loans issued to banlieue ventures yield greater improvements in financial performance, as well as greater social impact in terms of the creation of local employment opportunities, quality jobs, and jobs for minorities. These results suggest that impact investors are able to contract with ventures of greater unrealized potential in banlieues, as banlieue ventures tend to be left out of the traditional loan market. This is confirmed in a controlled lab experiment in which participants—business professionals who are asked to act as loan officers—are randomly assigned to identical business ventures that only differ in their geographic location. We find that participants are indeed less likely to grant loans to banlieue ventures compared to non-banlieue ventures, despite the ventures being identical.

Keywords: impact investing; social impact; disadvantaged urban areas; sustainable cities; Sustainable Development Goals (SDGs); business ventures.

*Author names listed in alphabetical order. We are grateful to Bruno Cassiman, Alfonso Gambardella, Anthony Gibbs, Aleksandra Kacperczyk, Nalin Kulatilaka, Siobhan O'Mahony, Nina Mazar, Carey Morewedge, Michelle Rogan, Yuan Shi, Stephan Siegel, Giovanni Valentini, Eric Zhao (discussant), Rosemarie Ziedonis, as well as seminar participants at Bocconi University, Boston University, Central European University, Cornell University, École Polytechnique, Emlyon Business School, Imperial College, Purdue University, Universidad de Montevideo, Universidad EAFIT, University of Birmingham, University of Colorado Boulder, University of Massachusetts Lowell, University of Miami, University of Pittsburgh, University of Washington, as well as the Academy of Management, the Bocconi Assembly for Innovation and Cooperation (BAIC), the Global Research Alliance for Sustainable Finance (GRASFI) Conference, the Social Entrepreneurship Conference, and the Strategic Management Society Annual Conference for helpful comments and suggestions. We thank the Society and Organizations Institute at HEC Paris for their help in accessing the data of Public Bank.

1. INTRODUCTION

Many of the world's cities have neighborhoods characterized by high poverty, unemployment, illiteracy, and crime. While over the past decades the world economy has grown, the divide between the haves and have-nots has grown as well (World Bank, 2020). Increased inequalities and the distress of disadvantaged urban areas are pressing issues that are challenging to address (Porter, 2016). To mitigate these inequalities and contribute to the development of sustainable cities, it is crucial to understand how to improve the economic success of business ventures and their social impact (through, e.g., the creation of local employment opportunities, quality jobs, and jobs for minorities) in disadvantaged urban areas. Arguably, this question is not only vital for the social inclusion of disadvantaged communities and the development of cities but also for the broader economy and the achievement of the United Nations' Sustainable Development Goals (SDGs)—which include no poverty (SDG #1), decent work and economic growth (SDG #8), reduced inequalities (SDG #10), and the development of sustainable cities and communities (SDG #11).

Both the public and private sectors can play an important role in stimulating business growth and employment opportunities in these areas. In this regard, one potentially important lever is the easing of financing constraints, which are especially severe for businesses located in disadvantaged areas, as well as minority-owned businesses (Bates, 1989; Bates, Bradford, & Seamans, 2018; Chatterji & Seamans, 2012; Kerr & Nanda, 2011).[1] In this study, we turn our attention to investors who aim to finance business ventures that are both economically viable and have a positive social impact—through the creation of local employment opportunities, quality jobs, and jobs for minorities—thereby fostering the social inclusion of disadvantaged communities and the development of sustainable cities. In practice, these investors are known as "impact investors".[2] From an impact investor's perspective, the relevant question is *which*

[1] While distinct, terms such as "disadvantaged urban areas," "inner cities," and "minority neighborhoods" are often used interchangeably in the literature since disadvantaged urban areas (and inner cities, respectively) are overwhelmingly minority neighborhoods (e.g., in terms of race and religion), and minority neighborhoods are largely economically distressed (see, e.g., Bates & Robb, 2014; Porter, 1995, 2016).

[2] The two primary instruments of impact investing are private equity and private debt, with private debt being the most

investments have most impact in terms of both business venture success and social outcomes. To shed light on this question, we examine whether investments in business ventures yield greater improvements in the ventures' financial performance and social impact when directed toward ventures in disadvantaged urban areas compared to ventures outside these areas.

While the previous literature highlights the importance of geographic (co-)location for business venture success, it mainly focuses on business hotspots that offer locational advantages (e.g., Alcacer & Delgado, 2018; Chatterji, Glaeser, & Kerr, 2014; De Figueiredo, Meyer-Doyle, & Rawley, 2013; Delgado, Porter, & Stern, 2010, 2014; Ellison, Glaeser, & Kerr, 2010; Glaeser, Kerr, & Kerr, 2009; Sorenson & Audia, 2000; Stuart & Sorenson, 2003). In contrast, much less is known about business ventures that are located in underprivileged areas. Broadly speaking, business ventures are found in a vast continuum of locations, from business hotspots to disadvantaged urban areas. Ventures located in the latter are likely to face a very different business environment. In particular, they may not have access to the same funding opportunities, which can prevent them from growing and achieving their potential.

In this paper, we study whether investments in business ventures located in disadvantaged urban areas make a positive difference—in terms of both financial performance and social impact—using as benchmark investments directed toward similar business ventures located in the same city but outside these areas. Arguably, by alleviating a potentially severe market friction (namely, access to capital), impact investors can contract with ventures of greater unrealized potential in disadvantaged urban areas. As a result, and despite the adverse conditions of the local business environment, one euro invested in a business venture from a disadvantaged area might bring about higher improvements in the venture's financial performance compared to what would be achieved by investing the same amount in a comparable business venture located in the same city but outside such area.

Furthermore, expanding access to finance might yield greater social impact when targeted toward business ventures in disadvantaged urban areas. First, given their greater unrealized potential, investments

commonly used (Global Impact Investing Network, 2018). Our study focuses on private debt. See Sections 2.2 and 3.2 for details.

in these ventures are likely to yield a stronger impact in terms of job creation. This, in turn, increases the purchasing power of the newly hired employees, their demand for products and services, and ultimately their social inclusion in the economy. Second, the social inclusion of disadvantaged communities might be further improved if the jobs that are created are not merely "more jobs" but also "quality jobs"—such as high-skill ("white-collar") jobs, as opposed to low-skill ("blue-collar") jobs—and if these employment opportunities foster the inclusion of minorities. In sum, such investments may not only lead to greater business venture success but also greater social impact when directed toward ventures that are located in (as opposed to outside) disadvantaged urban areas, thereby fostering the social inclusion of disadvantaged communities and the development of sustainable cities.

To explore these questions empirically, we study the differential impact of loans made to business ventures located in French "banlieues" vs. "non-banlieues" within the same city.[3] Specifically, we use data from a financial institution (referred to as "Public Bank" for confidentiality reasons) that provides loans to business ventures located in both banlieue and non-banlieue areas, with the explicit mandate not to discriminate between ventures based on their location. We merge the Public Bank data with micro data on business ventures from the French National Institute of Statistics and Economic Studies (in French, the Institut National de la Statistique et des Études Économiques, henceforth INSEE), and examine how the loans issued to banlieue ventures affect banlieue ventures' outcomes compared to non-banlieue ventures that receive similar loans from Public Bank. For the comparison to be informative, we match the two types of ventures based on a large set of ex ante characteristics and require that they be located in the same city.

We find that the issuance of loans to banlieue ventures yields a significantly higher increase in financial performance. Compared to similar non-banlieue ventures from the same city, banlieue ventures achieve an additional 2.3-3.0 percentage points increase in the return on assets (ROA) over the three years

[3] In French, the word "banlieue" refers to suburban areas and hence can relate to both disadvantaged and wealthy neighborhoods. In colloquial parlance, however, banlieue refers to disadvantaged areas, which is the terminology we use in this paper. Empirically, we code as banlieues the set of neighborhoods that have been identified by the French government as "zones urbaines sensibles" (ZUS), that is, deprived urban areas with clearly identified social and economic challenges. See Section 3.1 for details.

that follow the loan issuance. What is more, we find that the social impact of these investments is greater as well. Compared to non-banlieue ventures, banlieue ventures achieve higher employment growth by 6.5-9.2 percentage points in the three years following the loan issuance. This greater job creation at banlieue (compared to non-banlieue) ventures comes primarily from the creation of quality jobs such as white-collar jobs. Finally, we find that the newly created jobs benefit both female and male employees.

While these results are consistent with our proposed mechanism—that is, impact investing helps improve banlieue ventures' access to capital and thereby unleash their unrealized potential—the analysis does not provide direct evidence on this mechanism. To obtain such evidence, we supplement our analysis with a controlled lab experiment, in which we randomly assign participants (business professionals who are asked to act as loan officers) to business ventures that only differ based on whether they are located in a banlieue or not. We find that participants are less likely to grant loans to banlieue ventures compared to non-banlieue ventures, despite the ventures being identical. Moreover, in a variant of the experiment, we find that lower-potential ventures in non-banlieue neighborhoods face similar odds of receiving a loan than higher-potential ventures in banlieues. These findings point toward discriminatory practices against banlieue ventures in the traditional loan market. As banlieue ventures tend to be left out of the traditional loan market, impact investors can contract with ventures of greater unrealized potential in banlieues. This, in turn, is consistent with our finding that impact investing yields higher financial returns and greater social impact when directed toward business ventures located in banlieues vs. comparable business ventures located in non-banlieue neighborhoods of the same city.

As discussed above, understanding how to improve the economic success of business ventures and their social impact in disadvantaged urban areas—and, more broadly, how to contribute to the development of sustainable cities—are important questions for academics and practitioners alike. In fact, addressing these questions has become a pressing concern, as disadvantaged communities are being hit the hardest by the recent global crises such as the current COVID-19 pandemic, social injustice, and the climate crisis. Taken together, the findings of this study suggest that impact investing brings about stronger improvements in financial performance and social impact when directed toward business ventures located in

disadvantaged urban areas, as impact investing helps them unleash their unrealized potential by overcoming important frictions in accessing capital. Accordingly, by investing in these neighborhoods, impact investors—and investors more generally—can potentially achieve both greater business venture success and greater social impact, thereby contributing to the achievement of the United Nations' Sustainable Development Goals (SDGs).

2. THE FOSTERING OF BUSINESS ACTIVITY IN DISADVANTAGED URBAN AREAS

2.1 The limited access to finance in disadvantaged urban areas—survey evidence

Business ventures in disadvantaged urban areas are likely to face major hurdles in accessing traditional sources of financing. To illustrate this point, we provide survey evidence on how banlieue and non-banlieue ventures differ in the way they finance their investments. Arguably, if banlieue ventures are more constrained in their ability to access the traditional loan market, they are less able to finance their investments through bank loans.

To shed light on this question, Public Bank granted us access to their survey of French SMEs that they conduct on an annual basis since 2000. Every year, the survey is sent to a random sample of French SMEs with less than 250 employees and revenues between €750,000 and €50M. The survey asks a set of questions related to the type of investment made by these SMEs and how they financed these investments (e.g., through bank loans, self-funding, etc.). To distinguish between banlieue and non-banlieue ventures, we match each respondent to the INSEE micro data that contain geo codes for each business venture.[4] The matched sample consists of 17,572 business ventures from 2000-2015, out of which 1,022 are banlieue ventures and 16,550 are non-banlieue ventures, respectively.

Table A1 reports the average reliance on the different sources of financing across all ventures, and separately for banlieue and non-banlieue ventures. Across all ventures, the main sources of financing are self-financing (34.9%) and medium-term loans from traditional banks (33.1%).

[4] We describe the INSEE data in Section 3.3. Note that we restrict the sample to single-establishment firms—that is, firms that only operate at one location—as those can be unambiguously qualified as banlieue vs. non-banlieue ventures.

When we distinguish between banlieue and non-banlieue ventures, we observe important differences. In particular, banlieue ventures are less likely to finance their investments through medium-term bank loans (28.7%) compared to non-banlieue ventures (33.4%). The difference is significant at all conventional levels (p-value = 0.000). Similarly, banlieue ventures are less likely to rely on long-term bank loans (4.4% for banlieue ventures compared to 5.8% for non-banlieue ventures, p-value = 0.035). Conversely, the reliance on self-financing is more pronounced among banlieue ventures (40.3% for banlieue ventures compared to 34.5% for non-banlieue ventures, p-value = 0.000). We do not observe significant differences among the other means of financing. Overall, this descriptive analysis indicates that banlieue ventures are less able to access traditional loans; instead, their owners need to bring in more of their own money to begin with. This evidence is consistent with banlieue ventures being at a disadvantage in accessing traditional sources of capital.

These insights are further confirmed in two independent surveys of banlieue ventures' owners conducted by the professional association ADIVE (2010) and the think tank Terra Nova (2016). In both surveys, the majority of respondents identified access to financing as the number one obstacle faced by banlieue ventures (ADIVE, 2010, p. 25; Terra Nova, 2016, p. 44).[5]

2.2 Impact investing

As discussed in the previous section, business ventures in disadvantaged urban areas face major challenges in accessing capital. Accordingly, a potentially important lever to revitalize disadvantaged urban areas is the easing of financing constraints.[6] In this context, impact investors—that is, investors who aim to finance business ventures that are both economically viable *and* have a positive social impact—can play an important role and contribute to the revitalization of these neighborhoods.

The practice of impact investing (and responsible investing more broadly) has experienced

[5] The ADIVE (Agence pour la Diversité Entrepreneuriale) survey was conducted in 2010 and sampled 404 banlieue ventures; the Terra Nova survey was conducted between 2010 and 2016, and sampled 400 banlieue ventures.
[6] Other levers include government interventions (such as corporate tax relief programs) that aim to stimulate business growth in disadvantaged urban areas (e.g., Briant, Lafourcade, & Schmutz, 2015; Gobillon, Magnac, & Selod, 2012; Neumark & Simpson, 2015).

tremendous growth in the past years. For example, the United Nations' Principles for Responsible Investment (PRI)—the largest network of responsible investors—was launched in 2006 and nowadays counts over 3,800 signatories representing more than $120 trillion in assets under management.[7] Overall, responsible investing corresponds to more than 25% of all professionally managed assets globally (Ceres, 2018).

Impact investors aim to maximize the impact of their funds invested in terms of both business venture success and social impact. The two primary instruments used in impact investing are private debt and private equity, with private debt being the largest. More specifically, private debt accounts for 34% of impact investors' reported assets under management and private equity for 19%, respectively (Global Impact Investing Network, 2018).[8] While all impact investors intend to generate positive social and environmental impact alongside financial returns, investors differ in the weighting of these objectives and their willingness to potentially forgo (higher) financial returns (see, e.g., Barber, Morse, & Yasuda, 2021; Geczy et al., 2021).[9,10]

That access to capital matters for the growth of business ventures is by now well established in the literature (e.g., Bruhn & Love, 2014; Chatterji & Seamans, 2012; Kerr & Nanda, 2011; Samila & Sorenson, 2011). From the perspective of impact investors, an important question is *which* investments have more impact in terms of both business venture success and social impact. In the following, we explore whether impact investing yields greater improvements in financial performance and social impact when directed toward business ventures located in vs. outside disadvantaged urban areas.

2.3 Impact investing in vs. outside disadvantaged urban areas

[7] See https://www.unpri.org/pri/about-the-pri.
[8] In this study, we focus on private debt (see Section 3.2).
[9] In the case of private equity, Barber, Morse, and Yasuda (2021) estimate that investors are willing to accept lower ex ante returns by 2.5 to 3.7 percentage points for impact funds.
[10] In contrast to impact investors, microfinance institutions (MFIs)—which predominantly operate in developing countries and provide financial services to individuals and small businesses that lack access to conventional banking and related financial services—may not necessarily pursue both financial and social objectives. While MFIs often operate at the bottom-of-the-pyramid, some MFIs pursue merely financial objectives. For the related literature on microfinance, see, e.g., Armendáriz and Morduch (2010), Canales and Greenberg (2016), Cobb, Wry, and Zhao (2016), and Zhao and Lounsbury (2016).

Porter (1995) highlights that disadvantaged urban areas suffer from a lack of businesses and jobs, which fuels the downward spiral of poverty and social problems (such as illiteracy, school dropouts, unemployment, drug abuse, and crime). Given these adverse local conditions, business ventures in disadvantaged urban areas are likely to suffer from a locational disadvantage.[11] For example, Hiatt and Sine (2014) find that violence and civil unrest negatively affect business venture success and job growth, as such environment alters entrepreneurial risk perception, disrupts resource flows, and is detrimental to longer-term strategic planning.

This locational disadvantage is reflected in the difficulty to access capital. As mentioned above, prior work documents that businesses located in disadvantaged areas, as well as businesses that are minority-owned, face more severe financing constraints (e.g., Bates, 1989, 2011; Bates & Robb, 2013, 2016; Bates, Bradford, & Jackson, 2018; Bates, Bradford, & Seamans, 2018; Blanchflower, Levine, & Zimmerman, 2003; Chatterji & Seamans, 2012; Younkin & Kuppuswamy, 2018). In particular, their loan applications are more often rejected, and when granted, they tend to receive smaller loans and at less attractive conditions. This is confirmed by our survey results (see Section 2.1), which revealed that business ventures in French banlieues are at a disadvantage in accessing capital.

The higher financing constraints faced by business ventures in disadvantaged urban areas have two direct implications. First, they limit the ventures' ability to grow and invest in key strategic resources—such as the hiring of qualified employees (e.g., Campbell, Coff, & Kryscynski, 2012)—that would contribute to value creation and help them achieve a sustainable competitive advantage. Second, they limit the ventures' ability to invest in promising projects. Rather, they may have no choice but to invest in smaller, less ambitious projects that are easier to finance in the first place. As a result, for a given financing instrument and contract terms, investors might be able to contract with business ventures of greater unrealized potential in disadvantaged urban areas compared to outside these areas.

[11] This is in sharp contrast to business ventures located in business hotspots that benefit from various locational advantages, such as better access to capital, high-skilled employees, suppliers, and customers, among others. These benefits have been extensively studied in the literature (e.g., Chatterji, Glaeser, & Kerr, 2014; Ellison, Glaeser, & Kerr, 2010; Glaeser, Kerr, & Kerr, 2009; Sorenson & Audia, 2000; Stuart & Sorenson, 2003).

The unrealized potential of banlieue ventures, along with the roadblocks they face in accessing capital, are often highlighted by practitioners. As an illustration, let us consider the example of Impact Partners, a French impact investing fund that invests in French banlieues.[12] In an interview we conducted with the managing team of Impact Partners, the CEO emphasized that a major obstacle for investing in banlieues was the lack of a proper registry that facilitates the identification of promising business ventures.[13] Instead, Impact Partners had to develop their own capabilities to locate, identify, and assess potential candidates for funding. In this regard, the CEO stated that "surprisingly enough, we always find new sources of deal flow, we consistently identify new companies" adding that "it's like an oil field: the more one drills, the more one finds good investment opportunities." This statement was echoed in another interview we conducted with the founder and CEO of a venture located in a disadvantaged urban area in Paris, who stated that "ultimately, what matters is to show that it is doable and we need to establish confidence […] we have to show to potential partners and investors that this kind of investments [in banlieues] is far less risky than what they think ex ante."

More broadly, these anecdotal accounts are confirmed in the aforementioned study by Terra Nova (2016). In describing the banlieue ventures, the study notes that many have good fundamentals that "reflect good financial health and do not justify the difficulty in accessing financing" (p. 45), and further comments on the need to connect them to investors to "grow in scale, create jobs, and unleash their entrepreneurial potential" (p. 87, authors' translation).

Accordingly, despite the adverse conditions of the local business environment, investments may yield greater performance improvements for business ventures located in disadvantaged urban areas, compared to the performance improvements that the same investment would achieve if directed toward similar business ventures outside these areas.

[12] In 2021, Impact Partners became the number one European investment platform dedicated to impact investing with €340M under management and 180+ investments made so far (https://www.impact-partners.com).
[13] The transcripts of the interviews featured in this section are available from the authors upon request.

Moreover, for a given amount of funding received from investors, ventures in disadvantaged urban areas might create more jobs compared to ventures outside these areas. Since business ventures in disadvantaged areas are more likely to hire local residents from the disadvantaged area (Dahl & Sorenson, 2012; ICIC, 2010; Porter, 2016), these new job opportunities are likely to contribute to the inclusion of disadvantaged communities in the economy. In this regard, their social inclusion is further enhanced if the jobs that are created are not merely more jobs but also quality jobs—such as high-skill (white-collar) jobs as opposed to low-skill (blue-collar) jobs—and if these employment opportunities foster the inclusion of minorities.[14]

In what follows, we take these questions to the data, and explore empirically whether investments in business ventures yield stronger improvements in the ventures' financial performance and social impact when directed toward ventures located in (as opposed to outside) disadvantaged urban areas (Sections 3-5). Moreover, we supplement this analysis with a controlled lab experiment that sheds light on the underlying mechanism (Section 6).

3. DATA

3.1 Banlieues

To identify banlieue locations, we use the 751 areas that are officially classified as deprived urban zones—"zone urbaine sensible" (ZUS), colloquially referred to as "banlieues"—by the French government.[15] These 751 urban zones (i.e., neighborhoods in a given city) span 490 different cities, and are considered a high-

[14] Arguably, through the creation of jobs, impact investing is likely to have positive spillovers on other dimensions of social impact (such as employees' health and education, or the local business environment). In this vein, Rocha and Kacperczyk (2021) find that increased business activity decreases crime rates in the local area. They further find that increased entrepreneurial activity helps individuals find a job who would otherwise be at risk of engaging in criminal activity. Their integration in the labor force, in turn, decreases their propensity and willingness to engage in crime. Similarly, Hwang and Phillips (2020) find that entrepreneurship can serve as a viable career choice for formerly incarcerated individuals—as they face discrimination on the regular labor market—reducing their likelihood of returning to prison. Overall, the insights of these studies suggest that fostering business activity in disadvantaged urban areas may contribute to the social inclusion of at-risk individuals, decrease crime, and ultimately improve the business environment of firms operating in the area.

[15] Decree n°96-1156 (December 26, 1996) established the initial list of 750 ZUS. The 751st ZUS (Nouveau Mons in Mons-en-Baroeul) was added by Decree n°2000-796 (August 24, 2000). Decree n°2001-707 (July 31, 2001) modified the perimeter of Grigny's ZUS. The complete list of geo-codes with the ZUS boundaries can be obtained from https://sig.ville.gouv.fr/atlas/ZUS/.

priority target for city policy, because of their exceptionally low standards of living. Nearly five million people live in these areas that are plagued by many social issues, such as high unemployment, a low percentage of high-school graduates, and high crime rates. For example—as an illustration of the inequalities between banlieues and non-banlieues across the 490 cities that have at least one banlieue within their boundaries—unemployment was 24.2% in banlieues, compared to 9.9% for the other city neighborhoods in 2012 (Observatoire des Inégalités, 2014).

3.2 Loan data

The loan data are obtained from the proprietary database of a major public investment bank, which we refer to as "Public Bank" for confidentiality reasons. Public Bank's objective is to support entrepreneurship and venture growth in France, with the ultimate goal to become the "one-stop shop" for French entrepreneurs. Public Bank is active throughout the French territory, including regions that tend to be overlooked by traditional banks (such as banlieues). Public Bank provides funding to a wide range of businesses, primarily Small and Medium-sized Enterprises (SMEs). In 2016, Public Bank had total assets of approximately €35 billion, including €17 billion in loans, €10 billion in guarantees, and €8 billion in equity financing. Public Bank relies on a decentralized network of 43 regional offices throughout France.

We obtained access to all transactions of Public Bank with its customers from 2000-2014. For each transaction, the database includes the loan amount, and an indication of whether the loan is repayable (i.e., regular loan) or not (i.e., subvention). The bank usually invests in a 1:1 partnership with a private bank—that is, when a firm receives €1,000 from Public Bank, it also receives an additional €1,000 from a given private bank. From this database, we extract two variables: i) *log(loan amount)*, which is the logarithm of the loan amount granted to the firm by Public Bank; and ii) *repayable loan*, which is an indicator variable equal to one if the loan is repayable, and zero otherwise. Note that the database does not include information on the interest charged on the loan. Nevertheless, this dimension is of lesser relevance to our analysis since, for a given loan amount, Public Bank applies the same pricing criteria regardless of the business venture's location. This reflects Public Bank's policy not to discriminate between banlieue and non-banlieue areas.

3.3 Firm-level data

To distinguish between banlieue vs. non-banlieue ventures, we use establishment-level data from INSEE.[16] For each establishment, the database provides a 14-digit identifier—the SIRET code ("Système d'identification du répertoire des établissements")—that identifies the firm to which the establishment belongs and the establishment's physical location. (Note that, compared to the U.S., the INSEE data are the French equivalent of the establishment-level data maintained by the U.S. Census Bureau.)

We restrict the dataset to single-establishment firms, i.e., the establishment itself is the firm. (Aghion et al. (2018) report that 94% of French firms are single-establishment firms.) This allows us to unambiguously identify firms as banlieue vs. non-banlieue firms, depending on whether the establishment is located in one of the 751 banlieue areas. In contrast—and by construction—multi-establishment firms are larger firms that span multiple locations, and hence cannot be uniquely assigned to a given banlieue vs. non-banlieue location.

We merge the Public Bank database to the INSEE data by firm and year. The merged dataset provides the basis for our analysis, in which we compare banlieue firms (treatment group) to non-banlieue firms that are located in the same cities as the banlieue firms (control group).

Accounting data. We supplement the INSEE data with the FICUS-FARE database that contains detailed accounting information (balance sheet and income statement) for all French firms.[17] From this database, we extract several variables. *Return on assets (ROA)* is the ratio of operating income to the book value of total assets. *Size* is the logarithm of the book value of total assets. *Leverage* is the ratio of total debt to the book value of total assets. *Cash* is the ratio of total cash to the book value of total assets. In addition to the accounting information, the database also provides the *age* of the firm, as well as industry identifiers

[16] INSEE defines an establishment as "a production unit that is geographically individual but legally dependent on a legal unit. An establishment produces goods or services: it can be a factory, a bakery, a clothing store, one of the hotels of a hotel chain, the 'shop' of a repairer of computer hardware [...] The establishment or production unit is the most suitable level for a geographical approach to the economy" (INSEE, 2019).

[17] The FICUS ("Fichier de comptabilité unifié dans SUSE (Système unifié de statistiques d'entreprises)") and FARE ("Fichier approche des résultats d'ESANE (Élaboration des statistiques annuelles d'entreprises)") data are compiled by INSEE and the French Ministry of Finance from administrative records that cover the full universe of French firms. These records originate from the mandatory reporting of firms' accounting data to the French tax authorities.

based on NAF (Nomenclature d'activité française) codes, which we convert into SIC (Standard Industrial Classification) codes.

Employee data. To examine employment outcomes, we augment the INSEE data with the DADS ("Déclaration annuelle de données sociales") database that collects annual data on the number of employees, along with their gender and qualifications.[18] In this regard, it is important to note that the challenges faced by minorities—and what a minority constitutes (e.g., based on gender, race, nationality, religion, or sexual orientation)—differ from country to country, as they are shaped by the country's social, political, historical, and economic context. In France, which is the context of our study, two elements induced us to focus on gender-based minorities. First, French women have been facing systematic discrimination on the labor market, including discriminatory hiring practices, lower pay, and fewer opportunities for promotion, among others (e.g., European Commission, 2017; *Washington Post,* 2012; World Economic Forum, 2017). Second, except for gender, French law does not permit the collection of employee information on race, religion, and other minority-related status. Hence, the number of female vs. male employees is the only available metric that speaks to the employment of "minorities" more broadly.

The variables we construct from the DADS database are as follows. *Employees* is the total number employees at the firm level. We further decompose the number of employees by gender (*female* and *male employees*) and by job type. In terms of the latter, we distinguish between *manual workers* ("ouvriers" in French), *clerical workers* ("employés"), *intermediate workers* ("professions intermédiaires," such as technicians), and *white-collar workers* ("cadres").[19] Finally, we compute *wages per employee* as the ratio of payroll divided by the number of employees.

In the analysis, we restrict the sample to firms with more than 10 employees. Firms below that threshold are subject to different legal requirements—e.g., in terms of social security obligations, supplemental labor costs, and labor protection—and hence cannot be compared to the broader universe of

[18] The DADS data are at the establishment level. Since our sample only consists of single-establishment firms, the distinction between "establishment" and "firm" is immaterial in our context.
[19] For ease of exposition, we refer to the first three groups as "blue-collar workers" (broadly defined).

INSEE firms with respect to their profitability and hiring decisions (e.g., Abowd & Kramarz, 2003; Cahuc, Malherbet, & Trapp, 2019).[20]

3.4 Summary statistics

Our baseline sample consists of firms from the merged INSEE-FICUS-FARE-DADS dataset that receive a loan from Public Bank during the sample period (i.e., 2000-2014), have non-missing values for the relevant accounting variables, and are located in cities that have at least one banlieue within their boundaries. This yields a total of 634 firms in the "treatment" group (i.e., banlieue firms that receive a loan from Public Bank) and 5,237 firms in the "control" group (i.e., non-banlieue firms that receive a loan from Public Bank, and are located in the same cities as the banlieue firms). The baseline sample therefore consists of a total of 5,871 firms.

Table 1 provides summary statistics for the variables described above, for all firms (left-hand panel) and separately for the banlieue and non-banlieue firms (right-hand panels).[21] All variables are recorded in the pre-treatment year ($t - 1$)—i.e., in the year that precedes the loan issuance—except for the loan characteristics that, by construction, refer to the treatment year (t).

-------Insert Table 1 about here-------

As can be seen, the average firm in our sample has 43 employees, and total assets in amount of €6M. The average loan amount is €535K, and the large majority of the loans (about 78%) are repayable. Importantly, there are non-trivial differences between banlieue and non-banlieue firms. Among other differences, banlieue firms are on average younger, smaller, and receive smaller loan amounts compared to non-banlieue firms. While these differences are intuitive, they do raise the concern of whether non-banlieue firms provide an informative control group. To mitigate this issue, we use a second specification, in which we use a refined control group that is obtained through a propensity score matching. Specifically, for each

[20] In particular, firms below the threshold may prefer not to expand to avoid crossing the 10-employee cutoff that would subject them to higher social security charges, higher supplemental labor costs (in terms of commuting and training costs), and less flexibility in the dismissal of employees. Nevertheless, we obtain similar results if we include these firms.

[21] Table A2 in the appendix provides additional summary statistics on the firm's industries. The main industries represented in our sample are manufacturing (23.4% of the firms), services (22.1%), and wholesale trade (19.1%).

treated firm, we match a control firm that operates in the same city, industry, and year, and is similar to the treated firm based on pre-treatment characteristics. We describe this matching approach in Section 4.2.

4. METHODOLOGY

To examine how impact investing—in the form of loans issued by Public Bank—differentially affects banlieue vs. non-banlieue ventures, we use a difference-in-differences methodology that compares banlieue firms (treatment group) vs. non-banlieue firms (control group) that receive funding from Public Bank in the same year (treatment year). The requirement that both groups receive funding from Public Bank ensures that we capture a "banlieue-loan effect" as opposed to a mere "loan effect".[22]

In the analysis, we use two different specifications, depending on how the control group is constructed. In the first specification, we use the full control group described above (i.e., all non-banlieue firms located in the same cities as the banlieue firms). In the second specification, we use a matched control group obtained from a propensity score matching. In the following, we describe both specifications.

4.1 Difference-in-differences specification with full sample

For each firm and each outcome variable y, we compute the change from $t - 1$ (the year before the firm receives funding from Public Bank) until $t + 3$ (three years after receiving funding), which we denote by $\Delta y_{t\text{-}1,t+3}$.[23] For ROA, Δy represents the level change; for employment, Δy represents the percentage change.[24] We then estimate the following difference-in-differences specification:

$$\Delta y_{it\text{-}1,t+3} = \alpha_t + \alpha_c + \alpha_j + \beta \times \text{treatment}_i + \boldsymbol{\gamma}'\mathbf{X}_i + \varepsilon_i\,, \qquad (1)$$

where i indexes firms, t years, c cities, and j industries (partitioned according to SIC divisions); α_t, α_c, and α_j are year, city, and industry fixed effects, respectively; *treatment* is a binary variable equal to one for

[22] In Section 5.3, we consider an alternative setup in which we compare banlieue firms that receive a loan from Public Bank vs. banlieue firms that do not. This specification allows us to quantify the overall benefits from granting vs. not granting a loan to banlieue firms.

[23] In auxiliary analyses, we examine the dynamics of the treatment. To do so, we compute Δy for increasing time intervals (i.e., $\Delta y_{t\text{-}1,t+1}$, $\Delta y_{t\text{-}1,t+2}$, $\Delta y_{t\text{-}1,t+3}$, $\Delta y_{t\text{-}1,t+4}$, and $\Delta y_{t\text{-}1,t+5}$).

[24] Formally, $\Delta\text{ROA}_{t\text{-}1,t+3} = \text{ROA}_{t+3} - \text{ROA}_{t\text{-}1}$; $\Delta\text{employees}_{t\text{-}1,t+3} = (\text{employees}_{t+3} - \text{employees}_{t\text{-}1}) / \text{employees}_{t\text{-}1}$. To mitigate the impact of outliers, we winsorize all dependent variables at the 10% level. The results are very similar if we use less conservative cutoffs at the 5% and 1% level, respectively.

banlieue firms and zero otherwise; **X** is the vector of control variables; and ε is the error term. **X** includes three types of controls: i) pre-treatment characteristics measured at $t - 1$ (*age*, *size*, *ROA*, *leverage*, and *cash*); ii) pre-treatment changes in these characteristics from $t - 2$ to $t - 1$ (that is, "pre-trends"); and iii) loan characteristics (*loan amount* and *repayable*).[25] Standard errors are clustered at the dimension of the treatment (that is, at the firm level).[26] The coefficient of interest is β, which captures the "difference-in-differences," that is, the differential response of banlieue versus non-banlieue firms after receiving funding from Public Bank.

The inclusion of controls and fixed effects in regression (1) helps tighten the inference. In particular, the controls account for pre-treatment differences between banlieue and non-banlieue firms in terms of their profitability (*ROA*), financing policies (*leverage*), internal resources (*cash*), scale (*size*), and maturity (*age*), as well as differences in the amount (*loan amount*) and type of loan (*repayable*) they receive. Moreover, the inclusion of city, industry, and year fixed effects ensures that banlieue firms are compared to non-banlieue firms that are located in the same city, operate in the same industry, and receive the Public Bank loan in the same year.

4.2 Difference-in-differences specification with matched control group

For the analysis to be informative, the non-banlieue firms need to be sufficiently comparable to the banlieue firms. In regression (1), we account for differences between the two groups through the inclusion of controls and fixed effects. As an alternative, we also use a matching methodology. That is, for each banlieue firm, we match a non-banlieue firm that is comparable ex ante.

The matching is done as follows. First, for each treated firm (i.e., banlieue firm that receives a loan from Public Bank in year *t*), we consider the set of non-banlieue firms that also receives a loan from Public Bank in year *t*, are located in the same city, and operate in the same industry. We further require that the non-banlieue firms receive the same type of loan (that is, whether the loan is repayable or not). Among the

[25] *Age* is not included as pre-trend since, by construction, the change is equal to one for all firms.
[26] See Bertrand, Duflo, and Mullainathan (2004) for best practices in clustering standard errors. Note that we obtain similar results if we instead cluster standard errors at the city or industry level.

pool of remaining candidates, we use a propensity score matching (PSM) that assigns the "closest" non-banlieue firm based on a set of ten covariates. These covariates include the pre-treatment characteristics (i.e., age, size, ROA, leverage, and cash, in year $t - 1$), the pre-trends in these variables (i.e., the change in size, ROA, leverage, and cash, from year $t - 2$ to $t - 1$), and the loan amount.

This matching procedure ensures that the matched control firms are similar to the treated firms ex ante (i.e., prior to receiving funding from Public Bank). Table A3 confirms the close similarity between the two groups. For each of the characteristics listed above, as well as a set of non-matching characteristics, the table reports sample means for the 365 treated firms and the 365 matched control firms, respectively.[27] In the last two columns, the table reports the difference-in-means test. As is shown, treated and matched control firms are very similar along all characteristics. In particular, the null of equal means cannot be rejected, with *p*-values ranging from 0.151 to 0.930. Overall, these statistics confirm that the matched control firms are very similar to the treated firms ex ante.

We then use the matched control group (in lieu of the full control group) to estimate a variant of the difference-in-differences specification in equation (1):

$$\Delta y_{it\text{-}1,t+3} = a + b \times \text{treatment}_i + e_i \,. \tag{2}$$

This specification is run in a sample of 365 treated and 365 matched control firms (i.e., 730 firms in total). Note that equation (2) does not include controls nor fixed effects. By construction, those are orthogonal to the treatment, and hence immaterial for the analysis.

5. RESULTS

5.1 Financial performance of banlieue vs. non-banlieue ventures following the loan issuance

Baseline specifications

The analysis of financial performance is presented in Table 2. The dependent variable is the change in ROA from $t - 1$ until $t + 3$ (Δ ROA$_{t\text{-}1,t+3}$), where t is the year in which the Public Bank funding is granted. In

[27] The number of treated firms is smaller in Table A3 (compared to Table 1) due to the tight matching requirements.

column (1), we use the difference-in-differences (DID) specification with the full control group, that is, all non-banlieue firms that receive Public Bank funding and are located in the same cities as the banlieue firms (equation (1)); in column (2), we use the DID specification with the matched control group obtained from the propensity score matching (PSM-DID, equation (2)).

-------Insert Table 2 about here-------

As can be seen, the treatment effect is similar in both specifications. The point estimate is 0.023 in column (1) and 0.030 in column (2). Both estimates are highly significant in statistical terms (p-value = 0.000 in both columns). They are economically significant as well—they imply that each euro invested in the firm's assets generates an additional 2.3-3.0 cents of profits for banlieue firms compared to non-banlieue firms after receiving funding from Public Bank. Overall, these findings indicate that impact investing yields higher improvements in financial performance for business ventures located in disadvantaged urban areas.

Dynamics of the treatment

In Table A4, we estimate variants of the regressions presented in Table 2. Instead of considering changes in ROA three years after the treatment ($t + 3$), we examine changes in ROA for increasing time intervals after the treatment ($t + 1$, $t + 2$, …, $t + 5$). Columns (1)-(5) provide estimates from the DID specification; columns (6)-(10) from the PSM-DID specification. As is shown, the effect starts to materialize in the first year after the treatment, it peaks after about three years, and remains somewhat stable thereafter.[28] This suggests that the treatment has a long-lasting impact on banlieue ventures' performance.

5.2 Employment of banlieue vs. non-banlieue ventures following the loan issuance

Employment growth

In Table 3, we examine how the treatment affects employment. The dependent variable is the percentage change in the number of employees from $t - 1$ to $t + 3$ (%Δ employees$_{t-1,t+3}$). We again report estimates

[28] In column (10), the estimate is marginally insignificant (p-value = 0.116), but remains large in economic terms. The lower significance reflects the lower power of the test, as the sample shrinks considerably due to the data requirements five years post-treatment and the conservative matching criteria.

from both the DID (column (1)) and PSM-DID (column (2)) specifications.[29]

-------Insert Table 3 about here-------

As can be seen, we find that the banlieue treatment is conducive to higher employment growth. The point estimates are 0.065 (DID) and 0.092 (PSM-DID), implying a 6.5% to 9.2% higher employment growth for banlieue ventures compared to non-banlieue ventures. Since the average pre-treatment employment is 43 employees (Table 1), this implies that banlieue ventures create about 2.8 to 4.0 more jobs than non-banlieue ventures after receiving a loan from Public Bank. These coefficients are statistically significant at conventional levels (*p*-values of 0.053 and 0.018, respectively).

Differential employment growth by job type

In Table 4, we estimate variants of the regressions from Table 3, decomposing the number of employees into manual workers (columns (1) and (2)), clerical workers (columns (3) and (4)), intermediate workers (columns (5)-(6)), and white-collar workers (columns (7)-(8)).[30]

-------Insert Table 4 about here-------

As is shown, we find that the banlieue treatment leads to higher job creation across all four job types. However, the treatment effect is largest and only significant for white-collar jobs—the corresponding coefficients are 0.023 (*p*-value = 0.012, DID) and 0.031 (*p*-value = 0.003, PSM-DID), respectively, which accounts for 34% and 35%, respectively, of the composite effect reported in Table 3. That is, about one third of the differential job creation in banlieue ventures (compared to non-banlieue ventures) is in the form of white-collar jobs.

Differential employment growth by gender

In Table 5, we estimate further variants of the regressions from Table 3, decomposing the number of employees into female (columns (1) and (2)) and male employees (columns (3) and (4)).

[29] The number of observations in Tables 3-5 is lower than in Table 2 due to the availability of the employment data in the DADS database.

[30] To obtain a decomposition of $\%\Delta\ \text{employees}_{t-1,t+3}$ by job type, we compute changes in the number of employees of a given type relative to the total number of employees. For example, the change in the number of white-collar workers is computed as $\%\Delta\ \text{White-collar workers}_{t-1,t+3} = (\text{White-collar workers}_{t+3} - \text{White-collar workers}_{t-1}) / \text{total employees}_{t-1}$. This decomposition allows us to quantity how much of the composite estimate in Table 3 is due to each job type.

-------Insert Table 5 about here-------

We find that the banlieue treatment leads to increases in the number of *both* female and male employees. For female employees, the point estimates are 0.017 (*p*-value = 0.130, DID) and 0.024 (*p*-value = 0.060, PSM-DID), respectively; for male employees, they are 0.042 (*p*-value = 0.147, DID) and 0.065 (*p*-value = 0.048, PSM-DID), respectively. This indicates that the higher job creation in banlieue ventures (compared to non-banlieue ventures) benefits both male and female employees.

In columns (5) and (6) we further examine the gender balance by using as dependent variable the change in the ratio of female-to-male employees. As is shown, there is no deterioration in the gender ratio. In fact, this ratio improves slightly, although the increase is not significant in statistical terms (*p*-values of 0.819 and 0.921, respectively).

Overall, the results provided in Tables 3-5 indicate that investments in disadvantaged urban areas achieve a higher social impact. For one euro invested in business ventures located in banlieues (compared to one euro invested in otherwise similar ventures located in non-banlieue areas of the same cities), we observe the creation of more jobs, more quality jobs, and more jobs for both female and male employees.

5.3 Robustness and alternative interpretations

In Appendix A (and Tables A5-A8), we present several tests that confirm the robustness of our findings and help rule out alternative interpretations. Specifically, we show that our results are robust if we i) account for the risk of banlieue vs. non-banlieue ventures; ii) account for survivorship; iii) account for tax incentives; and iv) use as alternative control group banlieue ventures that do not receive a loan from Public Bank.

6. EXPERIMENTAL EVIDENCE

The results presented in Section 5 are consistent with our proposed mechanism—that is, impact investors are able to contract with business ventures of greater unrealized potential in banlieues, as banlieue ventures tend to be left out of the traditional loan market.

To provide direct evidence on this mechanism, we supplement our analysis with a vignette experiment conducted in a controlled lab environment. In the experiment, participants are asked to act as

loan officers and evaluate whether or not to grant a loan to a business venture. The business venture is the same for all participants, except for the venture's geographic location, which is randomized as either a banlieue or non-banlieue neighborhood in Paris. If participants are more reluctant to grant a loan to the banlieue venture (despite the ventures being identical), this would point toward discriminatory practices against banlieue ventures. In addition, we conduct a version of the experiment where we not only randomize the banlieue vs. non-banlieue dimension, but also the business venture's potential (compared to the industry average). In the absence of market frictions, the loan granting decision should only depend on the venture's potential.[31] In the presence of market frictions (due to location), lower-potential ventures in non-banlieue neighborhoods may have similar odds of receiving the loan compared to higher-potential ventures in banlieues. If so, this would indicate that many higher-potential ventures are left out of the traditional loan market in banlieues; by filling this segment, impact investors would be able to contract with ventures of greater unrealized potential in banlieues.

To conduct the experiment, we recruited participants in partnership with an established behavioral lab located in the center of Paris. We chose this specific lab as it is well positioned to sample participants in the Paris area with good knowledge of Paris and its different neighborhoods. Participants were French-speaking business professionals. They were remunerated in accordance with the lab standards.

6.1 Setup and manipulations

Participants were asked to read the description of a fictitious firm that manufactures and supplies sanitary parts. The description of this firm, as provided to the participants, is reproduced in Appendix B (translated from French to English). This firm is representative of the average firm in our sample, that is, a firm that operates in the manufacturing sector (the most prevalent sector in our sample, see Table A2), was founded 18 years ago, and has a total of 43 employees, out of which 28% are female and 85% are blue-collar workers (corresponding to the average firm in our sample, see Table 1).

[31] More precisely, in the language of capital budgeting, the decision should only depend on the net present value (NPV) of the expected future cash flows generated by the venture.

Banlieue vs. non-banlieue

We manipulate the firm's geographic location using the address of the firm. We picked two different addresses in the 18th arrondissement of Paris: one address from a banlieue neighborhood (Boulevard Barbès in La Goutte d'Or), and the other from a non-banlieue neighborhood (Place du Tertre in Montmartre).[32] Figure A1 provides a map of the 18th arrondissement, in which these two addresses are marked by a red and blue pin, respectively. Note that this manipulation has been used in prior research (Petit et al., 2016) to investigate the discriminatory practices faced by job applicants living in banlieue vs. non-banlieue neighborhoods.

In the experiment, we did not explicitly use the word "banlieue" (nor "ZUS"), in order not to influence participants through the use of negatively connotated language. Instead, we only specified the address ("Boulevard Barbès in La Goutte d'Or" and "Place du Tertre in Montmartre," respectively), relying on the participants' knowledge of Paris' neighborhoods.

Accordingly, in manipulation 1 (banlieue) and manipulation 2 (non-banlieue), the only difference in the description of the firm is the firm's address, which we randomize across participants. The script used for both manipulations (as well as manipulation 3, which is described below) is reproduced in Appendix A.

Average vs. below-average growth potential

In manipulations 1 and 2, the firm under consideration is exactly the same except for the firm's address. In the description of the firm, participants are told that the firm's growth potential is comparable to that of other firms in the same industry ("Industry experts expect the growth potential of this firm to be comparable to the industry average").

In manipulation 3, we consider a variant of manipulation 2 (pertaining to the non-banlieue firm), in which we state that the firm has a lower growth potential compared to other firms in the industry ("Industry experts expect the growth potential of this firm to be below the industry average"). As discussed

[32] As mentioned in Section 3.1, we use the term "banlieue" as the colloquial term for ZUS. Accordingly, we refer to the ZUS of La Goutte d'Or as banlieue.

above, the rationale behind this manipulation is that, by comparing manipulation 1 vs. manipulation 3, we can assess whether non-banlieue firms of lower potential (manipulation 3) have similar odds of receiving a loan compared to banlieue firms of higher potential (manipulation 1).

6.2 Direct and indirect questioning

After reading the description of the firm, participants were asked whether or not they would grant a loan to the firm. ("The firm is applying for a loan at the current market conditions. Note that the loan is substantial, accounting for about 10% of the firm's asset size. You are the loan officer in charge of the decision. Would you grant the loan?") The answer to this question provides the basis for our analysis, in which we compare the acceptance rate across the different manipulations.

A potential concern with this form of questioning is that it might be prone to social desirability bias, that is, the tendency of participants to present themselves in a socially acceptable way (Edwards, 1957). In our case, social desirability bias may induce respondents not to express negative opinions toward banlieue ventures. To mitigate this concern, we also adopted the technique of indirect questioning, which has been shown to reduce social desirability bias (e.g., Fisher, 1993). That is, in addition to asking participants about their own behavior ("Would you grant the loan?", direct questioning), we also asked them what they would expect a traditional bank to decide ("Do you think a traditional bank would grant the loan?", indirect questioning).

6.3 Attention and knowledge checks

As mentioned above, all participants are French-speaking business professionals. Participants were filtered out if they did not pass a series of attention and knowledge checks. Note that all these checks were conducted after the respondents answered the main questions, in order not to influence them in their responses to our main questions.

The first knowledge check filtered out participants who did not correctly identify the Boulevard Barbès as being in a banlieue (for participants assigned to manipulation 1), or incorrectly thought that the

Place du Tertre was in a banlieue (for participants assigned to manipulations 2 and 3).[33] This filter is important, as our experiment relies on participants being able to distinguish between banlieue and non-banlieue neighborhoods. To further ensure that participants were familiar with the Paris neighborhoods, we asked them whether they "live or previously lived in Paris or the broader Paris area" and also asked them to self-assess their knowledge of Paris on a 10-point scale. We filtered out participants who answered "no" to the residence question and provided a below-median score of knowledgeability.

In addition, we conducted an attention check by asking participants to report the growth potential of the venture they assessed.[34] We filtered out participants who failed this attention check.

After applying these filters, we ended up with a final sample of 215 participants who i) correctly identified the business venture as being in a banlieue or not, ii) had sufficient knowledge of Paris, and iii) read the vignette carefully enough to provide meaningful evaluations. At the end of the experiment, we further collected information about the age and business experience of the respondents. In our sample of 215 respondents, the average age is 23.7 years (SD = 4.0), and the average professional experience 4.2 years (SD = 5.3). Importantly, when using these characteristics to assess the covariate balance across the three manipulations, we find no significant difference across them. The *p*-value of the test of equal means is 0.271 for age, and 0.991 for business experience.[35]

6.4 Results

Acceptance rates

The results from the vignette experiment are provided in Table 6. Panel (a) reports the results pertaining to

[33] Specifically, we asked participants: "Do you think that the firm is located in what can be referred to as a 'zone urbaine sensible,' that is, an area where the levels of education and employment are low, and the level of crime is high?"

[34] We asked participants: "For the firm you assessed, what is the growth potential that industry experts expect?" We provided four possible answers: "above the industry average," "comparable to the industry average," "below the industry average," and "there is not enough information to answer this question."

[35] Due to the filters described above, the number of observations in the final sample need not be uniform across manipulations. In particular, out of the 215 observations, the number of observations in the banlieue manipulation (manipulation 1) is 47, which is less than one third of the sample. This reflects the fact that participants assigned to the banlieue venture more frequently failed the knowledge check, as banlieue neighborhoods are not as well-known as non-banlieue neighborhoods. Importantly, as mentioned above, the covariate balance tests confirm that the three groups are well balanced.

the direct questioning ("Would you grant the loan?"), while panel (b) reports those pertaining to the indirect questioning ("Do you think a traditional bank would grant the loan?").

-------Insert Table 6 about here-------

When comparing manipulation 1 (banlieue venture) vs. manipulation 2 (non-banlieue venture), we find that the acceptance rate is significantly lower for banlieue ventures, regardless of the mode of questioning. In panel (a), the acceptance rate is 83.0% for banlieue ventures, compared to 93.6% for non-banlieue ventures. This difference is significant at conventional levels (p-value = 0.049). In panel (b), the difference is even more pronounced, with an acceptance rate of 40.4% for banlieue ventures compared to 71.0% for non-banlieue ventures (p-value = 0.000). Overall, these results point toward discriminatory practices against banlieue ventures, as the ventures considered in manipulations 1 and 2 are identical except for their geographic location.

When comparing manipulation 2 (non-banlieue venture with average growth potential) vs. manipulation 3 (non-banlieue venture with below-average growth potential), we find that the venture's growth potential is an important determinant of the loan granting decision. Specifically, we find that the acceptance rate is significantly higher for the non-banlieue venture with average growth potential compared to the non-banlieue venture with below-average growth potential. In panel (a), the corresponding acceptance rates are 93.6% vs. 68.0% (p-value = 0.000); in panel (b), they are 71.0% vs. 26.7% (p-value = 0.000).

However, a different pattern emerges when we compare manipulation 1 (banlieue venture with average growth potential) vs. manipulation 3 (non-banlieue venture with below-average growth potential). In panel (a), we still observe a difference in favor of the venture with higher growth potential—the corresponding acceptance rates are 83.0% vs. 68.0% (p-value = 0.067)—but the difference is considerably smaller than in the previous comparison and only marginally significant in statistical terms. In panel (b), when using indirect questioning, we find that the difference is even smaller and no longer significant at conventional levels. The corresponding acceptance rates are 40.4% vs. 26.7% (p-value = 0.113).

In Table A9, we reproduce the same statistics as in Table 6, but restricting the sample to participants whose professional experience (in years) is at least equal to the median across all participants, that is, participants who are likely better informed when assessing loan applicants. While the results closely mirror those from Table 6, it is worth highlighting that, in panel (b), the difference between the acceptance rate in manipulation 1 (banlieue venture with average growth potential) vs. manipulation 3 (non-banlieue venture with below-average growth potential) is now close to zero and clearly insignificant. The corresponding acceptance rates are 33.3% vs. 29.1% (p-value = 0.685).

Overall, these results indicate that *higher*-potential ventures in banlieues face similar odds of receiving a loan compared to *lower*-potential ventures in non-banlieue neighborhoods. This suggests that a possibly large number of higher-potential ventures are left out of the traditional loan market in banlieues. Accordingly, impact investors might be able to contract with business ventures of greater unrealized potential in banlieues. This is in line with our findings from Section 5, showing that impact investors tend to achieve higher financial returns and greater social impact when directing their investments toward banlieue ventures (compared to non-banlieue ventures).

Exploring the determinants of the loan rejection

After answering the yes/no question pertaining to the granting of the loan, participants were asked to justify their decision by assessing potential rationales on a 6-point Likert scale (ranging from "strongly disagree" to "strongly agree").

In Table 7, we explore the rationales pertaining to the rejection of the loan, that is, we restrict the sample to participants who answered "no" to the binary question. To mitigate potential concerns of social desirability, we conduct this analysis for the indirect questioning mode.

-------Insert Table 7 about here-------

In panel (a), we compare manipulation 1 (banlieue venture) vs. manipulation 2 (non-banlieue venture). The first two columns report the average assessment on the 1-6 Likert scale across all participants in their respective manipulation. (The neutral mid-point is 3.5; values higher than 3.5 represent agreement,

with 6 being the strongest form of agreement; values below 3.5 represent disagreement, with 1 being the strongest form of disagreement.) The last two columns report the difference in means test pertaining to the difference between the two groups. As can be seen, this analysis confirms that "location" is the main rationale for the decision to reject the loan application of banlieue vs. non-banlieue ventures (p-value = 0.000). In contrast, the other rationales—such as "managerial abilities" and "ability to hire qualified employees"—play little role in explaining the respondents' decision.

In panel (b), we compare manipulation 2 (non-banlieue venture with average growth potential) vs. manipulation 3 (non-banlieue venture with below-average growth potential). Not surprisingly, we find that "growth potential" is the main determinant of the decision to reject the loan (p-value = 0.003). Finally, in panel (c), when comparing manipulation 1 (banlieue venture with average growth potential) vs. manipulation 3 (non-banlieue venture with below-average growth potential), we find that a mix of "location" (p-value = 0.000) and "growth potential" (p-value = 0.000) are the main rationales underlying the decision to reject the loan application.

Overall, the evidence from Table 7 reinforces our previous finding that banlieue ventures, including those of higher potential, tend to be discriminated against on the traditional loan market. This, in turn, is consistent with our finding from Section 5 that impact investors are able to achieve higher financial returns and greater social impact when contracting with banlieue vs. non-banlieue ventures.

7. DISCUSSION AND CONCLUSION

Is impact investing more effective in fostering business ventures' success and the social inclusion of marginalized communities when directed toward ventures located in vs. outside disadvantaged urban areas? This question is important, not only for impact investors and the business ventures they finance, but also for the development of sustainable cities and the achievement of the United Nations' SDGs. In other words, understanding *where* impact investing is most effective is important from both an economic and societal perspective.

We explore this question in the context of loans made to business ventures located in French banlieues vs. non-banlieues. Specifically, we examine whether and how impact investing can help business ventures overcome the challenges of operating in a disadvantaged neighborhood and generate not only improvements in financial performance but also social impact by fostering the social inclusion of disadvantaged communities through the creation of local employment opportunities, quality jobs, and jobs for minorities.

We find that loans issued to business ventures located in banlieues yield greater improvements in financial performance, as well as greater social impact in terms of the creation of local employment opportunities, quality jobs, and jobs for minorities, compared to loans issued to otherwise similar business ventures that are located in non-banlieue neighborhoods (within the same cities). Moreover, we find that loans issued to business ventures located in banlieues (compared to non-banlieues) lead to the creation of more jobs, and especially more "quality" jobs. Finally, this higher job creation appears to benefit both female and male employees. Overall, our findings indicate that impact investing is more effective in increasing business ventures' financial performance and their social impact when directed toward ventures located in (as opposed to outside) disadvantaged urban areas.

To shed light on the mechanism, we supplement this analysis with a controlled lab experiment, in which we randomly assign loan officers to business ventures that only differ based on whether they are located in a banlieue or not. We find that loan officers are less likely to grant loans to banlieue ventures compared to non-banlieue ventures, despite the ventures being identical. Moreover, we find that higher-potential ventures in banlieues face similar odds of receiving a loan compared to lower-potential ventures in non-banlieue neighborhoods. These findings point toward discriminatory practices on the traditional loan market against banlieue ventures. As banlieue ventures tend to be left out of the traditional loan market, impact investors can contract with ventures of greater unrealized potential in banlieues. This, in turn, is consistent with our finding that impact investing yields higher financial returns and greater social impact when directed toward business ventures located in banlieue vs. non-banlieue neighborhoods.

This study makes several contributions to the literature. First, it contributes to the vibrant literature that studies the role of geographic (co-)location for business venture success (e.g., Alcacer & Delgado, 2018; Chatterji, Glaeser, & Kerr, 2014; De Figueiredo, Meyer-Doyle, & Rawley, 2013; Delgado, Porter, & Stern, 2010, 2014; Ellison, Glaeser, & Kerr, 2010; Glaeser, Kerr, & Kerr, 2009; Sorenson & Audia, 2000; Stuart & Sorenson, 2003). This literature focuses on business hotspots that offer locational advantages, and highlights the importance of local conditions and positive spillovers from geographic proximity for business venture success. Our study complements this body of work by offering a fundamentally distinct perspective: we examine how business activity can be fostered in *disadvantaged* urban areas, and how investments in otherwise comparable business ventures in and outside disadvantaged urban areas can lead to different economic and social impacts.

Second, our findings indicate that the easing of financing constraints is particularly effective for ventures located in disadvantaged urban areas—areas that are overwhelmingly minority neighborhoods (e.g., in terms of race and religion). By examining the role of geographic location, this study speaks to the extant literature that explores the role of ownership and finds that minority-owned ventures (compared to non-minority-owned ventures) tend to face higher financing constraints and discriminatory financing practices (e.g., Bates, Bradford, & Seamans, 2018; Bates & Robb, 2013; Blanchflower, Levine, & Zimmerman, 2003; Chatterji & Seamans, 2012). Our study provides evidence that impact investing can serve as an important lever to rebalance this unfavorable situation, yielding improvements in both ventures' financial performance and their social impact. In this regard, impact investing can serve as a complement to public policies—such as "enterprise zone" programs that provide corporate tax relief (Boarnet & Bogard, 1996; Briant et al., 2015; Gobillon et al., 2012; Neumark & Simpson, 2015)—in stimulating business growth and employment opportunities in disadvantaged urban areas.

Third, by focusing on loans that are provided to business ventures in and outside banlieues, and examining their effectiveness in improving the ventures' financial performance and social impact, our study contributes to the literature on impact investing (e.g., Barber, Morse, & Yasuda, 2021; Chowdhry, Davies, & Waters, 2019; Flammer, 2020, 2021; Geczy et al., 2021; Lee, Adbi, & Singh, 2019), which studies a

relatively novel set of financial instruments that aim to generate "social and environmental impact alongside financial return" (Global Impact Investing Network, 2018). Notably, it sheds light on the financial and social performance implications of private debt.

Finally, by studying whether impact investing induces the creation of local employment opportunities, quality jobs, and jobs for minorities in disadvantaged urban areas—all of which foster the social inclusion of disadvantaged communities—this paper contributes to the literature on the social inclusion of marginalized communities (e.g., Hwang & Phillips, 2020; Mair, Marti, & Ventresca, 2012; Pongeluppe, 2020; Rocha & Kacperczyk, 2021; Samila & Sorenson, 2017), the development of sustainable cities (e.g., Bates & Robb, 2014; Porter, 1995, 2016), and the tackling of societal grand challenges (e.g., Berrone et al., 2016; George et al., 2016; Vakili & McGahan, 2016).

This study calls for future research. In particular, it is especially the disadvantaged communities that are hit the hardest by global crises such as the current pandemic, social injustice, and the climate crisis. Understanding how impact investors—and the business world more generally—can effectively facilitate the social inclusion of these communities and help them become more resilient is an important and fertile ground for future research. Another promising avenue for future research is to examine whether impact investing in disadvantaged urban areas holds promise to foster the social inclusion of race-, nationality-, and religion-based minorities. (In this study, we focused on gender-based minorities due to the specificity of the French context and data constraints.) Since disadvantaged urban areas are predominantly minority neighborhoods in terms of, e.g., race, nationality, and religion (e.g., Bates & Robb, 2014; Porter, 1995, 2016), it is crucial to understand whether impact investing enhances the social inclusion of these minorities. Relatedly, given that the challenges faced by minorities—and what a minority constitutes—is country specific, future research may want to explore whether and how impact investing affects minorities in other countries. Doing so would help obtain a more comprehensive understanding of the implications of impact investing in (versus outside) disadvantaged urban areas for the social inclusion of minorities in the workforce and the development of sustainable cities.

Our findings have important implications for practice. In general, the question of how to spark business activity is important as it is key for the macroeconomic development of countries. Yet, it is a particularly important and challenging question when it comes to disadvantaged urban areas, as these areas face higher poverty, unemployment, illiteracy, and crime, among others. The findings of this study imply that impact investing is an effective tool—and, in fact, it is more effective in than outside disadvantaged urban areas—to improve not only business venture success but also the social inclusion of marginalized communities through the creation of local employment opportunities, quality jobs, and jobs for minorities.

In this regard, our findings indicate that impact investing can help business ventures located in disadvantaged urban areas overcome an important market friction—their limited access to traditional sources of financing. Our findings suggest that this market friction hinders ventures' ability to grow and create value as they cannot undertake necessary investments in key strategic resources such as the hiring of high-skill personnel. Impact investing directed toward ventures located in disadvantaged urban areas helps overcome this market friction and unleash these ventures' unrealized potential.

Lastly, our findings suggest that impact investing is a potentially important instrument—in addition to public policies aimed at stimulating business activity in disadvantaged urban areas (e.g., corporate tax relief programs)—for the development of sustainable cities and the achievement of several of the United Nations' SDGs, namely no poverty (SDG #1), decent work and economic growth (SDG #8), reduced inequalities (SDG #10), and the development of sustainable cities and communities (SDG #11).

REFERENCES

Abowd, J. M., & Kramarz, F. (2003). The costs of hiring and separations. *Labour Economics,* 10(5), 499–530.

ADIVE (2010). Etude nationale sur les entrepreneurs dans les quartiers sensibles (Agence pour la Diversité Entrepreneuriale: Paris, France).

Aghion, P., Bergeaud, A., Boppart, T., & Bunel, S. (2018). Firm dynamics and growth measurement in France. *Journal of the European Economic Association, 16*(4), 933–956.

Alcacer, J., & Delgado, M. (2018). Spatial organization of firms and location choices through the value chain. *Management Science, 2*(11), 3213–3234.

Armendáriz, B., & Morduch, J. (2010). The economics of microfinance (MIT Press: Cambridge, MA).

Barber, B. M., Morse, A., & Yasuda, A. (2021). Impact investing. *Journal of Financial Economics, 139*(1), 162–185.

Bates, T. (1989). Small business viability in the urban ghetto. *Journal of Regional Science, 29*(4), 625–643.

Bates, T. (2011). Minority entrepreneurship. *Foundations and Trends in Entrepreneurship 7*(3–4), 151–311.

Bates, T., & Robb, A. (2013). Greater access to capital is needed to unleash the local economic development potential of minority-owned businesses. *Economic Development Quarterly*, *27*(3), 250–259.

Bates, T., & Robb, A. M. (2014). Small-business viability in America's urban minority communities. *Urban Studies, 51*(13), 2844–2862.
Bates, T., & Robb, A. M. (2016). Impacts of owner race and geographic context on access to small-business financing. *Economic Development Quarterly, 30*(2), 159–170.
Bates, T., Bradford, W. D., & Jackson, W. E. (2018). Are minority-owned businesses underserved by financial markets? Evidence from the private-equity industry. *Small Business Economics*, *50*(3), 445–461.
Bates, T., Bradford, W. D., & Seamans, R. (2018). Minority entrepreneurship in twenty-first century America. *Small Business Economics*, *50*(3), 415–427.
Berrone, P., Gelabert, L., Massa-Saluzzo, F., & Rousseau, H. E. (2016). Understanding community dynamics in the study of grand challenges: How nonprofits, institutional actors, and the community fabric interact to influence income inequality. *Academy of Management Journal, 59*(6), 1940–1964.
Bertrand, M., Duflo, E., & Mullainathan, S. (2004). How much should we trust differences-in-differences estimates? *Quarterly Journal of Economics, 119*(1), 249–275.
Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review, 94*(4), 991–1013.
Blanchflower, D. G., Levine, P. B., & Zimmerman, D. J. (2003). Discrimination in the small business credit market. *Review of Economics and Statistics, 85*(4), 930–943.
Boarnet, M. G., & Bogart, W. T. (1996). Enterprise zones and employment: Evidence from New Jersey. *Journal of Urban Economics, 40*(2), 198–215.
Briant, A., Lafourcade, M., & Schmutz, B. (2015). Can tax breaks beat geography? Lessons from the French enterprise zone experience. *American Economic Journal: Economic Policy, 7*(2), 88–124.
Bruhn, M., & Love, I. (2014). Impact of improved access to finance: Evidence from Mexico. *Journal of Finance, 69*(3), 1347–1376.
Campbell, B. A., Coff, R., & Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review, 37*(3), 376–395.
Cahuc, P., Malherbet, F., & Trapp, J. (2019). L'effet des coûts de licenciement sur la durée des emplois des travailleurs peu qualifiés en France. *Revue Française d'Economie 34*(1), 15–43.
Canales, R., & Greenberg, J. (2016). A matter of (relational) style: Loan officer consistency and exchange continuity in microfinance. *Management Science, 62*(4), 1202–1224.
Ceres (2018). Disclose what matters: bridging the gap between investor needs and company disclosures on sustainability (Ceres: Boston, MA).
Chatterji, A., Glaeser, E., & Kerr, W. R. (2014). Clusters of entrepreneurship and innovation. *Innovation Policy and the Economy 14*(1), 129–166.
Chatterji, A., & Seamans, R. C. (2012). Entrepreneurial finance, credit cards, and race. *Journal of Financial Economics, 106*(1), 182–195.
Chowdhry, B., Davies, S. W., & Waters, B. (2019). Investing for impact. *Review of Financial Studies*, *32*(3), 864–904.
Cobb, J. A., Wry, T., & Zhao, E. Y. (2016). Funding financial inclusion: institutional logics and the contextual contingency of funding for microfinance organizations. *Academy of Management Journal, 59*(6), 2103–2131.
Dahl, M. S., & Sorenson, O. (2012). Home sweet home: entrepreneurs' location choices and the performance of their ventures. *Management Science, 58*(6), 1059–1071.
De Figueiredo, R. J. P., Meyer-Doyle, P., & Rawley, E. (2013). Inherited agglomeration effects in hedge fund spawns. *Strategic Management Journal, 34*(7), 843–862.
Delgado, M., Porter, M. E., & Stern, S. (2010). Clusters and entrepreneurship. *Journal of Economic Geography, 10*(4), 495–518.
Delgado, M., Porter, M. E., & Stern, S. (2014). Clusters, convergence, and economic performance. *Research Policy, 43*(10), 1785–1799.
Edwards, A. (1957). The social desirability variable in personality assessment and research (Dryden: New York, NY).
Ellison, G., Glaeser, E. L., & Kerr, W. R. (2010). What causes industry agglomeration? Evidence from coagglomeration patterns. *American Economic Review, 100*(3), 1195–1213.
European Commission (2017). The gender pay gap in France (European Commission: Brussels, Belgium).
Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of Consumer Research 20*(2), 303–315.
Flammer, C. (2020). Green bonds: Effectiveness and implications for public policy. Kotchen M, Stock JH, Wolfram C, eds. *NBER Environmental and Energy Policy and the Economy* (University of Chicago Press: Chicago, IL), 95–128.

Flammer, C. (2021). Corporate green bonds. *Journal of Financial Economics*, *142*(2), 499–516.
Geczy, C. C., Jeffers, J., Musto, D. K., & Tucker, A. M. (2021). Contracts with (social) benefits: The implementation of impact investing. *Journal of Financial Economics*, *142*(2), 697–718.
George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal, 59*(6), 1880–1895.
Glaeser, E. L., Kerr, S. P., & Kerr, W. R. (2009). Entrepreneurship and urban growth: An empirical assessment with historical mines. *Review of Economics and Statistics, 97*(2), 498–520.
Global Impact Investing Network (2018). Impact investing (Global Impact Investing Network: New York, NY).
Gobillon, L., Magnac, T., & Selod, H. (2012). Do unemployed workers benefit from enterprise zones? The French experience. *Journal of Public Economics, 96*(9-10), 881–892.
Hiatt, S. R., & Sine, W. D. (2014). Clear and present danger: planning and new venture survival amid political and civil violence. *Strategic Management Journal, 35*(5), 773–785.
Hwang, K. J., & Phillips, D. J. (2020). Entrepreneurship as a response to labor market discrimination for formerly incarcerated people. Unpublished working paper, Columbia University.
ICIC (2010). The inner city 100: A ten-year perspective (Initiative for a Competitive City: Boston, MA).
INSEE (2019). Establishment (Institut national de la statistique et des études économiques: Paris, France).
Kerr, W. R., & Nanda, R. (2011). Financing constraints and entrepreneurship. Audretsch D, Falck O, Heblich S, eds. *Handbook of Research on Innovation and Entrepreneurship* (Edward Elgar Publishing: Cheltenham, UK), 88–103.
Lee, M., Adbi, A., & Singh, J. (2019). Categorical cognition and outcome efficiency in impact investing decisions. *Journal of Strategic Management, 41*(1), 86–107.
Mair, J., Marti, I., & Ventresca, M. J. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal, 55*(4), 819–850.
Neumark, D., & Simpson, H. (2015). Place-based policies. Duranton G, Henderson JV, Strange WC, eds. *Handbook of Regional and Urban Economic* (Elsevier: Amsterdam, The Netherlands), 1197–1287.
Observatoire des Inégalités (2014). Le chômage dans les zones urbaines sensibles (March 11).
Pager, D., & Shepherd, H. (2008). The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual Review of Sociology, 34*(1), 181–209.
Petit, P., Bunel, M., Ene, E., & L'Horty, Y. (2016). Effets de quartier, effet de département: Discrimination liée au lieu de résidence et accès à l'emploi. *Revue Économique 67*(3), 525–550.
Pongeluppe, L. (2020). The inclusion illusion: Firms' capabilities and their commitment to serve the poor. Unpublished working paper, University of Toronto.
Porter, M. E. (1995). The competitive advantage of the inner city. *Harvard Business Review*, *73*(3), 55–71.
Porter, M. E. (2016). Inner-city economic development: Learnings from 20 years of research and practice. *Economic Development Quarterly, 30*(2), 105–116.
Rocha, V., & Kacperczyk, A. (2021). Does more entrepreneurship benefit society? The effect on community crime using a quasi-natural experiment. Unpublished working paper, Copenhagen Business School.
Samila, S., & Sorenson, O. (2011). Venture capital, entrepreneurship, and economic growth. *Review of Economics and Statistics, 93*(1), 338–349.
Samila, S., & Sorenson, O. (2017). Community and capital in entrepreneurship and economic growth. *American Sociological Review, 82*(4), 770–795.
Sorenson, O., & Audia, P. G. (2000). The social structure of entrepreneurial activity: Geographic concentration of footwear production in the United States, 1940–1989. *American Journal of Sociology*, *106*(2), 424–462.
Stuart, T., & Sorenson, O. (2003). The geography of opportunity: Spatial heterogeneity in founding rates and the performance of biotechnology firms. *Research Policy, 32*(2), 229–253.
Terra Nova (2016). Entreprendre dans les quartiers: Les conditions de la réussite (Terra Nova: Paris, France).
Vakili, K., & McGahan, A. M. (2016). Health care's grand challenge: stimulating basic science on diseases that primarily afflict the poor. *Academy of Management Journal, 59*(6), 1917–1939.
Washington Post (2012). Why French women have so little equality, a story in charts (October 25).
World Bank (2020). Poverty and inequality (World Bank: Washington, DC).
World Economic Forum (2020). Global gender gap report 2020 (World Economic Forum: Davos, Switzerland).
Younkin, P., & Kuppuswamy, V. (2018). The colorblind crowd? Founder race and performance in crowdfunding. *Management Science, 64*(7), 3269–3287.
Zhao, E. Y., & Lounsbury, M. (2016). An institutional logics approach to social entrepreneurship: Market logic, religious diversity, and resource acquisition by microfinance organizations. *Journal of Business Venturing, 31*(6), 643–662.

Table 1. Summary statistics

	All firms			Banlieue firms (treatment group)			Non-banlieue firms (control group)		
	N	Mean	Std. dev.	N	Mean	Std. dev.	N	Mean	Std. dev.
a. Performance									
ROA	5,871	0.065	0.131	634	0.047	0.086	5,237	0.067	0.135
b. Employment									
# Employees	5,504	42.89	57.01	566	32.25	29.14	4,938	44.11	59.25
# Female employees	5,504	11.84	29.35	566	7.36	12.18	4,938	12.36	30.67
# Male employees	5,504	31.05	41.19	566	24.89	25.21	4,938	31.75	42.59
# White-collar workers	5,504	5.93	10.77	566	4.87	9.09	4,938	6.05	10.94
# Intermediary workers	5,504	8.86	16.73	566	5.72	5.99	4,938	9.22	17.51
# Clerical workers	5,504	7.05	25.96	566	4.19	9.67	4,938	7.38	27.19
# Manual workers	5,504	21.05	36.42	566	17.47	27.63	4,938	21.46	37.28
Wages per employee	5,504	37,766	17,088	566	34,937	13,232	4,938	38,089	17,448
c. Firm characteristics									
Age (in years)	5,871	18.16	12.43	634	16.00	10.60	5,237	18.42	12.60
Total assets (in €1,000s)	5,871	6,054	19,542	634	3,001	4,489	5,237	6,424	20,602
Log(total assets)	5,871	7.799	1.180	634	7.496	0.948	5,237	7.835	1.200
Leverage	5,871	0.569	0.209	634	0.606	0.208	5,237	0.564	0.209
Cash	5,871	0.069	0.091	634	0.076	0.095	5,237	0.068	0.090
d. Loan characteristics									
Loan amount (in €1,000s)	5,871	535	1,248	634	423	640	5,237	549	1,302
Log(loan amount)	5,871	5.520	1.191	634	5.510	1.027	5,237	5.522	1.210
Repayable (1/0)	5,871	0.780	0.407	634	0.774	0.418	5,237	0.792	0.406

Notes. All variables are recorded in the year that precedes the provision of the Public Bank loan ($t - 1$), except for the loan characteristics that refer to the year of the loan (t).

Table 2. Effect of the banlieue treatment on financial performance

	Δ ROA$_{t-1, t+3}$	
	Full sample	Matched control group
	(1)	(2)
Treatment$_t$	0.023	0.030
	(0.006)	(0.008)
Controls		
a. Pre-treatment characteristics		
Age$_{t-1}$	0.000	
	(0.000)	
Size$_{t-1}$	0.006	
	(0.002)	
Leverage$_{t-1}$	-0.012	
	(0.013)	
Cash$_{t-1}$	-0.036	
	(0.026)	
ROA$_{t-1}$	-0.317	
	(0.039)	
b. Pre-trends		
Δ Size$_{t-2, t-1}$	0.069	
	(0.044)	
Δ Leverage$_{t-2, t-1}$	0.003	
	(0.004)	
Δ Cash$_{t-2, t-1}$	0.000	
	(0.000)	
Δ ROA$_{t-2, t-1}$	-0.000	
	(0.000)	
c. Loan characteristics		
Log(Loan amount)$_t$	-0.004	
	(0.001)	
Repayable loan$_t$	0.004	
	(0.000)	
Industry fixed effects	Yes	–
City fixed effects	Yes	–
Year fixed effects	Yes	–
Adjusted R-squared	0.242	0.017
Observations	5,871	730

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table 3. Effect of the banlieue treatment on firm employment

	$\%\Delta$ Employees$_{t-1, t+3}$	
	Full sample	Matched control group
	(1)	(2)
Treatment$_t$	0.065	0.092
	(0.033)	(0.039)
Controls		
a. Pre-treatment characteristics		
Age$_{t-1}$	-0.002	
	(0.000)	
Size$_{t-1}$	0.006	
	(0.009)	
Leverage$_{t-1}$	-0.099	
	(0.045)	
Cash$_{t-1}$	0.265	
	(0.089)	
ROA$_{t-1}$	0.249	
	(0.076)	
b. Pre-trends		
Δ Size$_{t-2, t-1}$	-1.877	
	(0.517)	
Δ Leverage$_{t-2, t-1}$	0.026	
	(0.021)	
Δ Cash$_{t-2, t-1}$	-0.000	
	(0.000)	
Δ ROA$_{t-2, t-1}$	0.000	
	(0.000)	
c. Loan characteristics		
Log(Loan amount)$_t$	0.004	
	(0.007)	
Repayable loan$_t$	-0.013	
	(0.018)	
Industry fixed effects	Yes	–
City fixed effects	Yes	–
Year fixed effects	Yes	–
Adjusted R-squared	0.143	0.007
Observations	5,504	648

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table 4. Changes in employment by job type

	Blue-collar employees						White-collar employees	
	%Δ Manual workers$_{t-1,\,t+3}$		%Δ Clerical workers$_{t-1,\,t+3}$		%Δ Intermediate workers$_{t-1,\,t+3}$		%Δ White-collar workers$_{t-1,\,t+3}$	
	Full sample	Matched control group	Full sample	Matched control group	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)
Treatment$_t$	0.021	0.023	0.004	0.003	0.000	0.018	0.023	0.031
	(0.016)	(0.018)	(0.008)	(0.010)	(0.012)	(0.013)	(0.009)	(0.010)
Controls								
Pre-treatment characteristics	Yes	–	Yes	–	Yes	–	Yes	–
Pre-trends	Yes	–	Yes	–	Yes	–	Yes	–
Loan characteristics	Yes	–	Yes	–	Yes	–	Yes	–
Fixed effects								
Industry fixed effects	Yes	–	Yes	–	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–	Yes	–	Yes	–
Adjusted R-squared	0.131	0.001	0.181	0.000	0.090	0.002	0.126	0.012
Observations	5,504	648	5,504	648	5,504	648	5,504	648

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table 5. Changes in employment by gender

	%Δ Female employees$_{t-1,t+3}$		%Δ Male employees$_{t-1,t+3}$		Δ Female-to-male ratio$_{t-1,t+3}$	
	Full sample	Matched control group	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment$_t$	0.017	0.024	0.042	0.065	0.003	0.002
	(0.011)	(0.013)	(0.029)	(0.033)	(0.014)	(0.018)
Controls						
Pre-treatment characteristics	Yes	–	Yes	–	Yes	–
Pre-trends	Yes	–	Yes	–	Yes	–
Loan characteristics	Yes	–	Yes	–	Yes	–
Fixed effects						
Industry fixed effects	Yes	–	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–	Yes	–
Adjusted R-squared	0.155	0.004	0.139	0.005	0.107	0.000
Observations	5,504	648	5,504	648	4,969	564

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table 6. Willingness to grant a loan to banlieue vs. non-banlieue ventures

a. Direct questioning

	N	Acceptance rate (percent of 'yes' answers)
Would you grant the loan?		
(1) Banlieue venture	47	82.98%
(2) Non-banlieue venture	93	93.55%
(3) Non-banlieue venture (below-average growth potential)	75	68.00%
p-value (1) vs. (2): 0.049		
p-value (1) vs. (3): 0.067		
p-value (2) vs. (3): 0.000		

b. Indirect questioning

	N	Acceptance rate (percent of 'yes' answers)
Do you think a traditional bank would grant the loan?		
(1) Banlieue venture	47	40.43%
(2) Non-banlieue venture	93	70.97%
(3) Non-banlieue venture (below-average growth potential)	75	26.67%
p-value (1) vs. (2): 0.000		
p-value (1) vs. (3): 0.113		
p-value (2) vs. (3): 0.000		

Table 7. Determinants of not granting the loan

a. Banlieue venture vs. non-banlieue venture

	Means		Difference in means	
	(1) Banlieue (N = 28)	(2) Non-banlieue (N = 27)	*t*-test	*p*-value
Rationales for declining the loan …				
… location	3.96	2.48	3.79	0.000
… financial performance	3.39	4.04	1.60	0.115
… growth potential	3.54	3.89	0.44	0.782
… managerial abilities	3.07	3.22	0.69	0.655
… ability to hire qualified employees	2.96	3.52	1.60	0.116
… capacity to create value	3.14	3.89	1.90	0.063

b. Non-banlieue venture (average growth potential) vs. non-banlieue venture (below-average growth potential)

	Means		Difference in means	
	(2) Non-banlieue average growth potential (N = 27)	(3) Non-banlieue below-average growth potential (N = 55)	*t*-test	*p*-value
Rationales for declining the loan …				
… location	2.48	2.35	0.45	0.652
… financial performance	4.04	3.91	0.38	0.704
… growth potential	3.89	4.89	3.02	0.003
… managerial abilities	3.22	3.13	0.33	0.739
… ability to hire qualified employees	3.52	2.89	2.11	0.038
… capacity to create value	3.89	4.06	0.54	0.592

c. Banlieue venture (average growth potential) vs. non-banlieue venture (below-average growth potential)

	Means		Difference in means	
	(1) Banlieue average growth potential (N = 28)	(3) Non-banlieue below-average growth potential (N = 55)	*t*-test	*p*-value
Rationales for declining the loan …				
… location	3.96	2.35	5.07	0.000
… financial performance	3.39	3.91	1.50	0.139
… growth potential	3.54	4.89	4.29	0.000
… managerial abilities	3.07	3.13	0.19	0.852
… ability to hire qualified employees	2.96	2.89	0.26	0.794
… capacity to create value	3.14	4.06	2.79	0.006

Notes. The sample includes participants who answered "no" to the question of whether a traditional bank would grant a loan. The first two columns report the average assessment on a 1-6 Likert scale. The neutral mid-point is 3.5; values higher (lower) than 3.5 represent agreement (disagreement).

APPENDIX

Appendix A. Robustness and alternative interpretations

In this appendix, we present several tests that confirm the robustness of our findings and help rule out alternative interpretations.

Riskiness of banlieue vs. non-banlieue ventures

Intuitively, one may expect banlieue firms to face higher risk, as they operate in less stable areas (e.g., due to the area's higher poverty and crime). As such, an additional euro invested in banlieue ventures may be financing riskier projects. To the extent that riskier projects yield higher (average) returns—as the "high risk, high return" mantra would predict—this could explain the larger increase in operating performance we observe for banlieue ventures.

In Table A5, we examine this alternative interpretation. Specifically, we re-estimate our baseline specifications from Tables 2 and 3, but controlling for risk in the DID specification, and using risk as additional matching variable in the PSM-DID specification, respectively. To measure risk, we compute the standard deviation of ROA in the four years that precede the loan issuance (ROA volatility$_{t\text{-}4,t\text{-}1}$).[36] As can be seen, our results are robust to accounting for risk.

Survivorship

A related concern is that the risk of failure might be higher in banlieues. If weaker ventures fail shortly after receiving the Public Bank loan, while the stronger ones survive, this could mechanically explain our finding of higher financial performance (and ability to grow employment) among banlieue firms following the loan issuance.

To address this possibility, we examine firm failures in Table A6. Specifically, the INSEE database includes a variable that records whether the firm ceases to exist in a given year ("cessation d'activités"). To examine whether banlieue firms (compared to non-banlieue firms) were more likely to fail following the

[36] We obtain similar results if sales volatility is used in lieu of ROA volatility.

loan issuance, we re-estimate our baseline specifications from Tables 2 and 3, expanding the sample to also include failed firms, and using as dependent variable an indicator variable equal to one if the firm failed within the three years that followed the loan issue (firm failure$_{t\text{-}1,t+3}$). In columns (1) and (2), we use a linear probability model (i.e., OLS). As is shown, we find that the probability of failure is essentially the same for banlieue and non-banlieue ventures following the loan issuance. The point estimates of 0.003 and -0.000 correspond to a differential failure probability of at most 0.3%, which is very small in economic terms, and not different from zero in statistical terms. In columns (3) and (4), we obtain similar results when using a logit regression (in lieu of OLS).[37] Overall, we find no evidence suggesting that the survival of banlieue vs. non-banlieue firms might confound our results.

Tax incentives

In order to foster entrepreneurship in banlieues, several tax incentive programs (primarily in the form of tax exemptions) have been implemented by the French government over the years. If the banlieue firms in our sample enjoy a favorable tax treatment, this could explain their higher operating performance (and higher employment growth) following the loan issue.

The banlieue tax incentive programs are described in Briant et al. (2015). As they note, these programs are targeted toward new firms (that is, firms that are less than 5 years of age) and, in certain cases, can be extended up to 9 years beyond the 5-year threshold. To examine the potential confound of tax incentives, in Table A7, we re-estimate our baseline specifications from Tables 2 and 3, restricting the sample to firms that are at least 15 years of age—that is, firms that are unambiguously ineligible for these programs. As is shown, we find that our results are robust to this exclusion. This indicates that tax considerations are unlikely to affect our results.

Alternative control group

In our baseline analysis, we used as control group—and hence as counterfactual—non-banlieue ventures

[37] The marginal effects pertaining to the coefficient of the treatment dummy are 0.000 and -0.000 (with standard errors of 0.032 and 0.005) in columns (3) and (4), respectively. That is, they are again very small in economic terms, and not different from zero in statistical terms.

that also receive a loan from Public Bank and are similar ex ante. This comparison allows us to disentangle between a "banlieue-loan effect" and a pure "loan effect."

Another way to assess the financial returns and social impact of loans issued to banlieue ventures is by using as counterfactual banlieue ventures that do not receive a loan from Public Bank. This comparison would provide an estimate of the overall benefits from granting vs. not granting a loan to banlieue firms.

We conduct this analysis in panel (a) of Table A8. Specifically, we estimate variants of our baseline specifications, using as control group banlieue firms that are located in the same banlieues as the treated firms, but do not receive a loan from Public Bank. (Similarly, for the PSM-DID specification, we now require that each matched control firm be located in the same banlieue as the respective treated firm.) As can be seen, we continue to find that ROA and employment increase substantially in the three years that follow the loan issue. In columns (1) and (2), the point estimates imply that ROA increases by 1.3 and 2.2 percentage points, with *p*-values of 0.002 and 0.001, respectively; in columns (3) and (4), we find that employment increases by 7% and 13%, with *p*-values of 0.008 and 0.001, respectively.

As a comparison, panel (b) of Table A8 repeats the analysis from panel (a), but comparing non-banlieue ventures that receive a loan from Public Bank vs. non-banlieue ventures that do not. We require that both sets of firms be located in non-banlieue areas of the same city. As can be seen, the granting of a Public Bank loan barely affects non-banlieue ventures. The point estimates are all small in economic terms and not significantly different from zero in columns (2)-(4). In column (1), the point estimate is significant at conventional levels, but remains small in economic terms and has a negative sign.

Overall, the evidence from Table A8 confirms that impact investing—in the form of loans issued by Public Bank—yields large improvements at banlieue ventures, but barely moves the needle at non-banlieue ventures. This is consistent with what we found in our baseline analysis when comparing banlieue vs. non-banlieue ventures that receive a loan from Public Bank.

Appendix B. Vignette experiment

Manipulation (1): banlieue and average growth potential

The firm manufactures and supplies sanitary parts (toilet bowls, washbasins, etc.) and related sanitary and piping systems (including cisterns, faucets, and drainage systems).

Some background information:

- The firm was founded 18 years ago.
- It has a total of 43 employees (12 female, 31 male employees) and roughly 85% of them are blue-collar workers.
- Over the past years, the performance of this firm has been comparable to the performance of other firms in the same industry.
- Industry experts expect the growth potential of this firm to be comparable to the industry average.
- It is located near Boulevard Barbès in the neighborhood of La Goutte d'Or in Paris and operates across France.

Manipulation (2): non-banlieue and average growth potential

The firm manufactures and supplies sanitary parts (toilet bowls, washbasins, etc.) and related sanitary and piping systems (including cisterns, faucets, and drainage systems).

Some background information:

- The firm was founded 18 years ago.
- It has a total of 43 employees (12 female, 31 male employees) and roughly 85% of them are blue-collar workers.
- Over the past years, the performance of this firm has been comparable to the performance of other firms in the same industry.
- Industry experts expect the growth potential of this firm to be comparable to the industry average.
- It is located near Place du Tertre in the neighborhood of Montmartre in Paris and operates across France.

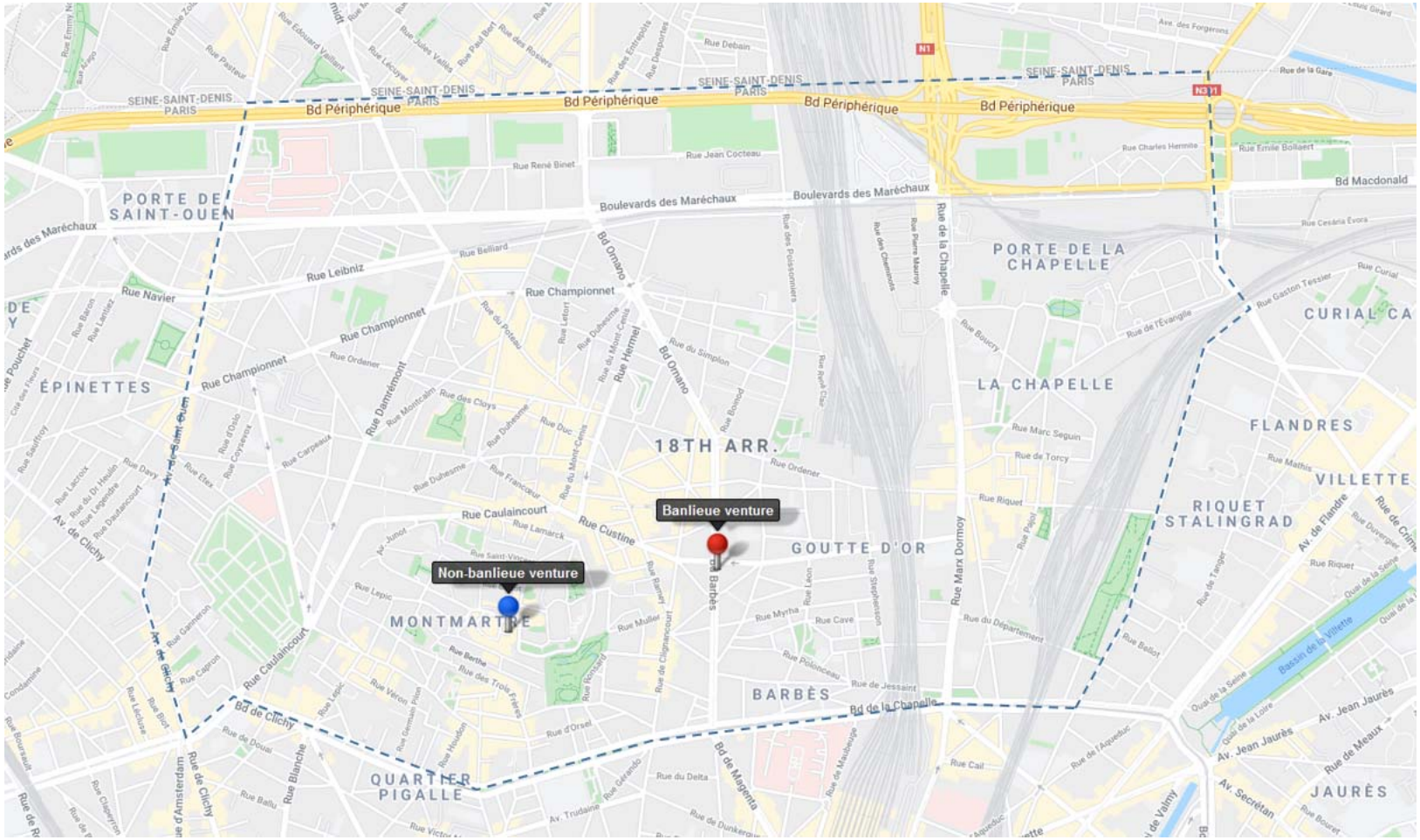
Manipulation (3): non-banlieue and below-average growth potential

The firm manufactures and supplies sanitary parts (toilet bowls, washbasins, etc.) and related sanitary and piping systems (including cisterns, faucets, and drainage systems).

Some background information:

- The firm was founded 18 years ago.
- It has a total of 43 employees (12 female, 31 male employees) and roughly 85% of them are blue-collar workers.
- Over the past years, the performance of this firm has been comparable to the performance of other firms in the same industry.
- Industry experts expect the growth potential of this firm to be below the industry average.
- It is located near Place du Tertre in the neighborhood of Montmartre in Paris and operates across France.

Figure A1. Location of the banlieue vs. non-banlieue ventures used in the vignette experiment



Notes. The area enclosed by the dashed line represents the 18th arrondissement in Paris. The pins mark the address of the two business ventures used in the vignette experiment: the Boulevard Barbès in La Goutte d'Or (banlieue venture) and the Place du Tertre in Montmartre (non-banlieue venture), respectively.

Table A1. Survey evidence on the sources of financing for banlieue vs. non-banlieue ventures

	All firms (N = 17,572)		Banlieue firms (N = 1,022)		Non-banlieue firms (N = 16,550)		Difference in means	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	*t*-test	*p*-value
Self-financing	34.9%	39.9%	40.3%	1.3%	34.5%	39.8%	4.47	0.000
Contributions from partners	2.1%	11.8%	2.3%	11.9%	2.1%	11.8%	0.42	0.674
Long-term bank loans (8+ years)	5.7%	19.7%	4.4%	17.3%	5.8%	19.8%	2.11	0.035
Medium-term bank loans (2 to 7 years)	33.1%	38.9%	28.7%	37.3%	33.4%	39.0%	3.76	0.000
Equipment leasing	21.4%	34.8%	21.4%	34.4%	21.4%	34.8%	0.02	0.988
Real estate leasing	1.6%	10.3%	1.5%	9.8%	1.6%	10.3%	0.42	0.671
Other (e.g., subsidies)	1.2%	6.8%	1.5%	8.2%	1.2%	6.7%	1.32	0.187

Notes. The sample consists of French business ventures surveyed by Public Bank between 2000 and 2015. The table reports the means and standard deviations of the sources of financing (in percent) used by the respondents to finance their investments. The last two columns report the difference in means test (*t*-test) comparing banlieue vs. non-banlieue ventures.

Table A2. Banlieue and non-banlieue firms by industry

	All firms (N = 5,871)	Banlieue firms (N = 634)	Non-banlieue firms (N = 5,237)
Manufacturing	23.39%	11.51%	24.82%
Services	22.10%	30.91%	21.03%
Wholesale trade	19.08%	25.87%	18.25%
Retail trade	14.44%	8.04%	15.22%
Construction	11.65%	15.93%	11.13%
Finance, insurance, and real estate	4.70%	4.26%	4.75%
Utilities	2.74%	1.42%	2.90%
Agriculture, forestry, and fishing	0.05%	0.00%	0.06%
Nonclassifiable	1.86%	2.05%	1.83%

Notes. Industries are partitioned according to SIC divisions.

Table A3. Propensity score matching—covariate balance

	Means		Difference in means	
	Treated firms (N = 365)	Matched control firms (N = 365)	*t*-test	*p*-value
a. Pre-treatment characteristics				
Age_{t-1}	17.304	17.984	-0.79	0.431
$Size_{t-1}$	7.514	7.507	0.09	0.930
$Leverage_{t-1}$	0.589	0.581	0.56	0.578
$Cash_{t-1}$	0.072	0.074	-0.40	0.689
ROA_{t-1}	0.053	0.056	-0.40	0.689
b. Pre-trends				
$\Delta\ Size_{t-2,t-1}$	0.006	0.006	-0.64	0.521
$\Delta\ Leverage_{t-2,t-1}$	0.045	0.063	-0.87	0.385
$\Delta\ Cash_{t-2,t-1}$	0.027	0.037	-0.80	0.427
$\Delta\ ROA_{t-2,t-1}$	-0.009	-0.008	-0.09	0.928
c. Loan characteristic				
$Log(loan\ amount)_t$	5.478	5.451	-0.79	0.431
d. Non-matching characteristics				
$Employees_{t-1}$	36.78	42.45	-1.29	0.197
Wages per $employees_{t-1}$	34,013	35,570	-1.44	0.151
$\%\Delta\ Employees_{t-2,t-1}$	0.133	0.088	0.83	0.407
$\%\Delta$ Wages per $employees_{t-2,t-1}$	0.086	0.125	-1.29	0.198

Notes. In panel (d), the sample consists of N = 360 treated firms and N = 352 control firms, due to the more restrictive coverage of the employee data in the DADS database.

Table A4. Dynamics

	Full sample					Matched control group				
	Δ ROA$_{t-1,t+1}$	Δ ROA$_{t-1,t+2}$	Δ ROA$_{t-1,t+3}$	Δ ROA$_{t-1,t+4}$	Δ ROA$_{t-1,t+5}$	Δ ROA$_{t-1,t+1}$	Δ ROA$_{t-1,t+2}$	Δ ROA$_{t-1,t+3}$	Δ ROA$_{t-1,t+4}$	Δ ROA$_{t-1,t+5}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment$_t$	0.007	0.015	0.023	0.019	0.019	0.006	0.013	0.030	0.020	0.015
	(0.004)	(0.005)	(0.006)	(0.007)	(0.008)	(0.005)	(0.006)	(0.008)	(0.010)	(0.010)
Controls										
Pre-treatment characteristics	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
Pre-trends	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
Loan characteristics	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
Fixed effects										
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
City fixed effects	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
Year fixed effects	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–
Adjusted R-squared	0.159	0.208	0.242	0.264	0.318	0.0002	0.003	0.017	0.0066	0.003
Observations	9,900	7,682	5,871	4,719	3,952	1,652	1,126	730	530	480

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table A5. Robustness—accounting for risk

	Δ ROA$_{t-1, t+3}$		%Δ Employees$_{t-1, t+3}$	
	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)
Treatment$_t$	0.024	0.025	0.070	0.114
	(0.006)	(0.007)	(0.041)	(0.048)
Controls				
a. Pre-treatment characteristics				
Age$_{t-1}$	0.000		-0.003	
	(0.000)		(0.000)	
Size$_{t-1}$	0.006		0.006	
	(0.002)		(0.010)	
Leverage$_{t-1}$	-0.016		-0.086	
	(0.013)		(0.057)	
Cash$_{t-1}$	-0.037		0.281	
	(0.028)		(0.112)	
ROA$_{t-1}$	-0.342		0.332	
	(0.047)		(0.094)	
b. Pre-trends				
Δ Size$_{t-2, t-1}$	0.051		-1.706	
	(0.107)		(0.651)	
Δ Leverage$_{t-2, t-1}$	0.002		0.027	
	(0.009)		(0.034)	
Δ Cash$_{t-2, t-1}$	0.000		-0.000	
	(0.000)		(0.000)	
Δ ROA$_{t-2, t-1}$	-0.000		0.000	
	(0.000)		(0.000)	
c. Loan characteristics				
Log(Loan amount)$_t$	-0.004		0.006	
	(0.001)		(0.008)	
Repayable loan$_t$	0.002		-0.025	
	(0.003)		(0.021)	
d. Risk				
ROA volatility$_{t-4, t-1}$	-0.073		0.141	
	(0.039)		(0.245)	
Industry fixed effects	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–
Adjusted R-squared	0.242	0.013	0.151	0.007
Observations	5,627	766	5,326	618

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table A6. Firm failure

	Firm failure$_{t-1, t+3}$			
	Linear probability model (OLS)		Logit specification	
	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)
Treatment$_t$	0.003	-0.000	0.654	-0.000
	(0.003)	(0.005)	(0.533)	(0.709)
Controls				
a. Pre-treatment characteristics				
Age$_{t-1}$	-0.000		-0.002	
	(0.000)		(0.016)	
Size$_{t-1}$	-0.003		-0.660	
	(0.001)		(0.197)	
Leverage$_{t-1}$	0.005		0.289	
	(0.005)		(0.699)	
Cash$_{t-1}$	-0.015		-2.420	
	(0.009)		(1.796)	
ROA$_{t-1}$	-0.002		-0.510	
	(0.007)		(1.198)	
b. Pre-trends				
Δ Size$_{t-2, t-1}$	0.007		-2.538	
	(0.027)		(6.398)	
Δ Leverage$_{t-2, t-1}$	0.000		0.326	
	(0.001)		(0.623)	
Δ Cash$_{t-2, t-1}$	-0.000		-0.007	
	(0.000)		(0.018)	
Δ ROA$_{t-2, t-1}$	0.000		-0.004	
	(0.000)		(0.021)	
c. Loan characteristics				
Log(Loan amount)$_t$	0.000		-0.102	
	(0.001)		(0.144)	
Repayable loan$_t$	-0.007		-0.917	
	(0.003)		(0.364)	
Industry fixed effects	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–
Adjusted/pseudo R-squared	0.047	0.000	0.403	0.000
Observations	8,083	1,240	8,083	1,240

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table A7. Robustness—excluding firms of less than 15 years of age

	Δ ROA$_{t-1, t+3}$		%Δ Employees$_{t-1, t+3}$	
	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)
Treatment$_t$	0.023	0.030	0.085	0.154
	(0.008)	(0.010)	(0.052)	(0.058)
Controls				
a. Pre-treatment characteristics				
Size$_{t-1}$	0.005		0.031	
	(0.002)		(0.017)	
Leverage$_{t-1}$	-0.015		-0.009	
	(0.013)		(0.075)	
Cash$_{t-1}$	0.004		0.183	
	(0.028)		(0.141)	
ROA$_{t-1}$	-0.487		0.510	
	(0.030)		(0.167)	
b. Pre-trends				
Δ Size$_{t-2, t-1}$	-1.281		10.729	
	(0.989)		(6.760)	
Δ Leverage$_{t-2, t-1}$	0.013		-0.050	
	(0.007)		(0.054)	
Δ Cash$_{t-2, t-1}$	0.000		-0.000	
	(0.000)		(0.000)	
Δ ROA$_{t-2, t-1}$	-0.000		0.001	
	(0.000)		(0.000)	
c. Loan characteristics				
Log(Loan amount)$_t$	-0.002		0.014	
	(0.002)		(0.011)	
Repayable loan$_t$	0.000		-0.032	
	(0.004)		(0.026)	
Industry fixed effects	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–
Adjusted R-squared	0.291	0.019	0.214	0.016
Observations	2,942	416	2,799	366

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table A8. Robustness—alternative counterfactuals

a. Comparison of banlieue ventures that receive a loan vs. banlieue ventures that do not receive a loan

	Δ ROA$_{t-1, t+3}$		%Δ Employees$_{t-1, t+3}$	
	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)
Treatment$_t$	0.013	0.022	0.067	0.130
	(0.005)	(0.007)	(0.025)	(0.040)
Controls				
Pre-treatment characteristics	Yes	–	Yes	–
Pre-trends	Yes	–	Yes	–
Fixed effects				
Industry fixed effects	Yes	–	Yes	–
Banlieue fixed effects	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–
Adjusted R-squared	0.108	0.011	0.185	0.017
Observations	35,803	822	28,475	564

b. Comparison of non-banlieue ventures that receive a loan vs. non-banlieue ventures that do not receive a loan

	Δ ROA$_{t-1, t+3}$		%Δ Employees$_{t-1, t+3}$	
	Full sample	Matched control group	Full sample	Matched control group
	(1)	(2)	(3)	(4)
Treatment$_t$	-0.007	-0.003	-0.010	-0.016
	(0.002)	(0.003)	(0.011)	(0.018)
Controls				
Pre-treatment characteristics	Yes	–	Yes	–
Pre-trends	Yes	–	Yes	–
Fixed effects				
Industry fixed effects	Yes	–	Yes	–
City fixed effects	Yes	–	Yes	–
Year fixed effects	Yes	–	Yes	–
Adjusted R-squared	0.205	0.000	0.175	0.000
Observations	16,910	3,734	12,421	2,044

Notes. Standard errors (reported in parentheses) are clustered at the firm level.

Table A9. Robustness— respondents with above-median business experience

a. Direct questioning

	N	Acceptance rate (percent of 'yes' answers)
Would you grant the loan?		
(1) Banlieue venture	30	83.33%
(2) Non-banlieue venture	65	93.85%
(3) Non-banlieue venture (below-average growth potential)	55	74.55%
p-value (1) vs. (2): 0.104		
p-value (1) vs. (3): 0.353		
p-value (2) vs. (3): 0.001		

b. Indirect questioning

	N	Acceptance rate (percent of 'yes' answers)
Do you think a traditional bank would grant the loan?		
(1) Banlieue venture	30	33.33%
(2) Non-banlieue venture	65	70.77%
(3) Non-banlieue venture (below-average growth potential)	55	29.09%
p-value (1) vs. (2): 0.001		
p-value (1) vs. (3): 0.685		
p-value (2) vs. (3): 0.000		

Notes. This table reproduces the statistics from Table 6, restricting the sample to respondents whose business experience (in years) is at least equal to the median across all respondents.