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Bellon, Aymeric and Harpedanne de Belleville, Louis-Marie and Pinardon-Touati, Noémie

University of Pennsylvania, The Wharton School, Paris School of Economics, Université Paris 1 Panthjéon-Sorbonne, HEC Paris

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Aymeric Bellon[†] Louis-Marie Harpedanne[‡] Noemie Pinardon Touati[§]
Wharton   PSE and Banque de France   HEC Paris

Abstract

This paper studies the resolution of disputes between firms and their lenders through external mediators, who suggest a non-legally binding solution to resolve a disagreement after communicating with all parties. We exploit an administrative database on firms' outcomes matched to the French credit registry and plausible exogenous variation in eligibility to public mediators across counties for identification. Credit, employment and investment increase following the mediation, causing an overall reduction in firms' liquidation of 34.6 percentage points. All the effects are driven by firms that borrow from more than one financial institution, supporting the view that mediators solve coordination problems between lenders.

Disclaimer: The views expressed herein are those of the authors and do not necessarily represent the views of the Banque de France, its Executive Board, or the mediation.

[†]PhD student, University of Pennsylvania, The Wharton School. Email: abellon@wharton.upenn.edu

[‡]PhD student, Paris School of Economics, Université Paris 1 Panthéon-Sorbonne, and Banque de France. Email: louis-marie.harpedannedebelleville@banque-france.fr

[§]PhD student, HEC Paris. Email: noemie.pinardon-touati@hec.edu

1 Introduction

Maintaining credit to the economy, especially during economic downturns, is a central objective of many governments around the world. Many policy tools, such as loan guarantees and subsidized credit, have been used to achieve this objective. This paper is the first to study credit mediation programs. A mediation is a consensual and informal way to solve a dispute. In a mediation, an expert (the mediator) suggests a non-legally binding solution to resolve the disagreement after speaking with all parties. Numerous countries have implemented mediation programs to support credit, especially during economic downturns. For instance farmer-lender mediators were used extensively during the 1980s debt crisis in the United States and several European countries implemented credit mediation programs during the 2008 financial crisis. Despite their popularity, no academic research has aimed to understand whether and why credit mediation programs work. The goal of this paper is to fill this gap.

Credit mediation programs facilitates negotiation between firms and their lenders in case of disagreement. Moreover, mediators possess external information, financial expertise and communication skills that help the participants find a better solution to their disputes. Finding solutions to financial disputes through mediation enables firms to avoid ending their lending relationships. Exiting a lending relationship is costly for a firm, because other banks interpret this exit as evidence that the firm is of low quality (Hauswald and Marquez (2006)). This information stigma reduces the firm's ability to find a new loan from another bank at an attractive cost. Besides, the mediation offers a way to solve financial disputes without going to court. This benefits the parties involved, as this process is costly and time consuming. This also benefits the other firms, as it reduces courts' delays and backlogs[1].

However, such programs could suffer from several flaws that diminish their efficiencies. First, it is unclear whether a policy that consists in facilitating a non-legally binding negotiation can have any real effect. Moreover, governmental mediators' potential bias for lending undermines their credibility and impairs theirs ability to solve financial disputes. Conversely, banks could exploit the

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[1]In particular, Iverson (2018) shows that busy bankruptcy judges lead to a higher cost of financial distress and a higher probability to refile for bankruptcy. Müller (2019) shows that busy bankruptcy judges cause a higher ex ante cost of credit and lower debt maturity.

mediation to extract surplus from their borrowers, thus leading to more financial distress[2]. Another concern is that mediation programs could be too costly with regards to the benefits they create, because mediators are highly qualified employees with high wages. Thus, whether a credit mediation program has net beneficial effects on firms and the economy is an empirical question.

Analyzing the impact of mediation programs is challenging. First, participation in a mediation is generally endogenous and mediators could be chosen by parties in a strategic way[3], making causal inference challenging. Second, quantifying the impact requires data that are difficult to assemble, such as credit and balance sheet data for private firms.

To address these challenges, we focus on the French mediation program that was set up during the 2008 financial crisis, five weeks after the collapse of the Lehman Brothers. The mediation is managed by the the Fench Central Bank (Bank of France). Any firm that faces a disagreement with one of its lender can apply for a Bank of France mediator to help them solve the dispute. Since then, more than 50,000 firms have applied to the program. Focusing on such an empirical design allows us to construct a detailed database that merges information on the mediation to administrative datasets from the French tax authorities that provide information on firms' balance sheet and bankruptcy status. We also rely on the French credit registry, which records monthly information on firms' lenders and debt contracts.

Then, we exploit the fact that firms that apply for a mediator but are located on different sides of counties' ("Departments") borders are assigned to different Bank of France subsidiaries that differ in their propensity to consider firms as eligible. Thus, similar firms located on both sides of a border are treated differently. We use this heterogeneity to recover the causal impact of eligibility to credit mediation.

We provide ample evidence that such a quasi-experimental design plausibly allows us to recover a local average treatment effect (LATE) among the population of compliers. In particular, our instrument has a strong first-stage effect on eligibility. Our instrument cannot be explained by 18 different firms' level characteristics and we observe no pre-trend before the mediation for all

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[2]Cheng, Severino, and Townsend (2019) find that settling with debt collectors increases consumers' financial distress relative to going to court

[3]For instance, Egan, Matvos, and Seru (2018) show that firms use their information advantage to select industry-friendly arbitrators in the securities industry between consumers and their financial advisors. Their analysis is on private arbitration, which is another mechanism to resolve disputes out of court. The decision of arbitration is binding, whereas in a mediation the decision is non-legally binding, which means that one party can refuse to adopt the mediator's decision.

of our outcomes, providing indirect evidence in favor of the exclusion condition. Moreover, we show that subsidiaries that are occupied by their other missions, such as the credit rating, are more likely to deny eligibility, which provides an economic intuition on why the acceptance rate between subsidiaries varies.

Using this empirical strategy, we reveal that the mediation improves the economic outcomes of eligible firms. Specifically, eligible firms are on average 34.59 percentage points less likely to be liquidated three years after the program. Thus, a simple back-of-the-envelope calculation suggests that 10,042 firms were saved from liquidation by the program. This effect does not capture the positive social externalities of reduced liquidation on the local economy (Bernstein et al. (2019)), the positive impact of less encumbered courts (Iverson (2018)) and the possible reduced contagion effects through firm's credit payment or supply chains (Barrot and Sauvagnat (2016), Carvalho et al. (2021)).

Eligible firms see an improvement in their investment, employment and total revenues suggesting that the mediation maintains firms that are economically viable. For instance, two years after the mediation, the median firm in our sample recruits 5.86 additional employees, invests €96,930 more in tangible assets and experiences an increase in revenues of €379,580.

We then perform an analysis of the theoretical channels through which mediators generate the real effects we observe. Mediators gather and process information on debtors and foster communication between all parties through physical meetings. As a result, we hypothesize that mediators solve two coordination problems among firms with more than one lender. First, when a firm has more than one lender, lenders have an incentive to imitate the behavior of the other firm's lenders to free ride the acquisition of information on the firm's quality. When a lender withdraws from a lending relationship for reasons unrelated to the firm quality, the other lenders will wrongly assume that the firm has a higher risk of default, and will be more prone to imitate the other firm and stop the lending relationship. This collective withdrawal is self-fullfilling, because the firm's lack of funding translates into lower investment and future revenues. The second coordination problem that we hypothesize is that lenders have a strong incentive to free ride the supply of additional credit by other banks when they already have a strong exposure to the firm. We hypothesize this because they will bear the full cost of providing additional credit, but the benefit – a lower probability of default coming from additional projects being funded – will be shared with all the other lenders.

3

Our first prediction is that most of the real effects affect multiple banking firms. We find strong evidence in favor of this hypothesis. Specifically, all of the effects of the mediation on bankruptcy proceedings are driven by firms with more than one lender. Conversely, we find no effect three years after the mediation for eligible firms with only one lender. The difference in bankruptcy proceedings between the two groups is statistically significant. This prediction supports our view that mediators solve coordination problems between lenders.

Both coordination problems predict an increase in credit after a firm is exogenously eligible to the program. We find evidence that long-term and short-term debt increase during the first quarter after the mediation. Specifically, the coefficient we find implies that long-term credit increases by €97,230 for the median eligible firm in our sample. This allows us to rule out the alternative explanation that mediators facilitate an out-of-court restructuring of debt claims, thus alleviating a debt overhang problem by reducing debt.

We rule out the alternative explanation that being eligible for mediation provides public information to other lenders that enables the firm to find a new lender more easily than a similar non-eligible firm. According to Hauswald and Marquez (2006), firms that change their lenders could face an information stigma. The new lender does not perfectly observe the reasons why the lending relationship stopped and cannot totally rule out that the firm is of low quality. The optimal response of the new lender is either to charge a risk premium or not to grant a new loan. Conversely, being eligible to mediation can credibly convey the fact that the firm is solvent, and can reduce such informational search frictions. We don't find that eligible firms are more likely to change their creditors, which support the view that our results are not fully driven by a reduction in search friction in credit markets.

We make several contributions. First, we contribute to the literature that analyses the efficiency of government interventions in credit markets. Governments either intervene in credit markets through state-owned banks (La Porta, Lopez-de Silanes, and Shleifer (2002)), loan subsidies (Bertrand, Schoar, and Thesmar (2007)) or loan guarantees (Bachas, Kim, and Yannelis (2019), Gale (1990), Gale (1991), Smith (1983), Barrot et al. (2019), Brown and Earle (2017), Bach (2014)). We explore another type of intervention that has not being studied previously and that directly targets the relationship between the firm and its lenders. Together with hiring credits (Cahuc, Carcillo, and Le Barbanchon (2019)) and loan guarantee (Barrot et al. (2019)), the mediation was a major

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component of the policy toolbox used to maintain economic activities during the financial crisis. Although our period of study does not include the Covid-19 crisis, the mediation was extensively used at that time to maintain credit[4].

Our second contribution relates to papers that address the way conflicts are solved out of court and how it systematically benefits or penalizes some agents. For instance, Egan, Matvos, and Seru (2018) study the functioning of arbitration, which is another way to solve disputes out of court; however, arbitration is binding whereas mediation is non-binding. Egan, Matvos and Seru show that firms use their information advantage to select arbitrators that are biased in their favor. In our study, the mediators may have an institutional bias towards fostering credit, but we do not find evidence that this bias played on average against banks. Mediators have long-term interactions with the banks that lend in the counties they cover, which creates an incentive for mediators to maintain a reputation in front of the bank credit officers. Cheng, Severino, and Townsend (2019) study how the surplus is shared in out-of-court settlements between delinquent households and debt collectors. These authors show that settlements increase financial distress relative to going to court for delinquent households. Conversely, we show that mediation reduces bankruptcy proceedings for eligible firms.

The present paper also contributes to the literature on coordination problems among firms' creditors. He and Xiong (2012) show in a theoretical dynamic continuous time model that creditors optimally run on the firm if its fundamental value goes below a certain threshold. Coordination problem between dispersed creditors can spark a preemptive "rat race", which causes each creditor not to rollover debts than he would if he was the only lender. Mediators bring additional information and increase communication between all parties, which addresses such coordination problems between all lenders. This channel explains why real effects are observed in firms with multiple lenders.

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[4]Other papers that study the policies undertaken during the financial crisis in the U.S. include: Mian and Sufi (2009);Chodorow-Reich et al. (2012);Berger, Turner, and Zwick (2016);Rothstein (2011);Agarwal et al. (2017);Eberly and Krishnamurthy (2014);Mayer et al. (2014); Chodorow-Reich and Karabarbounis (2016);;Krishnamurthy and Vissing-Jorgensen (2011);Hagedorn et al. (2013)

2 Institutional framework

In this section, we describe how mediation works in general and differs from other mechanisms used to solve disputes. Then, we describe institutional features of the French médiation du crédit.

2.1 Mediation

Mediation can be defined as a "process through which a third party assists two or more others in working out their own solution to a conflict" (Slaikeu (1996)). In a mediation, the third party suggested solution is not binding contrary to an arbitration. The mediator can be biased against one party as he or she has no obligation to protect each party's interests. The mediator can have different legal status, ranging from a private firm to a public institution. In general, the mediator has both expertise on the topic of the dispute and knowledge on how to resolve conflicts and communication deadlocks. Participation in a mediation is voluntary, unless otherwise specified in contractual clauses or government status. The dispute can be pending at the court while the mediation is taking place.

Mediations are commonly used to solve disputes without going to court, and governments have set up specific mediation programs to solve disputes between lenders and borrowers. For instance, in the United States, the Congress enacted the Farmer-Lender Mediation (FLM) in the 1987 Agricultural Credit Act to ease credit renegotiations in the 1980s farmer debt crisis. This federal action was followed by several state initiatives, such as the programs from Iowa and Minnesota, where a mediation was required before any action to collect debt. More recently during the 2008 financial crisis, several European countries - namely France, the United Kingdom, Belgium, and Germany - implemented mediation programs[5].

2.2 The French "Médiation du crédit"

The French mediation program was set up on October 23, 2008 with the goal to foster credit in the economy. Local mediators are employees from one of the French central bank local subsidiaries. The central bank has a network of subsidiaries that are located in each of the 96 metropolitan France

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[5]These programs share the principle that an external expert suggests a non-binding solution to a bank and its clients in a dispute; however, they differ along several dimensions. In Belgium, eligible entities are small firms and disputes about a commercial decisions from the bank are excluded. Programs in the United Kingdom and in France include all types of firms on a much general set of disputes. The German program is in between and targets small and medium firms.

counties ("Département"). No new recruitment has been made by the central bank for this program, so when the employees are not working on a mediation case, they participate in the classical missions of the subsidiary they work in. The main mission of these subsidiaries is to grant a credit risk rating to more than 250,000 firms every year. Moreover, these subsidiaries conduct business surveys and maintain regular contacts with banks to assess local financial conditions. All these tasks have strong synergies with the qualities that are required to handle a mediation case.

The legal framework that supports the mediation is a national agreement[6] between private banking professional organizations[7], the Bank of France and the French government that is renewed every other year[8]. Each party accepts the rules that organize the mediation process in a consensual manner. In its essential aspects, mediators agree not to support firms that are not solvent and the financial institutions agree to communicate and formulate a response to each of the mediator request.

Firms with non-legal disagreements can apply to the mediation. In practice, firms can apply for a mediator as soon as they encounter a reduction in credit. This includes a termination of their overdraft facility, factoring or discount lines, or a Dailly assignment of credit, a specific category of credit in France. Firms can also apply to the mediation if they are unable to obtain credit and face a refusal or absence of response to a credit request. Finally, firms can also apply if their security is rejected by the lender, if their guarantee or debt is rescheduled or if they face a reduction in guarantees by a credit insurer.

Firms are informed about the French mediation program through multiple channels. First, it is common for local newspapers to publish articles about about the program, including how it works and how to apply. Second, the program relies on 700 (up to 1000 during the GFC) "Tiers de Confiance de la Médiation (TCM)"[9], which are benevolent or professional organizations whose goal is to support firms. TCMs can give advice on how to provide the full documentations when applying to this program.

A classical mediation process can be divided into five steps. During the first step, the firm that applies uses the mediation website to provide the subsidiary of the Bank of France with its

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[6]"Accord de place"

[7]Namely, "Fédération bancaire française" and "association des sociétés financières"

[8]The first agreement was made in july 2009, which was subsequently renewed in April 2011, March 2013, April 2015, July 2018 and January 2021.

[9]For instance, such organizations include les chambres de commerce et d'industrie, les chambres de métiers et d'artisanat, la Confédération des PME, le Conseil national des barreaux, le MEDEF, Initiative France.

economic and financial information, such as the total sales for the last two years, the total number of employees, the amount of debt needed and the addresses and names of the lenders. Following the submission of the file, mediators can contact the firm with additional requests and ask for more information, such as the order book. Mediators can also interview the manager of the firm.

In a second step, the subsidiary decides within 48 hours whether the firm is eligible to the program . In principle, only firms that are deemed solvent are eligible. Firms with negative equity are not eligible, except if the owner writes a letter stating that he or she will provide the additional capital to make the equity positive. If the firm has reported a gross operating loss over the several fiscal years preceding the mediation, then the mediators will ask for a business plan and the eligibility will be conditional on the business plan's credibility.

In practice, there is large heterogeneity between subsidiaries in the way they evaluate whether a firm is eligible or not, because of the difficulty to evaluate whether a firm is solvent. Each subsidiary has its own experience and familiarities with the industries that are more salient in its county. Moreover, subsidiaries face heterogeneous resource constraints in their ability to run the mediation program. As we show in Figure 2, the average subsidiary's eligibility rate is highly correlated with the subsidiary's busyness on other tasks, consistent with the idea that subsidiaries reject more firms as ineligible when they are busy working on the credit risk rating of the firms in their counties.

In a third step, the mediator contacts the bank(s) involved in the dispute and informs them that the firm is under a mediation process. The financial institution(s) has/have 5 working days to change its/their position regarding the dispute.

Fourth, if the dispute still persists, then the mediator communicates with all parties to find a solution to the problem. Several principles govern the way a mediation case is handled. Real physical meetings are organized and must include all the parties involved if possible. That is, a mediator will include the lender with whom there is a dispute, along with the other lenders of the firm. The mediator ensures that the firm is not negotiating with one bank at the expense of another one outside of the meetings he or she organizes. Another important principle is that the solution the mediator suggests should be fair to all lenders. This means that the contribution of banks (conditional on their seniority level) should be proportional to the amount of loans they have when the firm enters the program.

Mediators are trained to maintain a good communication environment during the whole negotiation process. All relevant information that is used during a meeting is transmitted to all parties at least three days before it takes place. When a new piece of information appears during a meeting, mediators will postpone any decision to make sure they have enough time to incorporate it during their negotiation. Mediators are also open to hear the suggestions that banks formulate.

In the fifth and final step, the mediator suggests a written agreement to all parties. Each party has the choice either to accept the solution or reject it. Although the solution is non-binding, the financial institutions have to motivate their decisions if they refuse the solution ("Accord de place" of July 2009, art. 22). If the solution is accepted, then all parties sign the written agreement.

3 Empirical strategy

3.1 Data

We merge four different administrative datasets from France: (1) files from the mediation, (2) Firm-level accounting variables coming from tax filings, (3) credit registry data, and (4) bankruptcy court records. While some of these datasets are confidential and their access is restricted, qualified researchers can use the datasets.

3.1.1 Mediation files

We use proprietary data provided by the Bank of France on the universe of firms that applied for a mediation between 2008 and 2018. The data are collected by each Bank of France subsidiary. We observe the identifier of the firm (SIREN number), whether the firm was eligible to benefit from a mediation, and the zipcode ("Code postal") of the firm. We observe the dates of the application and of the following steps. The files also document whether the mediation was a success or a failure. We observe 48,877 different applications made between 2008 and 2018. To our knowledge, we are the first to exploit this dataset in an academic paper.

3.1.2 Firm-level tax filings

Our second main dataset contains detailed accouting level information that are collected for tax purposes and provided by the French Ministry of Finance. The unit of observation is at the firm-

year level. This database contains information on the firm's balance sheet, such as firm's total assets, total sales, the bank debt and bonds, interest, ebitda and the total of tangible assets. One advantage of using this dataset compared to Compustat is that it also covers private firms.

3.1.3 Credit registrer

Our third dataset is the French credit registrer that is maintained by the French Central Bank. This dataset covers all entities that have a total debt and guarantees exposure of more than €25,000 with a financial intermediary located in France. The data provide outstanding credit by credit categories, namely credit lines, short-term and medium to long-term credit at the bank-firm level. The French credit registry is available every month, which allows us to observe at a high frequency the firm relationship's with its lender(s).

3.1.4 Bankruptcy data

Our fourth and final dataset contains the exhaustive list of bankruptcy proceedings in France. One of the Bank of France's missions is to provide monthly update on bankruptcies rate in France. To that end, the statistical department collects this data directly from bankruptcy courts. We observe the type of bankruptcy proceedings at the firm's level, that is whether the firm is under safeguard and restructuring (similar to the US chapter 11) or liquidation (similar to the US chapter 7).

3.2 Data merging and filtering

The four datasets are merged using the fiscal identifier SIREN as follow. We start with 48,877 unique applications to the program. We are able to match 37,373 observations (i.e. 76.46% of applications) to the tax filings data. The reason that we don't observe 11,504 applications in the tax data is because these firms have a different tax regime. 31,931 firms (i.e. 65.33% of applications) are matched to the credit registry dataset. Some firms cannot be matched because their total debt exposure is below the €25,000 reporting threshold for the French credit registry.

Our empirical design exploits the border discontinuity created by the 96 French counties ("Département"). Focusing the analysis on firms at the border brings the total number of firms to 16,091 for our FARE-mediation sample and 10,372 for our SCR-mediation sample. The way we

select firms at the border is as follow. We first include all zipcodes ("code postaux") that are adjacent to the county border. Then, we add zipcodes that are close enough to the border. We therefore include all zipcodes whose centroid is at most 5 kms from the centroid of the closest zipcode in a different county. Figure 3 plots the zipcodes that we include in our analysis. In the table A.4 of our robustness tests section, we show that our results are robust to different ways of selecting zipcodes at the border by taking 7kms or 10kms instead of 5kms or by focusing the analysis on zipcodes that are strictly adjacent. We then drop the department 46 as there are only 50 files sent between 2008 and 2018 in this department. In the online appendix, we replicate our results by including this department and show that our results are similar.

We estimate our results on the sample with the highest merge. That is, when we study a firm level outcome from the tax files, we use the matched sample between the tax filing and mediation files. Similarly when we study a credit outcome, we exploit our matched sample betweeen the credit registry and mediation files. Doing so ensure us to have the maximum of observations on each sample. In the table A.3 of our robutness tests section, we show that our main results are the same when we use the interaction of the three samples.

3.3 Descriptive Statistics

39,374 applications were sent to the French mediation program between 2008 and 2018 (included). Table 1 reports the descriptive statistics of these firms and compares them to the population of French firms. Two stylized facts emerge. First, firms that apply to the mediation are on average larger: they have €114,000 more of total assets and revenues that are €263,700 higher. Second, these firms are under financial stress: they have lower interest coverage and a leverage that is 24.9 percentage points higher than the average firm in France during the period.

Table 2 shows the raw differences between eligible and uneligible firms. Firms that are eligible to the program are larger. They have on average more employees and more assets (€128,857 more). However, there is no clear pattern that firms with stronger financial characteristics are more likely to be selected, as eligible firms have lower debt ratio but also lower interest coverage.

The profile of firms that apply to the mediation is relatively stable through time and follow the economic cycles. Applications reach a peak during both the financial crisis of 2008 and the covid-19 crisis in 2020. Figure A.2 plots the total number per year of applications sent by different

categories. That is, panel A groups firms according to their age. There was a peak of young firms that applied to the mediations in 2009 during the financial crisis. Panel B (panel C) shows this same decomposition using bins of employees (respectively sectors) and no distinct patterns appear.

We restrict our analysis to firms that are located at the border, as shown in the data merging and filtering subsection. In table A.1 of the appendix, we show that these firms are slightly different from firms located at the interior of a French county. The two groups are similar on many dimensions. Namely, they have on average the same size, revenues, leverage, interest coverage, value added over sales, tangibility ratio, trade debt over revenues and share on average the same number of employees. However, firms located at the interior of a county are slightly younger, have more revenues per asset and are less likely to be in primary industries. Still, the economic magnitudes of the differences are small.

3.4 Identification strategy

3.4.1 Identification assumption

We cannot directly compare eligible firms to non-eligible firms to recover the true impact of the firms' mediation because of a selection issue. Firms that apply to the mediation need to be deemed eligible by the Bank of France's subsidiary to enter the program. Whether a firm is eligible or not is based on more information than what we observe. This creates an omitted variable bias, as unobserved variables that drive the selection –such as quality– plausibly affect the post-mediation outcomes that we observe.

This selection bias could theoretically be positive or negative. If mediators systematically select firms that are the less fragile to maximize the chances of a successful mediation, then a comparison of eligible and non-eligible firms will be exposed to an upward bias. However, mediators could also select firms that are the most fragile and thus could benefit the most from the mediators' help. In that case, the comparison of outcomes between eligible and non-eligible firms would create a downward bias.

The solution that we suggest to overcome this selection issue is to exploit the heterogeneity in the Bank of France's subsidiaries to accept a firm into the program. Each subsidiary has the legal obligation to accept firms that are economically viable. There is however a large heterogeneity in

judging whether a firm is economically viable, because subsidiaries have different organization-level knowledges, coming from different industrial spezialisation and employees' experiences. The way departmental subsidiaries evaluate whether a firm is eligible or not also depends on their internal resources, such as the number of financial analysts and mediators and the workload they have on other tasks, as we show in figure 2.

We exploit this variation by comparing firms that are geographically close but on different sides of the county's ("department") borders. As explained above, we restrict the analysis to firms that are located either on adjacent zipcode ("code postaux") or in zipcodes that are at most 5 km from each other but in different counties. Restricting the analysis to borders' county allows us to create quasi-random assignment in the mediators' acceptance rate. Not restricting the analysis to the border could be endogenous, as counties' acceptance rate could be influenced by local economic conditions. Suppose that some counties have firms that are on average of higher quality. This will affect the financial resource of the departmental subsidiaries, which will lead to more firms being accepted. Focusing the analysis at the border heavily mitigates the concern that the way subsidiaries select firm is correlated with firms' unobserved quality that affects post-mediation outcomes.

3.4.2 Specification

To translate this identifying assumption into a regression framework, we estimate the following equation:

$$Y_{i,t+\tau} = X_{it} + \hat{D}_i.\beta_\tau + \text{Border}_i + \text{Age}_i + \text{Size}_i + \text{Quarter}_t \times \text{Industry}_i + \varepsilon_{it\tau} \tag{1}$$

where $Y_{i,t+\tau}$ is our outcome variable in the year (or quarter) $t + \tau$ for the firm i that applied during the year t. $\hat{D}_i$ is the decision of whether the firm is eligible or not for the mediation and is instrumented by the leave-one-out propensity of a subsidiary to accept a file into the program, defined for the department d level and firm i: $I_{i,d} = \frac{\text{Number of files accepted at the subsidiary - the firm i}}{\text{Number of files received at the subsidiary - the firm i}}$. The way to construct the instrument is similar to other judge design in the litterature, such as in Barrot et al. (2019). In the online appendix we explore in table A.5 alternative ways to construct the instrument.

β_τ is our economic parameter of interest and recovers the average treatment effect τ year(s) (or quarter(s)) after being accepted into the mediation among the compliers subpopulation. Specif-

ically, the coefficient β_τ captures the local average treatment effects (LATEs) between eligible and uneligible firms whose eligibility is not consensual among geographically close counties.

We include a large set of fixed effects and controls. Border$_i$ is a border fixed effect that makes the level of comparison between firms that share a same border. Age$_i$ and Size$_i$ are age and size fixed effects. Quarter$_t$ × Industry$_i$ controls for different industrial trends for each cohort of firms. Notice that we cannot include a quarter $t + \tau$ fixed effect because it would be strictly collinear to our cohort fixed effect Quarter$_t$ × Industry$_i$. $X_{it\tau}$ is a set of firms' level characteristics at the year when a file is sent. it includes the following variables: firm's total assets (in log), total sales (in log), the leverage defined as $\frac{\text{bank debt + bonds}}{\text{Assets}}$, interest coverage ratio, $\frac{\text{ebitda}}{\text{Assets}}$, ratio of tangible assets. We also include a dummy for whether the firm is under formal bankruptcy renegotiation ("procedure collective", which is akin to a chapter 11 bankruptcy) when applying or went in such a process in the last two years preceding the mediation. The standard errors are clustered at the county level, which is the level at which the treatment is defined.

3.4.3 Reliability of the identification strategy

Several conditions need to be met for such an empirical design to work: (1) we need enough variation across subsidiaries for the eligibility rates, (2) this variation should not correlate with observable firms' characteristics (3) the acceptance rates should have enough statistical power in affecting the eligibility decision and (4) in a monotoneous way. In this section we provide supportive evidence that these conditions are likely to be met in our setting.

Panel A of graph 2 plots the histogram of our measure $I_{i,d}$. On average 69% of the files that are assessed as eligible. However, the eligibility rate varies largely and ranges from 51% to 83.05% with a standard error of 8.6 percentage points, so that condition (1) above is met.

One important assumption is that our instrument $I_{i,d}$ is exogenous conditional on the fixed effects. An implication of this assumption is that the characteristics of firms that apply to the mediation are not correlated with the instrument $L_{i,d}$. Table 3 shows that this is the case. Specifically, the magnitudes of the regression of our instrument on a set of 18 different firm-level characteristics are low and always statistically non-significant when restricting at the border (columns (4), (6), (8)). The absence of strong relationship hold when a border fixed effect is added (column (6)) or

interacted with a quarter fixed effect (column (8)). On the other hand, there are strong prediction patterns of firm's characteristics on their eligibilities, as shown in columns (1), (3), (5) and (7).

Figure 2 shows that our instrument's variation is strongly correlated with measures of busyness of the subsidiary. We define a busyness ratio that is equal to $\frac{\text{Number of days taken to make firms' credit score}}{\text{Number of files sent to the mediation}}$, where the numerator is the total number of days taken to perform another task that the subsidiary is required to do, namely firms' credit scoring. Intuitively, if this ratio is large, it means that the subsidiary is more occupied by the other task, in the sense that it has many firms' credit score to determine relative to the number of firms to take care of in the mediation. One standard deviation increase in the busyness ratio decreases the acceptance rate by -2.78 percentage points, and the relationship is statistically significant at a 5% level. This provides some economic intuitions on the variation that our instrument relies on.

Table 4 shows that the instrument has a strong impact on firms' eligibility. The coefficient of our instrument is statistically significant at the 0.01 level. The economic magnitude is meaninful. Increasing our instrument by one standard deviation increases the probability of having the file accepted by 6.4 percentage points. The F-statistics shows that the overall statistical significance of our first stage is large enough to prevent a weak instrument bias, well above the criterion for 5% maximal bias of Stock and Yogo (2005).

The final assumption, which we need for instrumental variable design to recover a well-defined LATE, is the monotonicity assumption (Angrist and Pischke (2008)). In our setting, it means that firms accepted by a subsidiary with a strict eligibility rule would also be eligible by a subsidiary with a lax eligibility rule. Similarly, firms that are made non-eligible by a subsidiary with a lax eligibility rule should also be rejected by a subsidiary with a stricter eligibility rule under the monotonicity assumption. One implication of such an assumption is that we should observe a monotonic relationship between our instrument and the decision to accept a firm into the program. Figure 2 plots the kernel regression epanechnikov with a bandwidth of .05 between the two variables. The plot shows a strictly increasing relationship between our instrument and the eligibility variable, suggesting that the monotonicity assumption is likely to be met in our empirical setting.

4 Baseline results: Survival and real effects

In the first subsection, we examine the impact of the mediation on firms' bankruptcies and survival rates, then we investigate whether eligible firms increase their economic activities.

4.1 Bankruptcy Proceedings

We start the analysis by estimating equation (1) where the outcome variable is whether the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" or "redressement"). We estimate the equation where the outcome is taken at least 5 quarters before the application to mediation or at most 12 quarters after it happens, to understand the dynamic effects of the program. Figure 4 plots the β_τ of equation (1) in the y-axis, as well as the confidence intervals at 5%, for different τ horizons of bankruptcy proceedings in the x-axis. While there is no pre-trend in bankruptcy proceedings before the mediation, we can see a sharp decrease in the probability of entering in bankruptcy proceedings just after the mediation takes place. Specifically, treated firms have 13% lower probability of entering into bankruptcy proceedings over the first quarter after the mediation. The effect is stronger with time, as this same probability reaches 39.6% three years after the mediation. Given that 29,031 firms were eligible to the mediation, it implies that around 11,496 firms avoided bankruptcy proceedings between 2008 and 2018.

Column (2) to (9) of Table 5 contain the reduced forms and two stage least square results of the impact of the mediation on bankruptcy proceedings in the short-run (Panel A) and in the long-run (Panel B) with different variations in the fixed effects. This table confirms the robustness of the baseline results with a stable point estimate that ranges between 37.7% and 39.5% three years after the mediation. The coefficient remains significantly negative when we regress directly bankruptcy proceedings on our instrument.

Column (1) of Table 5 contains the OLS estimate equivalent of our baseline result. This consists in regressing our dependent variable of bankruptcy proceedings on the eligibility variable, without instrumenting it. The coefficient is smaller, equal to -3.9%. The comparison of the OLS with the 2SLS estimate supports the view that higher quality firms are rejected from the program and that Bank of France subsidiaries focus their efforts on firms where the demand for a mediator is the most needed.

16

We then investigate the effects of mediation on liquidations. We estimate a specification that is similar to equation (1), but where the dependent variable takes the value 1 if the firm is liquidated and 0 otherwise. Figure 5 reports the effects. While the impact of the mediation on liquidation is on average negative, it becomes statistically significant at a 5% level only two years after the mediation. After three years, a plausibly exogenous eligible firm has on average a probability of filing for liquidation that is 34.59% lower than a plausibly exogenous non-eligible firm. Applying this percentage to the number of eligible firms implies that the program caused 10,042 firms not to be liquidated.

Table 6 confirms the robustness tests of the results on liquidation using different specifications. Specifically, there is no reduction in liquidation after one year (Panel A). However, three years after the mediation the reduction is statistically significant and economically meaningful.

4.2   Real Outcomes

In this subsection we investigate the impact of mediators on asset formation, employment and sales. Our dependent variable Y_{t,X_t} for the outcome variable X_τ that takes place τ year(s) after the mediation is defined using the Haltiwanger growth rate (Davis and Haltiwanger (1992), Davis et al. (1998), Foster, Haltiwanger, and Syverson (2008)):

$$Y_{\tau,X_\tau} = \frac{X_\tau - X_0}{0.5.(X_\tau + X_0)}$$

This growth rate is symmetric about zero and bounded, consistent to aggregation and is equivalent to the second order Taylor Series expansion of the log changes. It also allows the computation of a growth rate if the initial value X_0 is equal to 0. Following Davis and Haltiwanger (1992), X_τ takes a value equals to -2 if the firm is liquidated to avoid a selection bias.

Figure 6 plots the estimates of equation (1) in an event-study framework between -3 years and 4 years around the mediation where the dependent variable is the haltiwanger growth rate for four outcomes: total assets (panel A), tangible investment (panel B), employment (panel C) and sales (panel D). As can be observed, there is no pre-trend before the mediation for all outcomes. The causal impact of the program on real outcomes is statistically significant two to four years after the mediation.

The effects are economically meaningful. To put these back-of-the-envelope calculations into perspective, they imply 5,86 additional employees, €96,930 more of tangible investment and €379,580 of additional revenues for the median firm in our sample two years after being eligible to the mediation. Given that 29,031 firms were eligible, it implies a total net creation of 170,259.13 jobs over a ten years span by the mediation. These effects are under the assumption that there are no general equilibrium effects and that the LATE that we recover can be extended to the full sample.

5 Economic channel

5.1 Informal restructuring or relaxation of credit constraints?

A credit mediation mechanism may help either to avoid a debt overhang problem through restructuring or relax borrowing constraints.

In the first case, the firm is over-indebted. The probability of default is high, which may generate a suboptimal level of investment (Myers (1977)). In this case, it is optimal for creditors and shareholders to renegotiate so that shareholders bear enough of the gains from new profitable investments. Decreasing overall debt or lengthening the maturity of existing debt solve a debt overhang problem.

In the second case, the firm is unable to obtain additional credit, because of asymmetries of information between the borrower and its creditor(s). Moreover, coordination problems between creditors can prevent the firm from getting credit to fund positive NPV projects. Relaxing such credit constraints would increase the amount of debt.

Figure 7 plots of the dynamic graph of short term credit (Figure A) and long-term credit (Figure B) around the mediation. Specifically, the figures plot the coefficients that capture the causal impact of being eligible for mediation on short-term and long-term credit (y-axis) for different quarters around the mediation (x-axis). The coefficients are estimated using the empirical strategy of equation (1) in a way that is similar to our baseline results on bankruptcy proceedings, liquidation and real outcomes. As we can seen in the graph, there is no pre-trend between our treated (eligible) and control groups. However, just after the mediation happens, credit increases for the tretaed group.

The increase in long-credit during the first quarter after the mediation is statistically significant at the 5% level. For the short-term credit, this increases in statistically significant at a 10% level.

The magnitudes are also economically meaningful. For the median eligible firm in our sample, this corresponds to an increase of €97,230 in long-term credit a quarter after the mediation.

These results are direct evidence against the view that the mediation acts mainly as an implicit restructuring and solving a debt overhang problem. The credit mediation works mainly by relaxing credit constraints of the borrowers.

5.2   How does the Mediation alleviate credit constraints?

The credit mediation program may affect two main categories of frictions driving credit constraints. These frictions are related either to asymmetric information between the borrower and its lender(s) or to problems of coordination among lenders.

First, the credit mediation may reduce information asymmetries regarding the firm quality and its default risk by bringing external information not already available to the bank. This role is acknowlegded by banks. For instance, in 2009 Gilles Denoyel, deputy CEP of HSBC France, compared credit mediators to persons that make easier the collection of information necessary for banks. More specifically, the French credit mediation, which is a state-organized mechanism, can afford more efforts than private banks to find and analyze information on firms because its costs must be compared to the total social benefits, not to the private marginal profits.

The mediation program may reduce information asymmetries also by certifying the information provided by the firm. More specifically, the French credit mediation is de facto a monopoly, which may facilitate such a certification role: a manager who would provide false information to the mediation would not be able to turn to another mediator in the future.

A manager may focus on his core business at the expense of providing banks with proper information (e.g. due to a lack of time or financial literacy). The mediation may make up for such shortage by helping the manager to identify the relevant financial information for the creditors, formulate a proper business plan and acquire the needed financial skills. For instance, the mediation helped A. Baratte, the creator of a decanting-free wine-tasting, to "learn to formalize a loan application and grasp the banker's reasoning [. . .] to show the relevance of his strategy and get business opportunities faster" (Mediation Annual Report 2012, pp. 29-30).

Second, the credit mediation may improve the coordination among lenders. Indeed, when firms have multiple lenders, coordination frictions are likely to exist. For instance, if a firm faces a

negative liquidity shock, the coexistence of multiple creditors may trigger a rat race to stop lending to the firm. He and Xiong (2012) use a dynamic continuous time theoretical model to show that maturing creditors are concerned about the rollover decisions of other creditors whose debt matures during his next contract period[10]. A credible coordination mechanism, such as the mediation, may help avoid such runs.

Also, multiple lenders are likely to free–ride on providing financing to marginal projects. Firms facing unexpected expenses when pursuing a project need to increase their debt. Providing additional credit is costly for lenders as it increases their exposures to the firm. On the other hand, it can be beneficial for these lenders as it increases the probability that the project pays off and thus the overall survival of the firm. However, when there are multiple creditors, the benefits of a higher survival rate are shared among creditors and each of them is unable to internalize these benefits.

The Mediation plays a role as a key rule of a mediation is that all creditors must take part in the process. It is therefore well-suited to solve this type of coordination frictions.

These two explanations of reducing borrower-lender information asymmetries and solving coordination problems among multiple creditors are not mutually exclusive: when a firm has multiple lenders, asymmetric information frictions can be even more of an issue because banks free-ride also ex ante on the acquisition of information. When there are multiple creditors, each of them has an incentive to free-ride on screening and monitoring the debtors. Thus, multiple banking may worsen the asymmetries of information between the borrower and the lenders. Also, if creditors prefer mimicking the behavior of their peers rather than collecting information on the borrower, informational runs can occur.

5.2.1 Results on multibank firms

Figure 8 plots the coefficients of the causal impact of being eligible for mediation on bankruptcy proceedings for firms that borrow from more than one lender (Panel A) and firms that borrow from one lender (Panel B). The specification is very close to the one of our baseline effect, where we instrument the eligiblity and study the dynamic response of the mediation on bankruptcy proceedings. As can be seen in both panels, there is no pre-trend before the mediation for both groups. However, after the mediation happens, we observe a drop in bankrutpcy proceedings that is stronger for the

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[10]footnote: Although these authors focus on loans to financial firms, their results may extend to non-financial firms

group of firms that borrow from more than one lender. Specifically, three years after the mediation, the change in bankruptcy proceedings is slightly positive and non-significant for firms that borrowed from only one lender at the time of the mediation, while while the firms that borrowed from more than one lender at the time of the mediation experience a drop which is statistically significant at 5% level.

We then test whether the difference in bankruptcy proceedings between the two groups is statistically significant and economically meaningful. Columns (5) to (8) of table 8 report the tests. Specifically, columns (5) and (6) report the regression results where we interact our variable D_i of eligibility with a dummy multiple-banks that takes one if the firm borrows from more than one lender at the time of the mediation and zero otherwise. We instrument eligibility D_i with $I_{i,d}$, and then instrument the interaction of $D_i \times$ multiple-banks with the interaction of $I_{i,d}$ and multiple-banks. Columns (5) and (6) show that the differential effect is statistically significant. Namely firms from the multiple-banks group have between -0.35 and -0.48 lower probability of going into bankruptcy proceedings than firms that borrow from one lender, three years after being eligible to the mediation. Columns (7) and (8) replicate the exercise but by directly interacting our instrument $I_{i,d}$ with multiple-banks. The magnitudes are of a similar order, between -0.31 and -0.41.

5.2.2 Further tests on the information asymmetry channel

In general we won't be able to quantify the role of asymmetric information from the role of coordination frictions. The two can often interact, as in Khalil, Martimort, and Parigi (2007). However, we can test whether the mediation helps reducing asymmetric information in one particular setting: when the firms faces an information stigma if it lends from another bank.

Being eligible for mediation acts as an external certification of the firm's quality that could help the firm to find a new credit. Increases in public information on the quality of a firm reduces the information stigma that the firm faces when searching for a new lender, according to Hauswald and Marquez (2006).

Panel C of figure 7 directly tests this potential channel. We construct a variable that takes one if the firm borrows at time $t + \tau$ from a lender that is different from the one it borrows at time t, when the firm applies to the program. Notice that τ can take a negative value and then captures whether the firm's lender at the time of the mediation are newly formed or not. The unit of time

is at the quarter level. We then estimate our baseline specification from equation (1). We plot the coefficients around the mediation in Panel C of figure 7. As can be seen in the graph, there is no effect on the probability of having a new lender after the mediation, relative to the control group. This is evidence that our results are not driven by a reduction in search friction that would allow the firm to find a new lender.

As a conclusion, these results show that the mediation is most effective to relax credit constraints generated by frictions that are specific to multi-lender firms, such as coordination issues between creditors, which may include informational free-riding. While we cannot say anything about the role of asymmetric information in general, the evidence that mediation reduces information asymmetries or commitment constraints is limited as suggested by the result on switching firms.

6   Alternative specifications and data filtering

In the online appendix, we perform several robustness tests to ensure that our baseline results still hold when we use different ways of filtering our dataset and constructing the variables.

First, we estimate our baseline results using different ways of constructing our sample. We restrict the firms to those that can be matched on all samples. Columns (5) and (6) of table A.3 report the coefficient of the impact on bankruptcy proceedings of being eligible for mediation instrumented by the average propensity of the subsidiary to accept a file on this sample. Next, we repeat the exercise on the sample that only matched firms from the credit registry to the mediation files. Column (1) and (2) contain the results. The point estimates are stronger in absolute value than in the baseline results. Finally, column (7) and (8) of table A.3 display the coefficients of our baseline regressions once we add the department 46, that was initially excluded because of a low number of files treated. The results are robust when this outlier department is included. Overall, this suggest that our baseline results are not driven by a particular sample and are broadly consistent with our baseline results.

Second, we estimate our baseline results on different definitions of border zipcodes. Columns (1) and (2) of table A.4 take a narrow view of neighbor zipcodes and focus only on those that are strictly adjacent. Columns (3) to (6) of table A.4 include all adjacent zipcodes plus the zipcodes

22

whose centroid are at most 7 km (columns (3) and (4)) or 10kms (columns (5) and (6)) away from the closest centroid of a zipcode located on another border. The baseline results remain the same, as the coefficients are within the range of -0.3 to -0.4.

Third, we estimate our baseline results using different ways of constructing our instrument. Specifically, in columns (1) and (2) of table A.5, we residualize our instrument by a quarter fixed effect in a way similar to Arnold, Dobbie, and Yang (2018). That is, we first regress our instrument on a quarter-year fixed effect, then use the residuals to construct our new instrument. Columns (3) and (4) of table A.5 report the results when we construct the instrument for firm i in department d as follow:

$$\frac{\text{Number of files accepted at the subsidiary } d \text{ - all firms in zipcode } z}{\text{Number of files received at the subsidiary } d \text{ - all firms in zipcode } z}$$

This consists in constructing the average acceptance rate for firm i by ignoring all information coming from the zipcode of firm i. Finally, columns (5) and (6) residualize the new instrument used in column (3) and (4) in a way similar to what we did for columns (1) and (2).

Finally, we replicate our dynamic graphs without any firms' level controls. Figure A.1 contains the coefficients when the dependent variable is bankruptcy proceedings and figure A.2 contain the real effect outcomes. All the graphs exhibit the same shapes and have almost no differences with the baseline figures.

7   Conclusion

Many policies have been implemented to support credit to small and medium enterprises, especially during economic downturns. This paper is the first to study one class of policies: mediation programs, that have been used in several countries over the last decades. Compared to other policies, mediation programs do not involve direct subsidies and directly target bank-firm relationships.

We study the French mediation to provide insights on how these policies work. The institutional design of the French program and the quality of the French administrative databases allow us to adopt an empirical design where we compare firms that submit their applications to subsidiaries that have different acceptance rates because they are located at different sides of the county's ("Département") borders. This design exploits the fact that the decision on whether firms are accepted is made by the subsidiaries from the county they are located in.

We estimate that being accepted into the program causally leads to a 34.6 percentage points reduction in the probability of being liquidated at a 3 year horizon. This is accompanied by a strong positive effect on firms' sales, employment and investment.

In terms of mechanism, mediators are particularly efficient at solving coordination problem between lenders, as all the effects are observed among firms with more than on lender. This is consistent with models of rational information herding or when lenders rationally run their debtors and impose a pecuniary externality on the other lenders.

The large effects documented in this paper suggests that there is room for policies aiming at reducing negociation frictions and fostering more efficient communication between all parties in the context of bank-firm relationships. More research is needed to evaluate whether this insight may translate to other types of disputes (e.g. labor disputes, commercial disputes).

References

Agarwal, S., G. Amromin, I. Ben-David, S. Chomsisengphet, T. Piskorski, and A. Seru. 2017. Policy intervention in debt renegotiation: Evidence from the home affordable modification program. *Journal of Political Economy* 125:654–712.

Angrist, J. D., and J.-S. Pischke. 2008. *Mostly harmless econometrics: An empiricist's companion.* Princeton university press.

Arnold, D., W. Dobbie, and C. S. Yang. 2018. Racial bias in bail decisions. *The Quarterly Journal of Economics* 133:1885–932.

Bach, L. 2014. Are small businesses worthy of financial aid? evidence from a french targeted credit program. *Review of Finance* 18:877–919.

Bachas, N., O. Kim, and C. Yannelis. 2019. Loan guarantees and credit supply. *Available at SSRN 3367958* .

Barrot, J.-N., T. Martin, J. Sauvagnat, and B. Vallee. 2019. Employment effects of alleviating financing frictions: Worker-level evidence from a loan guarantee program. *Available at SSRN 3409349* .

Barrot, J.-N., and J. Sauvagnat. 2016. Input specificity and the propagation of idiosyncratic shocks in production networks. *The Quarterly Journal of Economics* 131:1543–92.

Berger, D., N. Turner, and E. Zwick. 2016. Stimulating housing markets. *The Journal of Finance* .

Bernstein, S., E. Colonnelli, X. Giroud, and B. Iverson. 2019. Bankruptcy spillovers. *Journal of Financial Economics* 133:608–33.

Bertrand, M., A. Schoar, and D. Thesmar. 2007. Banking deregulation and industry structure: Evidence from the french banking reforms of 1985. *The Journal of Finance* 62:597–628.

Brown, J. D., and J. S. Earle. 2017. Finance and growth at the firm level: Evidence from sba loans. *The Journal of Finance* 72:1039–80.

Cahuc, P., S. Carcillo, and T. Le Barbanchon. 2019. The effectiveness of hiring credits. *The Review of Economic Studies* 86:593–626.

Carvalho, V. M., M. Nirei, Y. U. Saito, and A. Tahbaz-Salehi. 2021. Supply chain disruptions: Evidence from the great east japan earthquake. *The Quarterly Journal of Economics* 136:1255–321.

Cheng, I.-H., F. Severino, and R. Townsend. 2019. How do consumers fare when dealing with debt collectors? evidence from out-of-court settlements. *Evidence from Out-of-Court Settlements (May 28, 2019). Tuck School of Business Working Paper* .

Chodorow-Reich, G., L. Feiveson, Z. Liscow, and W. G. Woolston. 2012. Does state fiscal relief during recessions increase employment? evidence from the american recovery and reinvestment act. *American Economic Journal: Economic Policy* 4:118–45.

Chodorow-Reich, G., and L. Karabarbounis. 2016. The limited macroeconomic effects of unemployment benefit extensions. Working Paper, National Bureau of Economic Research.

Davis, S. J., and J. Haltiwanger. 1992. Gross job creation, gross job destruction, and employment reallocation. *The Quarterly Journal of Economics* 107:819–63.

Davis, S. J., J. C. Haltiwanger, S. Schuh, et al. 1998. Job creation and destruction. *MIT Press Books* 1.

Eberly, J., and A. Krishnamurthy. 2014. Efficient credit policies in a housing debt crisis. *Brookings Papers on Economic Activity* 2014:73–136.

Egan, M. L., G. Matvos, and A. Seru. 2018. Arbitration with uninformed consumers. Working Paper, National Bureau of Economic Research.

Foster, L., J. Haltiwanger, and C. Syverson. 2008. Reallocation, firm turnover, and efficiency: Selection on productivity or profitability? *American Economic Review* 98:394–425.

Gale, W. G. 1990. Federal lending and the market for credit. *Journal of Public Economics* 42:177–93.

———. 1991. Economic effects of federal credit programs. *The American Economic Review* 133–52.

Hagedorn, M., F. Karahan, I. Manovskii, and K. Mitman. 2013. Unemployment benefits and unemployment in the great recession: the role of macro effects. Working Paper, National Bureau of Economic Research.

Hauswald, R., and R. Marquez. 2006. Competition and strategic information acquisition in credit markets. *The Review of Financial Studies* 19:967–1000.

He, Z., and W. Xiong. 2012. Dynamic debt runs. *The Review of Financial Studies* 25:1799–843.

Iverson, B. 2018. Get in line: Chapter 11 restructuring in crowded bankruptcy courts. *Management Science* 64:5370–94.

Khalil, F., D. Martimort, and B. Parigi. 2007. Monitoring a common agent: Implications for financial contracting. *Journal of Economic Theory* 135:35–67.

Krishnamurthy, A., and A. Vissing-Jorgensen. 2011. The effects of quantitative easing on interest rates: channels and implications for policy. Working Paper, National Bureau of Economic Research.

La Porta, R., F. Lopez-de Silanes, and A. Shleifer. 2002. Government ownership of banks. *The Journal of Finance* 57:265–301.

Mayer, C., E. Morrison, T. Piskorski, and A. Gupta. 2014. Mortgage modification and strategic behavior: evidence from a legal settlement with countrywide. *American Economic Review* 104:2830–57.

Mian, A., and A. Sufi. 2009. The consequences of mortgage credit expansion: Evidence from the us mortgage default crisis. *The Quarterly Journal of Economics* 124:1449–96.

Müller, K. 2019. Busy bankruptcy courts and the cost of credit. *Available at SSRN 3088676* .

Myers, S. C. 1977. Determinants of corporate borrowing. *Journal of financial economics* 5:147–75.

Rothstein, J. 2011. Unemployment insurance and job search in the great recession. Working Paper, National Bureau of Economic Research.

Slaikeu, K. A. 1996. *When push comes to shove: A practical guide to mediating disputes*. Jossey-Bass.

Smith, B. 1983. Limited information, credit rationing, and optimal government lending policy. *The American Economic Review* 73:305–18.

Stock, J., and M. Yogo. 2005. *Asymptotic distributions of instrumental variables statistics with many instruments*, vol. 6. Chapter.

Figures / Tables

Figure 1: Participation in the mediation program

Figure A:
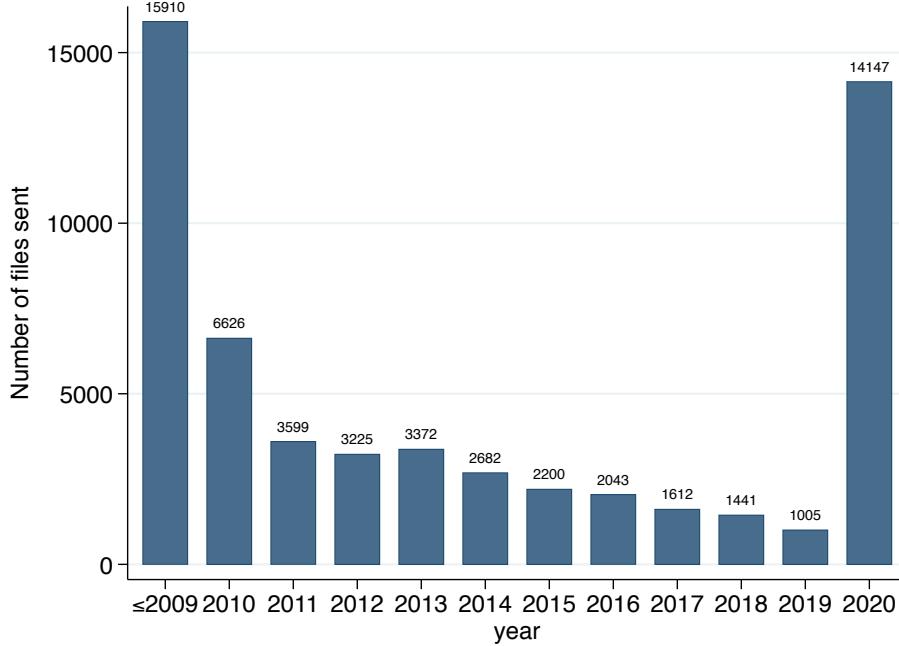
Figure B:
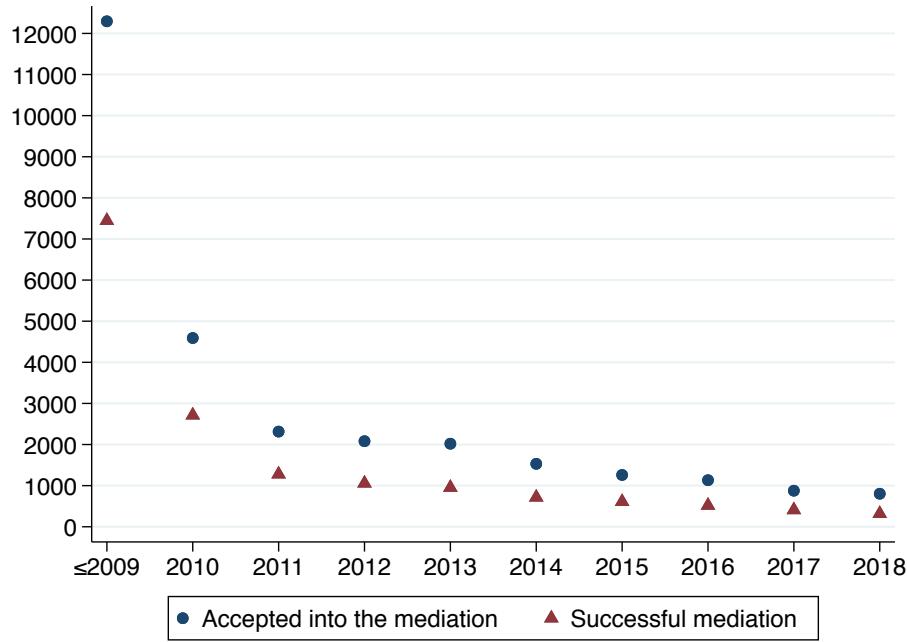
Note: Figure A depicts the total number of files sent per year to the mediation program. This number is highly pro-cyclical, peaking during recessions, as the two highest points are during the 2009 financial crisis and the 2020 economic downturn induced by the covid-19 pandemic. Figure B reports the total number per year of files accepted into the mediation as well as the number per year of successful mediations. The fraction of firms accepted into the program as well as the fraction of successful mediations are both stable through time.

Figure 2: Variations In Acceptance's Rates

(A) Distribution Of Mediation's Leniencies And Monotonicity
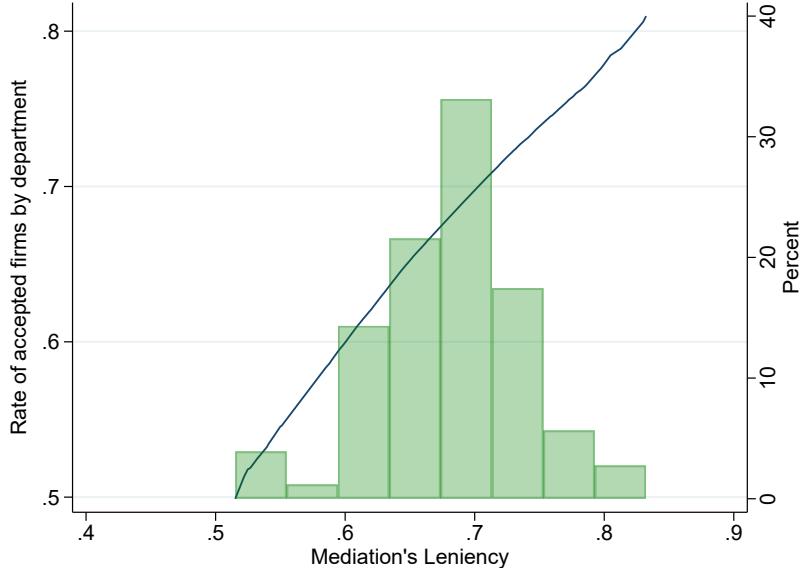
(B) Relation Between Mediation's Busyness And Acceptance's Rates
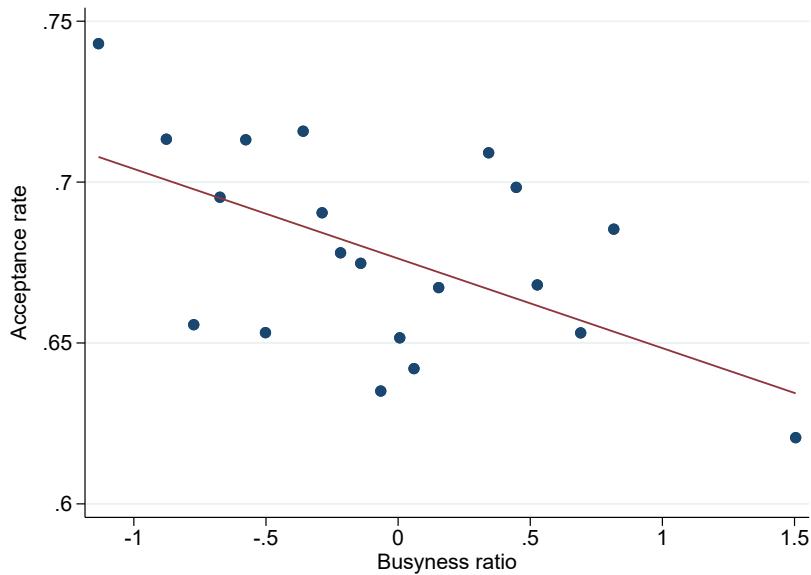
Note: Figure A depicts the histogram of the acceptance rates for each Bank of France subsidiaries. The range is wide (0.51 to 0.8305) and supports the view that there are heterogeneities in the way files are accepted into the program and no mass point at a particular value. The line shows the non-parametric curves using the epanechnikov kernel smoothing of our instrument on the decision to accept a file and brings indirect supports for the monotonicity assumption. The goal of Figure B is to understand where the heterogeneity in accepting files comes from. In particular, the graph shows the relationship between the acceptance rate and the busyness ratio of the subsidiary. The busyness ratio is equal to $\frac{\text{Number of days taken to make firms' credit score}}{\text{Number of files sent to the mediation}}$, where the numerator is the total number of days taken to perform another task that the subsidiary is required to do, namely estimating firms' credit score. Intuitively, if this ratio is large, it means that the subsidiary is more occupied by the other task, in the sense that it has many firms' credit score to determine relative to the number of firms to take care of in the mediation. One standard deviation increases in the busyness ratio decreases the acceptance rate by -2.78 percentage points, and the relationship is statistically significant at a 5% level.

Figure 3: Boundaries Design
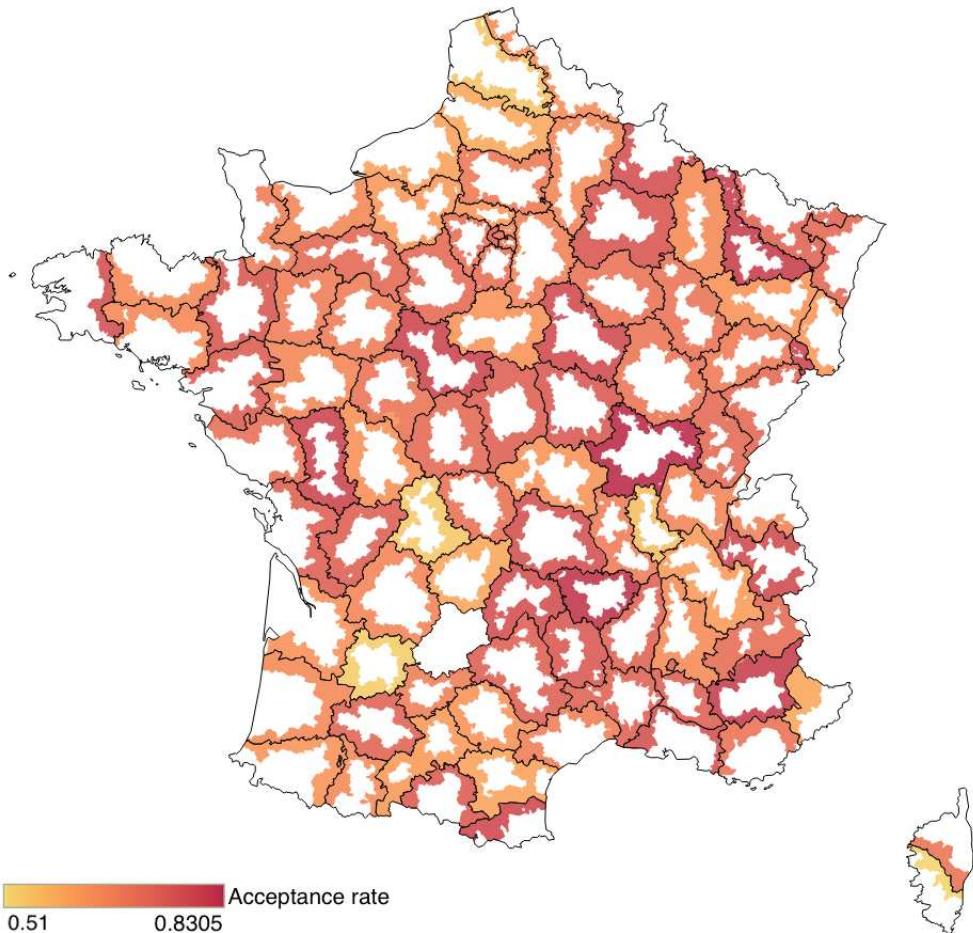
Note: This figure reports the French zipcodes ("code postaux") that are included in our analysis. Specifically, we include a zipcode if the zipcode is adjacent to the border or has its centroid at most 5 kilometers (3,11 miles) from the centroid of another zipcode located on the other side of a border . The color ranging from yellow (low acceptance rate) to red (high acceptance rate) shows the variation in acceptance rates between different counties ("Département"). We drop the department 46 as the number of files sent in this county is extremely low between 2008 and 2018, as 50 firms submitted to the mediation in this department during the time period.

Figure 4: Impact Of The Mediation On Bankruptcy Proceedings
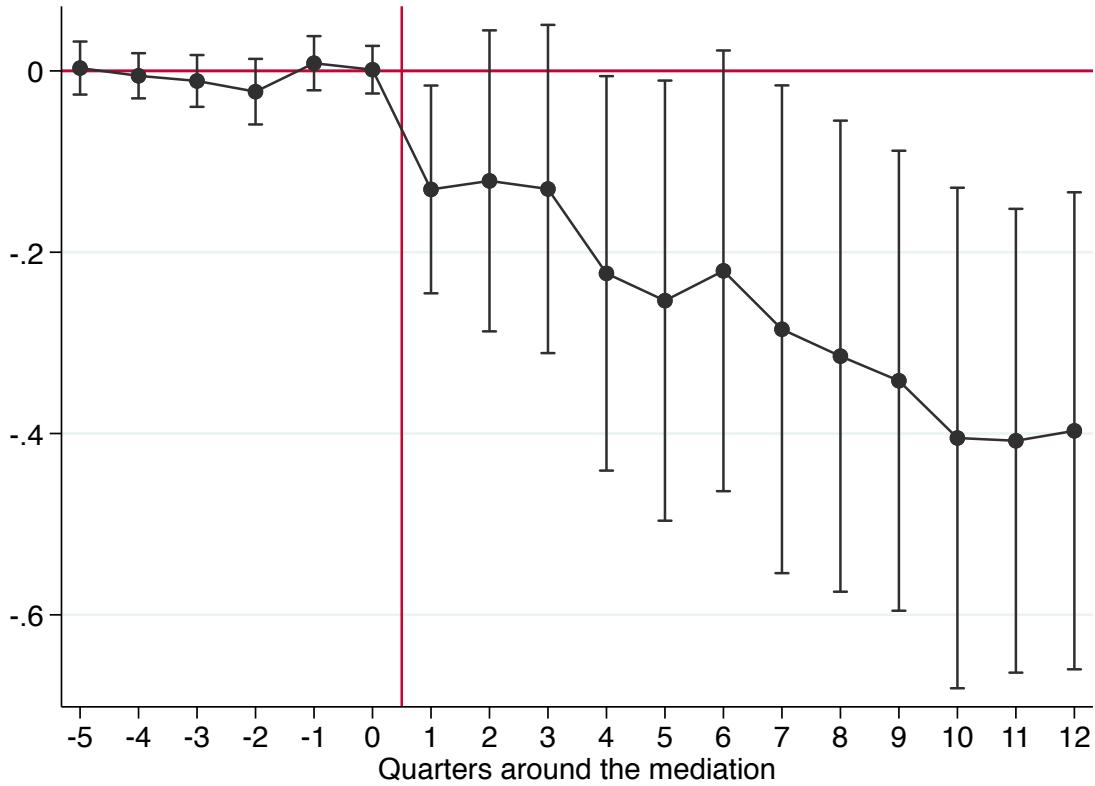
Note: This figure depicts the impact in an event-study framework of being eligible for mediation (quarter 1) on bankruptcy prooceedings. It reports the coefficients of 18 different regressions that measure the impact of being eligible to mediation as predicted by our instrument on a dummy that takes the value 1 if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement") before or after the mediation happens. The variable eligible to mediation for firm i is instrumented by our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The reference quarter is 0, which is the quarter before the mediation takes place. The sample is made of firms that are at the border of a French county. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. The fixed effects include a cohort fixed effect interacted with an industry code fixed effect, a border fixed effect, an age and a size fixed effect. Confidence intervals are at the 5% level and standard errors are clustered at the department level.

Figure 5: Impact Of The Mediation On Liquidation
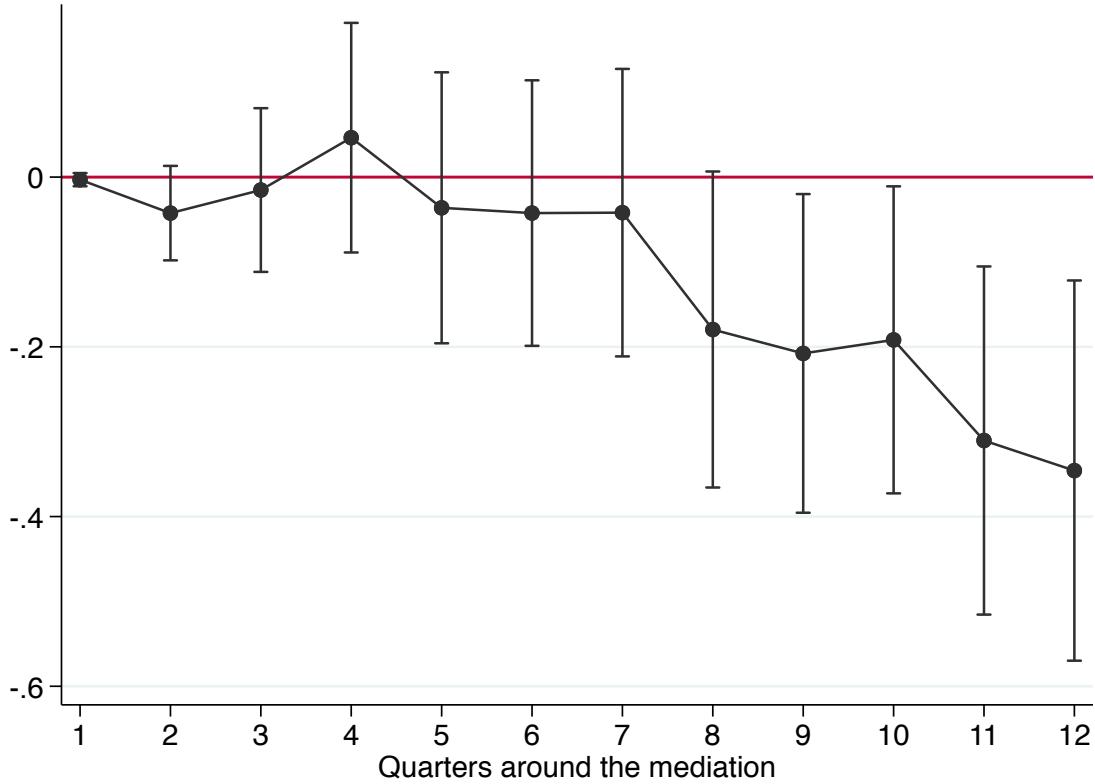
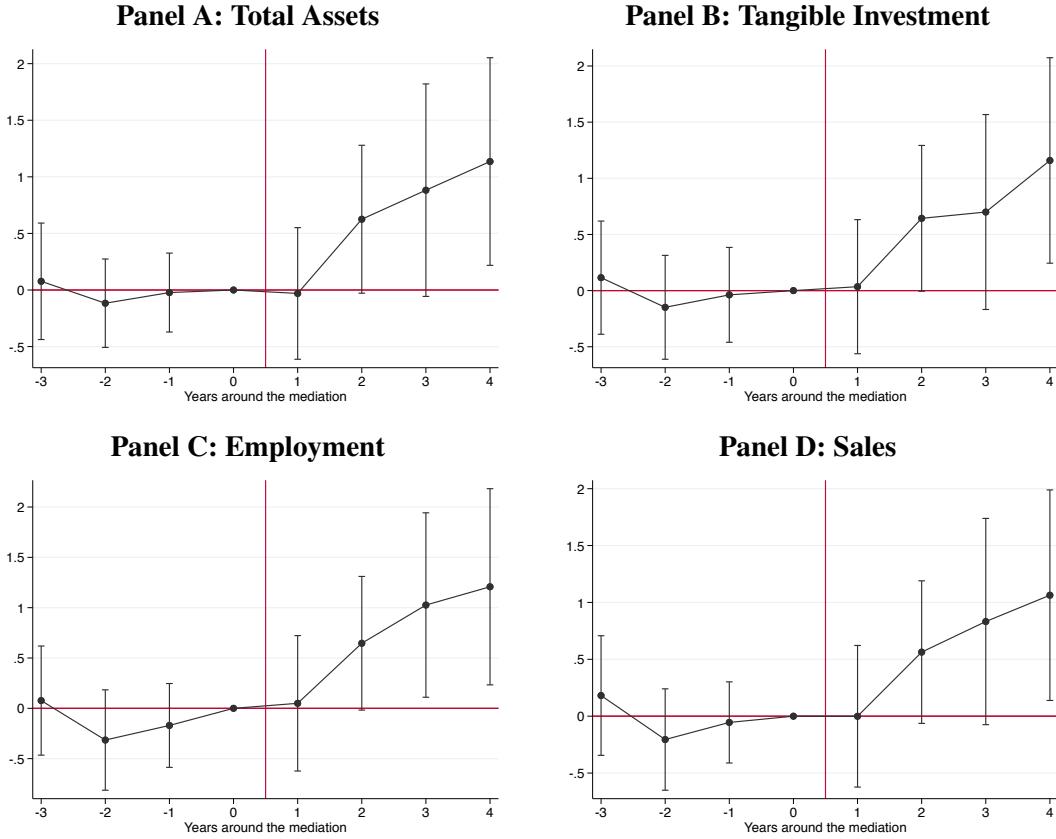**Note:** This figure depicts the impact in an event-study framework of being eligible for mediation (quarter 1) on whether the firm exits. It reports the coefficients of 18 different regressions that measure the impact of being eligible to mediation as predicted by our instrument on a dummy that takes the value 1 if the firm is either in a chapter 7 type of bankruptcy ("liquidation"). The variable eligible to mediation for firm i is instrumented by $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The reference quarter is 0, which is the quarter before the mediation takes place. The sample is made of firms that are at the border of a French county. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. The fixed effects include a cohort fixed effect interacted with an industry code fixed effect, a border fixed effect, an age and a size fixed effect. Confidence intervals are at the 5% level and standard errors are clustered at the department level.

Figure 6: Impact Of The Mediation On Real Outcomes

Panel A: Total Assets

Panel B: Tangible Investment

Panel C: Employment

Panel D: Sales

Note: These figures depict the impact of the mediation on real variables in an event-study framework. Each figure reports the coefficients of 7 Two-Stage least squares (2SLS) regressions. The growth rate for the real outcome y_t is calculated as follow: $\frac{y_t - y_0}{0.5 \times (y_t + y_0)}$. This growth rate is symmetric about zero and bounded, consistent to aggregation and it is equivalent to the second-order Taylor Series expansion of the log changes. Panel A, B, C and D report respectively this growth rate for total assets, tangible investment, employment and sales. The sample is made of firms that are at the border of a French county. The first stage regress the eligibility of the firm on our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The second stage projects the growth rate of a real outcome on this predicted eligibility, for different horizons defined the year level. The reference quarter is 0, which is the quarter before the mediation takes place. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. The fixed effects include a cohort fixed effect interacted with an industry code fixed effect, a border fixed effect, an age and a size fixed effect. Confidence intervals are at the 10% level and standard errors are clustered at the department level.
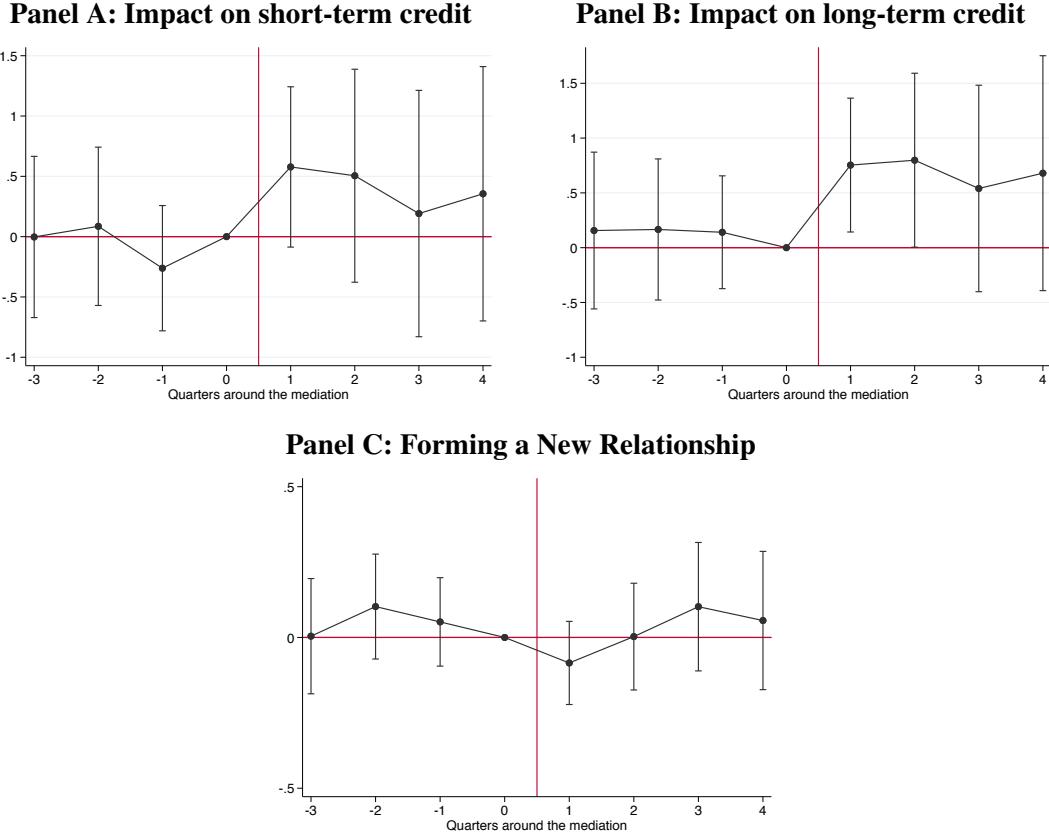
Figure 7: Impact Of The Mediation On Financial Outcomes (SCR)

Panel A: Impact on short-term credit

Panel B: Impact on long-term credit

Panel C: Forming a New Relationship

Note: These figures depict the impact of the mediation on financial variables in an event-study framework. Each figure reports the coefficients of 7 Two-Stage least squares (2SLS) regressions. The growth rate for the real outcome y_t is calculated as follow: $\frac{y_t - y_0}{0.5 \times (y_t + y_0)}$. Panel A, and B report respectively this growth rate for short-term credit and long-term credit. Panel C reports the coefficients where the dependent variable is equal to 1 (otherwise 0) if the lender is different from the one used at the time the firm applied to the mediation. The sample is made of firms that are at the border of a French county. The first stage regress the eligibility of the firm on our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The second stage projects the growth rate of a real outcome on this predicted eligibility, for different horizons defined the year level. The reference quarter is 0, which is the quarter before the mediation takes place. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. The fixed effects include a cohort fixed effect interacted with an industry code fixed effect, a border fixed effect, an age and a size fixed effect. Confidence intervals are at the 10% level and standard errors are clustered at the department level.

Figure 8: Multi-bank versus single-bank: bankruptcy proceedings

Panel A: firms with more than one lender
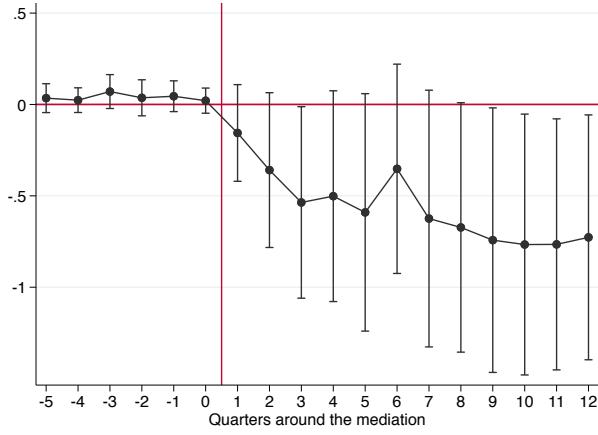
Panel B: firms with one lender
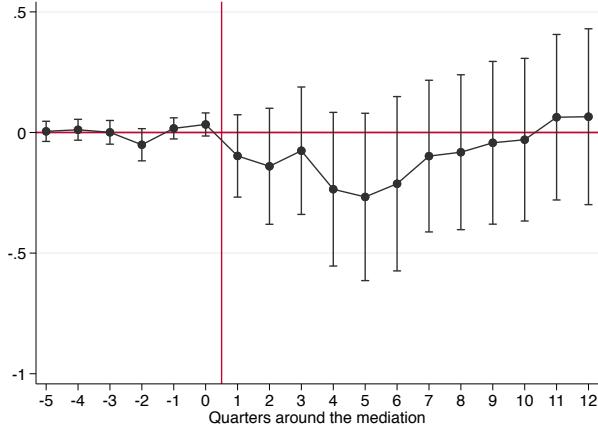
Note: This figure depicts the impact in an event-study framework of being eligible for mediation (quarter 1) on bankruptcy prooceedings. Panel A reports the specification for firms that borrow from more than one lender before applying to the mediation, while Panel B reports the specification for firms that borrow from just one lender before applying to the mediation. Both figures repors the coefficients of 18 different regressions that measure the impact of being eligible to mediation as predicted by our instrument on a dummy that takes the value 1 if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement") before or after the mediation happens. The variable eligible to mediation for firm i is instrumented by our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The reference quarter is 0, which is the quarter before the mediation takes place. The sample is made of firms that are at the border of a French county. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. The fixed effects include a cohort fixed effect interacted with an industry code fixed effect, a border fixed effect, an age and a size fixed effect. Confidence intervals are at the 5% level and standard errors are clustered at the department level.

Table 1: Descriptive Statistics

| | Population | | Firms that applied for a mediator | |
	mean	p50	mean	p50
Total assets	649.6	178.7	763.7	233.5
Revenues	574.4	181.5	838.1	265.9
D/A	0.360	0.300	0.609	0.536
Interest coverage	19.67	7.929	-1.458	1.046
VA/Sales	0.0482	0.0697	-0.0504	0.00869
Tangibles/A	0.263	0.179	0.273	0.220

Note: This table reports the descriptive statistics of the main variables used in our empirical analysis for the whole period, for the full population of firms in the French economy and the sample of firms that applied to the mediation between 2008 and 2018.

Table 2: Selection Pattern

	Eligible	Non-eligible	Diff.	Standard Error
log(assets)	5.14	4.63	0.509***	0.037
log(age)	1.98	1.82	0.165***	0.016
log(revenues)	5.30	4.80	0.498***	0.038
D/A	0.58	0.63	-0.043***	0.005
Interest coverage	-0.65	-0.38	-0.272*	0.155
VA/Sales	-0.02	-0.02	-0.004*	0.002
Tangibles/A	0.28	0.27	0.006**	0.003
Trade debt/Revenues	0.15	0.15	0.001	0.001
Wages/Revenues	0.23	0.21	0.017***	0.002
Labor intensity	0.34	0.33	0.008**	0.004
Revenues/Assets	1.61	1.70	-0.099***	0.016
0 employees	0.43	0.50	-0.065***	0.008
1-9 employees	0.38	0.36	0.018***	0.006
10+ employees	0.19	0.14	0.047***	0.005
Primary sector	0.04	0.04	0.004*	0.002
Manufacturing sector	0.31	0.29	0.018***	0.005
Service sector	0.61	0.63	-0.024***	0.006
Bankruptcy proceeding at the time of the mediation	0.02	0.02	-0.002	0.002
Bankruptcy proceeding within two years before the mediation	0.01	0.02	-0.010***	0.002

Note: This table reports the descriptive statistics between non-eligible and eligible firms. Standard errors are clustered at the department level.

Table 3: How Credible Is The Empirical Design? (1/2)

	(1) D_i	(2) $I_{i,d}$	(3) D_i	(4) $I_{i,d}$	(5) D_i	(6) $I_{i,d}$	(7) D_i	(8) $I_{i,d}$
log(assets)	0.022***	-0.000	0.022***	-0.000	0.023***	0.000	0.023***	0.000
	(0.002)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)
log(age)	0.036***	0.001	0.037***	0.000	0.038***	0.000	0.043***	-0.000
	(0.004)	(0.001)	(0.005)	(0.001)	(0.005)	(0.000)	(0.005)	(0.000)
log(revenues)	0.021***	-0.000	0.022***	-0.000	0.022***	-0.000	0.022***	-0.000
	(0.002)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)	(0.002)	(0.000)
D/A	-0.079***	0.003	-0.084***	0.005**	-0.090***	0.001	-0.082***	0.001
	(0.010)	(0.002)	(0.012)	(0.002)	(0.012)	(0.001)	(0.012)	(0.001)
Interest coverage	-0.000*	0.000	-0.000	-0.000	-0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
VA/Sales	-0.035*	0.002	-0.061**	-0.004	-0.059**	-0.002	-0.031	-0.002
	(0.018)	(0.004)	(0.025)	(0.004)	(0.025)	(0.001)	(0.024)	(0.001)
Tangibles/A	0.028**	0.007	0.009	-0.002	0.023	0.002	0.045**	0.002
	(0.012)	(0.007)	(0.018)	(0.009)	(0.017)	(0.001)	(0.018)	(0.001)
Trade debt/Revenues	0.020	-0.001	0.031	-0.002	0.036	0.000	0.071**	-0.000
	(0.022)	(0.004)	(0.029)	(0.005)	(0.031)	(0.002)	(0.030)	(0.002)
Wages/Revenues	0.104***	-0.001	0.127***	0.005	0.125***	0.001	0.074***	0.001
	(0.014)	(0.003)	(0.020)	(0.003)	(0.020)	(0.001)	(0.019)	(0.001)
Labor intensity	0.013**	-0.002	0.016	-0.001	0.016	-0.001	-0.001	-0.001
	(0.006)	(0.001)	(0.011)	(0.002)	(0.010)	(0.001)	(0.010)	(0.001)
0 employees	-0.057***	0.001	-0.064***	0.002*	-0.067***	0.000	-0.095***	0.000
	(0.008)	(0.001)	(0.010)	(0.001)	(0.010)	(0.000)	(0.009)	(0.000)
1-9 employees	0.017***	0.000	0.022***	-0.000	0.024***	0.000	0.054***	0.000
	(0.006)	(0.001)	(0.008)	(0.001)	(0.008)	(0.000)	(0.008)	(0.000)
10+ employees	0.072***	-0.003*	0.076***	-0.003	0.079***	-0.001	0.075***	-0.001
	(0.008)	(0.002)	(0.012)	(0.002)	(0.012)	(0.001)	(0.012)	(0.001)
Primary sector	0.024*	0.006	0.029	0.000	0.039**	-0.000	0.060***	-0.000
	(0.013)	(0.006)	(0.018)	(0.007)	(0.018)	(0.001)	(0.017)	(0.001)
Manufacturing sector	0.018***	-0.002	0.006	-0.005	0.011	-0.001	0.005	-0.001
	(0.005)	(0.002)	(0.008)	(0.003)	(0.008)	(0.001)	(0.008)	(0.001)
Service sector	-0.022***	0.000	-0.012	0.004	-0.019**	0.001	-0.018**	0.001
	(0.005)	(0.002)	(0.008)	(0.004)	(0.008)	(0.001)	(0.008)	(0.001)
PC	-0.019	0.003	0.007	0.004	0.001	-0.002	-0.018	-0.002
	(0.015)	(0.004)	(0.022)	(0.005)	(0.023)	(0.002)	(0.022)	(0.002)
PC two years	-0.142***	-0.000	-0.137***	-0.007	-0.130***	0.000	-0.122***	0.000
	(0.020)	(0.004)	(0.032)	(0.006)	(0.032)	(0.002)	(0.031)	(0.002)
Observations	42,399	42,399	16,091	16,091	16,091	16,091	16,091	16,091
Border FE × date FE							X	X
Border FE					X	X		
Border sample			X	X	X	X	X	X

Note: The purpose of this table is to evaluate whether our instrument is correlated with firm's level characteristics before the mediation takes place to provide indirect support for the exclusion condition. The dependent variable of columns (1), (3), (5) and (7) is D_i a dummy that takes one if the firm is accepted into the program. The dependent variable of columns (2), (4), (6) and (8) is $I_{i,d}$, which is our instrument of a subsidiary propensity to accept a file into the program. Columns (1) and (2) display the coefficients from 18 different univariate regressions estimated on the full sample without fixed effect and columns (3) and (4) replicate the exercise on the border sample. Columns (3) and (4) report the coefficients of 16 univariate regressions when a border fixed effect is included for the border sample, while columns (7) and (8) contain the coefficients when the border fixed effect is interacted with a date fixed effect. Overall, the results strongly support a selection pattern into the mediation based on firm level information and that our instrument is plausibly uncorrelated with ex ante firm's level characteristics, as implied by the exclusion condition. PC is a variable that takes the value 1 if the firm is under a bankruptcy proceedings ("Procedure collective") at the time of the mediation and PC two years takes the value 1 if the firm was under a bankrutpcy proceedings at least 2 years before the mediation.

Table 4: How Credible Is The Empirical Design? (2/2)

	(1) D_i	(2) D_i	(3) D_i	(4) D_i	(5) D_i
$I_{i,d}$	0.937***	0.664***	0.660***	0.662***	0.662***
	(0.061)	(0.096)	(0.094)	(0.096)	(0.096)
Observations	16,091	16,091	16,091	16,091	16,091
R-squared	0.013	0.070	0.088	0.13	0.13
F-stat	233.045	47.843	34.536	33.852	23.074
Border FE		x	x	x	x
Time FE		x	x		
Time × Industry FE				x	x
Age bins FE					x
Size bins FE					x
Controls			x	x	x

Note: This table reports our first stage results. The dependant variable is a dummy that takes the value one if the firm is eligible to the program, 0 otherwise. Our instrument is $I_{i,d}$ and is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. Column (1) reports the estimate without no fixed effect, that are added through column (2) to (5). The instrument is individually strongly signficant and the F-stats strongly supports that our specification is globally significant.

Table 5: Baseline Results On Bankruptcy Proceedings

Panel A: short-run impact of mediation on bankruptcy proceedings

| | Dependent variable: bankruptcy proceedings one year after the mediation | | | | | | | | |
| | OLS | Reduced form | | | | 2SLS | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D_i	-0.067***					-0.207*	-0.206*	-0.220**	-0.216**
	(0.011)					(0.115)	(0.117)	(0.110)	(0.108)
$I_{i,d}$		-0.137**	-0.136*	-0.146**	-0.143**				
		(0.069)	(0.070)	(0.065)	(0.064)				
N	16,091	16,091	16,091	16,091	16,091	16,091	16,091	16,091	16,091
R2	0.15	0.084	0.10	0.14	0.14	.	.	.	.
F-statistics						45.7	46.5	46.1	46.4
Border FE	X	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X	X
Quarter × Border FE	X			X	X			X	X
Age FE	X				X				X
Size FE	X				X				X
Controls	X		X	X	X		X	X	X

Panel B: long-run impact of mediation on bankruptcy proceedings

| | Dependent variable: bankruptcy proceedings three years after the mediation | | | | | | | | |
| | OLS | Reduced form | | | | 2SLS | | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D_i	-0.039***					-0.382***	-0.377**	-0.395***	-0.388***
	(0.012)					(0.145)	(0.144)	(0.132)	(0.128)
$I_{i,d}$		-0.260***	-0.254***	-0.269***	-0.264***				
		(0.079)	(0.078)	(0.071)	(0.068)				
N	15,476	15,476	15,476	15,476	15,476	15,476	15,476	15,476	15,476
R2	0.15	0.068	0.091	0.14	0.15	.	.	.	.
F-statistics						45.7	46.5	46.1	46.4
Border FE	X	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X	X
Quarter × Border FE	X			X	X			X	X
Age FE	X				X				X
Size FE	X				X				X
Controls	X		X	X	X		X	X	X

Note: These two tables report the impact of the mediation on bankruptcy proceedings 1 year (Panel A) and 3 years (Panel B). after the mediation. The dependent variable of bankruptcy proceedings takes the value one if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement"), 0 otherwise. The sample is made of firms that are at the border of a French county. Column (1) reports the OLS regression of being eligible on bankruptcy proceedings. Column (2) to (5) contain the direct regression of our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$, on bankruptcy proceedings. Finally, column (6) to (9) report the two stage least squares regression where eligibility is instrumented by our instrument $I_{i,d}$. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. Standard errors are clustered at the department level.

Table 6: Baseline Results On Liquidation

Panel A: short-run impact of mediation on Liquidation

	OLS	Reduced form				2SLS			
	Dependent variable: liquidation one year after the mediation								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D_i	-0.038***					-0.035	-0.030	-0.034	-0.037
	(0.007)					(0.086)	(0.086)	(0.081)	(0.080)
$I_{i,d}$		-0.023	-0.020	-0.022	-0.024				
		(0.056)	(0.056)	(0.053)	(0.052)				
N	16,091	16,091	16,091	16,091	16,091	16,091	16,091	16,091	16,091
R2	0.096	0.027	0.045	0.082	0.093	.	.	.	.
F-statistics						47.1	48.9	48.0	48.0
Border FE	X	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X	X
Quarter × Border FE	X			X	X			X	X
Age FE	X				X				X
Size FE	X				X				X
Controls	X		X	X	X		X	X	X

Panel B: long-run impact of mediation on Liquidation

	OLS	Reduced form				2SLS			
	Dependent variable: liquidation three years after the mediation								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
D_i	-0.031***					-0.381***	-0.370**	-0.367***	-0.365***
	(0.011)					(0.144)	(0.144)	(0.128)	(0.124)
$I_{i,d}$		-0.259***	-0.249***	-0.249***	-0.249***				
		(0.081)	(0.081)	(0.072)	(0.069)				
N	15,476	15,476	15,476	15,476	15,476	15,476	15,476	15,476	15,476
R2	0.13	0.037	0.065	0.11	0.13	.	.	.	.
F-statistics						45.7	46.5	46.1	46.4
Border FE	X	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X	X
Quarter × Border FE	X			X	X			X	X
Age FE	X				X				X
Size FE	X				X				X
Controls	X		X	X	X		X	X	X

Note: These two tables report the impact of the mediation on liquidation 1 year (Panel A) and 3 years (Panel B). after the mediation. The dependent variable takes the value one if the firm is either in a chapter 7 type of bankruptcy ("liquidation"), 0 otherwise. The sample is made of firms that are at the border of a French county. Column (1) reports the OLS regression of being eligible on liquidation. Column (2) to (5) contain the direct regression of our instrument $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$, on bankruptcy proceedings. Finally, column (6) to (9) report the two stage least squares regression where eligibility is instrumented by our instrument $I_{i,d}$. The controls include the following variables: whether the firm is under a bankruptcy proceedings, whether it was under such an event 2 years before the mediation, firms level characteristics at the day of the mediation such as total sales (in log), total assets (in log), financial debt (over total asset), tangible asset (over total asset), operating income (over total asset) and interest coverage, a dummy that takes the value one is one control was imputed by the tax authority. Standard errors are clustered at the department level.

Table 7: Quantification Of The Cost

Labor cost	Other function costs	Total costs
50 000	1,329,250	27,914,250
50,000	2,658,500	29,243,500
50,000	7,975,500	34,560,500
60,000	1,595,100	33,497,100
60,000	3,190,200	35,092,200
60,000	9,570,600	41,472,600
70,000	1,860,950	39,079,950
70,000	3,721,900	40,940,900
70,000	11,165,700	48,384,700

Note: This table reports the estimates of the total cost of the program. We observe the full-time equivalent employee of the program. Therefore, given an assumption on the average annual wage of one full-time equivalent employee and on the other function cost of the program, we can have an estimate of the total cost of the program. We assume that the function cost takes a fraction of the total labor cost (either 5%, 15% or 30%).

Table 8: Role of multi-lender banks

Panel A: Impact on bankruptcy proceedings according to the initial number of lenders

Dependent variable: bankruptcy proceedings three years after the mediation

	Split sample				Interaction IV		Interaction RF	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
D_i	0.066	-0.727**	-0.114	-0.755**	-0.119	-0.198		
	(0.184)	(0.337)	(0.174)	(0.298)	(0.184)	(0.168)		
$D_i \times$ multiple banks					-0.483**	-0.352*		
					(0.209)	(0.191)		
$I_{i,d}$							-0.015	-0.081
							(0.125)	(0.120)
$I_{i,d} \times$ Multiple banks							-0.410**	-0.310
							(0.197)	(0.194)
Multiple banks					0.401**	0.333**	0.310**	0.270**
					(0.157)	(0.145)	(0.135)	(0.132)
N	5,039	4,165	4,966	4,082	9,221	9,186	9,221	9,186
F-statistics	22.6	16.6	22.5	20.1	.	.	.	.
Border FE	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X
Quarter $\times$ Year FE			X	X		X		X
Age FE			X	X		X		X
Size FE			X	X		X		X
Controls	X	X	X	X	X	X	X	X

Note: The variable *Multiple banks* takes the value of one if the firm borrows from more than one lender at the time of the mediation and 0 otherwise. Columns (2) and (4) replicate our baseline specification of table 5 on the sample of firms that have more than one lender at the time of the mediation, while Columns (1) and (3) perform the same exercise on the sample of firms that borrow from one lender at the time of the mediation. The goal of columns (5) to (8) is to investigate whether this difference is significant. Specifically, columns (5) and (6) contain the estimates of the triple interactions of our instrument with the variable *Multiple banks*, where the interaction $D_i \times$ Multiple banks is instrumented by $I_{i,d} \times$ Multiple banks. Columns (7) and (8) show the direct interaction with the instrument and the eligibility variable.

ONLINE APPENDIX

Table A.1: Interior Versus Border

|	Border group	Interior group	Diff.	p
log(assets)	4.97	4.99	-0.018	0.053
log(age)	1.96	1.91	0.043***	0.014
log(revenues)	5.10	5.16	-0.061	0.039
D/A	0.59	0.60	-0.019***	0.004
Interest coverage	-0.42	-0.65	0.236	0.199
VA/Sales	-0.02	-0.02	0.001	0.004
Tangibles/A	0.28	0.27	0.006	0.017
Trade debt/Revenues	0.15	0.15	0.001	0.003
Wages/Revenues	0.22	0.22	-0.004	0.006
Labor intensity	0.32	0.34	-0.020***	0.005
Revenues/Assets	1.60	1.66	-0.053**	0.025
0 employees	0.46	0.45	0.008	0.007
1-9 employees	0.37	0.38	-0.003	0.006
10+ employees	0.17	0.17	-0.005	0.007
Primary sector	0.05	0.03	0.019**	0.009
Manufacturing sector	0.30	0.31	-0.006	0.030
Service sector	0.61	0.62	-0.004	0.042

Note: This table shows the descriptive statistics between firms that are located at the border of a county with those that are not. A zipcode is at the border if it is adjacent to the border or has its centroid at least 5 kilometers (3,11 miles) from the centroid of another zipcode located at another border. Differences are clustered at the county level.

Table A.2: Participation in the mediation program: heterogeneity by year
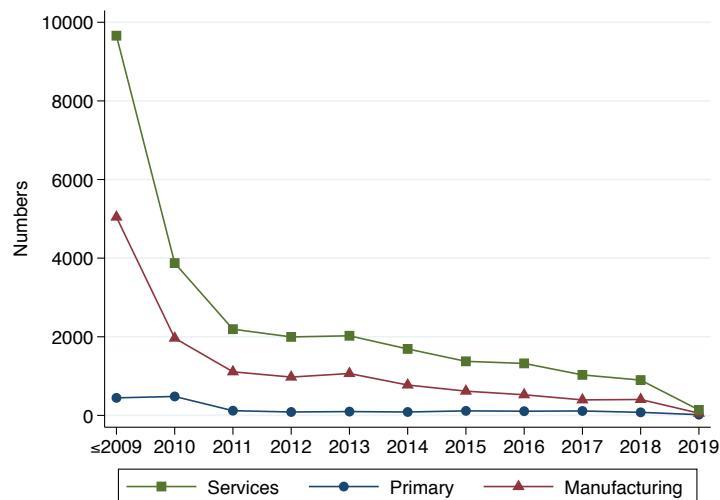
Panel A:
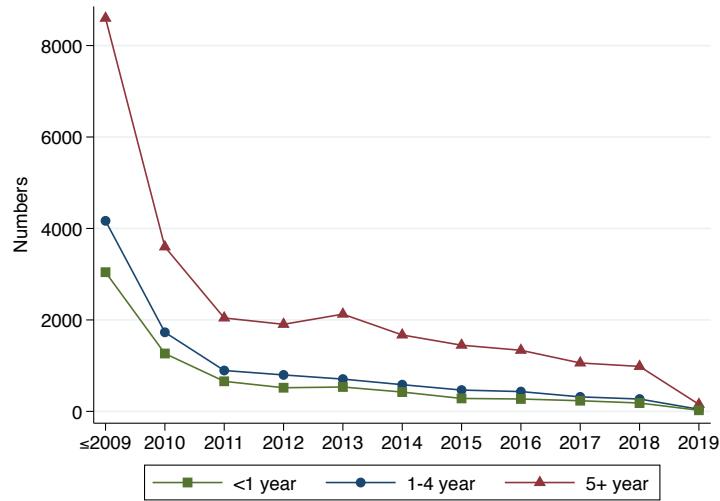
Panel B
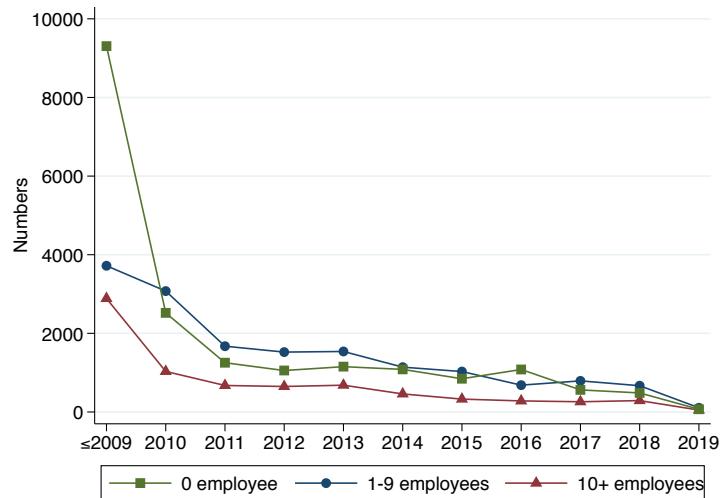
Panel C

Table A.3: Robustness Tests (1/3)

	SCR		FARE		SCR and FARE		Adding department 46	
	Dependent variable: bankruptcy proceedings three years after the mediation							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
D_i	-0.436 **	-0.450 **	-0.409 ***	-0.384 ***	-0.404 **	-0.368 **	-0.357 ***	-0.369 ***
	(0.199)	(0.179)	(0.151)	(0.142)	(0.182)	(0.159)	(0.123)	(0.107)
N	9,977	9,932	11,638	11,605	7,539	7,468	15,519	15,502
F-statistics	33.4	33.3	37.3	36.7	27.0	29.9	65.1	64.5
Border FE	X	X	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X	X	X
Quarter × Border FE		X		X		X		X
Age FE		X		X		X		X
Size FE		X		X		X		X
Controls	X	X	X	X	X	X	X	X

Note: This table replicates our baseline results on different ways to construct our sample. All regressions are two-Stage least squares (2SLS) of the impact of being eligible to the program on bankruptcy proceedings three years after the mediation, where the eligibility is instrumented by $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The dependent variable of bankruptcy proceedings takes the value one if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement") three years after the mediation and zero otherwise. Specifically, Columns (1) and (2) contain the results when the SCR-mediation matched sample is used. Similarly, columns (3) and (4) when the FARE-mediation sample is used. Finally columns (5) and (6) contain the results of the full intersection, that is when the SCR-FARE-mediation matched sample is used. Finally, column (7) and (8) replicate the baseline results when the department 46 is added.

Table A.4: Robustness Tests (2/3)

| | Dependent variable: bankruptcy proceedings three years after the mediation | | | | | |
| | Adjacent only | | 7km | | 10km | |
	(1)	(2)	(3)	(4)	(5)	(6)
D_i	-0.389***	-0.429***	-0.379***	-0.374***	-0.299**	-0.323***
	(0.146)	(0.135)	(0.143)	(0.122)	(0.130)	(0.113)
N	12,586	12,554	16,262	16,248	17,144	17,132
F-statistics	46.6	49.0	47.1	47.4	58.8	59.4
Border FE	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X
Quarter $\times$ Border FE		X		X		X
Age FE		X		X		X
Size FE		X		X		X
Controls	X	X	X	X	X	X

Note: This table replicates our baseline results using different ways in selecting our firms at the borders. All regressions are two-Stage least squares (2SLS) of the impact of being eligible to the program on bankruptcy proceedings, where the eligibility is instrumented by $I_{i,d}$ that is defined for the department d and firm i as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - the firm } i}{\text{Number of files received at the subsidiary } d \text{ - the firm } i}$. The dependent variable of bankruptcy proceedings takes the value one if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement"), 0 otherwise. Specifically, Columns (1) and (2) contain the results when we restrict the analysis to zipcode that are strictly adjacent to the border. Columns (3) and (4) show the results by selecting zipcodes that are either adjacent or if a zipcode has its centroid at least 7 kilometers from the centroid of another zipcode located at another border. Finally, columns (5) and (6) use a distance of 10 kilometers instead of 7 kilometers.

Table A.5: Robustness Tests (3/3)

	Residualized		Leave out firm's zipcode		Both	
	(1)	(2)	(3)	(4)	(5)	(6)
D_i	-0.337**	-0.374***	-0.381**	-0.337***	-0.271**	-0.329***
	(0.137)	(0.129)	(0.148)	(0.115)	(0.121)	(0.116)
N	15,476	15,476	15,476	15,476	15,476	15,476
F-statistics	47.8	45.6	48.8	45.4	56.9	55.0
Border FE	X	X	X	X	X	X
Quarter FE	X	X	X	X	X	X
Quarter $\times$ Border FE		X		X		X
Age FE		X		X		X
Size FE		X		X		X
Controls	X	X	X	X	X	X

*Dependent variable: bankruptcy proceedings three years after the mediation*

Note: This table replicates our baseline results using different ways to construct our instrument. The dependent variable of bankruptcy proceedings takes the value one if the firm is either in a chapter 7 type of bankruptcy ("liquidation") or in a chapter 11 type ("restructuration" and "redressement"), 0 otherwise. Column (1) and (2) purge the instrument from a quarter-year fixed effect. Column (3) and (4) contain the results when the instrument for department d and firm i located in the zipcode z as is defined as follow: $\frac{\text{Number of files accepted at the subsidiary } d \text{ - all firms in zipcode } z}{\text{Number of files received at the subsidiary } d \text{ - all firms in zipcode } z}$. Finally, column (5) and (6) Residualize the previous instrument.

Figure A.1: Impact Of The Mediation On Bankruptcy Proceedings
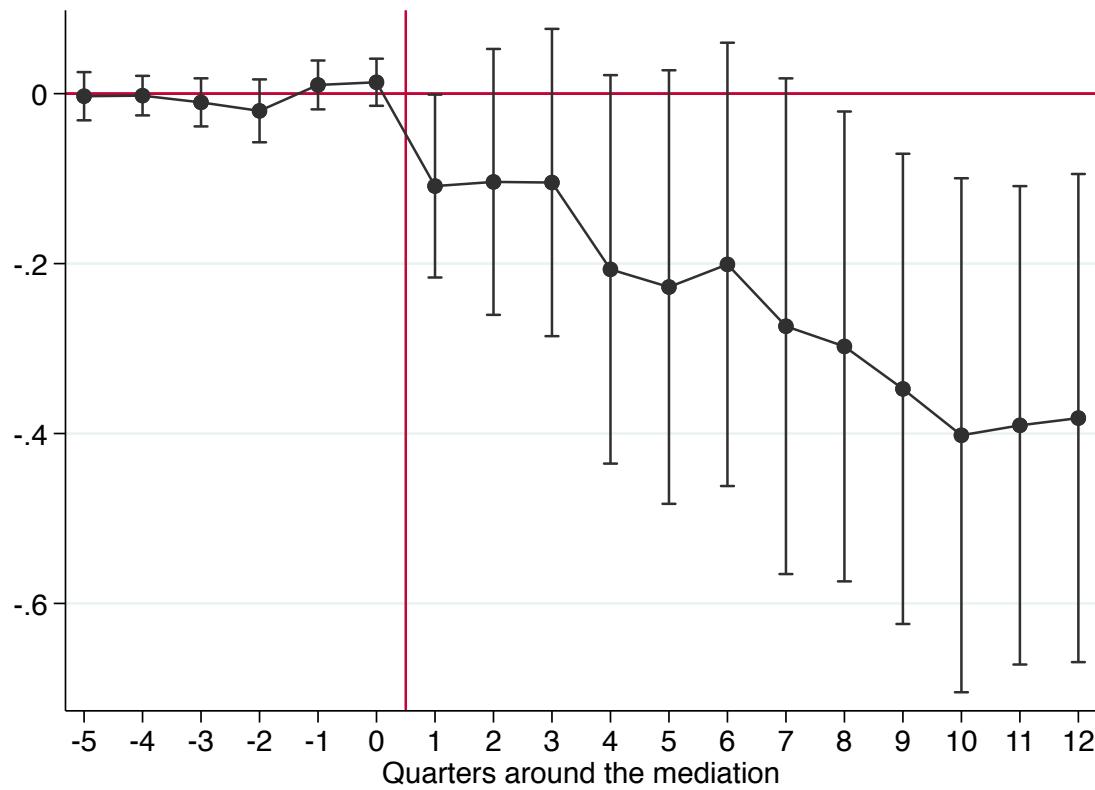
These figures replicate the baseline exercise of figure 4 when no controls are added.

Figure A.2: Robustness: Impact Of The Mediation On Real Outcomes (1/3)

Panel A: Total Assets

Panel B: Tangible Investment

Panel C: Employment

Panel D: Sales
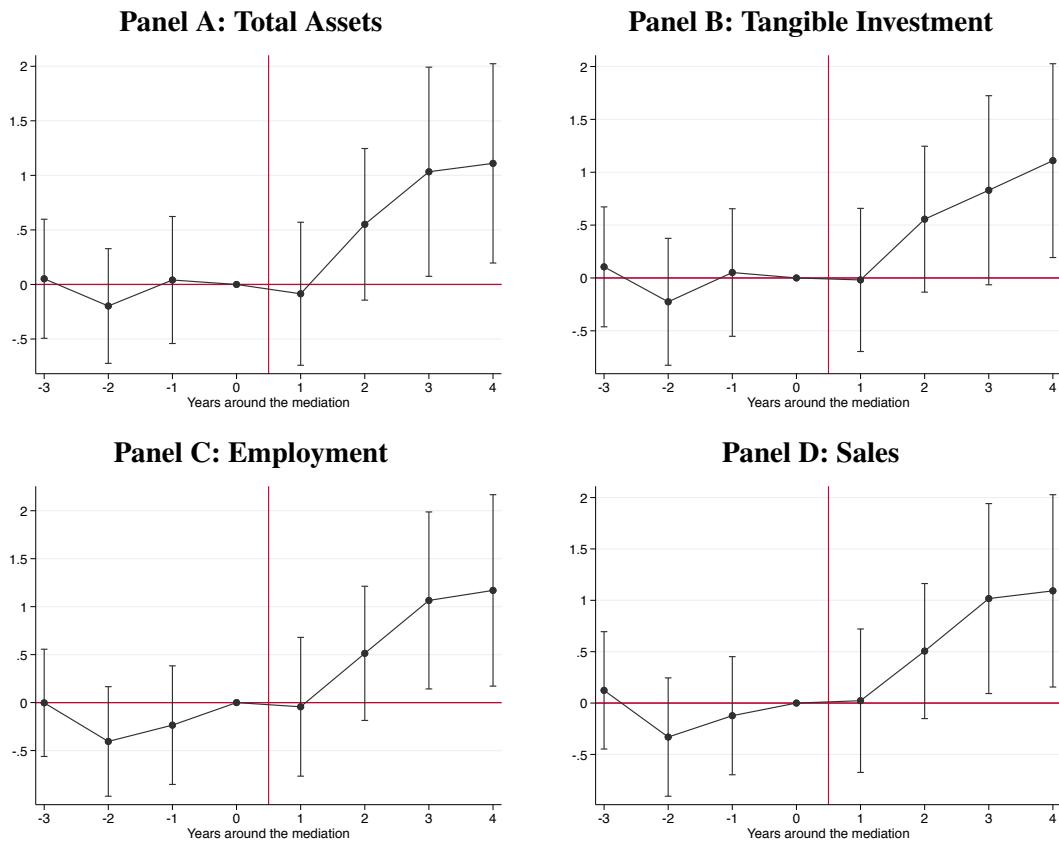
Note: These figures replicate the baseline exercise of figure 6 when no controls are added.