Bankruptcy Costs and the Design of Preventive Restructuring Procedures

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Abstract

This paper measures the indirect costs of public Court-supervised bankruptcy filings in France. Due to self-fulfilling expectations, these indirect costs are likely all the more serious when the track-record of the bankruptcy procedure is poor. We take advantage of the co-existence of two Court-supervised debt-restructuring bankruptcy procedures that yield radically different results in term of firm survival. Our identification strategy relies on the heterogeneity in Commercial Courts' decisions to convert cases from the preventive restructuring procedure to the more common one. Using an (almost) exhaustive sample of bankruptcy filings in France over the 2010-2016 period, we show that conversion to the worst procedure reduces the probability of firm survival by 60 pp. This corresponds to an indirect cost of bankruptcy of between 20% and 30% of firm assets. We discuss the lessons that can be drawn for the design of preventive restructuring bankruptcy procedures.

JEL Classification : G33, K22.

Keywords : Corporate Bankruptcy, Costs of Bankruptcy, Law and Economics, Preventive Restructuring.

1 Introduction

Firms filing for bankruptcy with the aim of renegotiating their debt have to convince their clients, trade creditors, employees and suppliers to carry on doing business with them. Failing to do so increases their financial weakness and further reduces their chances of renegotiating their debts. The costs associated with worse stakeholder relationships are part of the indirect costs of bankruptcy.[1] These indirect costs are difficult to measure, but are commonly-viewed in the literature as being substantial, at up to 20% of firm asset value.[2] This paper contributes to this literature by measuring the indirect costs attached to a "Redressement Judiciaire", the most common debt-restructuring bankruptcy procedure in France. The central hypothesis is that, due to self-fulfilling expectations, these indirect costs are likely to be all the more serious when the track-record of the bankruptcy procedure is poor. A debt-restructuring bankruptcy procedure available to weak firms, in which the chances of restructuring are poor and liquidation the likely outcome, will have a bad track-record in terms of the probability of reaching a deal with creditors. In turn, the procedure's bad track-record, by discouraging some or all of the firm's stakeholders, may increase the indirect bankruptcy costs of firms that enter this procedure with better financial prospects.

We test this hypothesis by taking advantage of the coexistence in France of two Court-supervised debt-restructuration bankruptcy procedures: the Redresssement Judiciaire (RJ) for insolvent firms and the "Sauvegarde" procedure available to firms that are not yet insolvent. These two bankruptcy procedures yield radically-different results in term of the success of debt restructuring. We use the fact that Commercial Courts convert some cases from the "good" bankruptcy procedure (Sauvegarde) to the "not as good" one (RJ) to identify the indirect costs of RJ. The identification strategy relies on the heterogenity in the Court × Year conversion rates. We apply our identification strategy to an (almost) exhaustive sample of Sauvegarde

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[1]These indirect costs arise due to inter- or intra-group conflicts of interest, asymmetric information, hold-out problems, lost sales and competitive positions, higher operating costs, and the ineffective use of management time (Altman (1984), Opler and Titman (1994), Bris et al. (2006), Almeida and Philippon (2007)).

[2]Observing and measuring indirect bankruptcy costs is difficult, and economists have to design methods to infer them. Given the variety of methods and natural experiments used in this context, the comparison of the estimated size of indirect bankruptcy costs is not straightforward. These have been estimated at between 10% and 23% of firm value given default (e.g. Andrade and Kaplan (1998), Bris et al. (2006), Hotchkiss et al. (2008), Davydenko et al. (2012)); these contributions infer bankruptcy costs from market prices.

bankruptcy filings in France over the 2010 - 2016 period and their outcomes up to 2018.

Our paper also contributes to the debate on the design of preventive bankruptcy procedures. A recent EU directive aims to introduce a Court-supervised 'preventive restructuring' procedure in each EU country. Akin to the French Sauvegarde procedure, this will be made available only to firms that are not yet insolvent. This has been criticized on the grounds that, on the one hand, it will be prone to abuse by firms that will strategically file for preventive restructuring and, on the other hand, that firms entering the procedure might end up in the regular bankruptcy procedure if they become insolvent.[3] These points are relevant, but they overlook the potential benefits associated with higher rates of successful restructuring and the associated lower indirect bankruptcy costs this implies. This is what we estimate here.

Two bankruptcy procedures The main bankruptcy procedure available to French firms seeking a debt-restructuration deal with their creditors is known as the Redressement Judiciaire (RJ). This dates in its current form from 1985. In many dimensions the RJ is similar to the US Chapter 11 procedure, differing only in that only firms that are already in a precarious financial situation can (and must) file for it, or file directly for Liquidation. Depending on the economic situation, between 30,000 and 50,000 firms enter an RJ each year. After an observation period that can last for up to 18 months, the firm either reaches an agreement with its creditors to restructure its debt or is liquidated.[4] This bankruptcy procedure has a low firm-survival rate. In the dataset we construct, of all initial RJ filings[5] in France over the 2008 - 2016 period (and their outcomes up to December 2018), only around 30% of firms entering RJ manage to restructure their debt, with the others being liquidated. Creditors recovery rates are much lower in Liquidation than in RJ.[6] Due to this low RJ survival rate, a firm filing for RJ will immediately be viewed as fragile by its suppliers, creditors, clients and employees.

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[3]See Becker (2019).

[4]In Liquidation, the firm's assets are either sold to a single buyer with the aim of keeping the firm as a going concern (potential buyers compete by sending bids to the Court, which then chooses amongst them), or put on the market as the firm is wound down.

[5]That is, all firms which entered directly into RJ status rather than initially entering into Sauvegarde and then being converted into RJ.

[6]Data on the recovery rates for creditors are difficult to find, Blazy et al. (2018) calculate that, in a small sample of 264 cases opened in the Paris Commercial Court, the recovery rates in Liquidation are as low as 34.9% for secured creditors and 5.0% for unsecured creditors, as compared to 75.5% and 73.1% respectively in continuation.

In 2006, a new court-supervised bankruptcy procedure, called Sauvegarde (Safeguarding) was introduced into French Commercial Law. This new procedure aims to give firms time to restructure their debts and business before they reach the poor financial situation that triggers RJ filing. Although most of the Law's provisions in this bankruptcy procedure are similar to those for RJ, Sauvegarde has better results: in our dataset, around 65% of firms filing for Sauvegarde manage to restructure their debts. This higher restructuration rate is directly linked to the better financial situation of Sauvegarde filers; it might also reflect pro-active managers who are willing to act early to solve firm financial difficulties rather than waiting for insolvency to enter RJ. It could also reflect some or all stakeholders evaluating the Sauvegarde procedure in a more positive way than RJ.

Identification strategy   To measure the indirect costs of RJ, we use the fact that a significant share of Sauvegarde cases are subsequently converted into RJs by Courts. This allows us to use data only on bankruptcy cases that started as Sauvegarde, thus avoiding the selection bias associated with Sauvegarde filing relative to RJ filing. The firm's assignment to a Commercial Court is based on the location of the firm's headquarter, preventing firms from forum-shopping. The Court can convert a Sauvegarde case to an RJ if the assessment of the firm's financial situation reveals that it is already insolvent or on the verge of insolvency. However, the exact trigger for conversion may be interpreted differently across Commercial Courts and over time. 12.7% of Sauvegarde cases that were opened over the period 2010 - 2016 were subsequently converted into RJ. We find considerable heterogeneity in this yearly conversion rate over the 134 French Commercial Courts, ranging from 0% to 100%; this gap remains substantial when we control for local firm characteristics and economic conditions. Part of this heterogenity may come from the turnover[7] of lay Judges[8]. We use this heterogeneity in Court × Year conversion rates to construct an instrument to identify the impact of conversion on the probability of successful debt-restructuring.

Our identification strategy builds on a number of empirical papers using heterogeneity in

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[7]Commercial Court Judges in France are non-professional, elected from local business leaders and executives for a limited period of time. There is a partial yearly turnover in these lay Judges.

[8]See also Iverson et al. (2019) for the role of Judges' experience in the outcome of bankruptcy procedure.

judicial decisions as instruments to measure the impact of decisions. For example Bernstein et al. (2019a) and Bernstein et al. (2019b) use the Judge conversion rate of Chapter 11 to Chapter 7 cases to explain the reallocation of assets and bankruptcy spillovers. In a different field, Maestas et al. (2013) use examiner heterogeneity in granting disability benefits to measure the impact of receiving these benefits on labor supply. Their identification strategies are based on the random allocation of Judges or examiners to cases. Unlike these contributions we do not have data on Judges but only on Commercial Courts, and the allocation of bankruptcy cases to Courts is not random as it depends on the firm's headquarter's location. To ensure that our instrument is valid, we carry out a number of empirical tests to show that we are actually close to random assignment once we control for firm-specific characteristics and local economic conditions.

Results Overall our empirical results suggest that the indirect costs associated with RJ are high, at between 20% and 30% of the total book asset value of the firm. Conversion to RJ significantly reduces the chance of debt restructuration by between 47% to 76%. The exclusion restriction is validated by checking that the probability of reaching a debt-restructuring agreement for firms that enter RJ directly is not correlated with the instrument. We carry out various robustness checks, none of which affect the results. Perhaps the most interesting of these robustness tests uses the fact that, given administrative boundaries, some firms are not assigned to their closest commercial Court. We show that the Court that matters for them is their assigned Court and not the closest Court. This allows to rule out any remaining concern that our results are driven by the local economic characteristics that firms face.

Lessons for the Design of Preventive Restructuring Procedures At the time the Sauvegarde procedure was introduced into French Commercial Law, efforts were made to separate the Sauvegarde and RJ procedures as far as possible. For example, even though the Sauvegarde procedure looks like that for the RJ, each procedure is subject to a separate Article in the Bankruptcy Act. Also, the Banque de France in its monthly bulletin on new defaulting

firms does not count Sauvegarde filings.[9] Last, it is common for newspapers reporting on the opening of a new Sauvegarde procedure to run short articles explaining why the Sauvegarde procedure is better than that of the RJ.[10] This strategy of having a separate procedure, rather than just extending the existing RJ procedure to firms that are not yet insolvent, was clearly aimed at protecting the new procedure from the bad reputation of the RJ. Our results tend to confirm that this was a good idea. The current EU directive takes the same approach.

The remainder of the paper is organized as follows: Section 2 presents the two French bankruptcy procedures and our original dataset. Section 3 discusses the heterogeneity of Commercial Courts in France, and Section 4 then presents the identification strategy and the first-stage results. Section 5 contains our main econometric results, a discussion of their implications and the robustness checks. Last, Section 6 concludes.

2 Bankruptcy procedures in France and their outcomes

2.1 Bankruptcy procedures

There are two different procedures for a firm seeking Court-supervised debt restructuring in France: Sauvegarde and RJ. The main difference between the two is the extent of the financial difficulties that the firm faces. An insolvent firm has access to RJ, while a firm that is not (yet) insolvent but can prove that it is facing serious financial problems has access to Sauvegarde. Table 1 summarizes the main features of the two procedures, both of which resemble the US Chapter 11 bankruptcy procedure.[11] In addition to these two procedures there exists a standard Liquidation procedure (akin to the US Chapter 7).

The RJ procedure

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[9]The figures presented in this "Stat Info" cover RJ and Liquidations, as of the date of judgement, insofar as these collective proceedings give rise to the filing of a declaration of cessation of payment, which is not the case for the opening of Sauvegarde proceedings. Translated by the authors from `https://www.banque-france.fr/sites/default/files/media/2018/11/13/methode_stat_info_defaillances_9-juin-2016.pdf`.

[10]See for example, "La sauvegarde, une procédure collective pour prévenir des difficultés", *Les Echos*, May 24th 2019.

[11]For additional comparisons between American and French bankruptcy procedures, see Plantin et al. (2013).

French Commercial Law is such that a firm that cannot meet its payment obligations is considered insolvent if these are not covered by its liquid assets. Unless it starts an out-of-court restructuration, an insolvent firm has to file for an RJ within 45 days to start a debt-restructuring process with its creditors. In practice, some insolvent firms do not respect this 45-day limit, and here the firm's creditors, as well as the Court itself, can bring the case before the Court to trigger an RJ. Insolvent firms can also file directly for Liquidation.

Once the firm files for RJ, it is protected from its creditors and the payments of interest and principal are suspended. The firm also has access to a loan to pay up to three months of wage arrears to its employees.[12] There is a six-month observation period to assess the financial situation of the firm. During this period a Court-appointed Receiver is in charge of establishing the list of the firm's liabilities. The Court also nominates an Insolvency Administrator who monitors the firm's day-to-day operations, notably all of its financial transactions as well as some major restructuration decisions (firing employees, selling assets etc.). The Administrator can also prevent the firm manager from undertaking actions that would reduce the firm's asset value. The Administrator and the Receiver negotiate with creditors to establish a debt-restructuration plan. The observation period can be renewed twice, and so lasts for a maximum of 18 months. At any time during the observation period, the Court can accept (or reject) a debt-restructuration plan negotiated with creditors. The typical plan is a mixture of debt-rescheduling (up to a 10-year horizon) and a haircut (if, given the option, some creditors prefer an immediate partial payment to settle the final balance over rescheduling). If the situation deteriorates further during the observation period and/or there is no hope of reaching an agreement with creditors, the Court can decide to liquidate the firm. Liquidation can take two forms. In the most abrupt form, the firm's assets are sold on the market, with the proceeds going to the firm's stakeholders according to priority rules (with employees having the highest priority for unpaid wages). A smoother form of liquidation consists in the opening of a bidding process for all or part of the firm's assets and some or all of its employees, with the view to keeping at least part of the firm as a going concern. The Court receives bids from potential buyers and chooses amongst them.

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[12]This scheme is funded by a mandatory contribution based on each private firm's wage bill. At the macro level, the contribution rate is adjusted so as to keep the fund balanced. Since July 2017, this rate has been 0.15%.

If there are no buyers, or the Court rejects all of the offers, the firm ceases operations, its assets are sold, and stakeholders are reimbursed according to the same priority rule as above.

The Sauvegarde procedure

In 2006, in order to allow earlier debt restructuration, a new bankruptcy procedure was introduced in French Commercial Law[13], known as the Sauvegarde procedure. Firms can file for Sauvegarde if they are not (yet) insolvent but face financial difficulties that they consider impossible to overcome without debt restructuration. After a rapid background check of the firm's financial situation, the Court accepts (or rejects) the Sauvegarde filing. Sauvegarde filing can be rejected if the firm appears to already be insolvent (in which case an RJ procedure is opened) or, on the contrary, if the Court considers that the financial situation does not require debt restructuration.

Once the Sauvegarde filing is accepted by the Court, the steps are quite similar to that of the RJ procedure: it is public,[14] the six-month observation period is twice-renewable, and the Court appoints a Receiver. The Court can also appoint an Administrator, and is required to do so for the largest firms (in RJ, the Court appoints an Administrator regardless of firm size). The role of the Administrator is less important in Sauvegarde than in RJ: he/she only assists the manager and cannot make decisions without the consent of the manager, whereas he/she can in RJ. An important difference between the Sauvegarde and RJ procedures is that in Sauvegarde the firm does not have access to a loan from the insurance scheme to pay for wage arrears. Table 1 summarizes the main features of the two procedures.

Conversion from Sauvegarde to RJ

As stated by the Law, the Court can convert a Sauvegarde case into an RJ at any moment in time during the observation period if the assessment of the financial situation reveals that the firm was already insolvent at the time it filed for Sauvegarde, has become insolvent or is currently on the verge of insolvency. The Court will consider conversion at the request of the

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[13]The bankruptcy protection act of July 26th 2005 came into force on January 1st 2006.

[14]All openings of bankruptcy procedures (Sauvegarde, RJ and Liquidation), as well as all of the main Court decisions during the procedures, are available in a daily publication that has appeared online since 2008.

Administrator, the Receiver, the Public Prosecutor's Office or (since September 2014) the firm itself. Up to July 2014, the Judge him- or herself could carry out this conversion.

Discussions with various bankruptcy-procedure stakeholders have led us to think that, in practice, there are (at least) three different situations that can potentially trigger a conversion decision. In the first, a careful examination of the firm's financial accounts, often with the help of Chartered Accountants appointed by the Court, raises doubts that the firm was still solvent at the time it filed for Sauvegarde. In the second situation, the firm runs out of cash during the observation period and defaults on the financial obligations it contracted after filing for Sauvegarde. In addition to these two situations, which fit the wording of the Law fairly well, a third situation was once mentioned during our discussions with stakeholders: the Court may consider that the measures being taken by the debtor are endangering the firm. The Court then converts the case to an RJ so as to appoint an Insolvency Administrator of its choice to run the company. It is worth noting that the conversion of Sauvegarde to RJ does not grant access to the loan to pay for wage arrears (whereas direct RJ entry does).

2.2   Data and bankruptcy-procedure outcomes

The data used here come from bankruptcy filings contained in the *Bulletin Officiel d'Annonces Civiles et Commerciales* (BODACC), provided by the registry offices of the Commercial Courts. This information is public and is available in electronic form since January 2008, with one electronic file per business day.[15] We constructed a dataset of all bankruptcy filings in France over the 2010 - 2016 period and followed their outcomes up to December 2018. Our dataset contains 315,345 filings:[16] 8,070 Sauvegarde filings, 96,105 RJ filings and 220,573 direct Liquidations. We are able to follow-up 7,927 Sauvegarde cases (98%) and 95,029 RJ cases (99%). By definition, there is no follow-up for Liquidations. From BODACC, we are able to gather information on the firm's address, the Commercial Court in charge of the case, and the dates of filing and the subsequent main judgements by the Court (renewal of the observation period, agreement of

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[15]See https://www.data.gouv.fr/fr/datasets/bodacc/.

[16]These numbers are below those reported by Altares, a privately-owned company that produces statistics on bankruptcy filings in France. Our sample is restricted to Commercial Courts. As such, it excludes bankruptcy filings from farmers, the self-employed and professional practices. It also excludes Courts in three French metropolitan Départments as well as overseas territories (see footnote 20).

debt restructuration with creditors, liquidation etc.). We can notably identify the Sauvegarde cases that are converted to RJ.

We complement these data with firm economic and financial information from the balance sheets and income statements made available by INSEE, the French Statistical Office, over the 2009 - 2015 period. This provides us with the last available information on the firm before it filed for bankruptcy, including data on the number of employees, total assets and their structure (financial, tangible and intangible), total debt and its structure (bank, suppliers and other), interest payments, total sales, operational income, industry, age, legal status and so on. After matching, our sample contains 6,334 Sauvegarde cases, 805 (12.7%) of which were converted to RJ, and 66,927 RJ filings, of which 39,607 were voluntary filings (and the others triggered by either creditors or the Court itself:[17]).

Summary statistics

Table 2 presents a breakdown of the number of Sauvegarde filings in our sample per year over 2010 - 2016. The number of filings increased steadily until 2013 up to slightly over 1,000 cases per year, stabilized in 2014 and then fell below 800 in 2016. Over the period 2010 - 2016, Sauvegarde filings represent between 10.7% and 13.3% of court-supervised reorganisations. The vast majority of court-supervised reorganisations are RJ procedures.

The outcomes of the Sauvergarde procedure are summarized in Table 3. Over 2010 - 2016, 64.4% of the firms filing for Sauvegarde restructured their debt (column (1)), a figure twice that of RJ (column (5)). From this point of view, the Sauvegarde procedure has a similar percentage of restructuration deals as US Chapter 11.[18] 62.4% of the firms that reached a deal with their creditors in Sauvegarde are still operating five years after the deal, while this is the case for only 41.4% of RJ firms. These numbers do not however necessarily prove the superiority of Sauvegarde over RJ, as firms entering these two bankruptcy procedures do not start with the same level of financial distress. By design, firms filing for Sauvegarde have less-severe

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[17]The information regarding the nature of the RJ filing is provided by The Conseil National des Mandataires Judiciaires et Administrateurs Judiciaires, an association of Court-appointed Receivers and Insolvency Administrators.

[18]Bernstein et al. (2019b) note that in their large sample around 40% of Chapter 11 cases were converted to liquidation.

financial problems than those filing for RJ. They may also have unobservable characteristics distinguishing them from those filing for RJ that affect the outcome of the bankruptcy procedure: being more proactive or having a better-informed management. Our identification of the effect of RJ will thus examine the fate of firms that initially filed for Sauvegarde and were subsequently converted into RJ by the Court.

Amongst the Sauvegarde filings over the 2010 - 2016 period, 12.7% were subsequently converted into RJ. For firms whose Sauvegarde filings were converted into RJ, the probability of reaching a restructuration agreement with their creditors is 23.2%, a rate similar to that for voluntary RJ filings (25.5%) and much lower than that of firms whose Sauvegarde filings were not converted into RJ (70.4%). For firms that manage to restructure their debt, the two-year survival rate for firms converted to RJ is 83.7%, and about the same for cases that remained in the Sauvegarde procedure up to the end (80.4%). The analogous five-year survival rates are 52.4% and 62.4% respectively, with the difference being statistically significant.

Regarding the financial and economic situation of our sample firms, those whose Sauvegarde filing is converted into RJ are on average older than the firms whose Sauvegarde filings are not (13.6 versus 11.3 years old), have more supplier debt (29.4% of their total debt vs. 26.0%), lower fixed assets (49.3% of their total assets vs. 54.6%) and are more likely to be labelled as "zombies"[19] (66.2% vs. 57.2%). A simple test of the equality of means reveals that these differences are statistically different from zero (see column (4) of Table 3).

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[19]We qualify a firm as being a "zombie" if its financial obligations were greater than its operational income the year before the filing. Our definition is slightly different from that used by the OECD (see Adalet McGowan et al. (2017)), for which "zombie" firms are over ten years old with financial obligations greater than operational income for over three consecutive years.

3 Heterogeneity in Commercial-Court decisions

3.1 Commercial Courts and Lay Judges

There are currently 134 Commercial Courts and 28 Courts of Appeal spread out over France.[20]
There is at least one Commercial Court in each of the 95 *Départements*, with some *Départements*
having two or even three. These Courts deal with bankruptcy proceedings for companies and
commercial disputes, with the former representing 20% of the cases they hear. In bankruptcy
hearings, the firm is assigned to a Court according to the firm's headquarters' location, and
there is no possibility of forum shopping by either the firm or its creditors. Note that, given
administrative boundaries, firms are not necessarily assigned to the closest Commercial Court,
a fact that we will exploit later for identification purposes.

There are around 3,000 commercial Lay Judges. These are chosen from business leaders
and executives and elected by them. Judges are unpaid volunteers, they sit only one or two
half-days per week and carry on with their normal business activities the rest of the time. For
obvious reasons, they cannot work on cases related to their own business. Each Judge is initially
elected for a two-year mandate, and can then be re-elected three times for a four-year mandate
(for a maximum service of 14 years). There is one election per year at the Court level, and the
mandates start in early January. There is thus regular turnover amongst Judges. Judges receive
legal training both after being chosen and during their term of office. A typical hearing involves
more than one Judge, as Courts are organized by Chambers. Each case is allocated to a specific
Judge[21], but decisions are taken by the Judges of the Chamber in a collegiate manner. Judges
elect amongst them the President of the Court as well as two vice-Presidents for a four-year
mandate that is not renewable.

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[20]While French Commercial Law does not differ from one Court to another, we exclude some parts of France
from our research: the Courts in three *Départements* (Moselle, Haut-Rhin and Bas-Rhin) as, for historical
reasons, they operate somewhat differently from Courts in the rest of the country, and overseas *Départements*
and Territories for the same motive. Esquerré (2019) shows that Courts in Alsace-Moselle deal differently with
bankrupt firms.

[21]Note that the name of the Judge to whom the case is assigned is not available in our database.

3.2 Heterogeneity

Our identification strategy, which we present in Section 4, is based on the observation that while French Bankruptcy Law is national, its interpretation can differ from one Court to another and over time. This is especially true for the conversion decision from Sauvegarde to RJ, which is based on the notion of insolvency or "closeness to insolvency". Here insolvency means that short-term debt is greater than the firm's liquid assets. There is some room for interpretation of the firm's financial situation, as not only the valuation of the firm's liquid assets but also the meaning of "close to insolvency" can differ from one Court to another (depending, for example, on their Chartered Accountants). In addition, the Courts' interpretation of the Law may vary over space and time, notably because of the regular arrival of inexperienced Judges. Iverson et al. (2019) show that, in the United States, the outcome of bankruptcy procedures varies with the Judges' experience. Our instrument relies on these heterogeneities, which we will discuss below.

Court heterogeneity

There is great heterogeneity amongst Commercial Courts, both in terms of their size and the outcomes of the procedures. Regarding heterogeneity in Court size, Table 4 shows that, over the 2010 - 2016 period, on average around 2,414 new bankruptcy cases (direct Liquidations, RJs and Sauvegardes) were opened in Court, with the smallest Court registering only 273 cases and the largest one almost 20,000. The smallest Court has only 9 Judges and the largest 180. The share of Sauvegarde filings amongst restructuration filings (that is, excluding direct Liquidations) is on average 8.1% but with considerable variation, with one Court registering 32.6% of Sauvegardes. Regarding outcomes, heterogeneity between Courts is larger for Sauvegardes than for RJs. The average Court has 57.9% of restructuration deals in Sauvegarde, with a range from 20% to 93%. This range is much narrower for RJs, at 15% to 48% with a mean of 31%. The share of Sauvegarde cases converted to RJ is also heterogeneous across Courts, with a range from 0 to 50%. This is depicted in Figure 1, which maps the average conversion rate of Courts over the 2010 - 2018 period. High conversion rates (over 21.7%) are found everywhere, North

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and South, East and West, and do not necessarily correspond to large cities or rural areas. For example, Toulouse and Lille have amongst the highest conversion rates (a 29% and 28% share of cases converted, respectively) while other large cities like Bordeaux and Paris are in the second quartile (with figures of 19% and 13% respectively). Looking at rural areas,[22] it is striking that two adjacent jurisdictions that deal with the same type of firms, Cahors and Aurillac, have very different conversion rates (5% and 36% respectively). The same applies to the Courts in Montauban and Albi in the South-West of France (3% and 29% respectively), which are middle-size cities in the greater periphery of Toulouse.

Time variation within Courts

There is not much variation over time in Court size, measured as either the number of Judges or the number of bankruptcy-case openings. There is much more time variation within Courts for other indicators, notably in the decisions to convert Sauvegarde cases into RJ. The within-court variation in conversion rates actually explains 80% of the total variance in the Court $\times$ Year conversion rates. Figure 2 shows the spatial distribution of the coefficient of variation of the Court conversion rates. As was the case for the average conversion rate, there is no clear pattern of spatial distribution, and adjacent Courts can exhibit quite different variation coefficients. For example, the Courts in Lille and its region have variation coefficients that cover the whole spectrum. Courts in the eight largest cities in France (Paris, Lyon, Marseille, Toulouse, Bordeaux, Lille, Nice and Nantes) have amongst the lowest coefficients of variation, but these are not necessarily the largest Courts. There are three potential explanations of within-court heterogenity in conversion rates: the regular turnover in lay Judges, the overall or local economic situation, and other potential unobservable factors.

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[22]Farmers' bankruptcies are not included in our sample as they are dealt with in specific Courts.

4 Identification strategy

4.1 Empirical design

To measure the impact of RJ compared to that of Sauvegarde, we focus on firms that initially filed for Sauvegarde and exploit the fact that a significant fraction of Sauvegarde cases (12.7%) are subsequently converted into RJ by Courts. This allows us to eliminate the unobservable characteristics of firms that file for Sauvegarde as compared to RJ.

Following Bernstein et al. (2019b), our model specification is:

$$Y_{i,j,t'} = \alpha + \beta \cdot Conversion_{i,j,t'} + \gamma_1 X_{i,t} + \gamma_2 \Omega_{j,t'} + \mu_t + \mu_j + \epsilon_{i,j,t'} \tag{1}$$

Here $Y_{i,j,t'}$ is the dependent variable, the probability that firm i assigned to Court j restructure its debt, with t' the year at the end of the observation period, which we will refer to as the judgement year. $Conversion_{i,j,t'}$ is a dummy for the Sauvegarde case i having been converted to RJ at t' in Court j. We wish to estimate β, the effect of RJ conversion on $Y_{i,j,t'}$. $X_{i,t}$ is a set of firm-level characteristics measured the year before the filing, and $\Omega_{j,t'}$ a set of Court-level control variables in judgement year t'. We include dummies μ_t for year-of-filing fixed effects and dummies μ_j for each Court. Under the null hypothesis that RJ conversion has no effect on $Y_{i,j,t'}$, β should not be statistically different from zero, while a negative value of β means that RJ conversion reduces the chances of debt restructuration. We use a standard IV-2SLS model, as recommended in the literature (Angrist and Pischke (2008)). The standard errors are clustered at the Court $\times$ Year-of-judgement level.

We will later also consider the dependent variable $Y_{i,j,t'}$ as firm survival at the horizons of two and five years after the agreement with the firm's creditors has been reached.

The vector $X_{i,t}$ contains firm financial variables such as the ratio of fixed to total assets, the structure of the asset (financial assets over fixed assets), the debt ratio (total debt over assets) and the structure of the firm's debt (supplier debt over total debt). It in addition includes the size of the firm as measured by the number of employees (in logs), dummies for industry, legal status, firm age (1 if the firm is over five years old) and the 'zombie' status of the firm. All

of these firm-level controls come from the last balance sheet and income statement available before the filing.

The Court-level control variables $\Omega_{j,t'}$ are measured at the year of the judgement. These include the unemployment rate in the *Département*, the share of direct Liquidations and the total number of bankruptcy cases (in logs). They are proxies for the local economic situation at the Court level.

Despite these many controls, endogeneity remains a potential problem. The conversion of a filing suggests worsening firm financial health that mechanically reduces its chances of survival. We therefore identify the causal effect of RJ conversion on firm survival by appealing to the heterogeneity in Commercial Courts' propensities to convert Sauvegarde cases into RJ as an instrumental variable.

The instrument

Our instrument is constructed as follows:

$$\phi_{i,j,t'} = \frac{\#conversion_{j,t'} - 1(converted_{i,t'} = 1)}{\#cases_{j,t'} - 1} \tag{2}$$

where $\phi_{i,j,t'}$ is the share of Sauvegarde cases converted by Court j in year t', excluding the present case i. This measure excludes the mechanical relationship that would exist between the instrument for a given case and its conversion decision (Maestas et al. (2013)). To take into account the fact that a significant share of Judges in each Court are renewed each calendar year, $\phi_{i,j,t'}$ is estimated by year of judgement t'. As 2016 filing judgements can take place up to 2018, the instrument covers the period 2010 - 2018. The validity of this instrument relies on a number of assumptions that are discussed below.

The territorially-competent Court of a firm filing for bankruptcy is that which is located in the same geographical area as the firm's headquarters. Thus, the firm does not have a choice over its Court (preventing forum-shopping). Even so, firms may choose their headquarters' location depending on the behaviour of the Commercial Court: we have no evidence that this is the case. Empirical analyses of firm location in France, such as Houdebine and Schneider

(1997) and Costes (2008), do not mention this possibility, and consider only standard location determinants such as local taxes and subsidies, local policies and agglomeration economies. In our sample, we can identify only one firm whose change in location (in the three years before filing for Sauvegarde) resulted in a change in its assigned Court.

We next have to make sure that there is no "time-shopping" either. This is unlikely as once a firm faces financial difficulties that are severe enough for a Sauvegarde filing, the time window within which it has to file for Sauvegarde is quite narrow. A firm that waits too long to file may no longer be eligible for Sauvegarde and have to file for RJ. To rule out the possibility of "time-shopping" we can test whether firms' tendency to file for Sauvegarde is negatively correlated with the current or past conversion rates of their assigned Court. The results appear in Table A.1, where the dependent variable is the ratio of Sauvegarde cases to all restructuring cases at the Court $\times$ Year level. There is no significant correlation between current Sauvegarde filings and current or past conversion rates.

We then turn to the firm level, and ask whether a firm's decision to file for Sauvegarde is affected by the Court's propensity to convert Sauvegarde cases. For example, firms may be discouraged from filing for Sauvegarde if they know that their Court has a high conversion rate. We test this assumption by looking at the correlation between the probability that a firm file for Sauvegarde instead of RJ and the conversion rate of its Court in the current and previous years. The results in Table A.2 again reveal no significant relationship.

We can thus consider Court $\times$ Year assignment as random and, after controlling for time and observable characteristics of the firm and its Court, use annual Court conversion rates as a source of exogenous variation in the probability that a given case be converted. Figure 1 shows the distribution of Court conversion rates, minus the annual mean over all Courts, adjusted and unadjusted for the controls and fixed effects in specification (1). The set of controls does not reduce the standard deviation of the instrument distribution (which is 0.14, as compared to 0.15 unadjusted) that we will exploit in our model.

The model

The first stage of our instrumental-variable estimation is as follows:

$$Conversion_{i,j,t'} = \rho + \pi \cdot \phi_{i,j,t'} + \gamma_1 X_{i,t} + \gamma_2 \Omega_{j,t'} + \mu_t + \mu_j + \epsilon_{i,j,t'} \tag{3}$$

where $Conversion_{i,j,t'}$ is a dummy for firm i being converted to RJ at time t' in Court j. The coefficient π shows the impact of the Commercial Court's propensity $\phi_{i,j,t'}$ to convert Sauvegarde to RJ on the probability that a case actually be converted.

The second step is estimated as follows:

$$Y_{i,j,t'} = \alpha + \beta \cdot \widehat{Conversion}_{i,j,t'} + \gamma_1 X_{i,t} + \gamma_2 \Omega_{j,t'} + \mu_t + \mu_j + \epsilon_{i,j,t'} \tag{4}$$

where $\widehat{Conversion}_{i,j,t'}$ are the values predicted from the first-stage regression. This equation is similar to equation (1), except that the variation in $\widehat{Conversion}_{i,j,t'}$ comes from the exogenous variation introduced by the Court's tendency to convert. If the instrument is valid, then β captures the causal effect of RJ conversion on the firm's probability of debt restructuring. This effect is a local average treatment effect (Angrist et al. (1996)).

Court dummies μ_j appear in equations (3) and (4) to control for unobservable characteristics of the Courts and/or the firms under their jurisdiction. As discussed above, heterogeneity in conversion rates is a combination of heterogeneity between Courts and heterogeneity over time within each Court. The use of Court dummies, with the instrument calculated at the Court × Year level, means that we do not appeal to heterogeneity in conversion practices between Courts: our estimate of the impact of conversion is based only changes in conversion rates over time within each Court.

4.2 First-stage results

The Court conversion rate, as shown in Table 5, is strongly correlated with the probability of RJ conversion. The F-statistic measuring instrument strength is about 30, above the threshold of 10 suggested by Staiger and Stock (1997). The coefficient on the instrument is statistically significant at the 1% level and robust to the introduction of multiple controls: the point estimate

varies from 0.235 without any control variables other than the Industry, Legal Status, Court and Year fixed effects (column (1) of Table 5) to 0.230 when all the controls and fixed effects are included (column (3) of Table 5). The latter is our preferred first-stage estimation. The point estimate of 0.230 implies that at a one standard-deviation rise (33.3%) in the conversion rate increases the probability of being converted by 7.5%. This is more than half the unconditional propensity of 12.7%.

As pointed out by Angrist et al. (1996), the causal effect of the instrument on the probability of being converted to RJ cannot be generalized to the whole population of Sauvegarde filings. The measured conversion impact (β in equation (4)) is only valid for the firms that are sensitive to the Court conversion propensity: the compliers. Following the analysis in Maestas et al. (2013), as our treatment is binary the proportion of compliers equals the first-stage coefficient times the range of the instrument (in this case, 1). In our data, 23.0% of the firms filing for Sauvegarde may be converted to RJ depending only on their Court's propensity to convert. With the average conversion rate being 12.7%, 2.9% of firms filing for Sauvegarde are converted due to this propensity, and 20.1% are not converted for the same reason. This also implies that, regardless of the Court-Year to which they are assigned, 9.8% of the firms filing for Sauvegarde would always be converted (the always-takers) and 67.2% would never be converted (the never-takers).

The above analysis holds only under the monotonicity, or no-defiers, assumption: all the sensitive firms must be affected identically by a given Commercial Court (the likelihood of being converted either rises or falls for all firms that are assigned to the same Court). In our setting, sub-samples should have a non-negative first-stage estimate: we carry out this test in Table 6. We split our sample by industry, age, firm size and financial ratios. The instrument coefficient is positive and significant in all sub-samples and does not vary greatly, providing support for the monotonicity assumption.

4.3   Testing the Exclusion-Restriction Condition

As the Court has a role not only in conversion but also debt renegotiation, we need to check that the exclusion-restriction condition is met. This latter requires that while the Court conversion

propensity does indeed affect the firm conversion probability, it has no direct effect on the probability of reaching an agreement with the firm's creditors. It also requires that no omitted variable impact both the conversion rate and the probability of a deal with creditors. In our model, there is a potential risk that the exclusion restriction condition is not met: local economic factors may affect both the conversion rate and the probability of reaching a deal with creditors. This will be the case if, with the local economy in a bad state, firms in restructuring are more likely to be liquidated and Sauvegarde firms are more likely to become insolvent and thus to be converted into RJ (with the reverse argument for a good local economy).

In theory, the exclusion-restriction condition cannot be checked in the data. In our setting, it is however possible to test it in another population of firms that are similar to those considered here: firms that filed directly for RJ. As the Sauvegarde and RJ procedures are very similar, we can assume that the process leading to the restructuration of a firm's debt is similar in both procedures, and that local economic conditions play the same role regardless of the procedure.

We estimate equation (5), which is the reduced form of our model, on the sample of direct RJ filings.

$$Y_{i,j,t'} = \alpha + \beta \cdot \phi_{i,j,t'} + \gamma_1 X_{i,t} + \gamma_2 \Omega_{j,t'} + \mu_t + \mu_j + \epsilon_{i,j,t'} \tag{5}$$

Table 7 shows the results for the sample of all direct RJ filings in column (1) and the sub-sample of voluntary RJ filers in column (2). Voluntary RJ filers are more similar to Sauvegarde filers, as they are likely to be more pro-active when faced with financial difficulties as compared to RJs that are triggered by the firm's creditors or the Court. We find no statistically-significant coefficients here, so that our instrument is uncorrelated with the probability of debt restructuring in direct RJ filings. This suggests that the chances of reaching an agreement to restructure firm debt are not related to the Court's conversion propensity. We can therefore consider that the exclusion restriction holds.

5 Main Results and Robustness

5.1 The impact of RJ conversion on debt restructuration

We now focus on how conversion affects the firm's probability of reaching a debt-restructuration agreement with its creditors.

The second-stage estimates (equation (4)) appear in column (2) of Table 8 and the OLS estimates in column (1). The OLS estimates suggest that conversion is associated with a fall in the debt-restructuring probability of approximately 47 percentage points; in our IV estimates conversion results in a 76 percentage-point fall in the debt-restructuring probability. As such, accounting for selection produces a larger estimate of the effect of RJ conversion on the probability of debt restructuring. Older and larger firms are more likely to reach an agreement with their creditors. As far as the balance sheet is concerned, a higher fixed-asset ratio is associated with a better probability of reaching an agreement, while neither the level of debt nor its composition seem to matter. 'Zombie' status produces a lower probability of debt restructuring. Last, the annual local economic condition control variables are not significant.

Based on these results, we can conclude that, for firms that are on the margin of being converted, conversion significantly reduces their chances of reaching a debt-restructuration agreement. One potential mechanism is as follows.

Consider that there are two types of stakeholders in the firm: sophisticated stakeholders (the main creditors and main suppliers, who were already involved in the Sauvegarde process) and less-sophisticated stakeholders (clients, potential clients, potential suppliers, and even employees in some cases). The sophisticated stakeholders are aware of the overall financial situation of the firm, and conversion to RJ signals that the firm is amongst the weakest Sauvegarde filers. This signal could reduce their enthusiasm for finding an agreement with the firm. In addition, these sophisticated stakeholders know that conversion provides new information to less-sophisticated stakeholders. Given the bad track-record of the RJ procedure, these less-sophisticated stakeholders may decide to stop contracting with the firm altogether, no matter its actual financial situation.[23] This may turn out to be a self-fulfilling prophecy that further

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[23]For example, Hortaçsu et al. (2013) find that the financial distress of US car manufacturers reduces the price

worsens the firm's situation and its chances of reaching an agreement with its creditors.[24] This mechanism is close to, yet separate from, that highlighted in Sautner and Vladimirov (2018), who show that weak financial firms have better access to trade credits and higher sales in countries where bankruptcy regimes have better credit protection.

5.2 Robustness tests

Using different samples

Various robustness checks have been carried out to ensure the validity of our results. We have re-estimated our equations (3) and (4) on three slightly different samples.

The interpretation of the model summarized in equations (3) and (4) relies on the assumption that the Sauvegarde cases that are converted to RJ are the weakest. However, some of the Sauvegarde firms in our sample are liquidated within the first six months of the observation period without being converted to RJ. If these firms are indeed the weakest, we should remove them from the analysis. We first remove the 240 Sauvegarde cases that are liquidated within three months and re-calculate the instrument accordingly. The first- and second-stage results appear in columns (1) and (2) of Table 9: removing these 240 cases does not much affect the estimates. Equally, dropping the additional 429 Sauvegarde cases liquidated between the 3rd and 6th months of the procedure leads to similar results (see columns (3) and (4)).

Another concern could be that our results are driven by small Courts that deal with only a small number of Sauvegarde cases each year. Time variation in the conversion rates for small Courts is indeed higher than that in larger Courts. To check that this does not affect our results, we re-run our estimations considering only the cases assigned to the largest 50% of Courts (in terms of Sauvegarde openings over the 2010 - 2016 period). This leaves us with 5,179 Sauvegarde cases, of which 12.4% are converted into RJ. The results are shown in columns (5) and (6) of Table 9: the first-stage results are very similar to those above, and the impact of Conversion on the chances of reaching a debt-restructuring deal is around -60%.

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of their products in the second-hand market.

[24]Self-fulfilling prophecies have been analyzed in the context of going-concern judgements: see Tucker et al. (2003) and Meeks and Meeks (2009).

Placebo model

We next carry out a placebo test to rule out the possibility that our results here only come about by chance. We substitute our instrument with a placebo instrument that randomly assigns the values of *share of other cases converted* within the sample. We replicate our preferred specification (column (3) of Table 5) with this randomly-assigned instrument 10,000 times. Similar results in these regressions would call into question the validity of our identification strategy. Figure 4 plots the distribution of the 10,000 placebo regression coefficients π, and the main statistics of the resulting distribution. On average, the coefficient on the randomly-assigned instrument is zero. The actual coefficient of *share of other cases converted* (0.230) is about ten standard deviations (0.0248) above the mean (0.000), and much above the distribution's maximum estimate (0.0983). While these results do not prove that our instrument is valid, they do alleviate concerns that our main results only reflect chance.

Assigned Court vs. Closest Court

We carry out an additional experiment in which Court dummies are dropped. This allows us to use the full variation (between and within) in the Court conversion rates. Without any other controls, the π coefficient in equation (3) would be biased, as our instrument would include the Court's preference for conversions, together with other local characteristics. To reduce this bias, we exploit the fact that while firms are assigned to a Court depending on their location, given administrative boundaries, a significant share of firms (19%) are geographically closer to a Court that is different from that to which they are assigned. For example, consider a firm in the North-East of the Cahors juridiction. This firm will be closer to the Commercial Court in Aurillac than that in Cahors to which it is assigned (see Figure 1).

To differentiate the firms for which the assigned Court is not the closest from other firms, we construct a dummy CC for the assigned Court being the closest. Consider the following

first-stage equation:

$$Conversion_{i,j,t'} = \rho + \pi_1 \cdot \phi_{i,j,t'} \times CC + \pi_2 \cdot \phi_{i,j,t'} \times (1 - CC) + \pi_3 \cdot \phi'_{i,j',t'} \times (1 - CC)$$
$$+ \gamma_{21}\Omega_{j,t'} \times CC + \gamma_{22}\Omega_{j,t'} \times (1 - CC) + \gamma_{23}\Omega_{j',t'} \times (1 - CC) \qquad (6)$$
$$+ \gamma_1 X_{i,t} + \mu_t + \mu_a + \epsilon_{i,j,t'}$$

where $\phi_{i,j,t'}$ is the share of other cases converted in year t' by Court j to which firm i is assigned, and $\phi'_{i,j',t'}$ the analogous figure for the closest Court j'. We drop the Court-level dummies and introduce Court of Appeal-level dummies μ_a. We are interested in the coefficients π_1, π_2 and π_3. As discussed above, π_1 is probably biased as the instrument includes both Court preferences and other local characteristics. This is however not the case for π_2, as this is estimated on firms whose conversion depends on the yearly Court preference for conversion but much less on other local characteristics. We thus expect π_1 to be larger than π_2. In addition, if the unobservable local characteristics reflected in the instrument are important, we would expect π_3 to be positive and significant.

The second step is then as follows:

$$Y_{i,j,t'} = \alpha + \beta \cdot \widehat{Conversion}_{i,j,t'} + \gamma_1 X_{i,t} + \gamma_2 \Omega_{j,t'} + \mu_t + \mu_a + \epsilon_{i,j,t'} \qquad (7)$$

The results appear in Table 10. The first-stage estimate of the impact of the Court's conversion rate is more or less the same as that in Table 5. Notably, in the firms for which the coefficient is not biased, the coefficient π_2 ranges from 0.268 with no local control variables to 0.226 with all of the controls (columns (1) and (3)), figures that are very similar to the 0.230 reported in Table 5. Interestingly, the estimated value of π_1 is slightly higher than π_2, and π_3 is not significant.

Columns (2) and (4) of Table 10 present the corresponding second-stage estimates. The impact of RJ conversion is about the same as that in Table 8, reducing the chance of reaching a deal by about 70%.

5.3 Economic Importance and External Validity

We can convert the reduction of 55 pp in the probability of reaching a debt agreement after conversion (see Table 9 column (4)) into an indirect cost of RJ. According to Blazy et al. (2018), recovery rates in France in continuation are around 73% for unsecured creditors and 75% for secured creditors, with the analogous figures in liquidation being 5% and 35%. In our sample, the average firm entering Sauvegarde has a debt to asset ratio of 80% (see Table 3), 75% of which is secured.[25] These numbers lead to indirect costs of 21% of the firm's book assets if shareholders lose everything in both continuation and liquidation. This figure jumps to 29% if shareholders losses are the same as those for unsecured creditors in continuation. This estimate is towards the top end of those in the literature, which suggests average indirect bankruptcy costs of between 10% and 20% of firm value.[26]

There are around 1,000 Sauvegarde filings per year, around 13% of which are converted to RJ. According to the first-stage results, 25% of Sauvegarde filings are at the margin of being converted. This means that on average 32.5 firms per year (1,000 × 25% × 13%) are converted to RJ only because of the Court's preferences that year. For these 32 firms, reaching a debt-restructuration deal with their creditors will be much harder than if, all else equal, they had not been converted to RJ by their Court. The agregate economic impact of these findings could be small if the effect we measure concerns only the Sauvegarde filings. However, if these indirect bankruptcy costs apply to the 15,000 firms that file for RJ each year, the overall economic impact could be large.

5.4 The impact of RJ conversion on survival rates after restructuration

Reaching a debt-restructuration agreement with creditors is not the end of the story for the firm and its creditors. As discussed above, the typical restructuration agreement is a mix of debt rescheduling up to 10 years and debt forgiveness. Unlike the case in the United States, creditors (which in France are mainly banks and suppliers) rarely exchange debt for control over the firm, and their claims are not covered by the issuance of new debt. Existing creditors

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[25]We make the hypothesis that supliers are unsecured creditors.
[26]See for example Hotchkiss et al. (2008) and Bris et al. (2006).

are thus greatly interested in the survival of the firm after a debt agreement is reached.

We here want to see whether RJ conversion affects survival after an agreement with creditors. As above, conversion is endogenous, which prevents us from estimating a hazard model; we thus rely on 2SLS linear models. We use the same instrument as before.

Table 11 shows the impact of RJ conversion on firm survival after debt restructuration. As we consider filing outcomes up to December 2018, we look at the two-year survival of the 3,333 firms that obtained a restructuration deal before December 2016, and the five-year survival rate of the 1,414 firms with a restructuration deal before December 2013. We report OLS and IV-2SLS second-stage estimates, which both convey the same message: once the firm reaches an agreement, its survival is not affected by its filing having been converted. This holds for both the two- and five-year survival rates. As such, any negative impact associated with RJ disappears once the firm has been granted a second chance.

The firm's characteristics at the beginning of the bankruptcy procedure remain decisive with respect to its survival after restructuration. Older and larger firms are more likely to survive, while 'Zombie' firms with the poorest financial situation at the onset of Sauvegarde are less resilient. Regarding other financial characteristics, survival is only correlated with the ratio of supplier debt to total debt at bankruptcy entry.

6 Conclusion

Using a novel and almost exhaustive data set of Court-supervised bankruptcy procedures in France, this paper has analyzed the effect of being converted from a bankruptcy procedure that is restricted to firms that are not yet insolvent (Sauvegarde) into the regular bankruptcy procedure (RJ) that applies to insolvent firms. Both bankruptcy procedures are public and Court-supervised. We use heterogeneity in Commercial-Court conversion rates as an instrument for conversion and show that, for firms at the margin of being converted, conversion reduces the probability of reaching a deal with creditors by between 55 and 76 percentage points. This corresponds to indirect costs of bankruptcy up to 30% of book assets. As the legal provisions differ little between the two procedures, we attribute this to a mix of a signal effect regarding

the financial situation of the firm and indirect costs associated with the bad track-record of the procedure. The track-record of RJ is so bad that the stakeholders of firms converted into RJ anticipate little chance of renegotiation success. This anticipation is self-fulfilling. Interestingly, this negative effect attached to conversion seems to disappear once the firm has reached an agreement with its creditors: the two- and five-year survival rates after successful debt-restructuring do not depend on whether the Sauvegarde procedure was converted or not (instrumented, as before, by the Commercial Court's propensity to convert cases). These results are robust across specifications.

The rationale for introducing the Sauvegarde procedure into French Commercial Law was to propose a distinct Court-supervised debt restructuring procedure to fragile firms that were not yet insolvent. Our results support this policy choice, rather than the simple extension of RJ to these firms. The Sauvegarde procedure allows stakeholders to differentiate firms from the average firm filing for bankruptcy, thus improving the chance of keeping the firm as a going concern. This benefits both secured and unsecured creditors. A 2018 EU directive proposed the introduction of a preventive restructuring procedure in all Member States that only non-insolvent firms could access. Adding a new preventive procedure will avoid its contamination from the regular debt-restructuring procedure, notably in countries where their track-records are poor.[27]

Given the small numbers of firms filing for Sauvegarde (around 1,000 per year), compared to over 15,000 per year filing for RJ, the next question is whether more firms should be encouraged to file for Sauvegarde. Informal discussions with Judges, Court-appointed Receivers and Insolvency Administrators led us to think that some firms filing for RJ would indeed qualify for Sauvegarde. First, more and better information about the Sauvegarde procedure could be provided to firms, notably when they are about to file for RJ. Second, firms filing for RJ immediately qualify for a loan from the AGS (a non-profit business association) to pay worker wage arrears. Firms filing for Sauvegarde do not have access to this funding, even if their case is subsequently converted to RJ. This may deter firms from filing for Sauvegarde, which could

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[27]For example, García-Posada Gómez and Vegas Sánchez (2018) report that only around 7% of firms manage to restructure their debt in Spain, and the figure in Franks and Loranth (2013) for Hungary is about 20%.

be overcome by allowing firms converted to RJ access to the wage-arrears loan. Third, the observation period of the Sauvegarde procedure could be reduced to 12 months (instead of 18 currently), as recommended by the EU directive. This would also help to better differentiate the two procedures.

Our identification strategy is based on the existence of heterogeneity in Commercial-Court conversion rates. We have so far not considered whether this heterogenity is in itself a good or bad thing for the efficiency of bankruptcy procedures. Due to the likely role of Lay Judges in producing this heterogeneity, the French Government has taken a number of steps to make Commercial=-Court decisions more predictable and homogeneous. There have been three main recent measures: (i) A Law passed in 2016 specifies the number of days of training that newly-elected Judges have to undertake at the National School for Magistrates, as well as the number of continuous training days for Judges in their following mandates; (ii) As of July 2014, the Judge him- or herself cannot carry out a conversion of a Sauvegarde case into RJ; and (iii) Since early 2016, large bankruptcy cases have been assigned to one of the eighteen "Specialized Commercial Courts".[28] We can however speculate that the simple possibility of the Sauvegarde procedure being (wrongly or not) converted to RJ may deter firms from filing for Sauvegarde in the first place. On the contrary, the risk of conversion may provide an incentive for firms to seek out-of-court debt restructuration. These private restructurings may produce even better results, as self-fulling expectations are less likely to play a role.

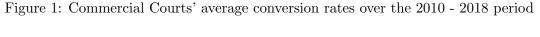[28]We checked that this 2016 provision in the Law does not affect the Commercial Courts assigned in our sample.
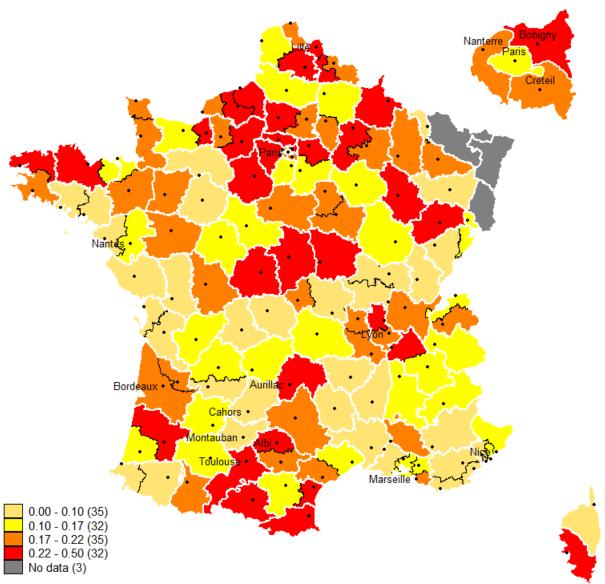
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Figure 1: Commercial Courts' average conversion rates over the 2010 - 2018 period

The jurisdictions of French Commercial Courts are based on *Département* boundaries. Some *Départements* have two or more Commercial Courts. Figure 1 maps these jurisdictions: white lines delimit *Département* boundaries and black lines those of jurisdictions within a *Département*. Black dots represents the location of Commercial Courts. The three *Département* of Moselle, Haut-Rhin and Bas-Rhin are excluded (see footnote 20). The upper-right part of the figure zooms in on the region of Paris. Figure 1 shows the average conversion rates of Sauvegarde to RJ in Commercial Courts by jurisdiction over the 2010 - 2018 period.
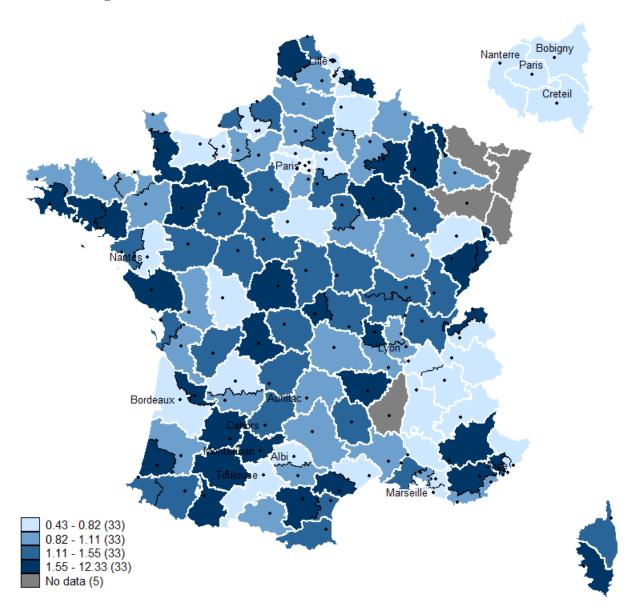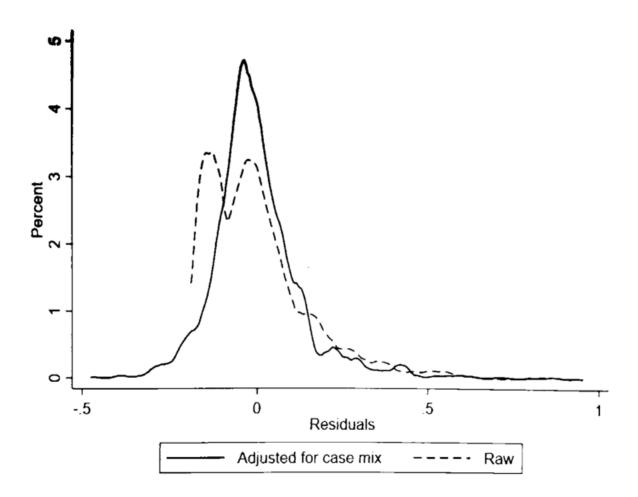
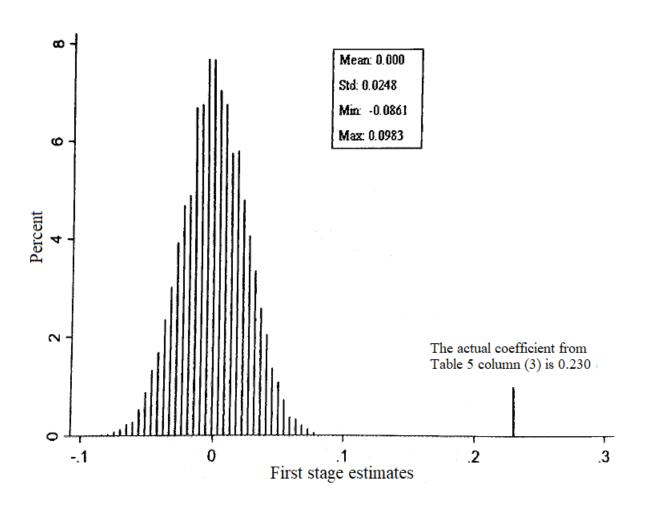Figure 2: Coefficient of variation of Commercial-Court conversion rates

The jurisdictions of French Commercial Courts are based on *Département* boundaries. Some *Départements* have two or more Commercial Courts. Figure 2 maps these jurisdictions: white lines delimit *Département* boundaries and black lines those of jurisdictions within a *Département*. Black dots represents the location of Commercial Courts. The three *Département* of Moselle, Haut-Rhin and Bas-Rhin are excluded (see footnote 20). The upper-right part of the figure zooms in on the region of Paris. Figure 2 maps the coefficient of variation of Commercial Courts' annual conversion rates over the 2010 - 2018 period. Two *Départements* do not report data, as their Commercial Courts did not convert any Sauvegarde cases to RJ over the period.

Figure 3: The distribution of Court deviations from the mean initial conversion rate

The raw distribution reflects the difference between the Court's conversion rate and the unadjusted annual average conversion rate; the adjusted distribution is the difference between the Court's conversion rate and the annual average conversion rate adjusted for all of the controls and fixed effects, as in column (3) of Table 5.

Figure 4: Placebo test

This figure shows the histogram of the coefficient on the share of other cases converted from 10,000 placebo regressions where the instrument *share of other cases converted* was randomly assigned within the sample. The regressions contain the full set of controls and fixed effects from column 3 of Table 5.

Table 1: Comparison of the Sauvegarde and RJ procedures

	Sauvegarde	RJ
Conditions to start the procedure	The firm is not insolvent and can prove it is facing severe financial difficulties	The firm is insolvent (short-term financial obligations not covered by liquid assets)
Who can start the procedure?	The debtor only	Once insolvent, the debtor <u>must</u> start the procedure within 45 days. Its creditors or the Court can trigger the procedure if the debtor does not
Is Court approval needed to start the procedure?	YES The Court allows the opening of the procedure after checking that the firm: (i) is not insolvent (ii) is facing severe financial difficulties	NO
Role of the Court at the onset of the procedure	• Appoints a Receiver • Appoints an Administrator for large firms (the debtor can suggest an administrator)	• Appoints a Receiver • Appoints an Administrator
Observation period	6 months twice-renewable	
Protection of the debtor from its creditors during the observation period	YES	
Grace period on interest and principal payments	YES	
Role of the Receiver	Establishes a comprehensive list of the firm's debts	
Role of the Administrator	Assists the firm management in most decisions	Makes most decisions
Access to loan for wage arrears	NO	YES
Debt-restructuring plan	Negotiated with creditors by the debtor and the Administrator	
Creditor committees	YES for large firms	
Possible outcomes	• Restructuration • Conversion to RJ • Liquidation	• Restructuration • Liquidation

Table 2: Breakdown per year of filing

Year of filing	Number of Sauvegarde filings	Share of Sauvegarde filings	Share of Sauvegarde cases converted to RJ
2010	784	0.120	0.138
2011	816	0.115	0.165
2012	944	0.113	0.135
2013	1,054	0.127	0.123
2014	1,012	0.133	0.111
2015	956	0.122	0.095
2016	768	0.107	0.133
Total	6,334	0.120	0.127

Table 2 shows the number of Sauvegarde entries over the 2010 - 2016 period, the ratio of Sauvegarde cases over all restructuring cases (Sauvegarde and direct RJ), and the share of Sauvegarde cases converted by year of filing. For instance, our analysis sample contains 784 firms that filed for Sauvegarde in 2010, 13.8% of which were subsequently converted into RJ.

Table 3: Summary Statistics

Initial filing in:	Sauvegarde				RJ	
	All Sauvegarde	Cases not Converted to RJ	Cases Converted to RJ	Diff (2)-(3)	All RJ	Voluntary RJ filing
	(1)	(2)	(3)	(4)	(5)	(6)
Full Sample	6,334	5,529	805		66,927	39,607
Share of debt restructuration	0.644	0.704	0.232	0.472***	0.324	0.255
Survival rate after restructuration						
After 2 years	0.805	0.804	0.837	-0.033	0.704	0.836
After 5 years	0.624	0.630	0.524	0.105**	0.414	0.665
Number of employees	27.7	27.0	32.5	-5.557	15.2	18.0
Age	11.6	11.3	13.6	-2.240***	8.9	9.6
Share of Zombie firms	0.583	0.572	0.661	-0.089***	0.605	0.633
Fixed assets/Assets	0.540	0.546	0.493	0.053***	0.494	0.507
Financial assets/Fixed assets	0.160	0.162	0.151	0.010	0.098	0.102
Total debt/Assets	0.812	0.814	0.798	0.013	1.024	0.997
Supplier debt/Total debt	0.264	0.260	0.294	-0.033***	0.275	0.281

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 3 shows the summary statistics for firms filing for Sauvegarde and RJ between 2010 and 2016. Column (4) reports the test of the equality of the means between the samples of Sauvegarde cases that were not converted to RJ (column (2)) and those converted to RJ (column (3)). The other entries are self-explanatory.

Table 4: Court Heterogeneity

	Number of Courts (1)	Mean (2)	Median (3)	Standard Deviation (4)	Min. (5)	Max. (6)
Number of Judges	134	24.5	19.5	19.2	9	180
Number of filings	134	2414.4	1,681.0	2,473.7	273	19,954
Sauvegarde	134	59.2	41.0	53.5	4	308
RJ	134	709.2	546.5	542.5	74	3,079
Liquidation	134	1,646.1	1,065.5	2,013.4	191	16,982
Share of direct Liquidations	134	0.668	0.665	0.069	0.461	0.897
Share of Sauvegarde filings	134	0.081	0.066	0.052	0.013	0.326
Share of cases converted	134	0.170	0.165	0.086	0.000	0.500
Share of debt restructuration						
in Sauvegarde	134	0.579	0.589	0.117	0.200	0.929
in RJ	134	0.335	0.330	0.069	0.179	0.505

Table 4 shows the summary statistics for the 134 French Commercial Courts over the 2010 - 2018 period. The share of direct Liquidations is the number of direct Liquidations over the number of direct Liquidations and direct RJs. The share of Sauvegarde filings is the number of Sauvegarde filings over the number of Sauvegarde and direct RJ filings. The share of cases converted is the number of Sauvegarde filings converted by the Court over the total number of Sauvegarde filings.

Table 5: First Stage

Dependent variable:	Conversion to RJ		
	(1)	(2)	(3)
Share of other cases converted	0.242***	0.240***	0.230***
	(5.46)	(5.56)	(5.42)
Firm-level control variables			
Ln(#employees)		0.0240***	0.0235***
		(5.96)	(5.82)
Age(> 5 years old)		-0.0157*	-0.0139
		(-1.76)	(-1.57)
Zombie firss		0.0178**	0.0178**
		(2.06)	(2.06)
Fixed assets/Assets		-0.0107	-0.00886
		(-0.62)	(-0.51)
Financial assets/Fixed assets		0.0144	0.0131
		(0.97)	(0.89)
Total debt/Assets		0.00322	0.00311
		(0.45)	(0.43)
Supplier debt/Debt		0.0112	0.0115
		(0.42)	(0.43)
Industry dummies	Yes	Yes	Yes
Legal-status dummies	Yes	Yes	Yes
Annual local-level control variables			
Unemployment rate			-3.033
			(-1.49)
Share of direct Liquidations			0.109
			(1.13)
Ln(#bankruptcy filings)			0.187***
			(4.30)
Court fixed effects	Yes	Yes	Yes
Year of filing fixed effects	Yes	Yes	Yes
Observations	6,334	6,334	6,334
Adjusted R-squared	0.0072	0.015	0.018
F-statistic for the instrument	29.83	30.90	29.43

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 5 shows the results from the first-stage regressions. The dependent variable is a dummy for the firm being converted to RJ, and the instrument is the share of cases converted by the Commercial Court every year, excluding the current case. The model is robust to the introduction of firm- and local-level control variables (columns (2) and (3) respectively). All specifications contain 134 Commercial Court fixed effects, seven year of filing fixed effects, and industry and legal-status dummies. The standard errors in parentheses are clustered at the Court-year of judgement level.

Table 6: First-Stage Heterogeneity

	Number of Observation (1)	Percent Converted (2)	Coefficient on Share converted (3)	T-stat (4)	F-stat (5)	Fraction of always takers (6)
Full Sample	6,334	0.127	0.230***	5.4	29.4	0.098
Employees						
0-9	3,406	0.086	0.158***	3.6	13.1	0.072
1-50	2,331	0.169	0.284***	4.5	20.0	0.121
>50	597	0.199	0.336**	2.3	20.0	0.132
Industry						
Construction	912	0.146	0.318***	3.2	10.4	0.100
Wholesale and						
Retail Trade	1,694	0.112	0.265***	3.8	14.1	0.082
Services	2,699	0.106	0.181**	3.0	9.3	0.087
Other	1027	0.191	0.215**	2.0	3.9	0.150
Age						
5 years old or less	2,593	0.115	0.237***	4.1	16.6	0.088
Over 5 years old	3,741	0.135	0.227***	4.3	18.7	0.105
Zombie firm						
No	2,642	0.103	0.258***	4.3	18.3	0.077
Yes	3,692	0.144	0.196***	3.9	15.0	0.116
Fixed assets/assets						
Below median	3,167	0.142	0.230***	4.5	19.8	0.109
Above median	3,167	0.112	0.171**	3.0	9.2	0.093
Financial assets/						
Fixed assets						
Below median	3,167	0.116	0.145**	2.7	7.0	0.099
Above median	3,167	0.138	0.299***	5.3	28.1	0.097
Total Debt/Assets						
Below median	3,167	0.128	0.194***	3.8	14.4	0.103
Above median	3,167	0.127	0.261***	4.8	23.0	0.094
Supplier Debt/debt						
Below median	3,167	0.109	0.242***	4.7	21.9	0.083
Above median	3,167	0.145	0.221***	4.1	16.7	0.113

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6 shows the first-stage regressions presented in column (3) of Table 5 re-run on sub-samples splitting firms by their financial characteristics. By sub-sample, column (1) shows the number of firms, column (2) the unconditional share of cases converted to RJ, column (3) the coefficient of the instrument *share of other cases converted*, interpreted as being the share of marginal firms, columns (4) and (5) the t-statistic and F-statistic respectively, and column (6) the fraction of firms that would be converted regardless of the Court. Due to collinearity, some observations were omitted in the sub-groups split by industry, the totals of which do not add up to 6,334. The "Other" category includes the Manufacturing and Transport industries.

Table 7: Exclusion Restrictions

Dependent variable:	Debt restructuring in RJ	
	All RJ	Voluntary RJ
	(1)	(2)
Share of cases converted	-0.00245	-0.00746
	(-0.13)	(-0.38)
Firm-level control variables		
Ln(#employees)	0.00735***	0.00224
	(3.87)	(1.02)
Age($>$ 5 years old)	0.133***	0.123***
	(33.41)	(24.20)
Zombie firm	-0.0251***	-0.0411***
	(-6.07)	(-7.88)
Fixed assets/assets	0.00499	0.00172
	(0.82)	(0.66)
Financial assets/fixed assets	-0.0186	-0.0596***
	(-1.42)	(-5.42)
Total debt/assets	-0.0109***	-0.0128***
	(-4.31)	(-3.84)
Supplier debt/debt	-0.123***	-0.110***
	(-11.57)	(-8.84)
Industry dummies	Yes	Yes
Legal-status dummies	Yes	Yes
Annual local-level control variables		
Unemployment rate	6.515***	-1.838
	(3.71)	(-1.04)
Share of direct Liquidations	-0.0490	-0.117
	(-0.52)	(-1.20)
Ln(#bankruptcy filings)	-0.343***	-0.288***
	(-7.50)	(-6.01)
Court fixed effects	Yes	Yes
Year of filing fixed effects	Yes	Yes
Observations	66,927	39,607
Adjusted R-squared	0.054	0.071

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7 presents a test for the exclusion restriction. We run the reduced form of our model (equation (5)) with debt restructuring in RJ as the dependent variable. We assume that if the propensity to convert has no impact on debt restructuration in RJ, it will have no impact in Sauvegarde either, which is very similar. Column (1) shows the regression results for the sample of all RJ, and column (2) those for the sub-sample of voluntary RJ filers. Voluntary RJ filers are the most similar to Sauvegarde filers, as they are likely to be more pro-active in the face of financial difficulties. Standard errors in parentheses are clustered at the Court-year of judgement level.

Table 8: Main Results

Dependent variable:	Debt Restructuring (YES/NO)	
Model:	OLS	IV-2SLS
	(1)	(2)
Conversion to RJ	-0.473***	-0.764***
	(-23.83)	(-4.05)
Firm-level control variable		
Ln(#employees)	0.0494***	0.0562***
	(9.84)	(8.70)
Age(> 5 years old)	0.125***	0.122***
	(9.25)	(8.75)
Zombie firm	-0.0666***	-0.0611***
	(-5.21)	(-4.63)
Fixed assets/assets	0.104***	0.101***
	(4.39)	(4.21)
Financial assets/fixed assets	-0.0454*	-0.0415
	(-2.10)	(-1.89)
Total debt/assets	-0.0277*	-0.0269*
	(-2.05)	(-1.99)
Supplier debt/debt	-0.0558	-0.0530
	(-1.64)	(-1.52)
Industry dummies	Yes	Yes
Legal-status dummies	Yes	Yes
Annual local-level control variable		
Unemployment rate	4.301	3.151
	(1.77)	(1.24)
Share of direct Liquidations	0.0189	0.0630
	(0.13)	(0.09)
Ln(#bankruptcy filings)	-0.205**	-0.145*
	(-3.24)	(-2.03)
Court fixed effects	Yes	Yes
Year of filing fixed effects	Yes	Yes
Observations	6,334	6,334
Adjusted R-squared	0.175	0.098

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The dependent variable is a dummy for the firm having reached a debt-restructuring agreement with its creditors. *Conversion* is a dummy for the firm having been converted from Sauvegarde to RJ. The regression in column (1) is estimated by OLS; the regression in column (2) is estimated by IV-2SLS, with the instrument being the Court annual *share of other cases converted* (see the first stage in Table 5, column (3)). All of the regressions contain the full set of controls and fixed effects used in column 3 of Table 5. Standard errors in parentheses are clustered at the Court-year of judgement level.

Table 9: Robustness Tests

Specification:	IV-2SLS excluding Sauvegarde cases liquidated under 3 months		IV-2SLS excluding Sauvegarde cases liquidated under 6 months		IV-2SLS excluding the 50% smallest Courts	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
Dependent variable:	Conversion	Debt Restructuring	Conversion	Debt Restructuring	Conversion	Debt Restructuring
	(1)	(2)	(3)	(4)	(5)	(6)
Share of other cases converted	0.241***		0.257***		0.252***	
	(5.58)		(5.65)		(4.21)	
Conversion to RJ		-0.729***		-0.550***		-0.597**
		(-4.32)		(-3.66)		(-2.43)
Firm-level control variables	Yes	Yes	Yes	Yes	Yes	Yes
Annual local-level control variables	Yes	Yes	Yes	Yes	Yes	Yes
Court fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year of filing fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,094	6,094	5,665	5,665	5,179	5,179
Adjusted R-squared	0.019	0.131	0.022	0.201	0.025	0.146
F-statistic for instrument	31.15		31.87		17.73	

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

We present in Table 9 some variants of the main specification in equations (3) and (4). We first remove from our sample the 240 Sauvegarde filing firms that were liquidated within the first three months of the observation period. The first-stage estimate in column (1) uses the instrument *share of other cases converted* calculated for this new sample of 6,094 Sauvegarde cases. The second-stage estimates appear in column (2). We then remove an additional 429 Sauvegarde filers that were liquidated between the 3rd and 6th month of the observation period. The first-stage estimates in column (3) use the *share of other cases converted* calculated for the remaining 5,665 Sauvegarde cases; the second-stage estimate is shown in column (4). Finally, in columns (5) and (6) we remove the 1,155 Sauvegarde cases that were assigned to the 50% smallest Commercial Courts. All of the regressions contain the full set of controls and fixed effects used in column (3) of Table 5. Standard errors in parentheses are clustered at the Court-year of judgement level.

Table 10: Assigned Court vs. Closest Court

Dependent variable:	1st stage Conversion (1)	2nd stage Debt Restructuring (2)	1st stage Conversion (3)	2nd stage Debt Restructuring (4)
Share of other cases converted in assigned Court × CC	0.328*** (7.87)		0.334*** (7.64)	
Share of other cases converted in assigned Court × (1-CC)	0.268*** (3.95)		0.226*** (2.99)	
Share of cases converted in closest Court × (1-CC)	-0.102 (-0.84)		-0.116 (-0.90)	
Conversion to RJ		-0.706*** (-5.18)		-0.693*** (-5.03)
Firm-level control variables	Yes	Yes	Yes	Yes
Assigned Court's annual local-level control variables × CC	No	No	Yes	Yes
Assigned Court's annual local-level control variables × (1-CC)	No	No	Yes	Yes
Closest Court's annual local-level control variables × (1-CC)	No	No	Yes	Yes
Court fixed effects	No	No	No	No
Court of Appeal fixed effects	Yes	Yes	Yes	Yes
Year of filing fixed effects	Yes	Yes	Yes	Yes
Observations	6,334	6,334	6,334	6,334
Adjusted R-squared	0.044	0.128	0.044	0.130
F-statistic for instrument	22.76		21.93	

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

As a robustness test, we exploit the fact that, due to administrative boundaries, a significant share of firms are not assigned to their closest Court. CC is a dummy for the firm being assigned to its closest Court. The specifications in Table 10 do not include Court fixed effects: we control for regional characteristics via Court of Appeal fixed effects. Columns (1) and (2) include firm-level control variables, and columns (3) and (4) introduce local-level control variables. Standard errors in parentheses are clustered at the Court-year of judgement level.

Table 11: Survival after debt restructuration

Dependent variable:	Survival rate at different horizons			
Horizon	Two years		Five years	
	OLS	IV 2nd stage	OLS	IV 2nd stage
	(1)	(2)	(3)	(4)
Conversion to RJ	0.0359	0.149	-0.0701	-0.216
	(-0.87)	(-0.32)	(1.04)	(0.40)
Firm-level control variable				
Ln(#employees)	0.0180***	0.0182***	0.0406***	0.0419***
	(-2.94)	(-2.65)	(-3.50)	(-3.51)
Age(> 5 years old)	0.0843***	0.0857***	0.131***	0.127***
	(-5.22)	(-5.03)	(-4.22)	(-3.81)
Zombie firm	-0.0302**	-0.0299**	-0.0575*	-0.0572**
	(2.00)	(2.02)	(1.93)	(2.03)
Fixed assets/assets	0.0516	0.0524*	0.147**	0.145**
	(-1.60)	(-1.65)	(-2.20)	(-2.28)
Financial assets/fixed assets	-0.0322	-0.0307	-0.0154	-0.0168
	(1.17)	(1.11)	(0.26)	(0.30)
Total debt/assets	-0.00614	-0.00623	-0.0472	-0.0456
	(0.41)	(0.23)	(1.39)	(1.38)
Supplier debt/debt	-0.118***	-0.117***	-0.113	-0.113
	(2.62)	(2.66)	(1.32)	(1.41)
Industry dummies	Yes	Yes	Yes	Yes
Legal-status dummies	Yes	Yes	Yes	Yes
Annual local-level control variable				
Unemployment rate	-4.514	-3.855	-6.843	-9.770
	(1.34)	(0.88)	(0.84)	(0.70)
Share of direct Liquidations	0.259	0.265	0.986**	0.930**
	(-1.38)	(-1.43)	(-2.17)	(-2.09)
Ln(#bankruptcy filings)	0.0473	0.0491	0.409***	0.383**
	(-0.64)	(-0.68)	(-2.67)	(-2.17)
Court fixed effects	Yes	Yes	Yes	Yes
Year of filing fixed effects	Yes	Yes	Yes	Yes
Observations	3,333	3,333	1,414	1,414
Adjusted R-squared	0.035	-0.010	0.085	-0.031

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The dependent variables are survival at the two- and five-year horizons after debt restructuration. *Conversion* is a dummy that indicates whether the firm was converted from Sauvegarde to RJ. The regressions in columns (1) and (3) are estimated by OLS; the regressions in columns (2) and (4) are the seconde-stage results of the IV-2SLS that uses the Court's annual *share of other cases converted* as the instrument (see the first stage in Table 5, column (3)). All of the regressions contain the full set of controls and fixed effects used in column 3 of Table 5. Standard errors in parentheses are clustered at the Court-year of judgement level.

Appendix

Table A.1: The share of Sauvegarde filings does not depend on the Court's past and present conversion rates

Dependent variable:	Share of Sauvegarde filings in year t	
	(1)	(2)
Share of cases converted		
in year t	0.0103	
	(1.55)	
in year $t-1$		-0.0117
		(-1.60)
Annual local-level control variables		
Share of direct Liquidations	0.0846***	0.0921***
	(2.85)	(2.74)
Unemployment rate	0.0308	-0.0830
	(0.13)	(-0.32)
Ln(#bankruptcy filings)	-0.0268*	-0.00968
	(-1.95)	(-0.64)
Court fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations (Court × Year)	1,042	895
Adjusted R-squared	0.086	0.077

t statistics in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The assignment to Courts is not random, but depends on the firm's location. We test in Table A.1 whether the share of Sauvegarde filing depends on the Court's track-record of conversion rates. The dependent variable *Share of Sauvegarde filings* is the ratio of Sauvegarde filings to all Sauvegarde and RJ filings at time t. The regressions are estimated at the Court level. Column (1) includes the years $t = 2010$ to 2018, and column (2) $t = 2011$ to 2018.

Table A.2: The probability of entering Sauvegarde does not depend on the Court's past and present conversion rates

Dependent variable:	Filing for Sauvegarde in year t	
	(1)	(2)
Share of cases converted		
in year t	-0.00730	
	(-1.24)	
in year $t-1$		-0.00861
		(-1.38)
Firm-level control variables		
Ln(#employees)	0.0133***	0.0134***
	(10.82)	(10.37)
Age($>$ 5 years old)	0.0267***	0.0267***
	(11.87)	(11.43)
Zombie firm	-0.0177***	-0.0195***
	(-7.58)	(-8.01)
Fixed assets/Assets	0.00132	0.00126
	(0.90)	(0.89)
Financial assets/Fixed assets	0.0223	0.0222
	(1.25)	(1.24)
Total debt/Assets	-0.0230***	-0.0236***
	(-16.19)	(-15.79)
Supplier debt/Debt	-0.0502***	-0.0491***
	(7.74)	(-7.17)
Industry dummies	Yes	Yes
Legal-status dummies	Yes	Yes
Annual local-level control variables		
Unemployment rate	0.799*	0.674
	(1.78)	(1.35)
Share of direct Liquidations	0.133***	0.114***
	(4.50)	(3.67)
Ln(#bankruptcy filings)	-0.0617***	-0.0573***
	(-4.66)	(-3.88)
Court fixed effects	Yes	Yes
Year of filing fixed effects	Yes	Yes
Observations (Firms)	73,261	68,782
Adjusted R-squared	0.0627	0.0634

t statistics in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

The assignment to Courts is not random, but depends on the firm's location. We test in Table A.2 whether the probability that a firm enter Sauvegarde depends on its Court's track-record of conversion rates. The dependent variable *Filing for Sauvegarde* is 1 if the firm files for Sauvegarde at t and 0 if it files for RJ. The regressions are estimated at the firm level. Standard errors in parentheses are clustered at the Court-year of judgement level. Column (1) includes the years $t = 2010$ to 2018, and column (2) $t = 2011$ to 2018.