BANCA D'ITALIA
EUROSISTEMA

Temi di discussione

(Working Papers)

Costly firm supervision: the impact of statutory auditors on Italian firms

by Federico Fornasari, Enrico Miglino and Giacomo Rodano

February 2026

Number 1517

BANCA D'ITALIA
EUROSISTEMA

Temi di discussione

(Working Papers)

Costly firm supervision: the impact of statutory auditors on Italian firms

by Federico Fornasari, Enrico Miglino and Giacomo Rodano

Number 1517 - February 2026

The papers published in the Temi di discussione *series describe preliminary results and are made available to the public to encourage discussion and elicit comments.*

The views expressed in the articles are those of the authors and do not involve the responsibility of the Bank.

ISSN 2281-3950 (online)

Designed by the Printing and Publishing Division of Banca d'Italia

COSTLY FIRM SUPERVISION:
THE IMPACT OF STATUTORY AUDITORS ON ITALIAN FIRMS

by Federico Fornasari*, Enrico Miglino** and Giacomo Rodano***

Abstract

We study the costs and benefits of firm supervision on Italian private limited companies. Using a regression discontinuity design, we estimate that being just above the thresholds for the mandatory appointment of auditors increases the likelihood of appointing auditors by 13 percentage points. For firms just above these thresholds, auditors prompted a modest strengthening of firms' balance sheets, with the share of assets held as reserves and paid-in capital increasing marginally by 1.3 percent. Given their legal responsibility in case of insolvency, they also accelerated debt restructuring by nearly one year and temporarily reduced bankruptcies by 0.5 percentage points during the same period. However, these improvements did not translate into better access to credit or lower borrowing costs. The annual average cost of auditors per firm was 21-27 thousand euros, corresponding to around 3 percent of the labor cost for a firm with 20 employees. A cost-benefit analysis suggests that the aggregate costs of supervision outweigh its measurable benefits, particularly for smaller firms.

JEL Classification: G38, L51, K22.

Keywords: firm supervision, statutory auditors, regulation, regulatory costs, corporate governance.

DOI: 10.32057/0.TD.2026.1517

* Bank of Italy (e-mail: Federico.Fornasari@bancaditalia.it).

** Bank of Italy (e-mail: Enrico.Miglino@bancaditalia.it).

*** Bank of Italy (e-mail: Giacomo.Rodano@bancaditalia.it).

1 Introduction

Auditors offer independent assurance on the accuracy of financial statements and firms' compliance with legal obligations [Langli and Willekens, 2018]. Their supervision can reduce the risk of balance-sheet manipulation [Dechow et al., 1996] and encourage timely debt restructuring in case of bankruptcy emergence [Bryan et al., 2000]. By fostering financial transparency, audits can help mitigate information asymmetries in credit markets, improve their liquidity and efficiency, and lower firms' cost of capital [Goldstein and Yang, 2017]. However, the potential benefits of audit must be balanced against its costs, which may weigh heavily on small firms with limited capacity to absorb regulatory burdens [Garicano et al., 2016].

This paper evaluates the costs and benefits of internal firm supervision. On the benefit side, we test whether a board of statutory auditors can help firms gain better access to credit and reduce borrowing costs. We also explore whether firm supervision by auditors, who are legally responsible in case of firm insolvency, can accelerate in court debt restructuring and reduce the bankruptcy rate, having thus a positive indirect effect on creditors and the credit system overall. Finally, we quantify the costs associated with a board of statutory auditors and weigh them against the benefits in a cost-benefit analysis.

To estimate causal effects, we exploit the presence of thresholds in net revenues, total assets, and number of employees, above which Italian private limited companies are legally required to appoint a board of statutory auditors (*organo di controllo*). We implement a regression discontinuity design, leveraging the discrete increase in the probability of having statutory auditors at these thresholds. These thresholds also determined the obligation to file ordinary (*bilancio ordinario*) rather than condensed financial statements (*bilancio abbreviato*), a simplified version that omits the cash flow statement and management report. From 2021, new lower thresholds were introduced for the appointment of statutory auditors, while the thresholds for ordinary financial statements remained unchanged.

For identification, we consider only the net revenue threshold: the threshold on total assets shows evidence of manipulation across all years, and the number of employees threshold does not generate a significant increase in the probability of appointing statutory auditors, likely due to a noisy measurement of nonpermanent workers. Moreover, we only focus on the old statutory threshold: we exclude the new lower thresholds introduced in 2021 for statutory auditors, as private limited companies at these lower thresholds have not yet complied with the new requirements. Finally, we concentrate on the periods 2010-2012 and 2021-2023 for several reasons. First, we do not find evidence of manipulation in these years at the old net revenues threshold. Second,

We are thankful to participants of seminars at the Bank of Italy for their helpful comments. All errors are our own. The views expressed in this paper are those of the authors and do not involve the responsibility of the Bank of Italy.

we estimate a significant increase in the probability of having statutory auditors in 2010-12 (+13 percentage points) but not in 2021-23 when this threshold was not relevant for statutory auditors. Third, we find an increase in the probability of filing ordinary financial statements, for which this threshold was always binding, both in 2010-12 and 2021-23 (+5 percentage points in both periods). The analysis therefore compares the intention-to-treat effects across the two periods: at the old threshold, the effect in the years 2010-12 is due to both mandatory auditors and ordinary financial statements, while in the years 2021-23 it is due to ordinary financial statements only, as the old threshold is not relevant anymore for the statutory auditors.

For the analysis, we use firm-level administrative data for each year from 2010 to 2023. Cerved Group provides information on financial accounts for the universe of Italian joint stock companies (SpA) and private limited companies (Srl), including the balance sheet and profits and losses. This data is linked to several other sources via a unique fiscal identifier of the firm. From the registers of the Chambers of Commerce we collect information at the firm level on the type of firm (SpA or Srl), the presence and number of statutory auditors for each firm in each year, as well as the starting date of any bankruptcy procedure. The National Institute for Social Security provides average annual employment at the firm level. Data on the credit relationship of the firm with the banking system is obtained from the Central Credit Register.

Statutory auditors added to the regulatory burden of Italian limited liability companies. Between 2010 and 2012, firms just above the net-revenue threshold appointed 0.3 more auditors on average and incurred additional annual costs of 3-4 thousand euros to compensate them. As expected, we do not find any discontinuity in the number of auditors or their cost in 2021–2023, when the old threshold was no longer binding.

Consistent with their institutional mandate to monitor legal compliance and financial soundness, auditors induced firms to strengthen their balance sheets, at least while they remained in office. Paid-up capital and reserves rose by 8 percent in the first three years for firms just above the statutory thresholds. The effect on paid-up capital drops sharply and loses statistical significance after three years, which marks the typical end of a statutory auditors' tenure.[1] Moreover, the effect is modest and only marginally significant when paid-up capital and reserves are expressed as a share of assets (+1.3 percent). Although statutory auditors may also play an advisory role and improve managerial practices or organizational efficiency, there is no evidence of improved profitability. On the contrary, net profits as a share of assets decline significantly in year t+1 (-1 percent), consistent with higher auditing costs. By contrast, the requirement to file ordinary financial statements alone has no significant effect on any balance-sheet component, either in the short

[1] A limitation of this finding is that it is unclear whether the short duration of the effect is due to some auditors not being reappointed after their initial three-year term (see the persistence analysis in Figure 7a) or to a short-term impact that does not persist even when auditors are re-elected.

or long run.

Under Italian law, auditors can be held personally liable if they fail to prevent financial distress caused by poor supervision, providing them with incentives to ensure compliance with minimum capital requirements and to prompt timely debt restructurings. Consistent with their legal responsibility during company crises, statutory auditors induce the anticipation of in court debt restructuring procedures (e.g. *concordato preventivo*) by nearly a year just above the cutoff, compared to an average of 5 years just below it. We also observe a temporary reduction in bankruptcies in the first three years since the appointment, during the typical tenure of the board. The bankruptcy rate fell by 0.5 percentage points just above the cutoff from a baseline of 0.8 percent at the cutoff. Despite the earlier restructuring and temporary delay in bankruptcies, firm exit rates remain unchanged, suggesting that statutory supervision affects the timing and nature of the reaction to corporate crises rather than long-term survival.

These short-term improvements in capitalization and bankruptcy risk did not translate into lower borrowing costs or improved access to credit, either on the extensive or on the intensive margin. In 2010–2012, we find no significant effects on the probability of having a loan with at least one bank, the number of banking relationships, the amounts of granted or utilized debts or interest rates on mortgages and credit lines. These null results persist up to seven years after the statutory audit requirement is met. Ordinary financial statements do not seem to have a strong impact on credit conditions either. Except for a decrease of 0.3 percentage points in the mortgage interest rate, all other effects on credit in 2021-23 are not statistically different from zero.[2]

The local nature of all these RD estimates, which are identified for firms close to the auditor-introduction threshold, limits their external validity and prevents their straightforward generalization to firms far from the threshold, particularly to large firms.

Currently, Italy stands out as the only major European country where firms with fewer than 50 employees are required to appoint and compensate auditors, a regulatory burden that firms of similar size in peer countries do not face (Figure 2). A cost-benefit analysis suggests that the costs of statutory auditors exceeded their benefits, at least for small private limited companies. While we estimate that statutory auditors reduced bankruptcy-related debt by at most 101 million euros in 2015, the lower estimate of auditors cost ranged from 547 millions in 2017 to 1.2 billion in 2023, as more firms appointed statutory auditors to comply with the lower cutoffs. The average annual compensation for auditors per limited liability company was between 21 and 27 thousand euros, representing a larger burden on smaller firms in terms of net revenues and labor costs. A firm with 20 employees paid approximately between 2.8 and 3.5 percent of its labor cost to statutory

[2]The reduction in mortgage interest rates aligns with the findings of Accetturo et al. [2025], who show that the level of information disclosed in financial statements can influence access to credit. However, this effect is relatively modest and fades by year t+1.

auditors. The cost falls to 0.6-0.8 percent of labor cost for a firm with 50-249 employees and to 0.3-0.4 percent for firms with 250 or more employees. As a point of comparison, labor regulations for French firms with more than 50 employees raised per-worker variable costs by 2.3 percent, according to estimates by Garicano et al. [2016].

On average, aggregate costs for statutory were twelve times larger than the total debt of bankrupt Srl firms and eighteen times larger than the estimated reduction in unpaid debt thanks to statutory auditors. Positive externalities from fewer bankruptcies would have to be eighteen times larger than the unpaid debt to compensate the costs, while empirical estimates suggest modest welfare losses per unpaid dollar of insolvent companies [Jansen et al., 2022]. A caveat to this cost-benefit analysis is that, while we can rule out some potential advantages of statutory auditors, such as improved access to credit or productivity gains, others cannot be conclusively excluded. In particular, benefits that are more difficult to quantify, such as the reduction of job displacement and its associated costs deriving from fewer bankruptcies [Schmieder et al., 2023] improved tax compliance [Daskalaki and Karampinis, 2023] or increased compliance and better governance, may still play a meaningful role which increases the benefits of the appointment of statutory auditors, in particular for larger firms. Another caveat is that the impact of regulation is estimated over the 2010–2012 period, which coincides with a severe downturn following the Italian sovereign debt crisis and may have influenced both firms' behavior and the estimated effects of regulatory oversight.

This paper contributes to the literature on the real economic effects and cost-effectiveness of auditing by providing causal evidence on mandatory supervision by statutory auditors. Prior research shows that audits are not universally cost-effective or beneficial for all private firms [Vanstraelen and Schelleman, 2017]. Consistent with our results, Langli [2015] estimate that small Norwegian firms opting out of audits save approximately 2 thousand euros per year, without observable adverse effects on borrowing costs or credit access. Most existing studies rely on correlational evidence and show that voluntary audits are associated with better credit access, acting as a signal of financial discipline [Allee and Yohn, 2009; Blackwell et al., 1998]. However, mandatory audits appear to be less effective, as they cover firms with less need or ability to convey positive financial signals [Dedman and Kausar, 2012].

Only a few studies attempt to move beyond correlation. Lennox and Pittman [2011] and Kausar et al. [2016] exploit changes in UK audit regulation and find that transitioning from voluntary to mandatory audits can actually raise borrowing costs, suggesting that mandatory audits may obscure the informative value of voluntary audit choice. While insightful, these studies use a control group composed of firms that self-select out of auditing, potentially violating the Stable Unit Treatment Value Assumption [Rubin, 1980]. By contrast, our approach exploits a regulatory threshold, comparing firms just above and just below the mandatory audit cutoff. This allows us to construct a counterfactual based on firms unaffected by mandatory audit but otherwise highly

comparable.

Our paper also contributes to the growing literature on size-dependent regulations, which explores how policies that apply only to firms above certain size thresholds create notches in firm density distribution, generating real economic implications [Schivardi and Torrini, 2008; Braguinsky et al., 2011; Garicano et al., 2016; Boeri and Garibaldi, 2019]. Regulations related to labor laws, tax filing, governance structures, or reporting obligations can distort firm growth, productivity, and organizational choices. Our findings show that statutory auditors can impose non-trivial compliance costs on small firms without delivering corresponding improvements in access to credit or operational performance.

The paper is organized as follows. Section 2 describes the functions of the board of statutory auditors and the criteria for a private limited companies to have one. Section 3 illustrates the data and section 4 explains the empirical strategy and tests its validity. Section 5 presents the results and Section 6 compares the costs and benefits associated with statutory auditors. Section 7 concludes.

2 Institutional background

2.1 The board of statutory auditors

The board of statutory auditors is compulsory for SpA firms and for Srl firms that satisfy certain conditions (section 2.2). The board can be composed of 1, 3, or 5 auditors (*sindaci*) elected by shareholders for a three-year term and cannot include executives, their relatives, or company employees.

The primary responsibility of the board is to ensure compliance with legal provisions, the company's bylaws, principles of sound management, and the adequacy of the company's organizational structure in relation to the complexity of its business activities (*statutory auditing*).[3] In addition to this, statutory auditors are usually entrusted with the task of verifying the compliance of financial statements with applicable accounting standards (*financial auditing*).[4]

While statutory auditors do not possess executive powers and cannot interfere with managerial decisions made by directors, they are vested with broad supervisory and investigative powers. These include the duty to monitor directors' compliance with legal obligations, especially those concerning the maintenance of minimum legal capital and the prompt response to substantial losses that threaten the company's capitalization. For instance, the board has to enforce the maintenance of legal reserves (5 percent of yearly profits up to 20 percent of share capital) and the preservation of the minimum legal capital requirement (10 thousand euros until 2013). If these legal obligations

[3] Articles 2403, 2409-bis, 2409-ter of the civil code.

[4] Statutory auditors can serve as financial auditors as long as the company is not part of a corporate group, a bank, an insurance/reinsurance company, or publicly controlled [Dezzani, 2021]

are not met, statutory auditors are required to urge directors to adopt appropriate remedial measures or proceed with liquidation. Should directors fail to act, auditors have to convene a shareholders' meeting to address the situation.

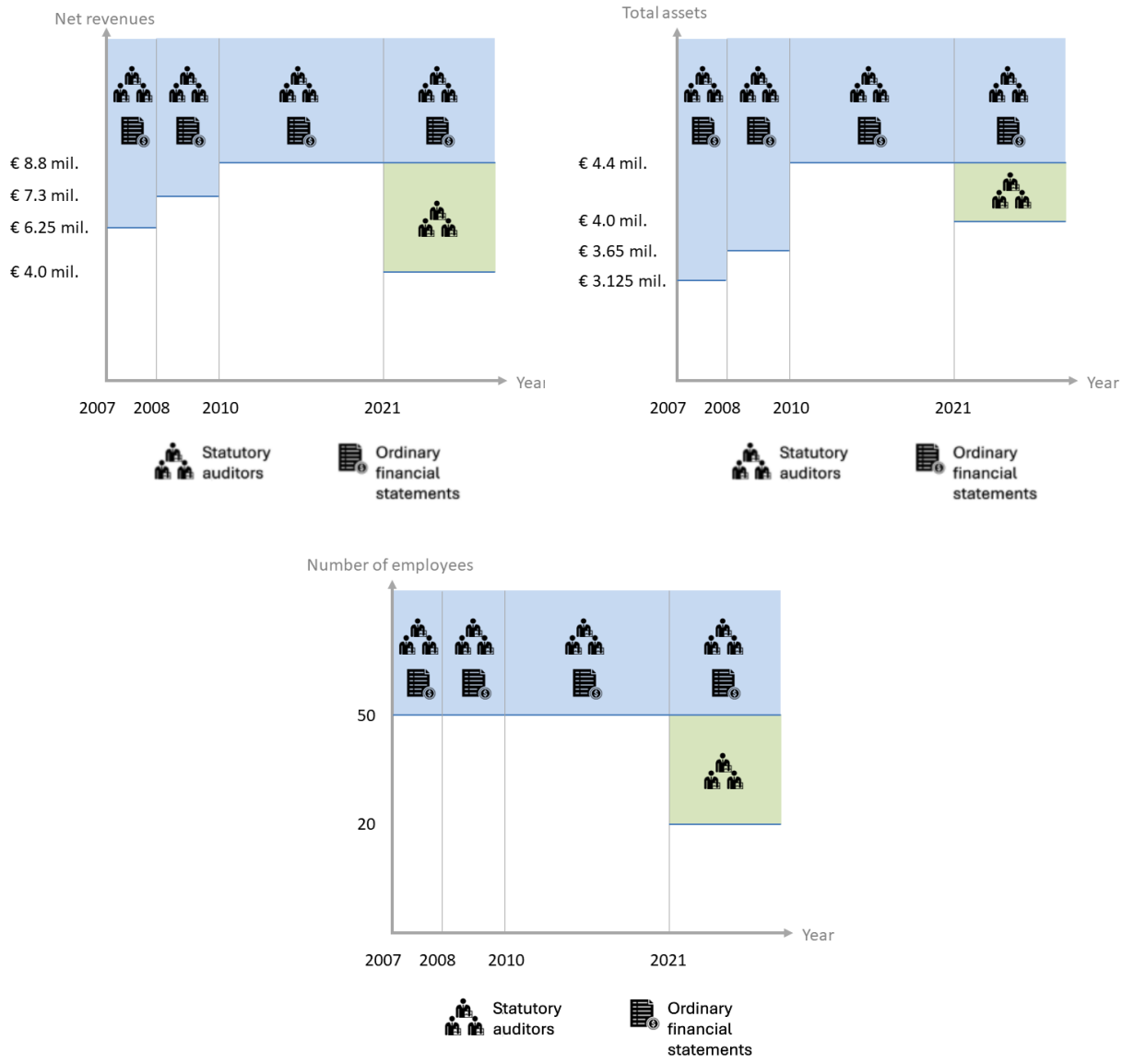
Statutory auditors may be held jointly liable with directors if they neglect their oversight responsibilities and, as a result, contribute to damages suffered by shareholders or creditors. This liability is particularly pronounced in insolvency proceedings, where auditors may be held accountable for losses stemming from their failure to intervene or report misconduct. Due to concerns over the potentially excessive scope of this liability and its impact on professional indemnity insurance costs, a recent legal reform introduced a cap on the statutory auditors liability for damages, limiting it to a multiple of their remuneration.

2.2 When is the board of statutory auditors required?

From 2010 to June 2019, Italian private limited companies had the legal obligation to appoint a board of statutory auditors if they satisfied two of the following criteria in the previous two fiscal years: a minimum level of net revenues of 8.8 million euros, a minimum level of total assets of 4.4 million euros, and a minimum number of employees of 50. We define these values as *old thresholds*.[5]

[5]Legislative Decree No. 173/2008.

Figure 1: The thresholds over time



Until 2019, the same thresholds applied to the requirement to file ordinary financial statements with the Business Register, instead of condensed financial statements. Ordinary financial statements include the full balance sheet, profit and loss account, cash flow statement, management report, and detailed explanatory notes. In contrast, the condensed financial statements omit the cash flow statement and management report and provide a simplified version of the remaining documents [Unioncamere, 2024].

The criteria for statutory auditors changed in June 2019.[6] Statutory auditors became compulsory for any limited-liability firm that satisfied only one of the following criteria in the previous two

[6]Article 2-bis, Decree-Law No. 32/2019, as amended by art. 1 of the conversion Law No. 55/2019.

fiscal years: a minimum level of net revenues of 4 million euros, a minimum level of total assets of 4 million euros, and a minimum number of employees of 20. The date of effectiveness of the thresholds for the appointment of statutory auditors has been postponed several times: while firms were initially meant to comply by 2019[7], that date has been successively postponed to the approval date of the annual accounts for 2019[8], then of 2021[9], and finally of 2022[10]. The postponements have generated uncertainty within firms, and many of them effectively complied earlier. By 2021, there was no discontinuity in the probability of having appointed statutory auditors around the *old thresholds*, signaling that larger firms below the *old thresholds* had already appointed the statutory auditors. Conversely, the criteria for the ordinary financial statements remained unchanged from 2010 to date.[11] We define these the thresholds *de facto* effective since 2021 as *new thresholds*. The changes in the criteria for the board of statutory auditors and the ordinary financial statements are illustrated in Figure 1.

2.3 Cross-country comparison

The existence of statutory auditors charged with formal control on the firm's activity represents a distinctive feature of the Italian Srl corporate governance model, whereas purely financial auditors are common in other countries. In the US, most private companies are not required to undergo a mandatory audit, except in specific cases such as financial institutions [Minnis and Shroff, 2017]. In Europe, most private companies, except for the smallest, are required to have some form of financial audit. Limited liability companies in the main European countries, such as the French *société à responsabilité limitée*, the German *Gesellschaft mit beschränkter Haftung*, or the British *private limited companies*, are not required to have a separate body in charge with statutory auditing. Instead, firms of these countries are subject to mandatory financial audits if they exceed certain size thresholds.

[7] Article 379, Legislative Decree 14/2019.

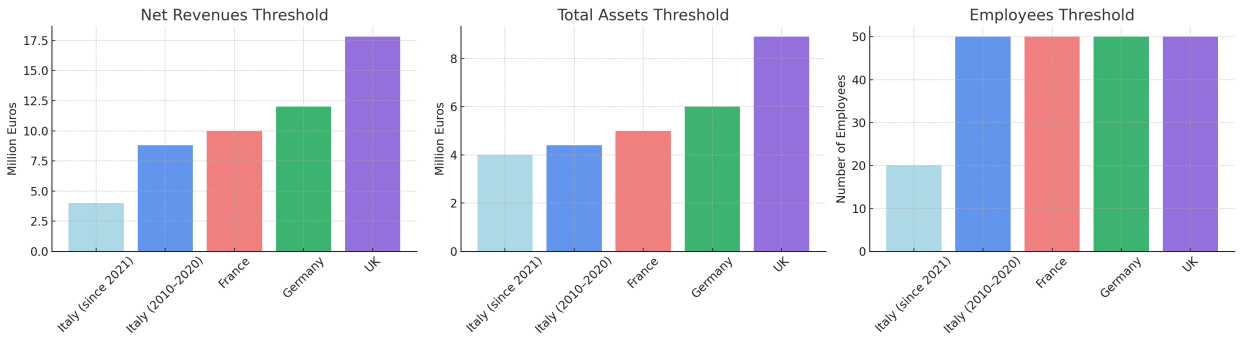
[8] Article 8, Decree-Law No. 162/2019 as amended by art. 1 of the conversion Law No. 8/2020.

[9] Article 51-bis, Decree-Law No. 34/2020 as amended by art. 1 of the conversion Law No. 77/2020.

[10] Article 1-bis, Decree-Law No. 118/2021 as amended by art. 1 of the conversion Law No. 147/2021.

[11] Before 2010 the thresholds were lower with respect to 2010-2019, but they were still identical for both the board of statutory auditors and the ordinary financial statements.

Figure 2: Cross-country comparison of thresholds for auditors



Source: for Italy see the main text, for France see Direction de l'information légale et administrative [2025], for Germany see Wolfgang Dittrich GmbH [2020], and for the UK see UK Government [2024].

Under the EU Accounting Directive 2013/34/EU, the *maximum* thresholds for audit exemption are 6 million for total assets, 12 million for net revenues and 50 employees. France and Germany set their thresholds close to or at these maximum levels. In contrast, Italy's thresholds are substantially lower, especially after the 2019 reform (Figure 2).

For net revenues, Italy's threshold is set at €4 million, compared to €10 million in France, €12 million in Germany, and €17.8 million in the UK.[12] For total assets, the Italian threshold is €4 million, whereas it is €5 million in France, €6 million in Germany, and €8.9 million in the UK.[13] For the number of employees, Italy requires auditors for firms with just 20 employees, while all three peer countries set the threshold at 50 employees [Direction de l'information légale et administrative, 2025; Wolfgang Dittrich GmbH, 2020; UK Government, 2024].

Additionally, Italy now applies a single-criterion rule: firms are required to appoint auditors if they exceed any one of the three thresholds. In contrast, Germany, France, and the UK only mandate audits when at least two thresholds are exceeded. As a result, Italy stands out as the only major European country where small firms (with fewer than 50 employees) are required to appoint and compensate auditors, a regulatory burden that firms of similar size in peer countries do not face. This partly reflects policymakers' intent to achieve broad supervisory coverage within Italy's fragmented productive sector, where small firms are disproportionately represented relative to other countries [Bugamelli et al., 2018].

[12] Equivalent to £15 million in May 2025.
[13] Equivalent to £7.5 million in May 2025.

3 Data

For the analysis, we use firm-level administrative data for each year from 2010 to 2023. *Cerved Group* provides information on financial statements (both balance sheet and profits and losses) for the universe of Italian public limited companies and private limited companies. From this dataset, we obtain annual information on total assets, total debt, equity, paid-up capital and reserves, net profits, dividends and labor cost. The financial statements include also the information on whether the budget is ordinary or condensed. Finally, this data allows us to construct a measure of firm survival, by assuming that firms that disappear from the dataset, exit the market.

The financial statements are linked to several other sources via a unique firms fiscal identifier. From the registers of the *Chambers of Commerce* (INFOCAMERE) we collect information at the firm level on the type of firm (private or public limited company), the presence and number of statutory auditors for each firm in each year, as well as the starting date of any bankruptcy procedure. The *National Institute for Social Security* (INPS) provides the yearly average number of employees at the firm level. Data on the credit relationship of the firm with the banking system is obtained from the *Central Credit Register*.

The *Central Credit Register* provides detailed information on all bank-firms relationships for all firms with overall exposure with Italian banks above 30 thousand euros.[14] For each month from 2010 onwards, we have information on the size of overall firm's exposure (both granted and used credit) with each of its banks and on the presence of problematic loans, namely *past due*, *substandard*, *bad* and *non-performing* loans.[15] The information, available at the monthly frequency for each firm-bank relationship, is collapsed at the firm-year level. From this dataset, we obtain annual information on the number of banks, granted and utilized debt amounts and the mortgage amounts. For a subsample of banks that amounts to more than 80 percent of total lending in Italy [Banerjee et al., 2021], we also have annual information on the average yearly interest rates on existing credit lines and new mortgages started in a given year, as well as the amount of new mortgages.

[14] Since 2008, a firm is recorded in the CR if it has an exposure to the banking system that is above 30 thousand euros. This threshold is lowered to 250 euros if the firm has some bad loans (*sofferenze*).

[15] *Past due* loans (*scaduti*) are exposures, not yet classified as substandard restructured or bad loans, that the borrowers have continuously delayed by more than 90 days. *Substandard* loans (*incagli*) are exposures by firms that are facing temporary difficulties that the banks expected to be resolved within a reasonable period of time. *Bad* loans (*sofferenze*) are those by firms the bank considers as insolvent because they are definitively unable to settle their debt. A firm is classified as *non performing* (*default rettificato*) if a significant share of its total exposure is classified as *past due*, *substandard*, *restructured* or *bad*.

4 Empirical strategy

4.1 Estimation

To identify the intention-to-treat effects of having statutory auditors and ordinary financial statements, we use a regression discontinuity design. For firm i in year t we estimate the equation:

$$Y_{i\tau} = \alpha + \beta I(r_{it} - c_r \geq 0) + g(r_{it} - c_r) + \varepsilon_{it}, \quad \text{for } \tau \in \{t, t+1, t+2\} \tag{1}$$

where $Y_{i\tau}$ denote the dependent variable and r_{it} the running variable (net revenues, total assets or number of employees). The function $g(r_{it} - c_r)$ represents a linear specification of the running variable centered at the cutoff c_r, with potentially different slopes on either side of the threshold.[16] The indicator function $I(r_{it} - c_r \geq 0)$ equals 1 if the observation lies to the right of the cutoff and 0 otherwise. We employ triangular kernel weights and cluster standard errors at the firm level. Results are presented using the conventional regression discontinuity estimator and the robust bias-corrected estimator, within the optimal bandwidth selected according to the method by Calonico et al. [2014].

In the main regressions, we estimate the effects in a time horizon of three years (from $\tau = t$ to $\tau = t + 2$) because this is the time span in which the board of statutory auditors remains in charge as well as the observable time horizon after the change in cutoffs became *de facto* effective in 2021. After three years, the firm must appoint a new board of statutory auditors only in case it continues to satisfy the criteria set by the law.[17]

As it is common in the literature, in addition to the estimates derived from Equation 1, we present the main results also graphically. The figures show the conditional averages of the dependent variable ($Y_{i\tau}$) as a function of the running variable (net revenues), centered around the cutoff, together with the confidence interval.

Relying on a data-driven approach, we select the thresholds and years that do not show evidence of manipulation, but are characterized by a sufficiently strong level of compliance. We restrict the sample to private limited companies with positive revenues for which a criterion is binding. This means that they must satisfy only one of the other two criteria for the old thresholds, and none of the other two criteria for the new thresholds.

[16] In Appendix Section A.3, we show that the main results are robust to replacing g with a quadratic function, $g_2(r_{it} - c_r)$.

[17] To test whether there are long-term effects, in the Appendix we will also report the estimates up to year t+7 for the firms in the sample of period 2010-12.

4.2 Compliance

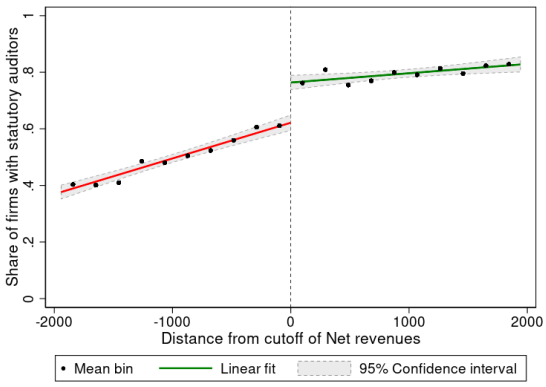
A substantial number of firms around the old thresholds for net revenues and total assets complied with the laws. From 2010 to 2020 firms just above these thresholds were significantly more likely to have statutory auditors than firms just below (see Figure 3, panels a and c)[18]. Since 2021, following the change in the thresholds, the difference in the probability of having statutory auditors around the old thresholds disappeared (panels b and d).

The criteria for the ordinary financial statements remained unchanged as only the old threshold apply from 2010 to 2023. Therefore, firms just above the old thresholds for net revenues and total assets remained more likely to have ordinary financial statements than firms just below throughout the entire period 2010-23 (Table A1). On the other hand, firms around the new thresholds have not yet complied to the new laws approved in 2019. We do not find any impact of the new thresholds on the probability of having statutory auditors (Figure 4).

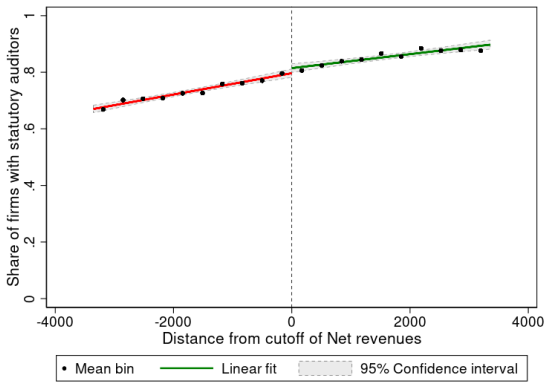
In addition, the threshold for the number of employees appears to be less binding (Figure 3, panels e and f). We observe significant effects on the probability of having statutory auditors or ordinary financial statements in few years only (Table A1). This measure of workforce is noisy because it is subject to monthly fluctuations of nonpermanent workers that are not observed in our annual dataset.

[18] See also Table A1.

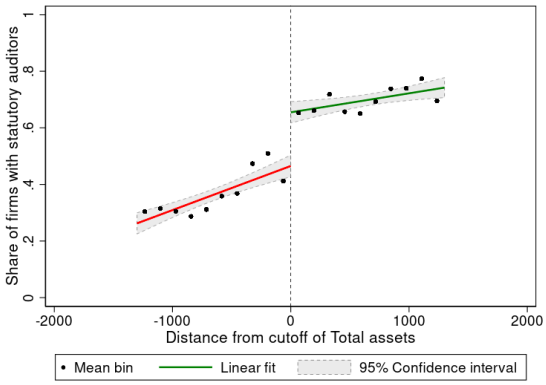
Figure 3: Share of firms with statutory auditors at the *old thresholds*.



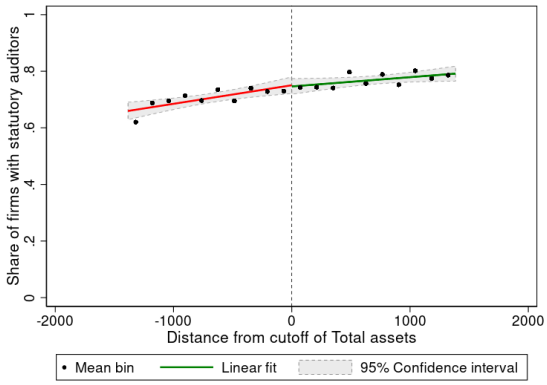
(a) Net revenues, 2010-12



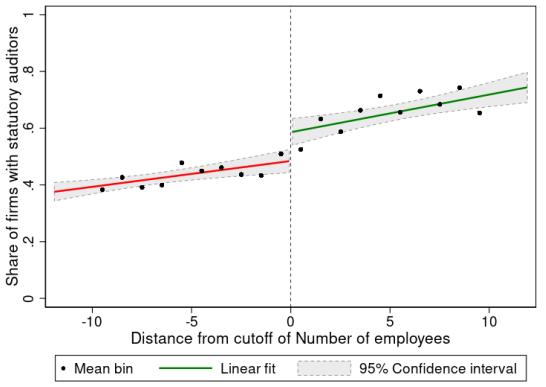
(b) Net revenues, 2021-23



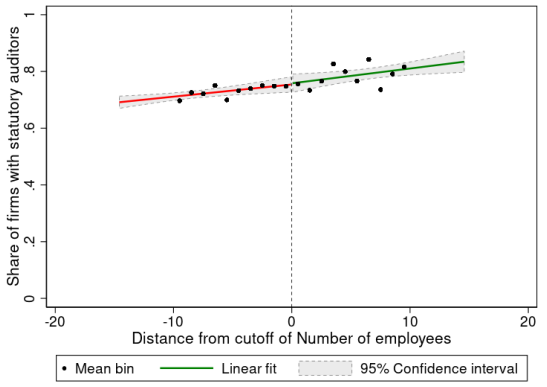
(c) Total assets, 2010-12



(d) Total assets, 2021-23



(e) Number of employees, 2010-12

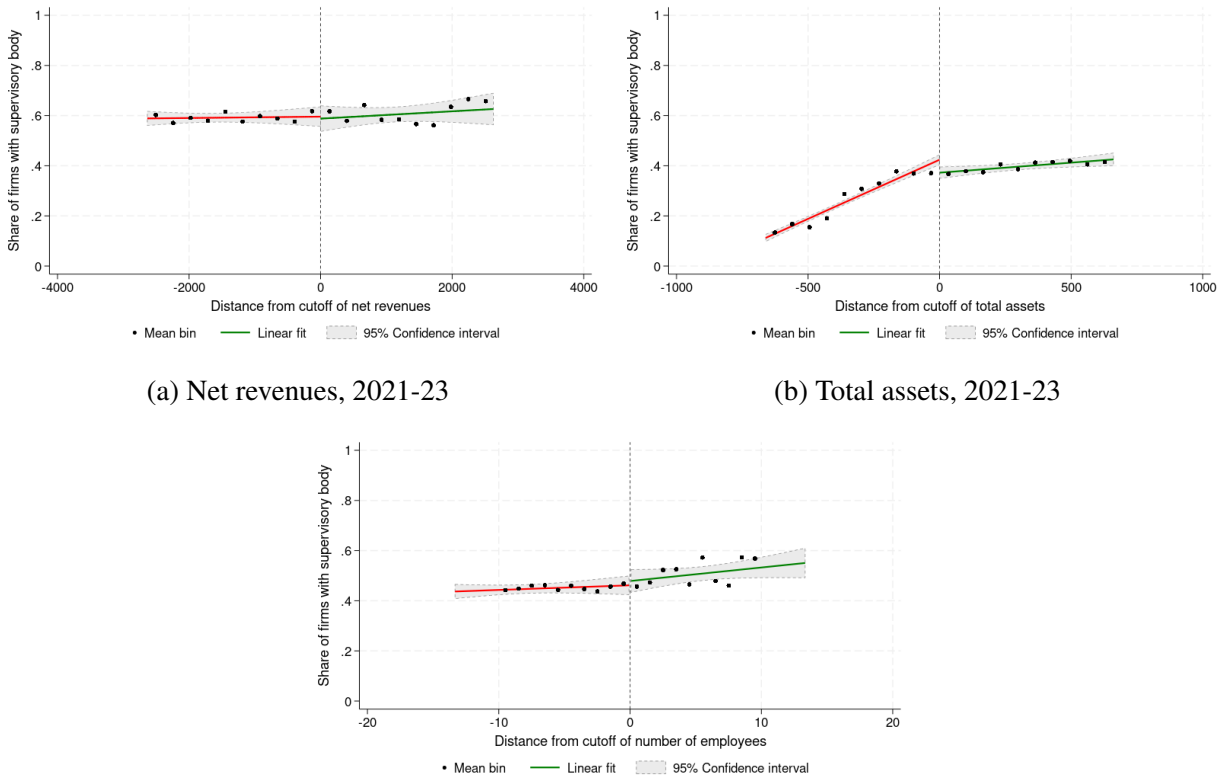


(f) Number of employees, 2021-23

Notes: The figures show the share of firms with statutory auditors conditional as a function of the distance of the running variables from the cutoffs in years 2010-12 and 2021-23. The running variables are centered at the cutoff, indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

To summarize, only the old thresholds for revenues and total assets are characterized by a sufficiently large discontinuity in the probability of having statutory auditors to study their impact on firms. Therefore, in our empirical strategy we exploit only the old thresholds and we do not consider the number of employees as running variable.

Figure 4: Share of firms with statutory auditors at the *new thresholds*.



(a) Net revenues, 2021-23

(b) Total assets, 2021-23

(c) Number of employees, 2021-23

Notes: The figures show the share of firms with statutory auditors conditional as a function of the distance of the running variables (the minimum in the previous two years) from the new cutoffs in 2021-23. The running variables are centered at the cutoff and the cutoff is indicated by the dashed line. The cutoff for net revenues is 4 million euros. The cutoff for total assets is 4 million euros. The cutoff for number of workers is 20. The sample is composed by limited liability companies (s.r.l.) that satisfy none of the other two criteria that trigger the legal obligation to have ordinary financial statements. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

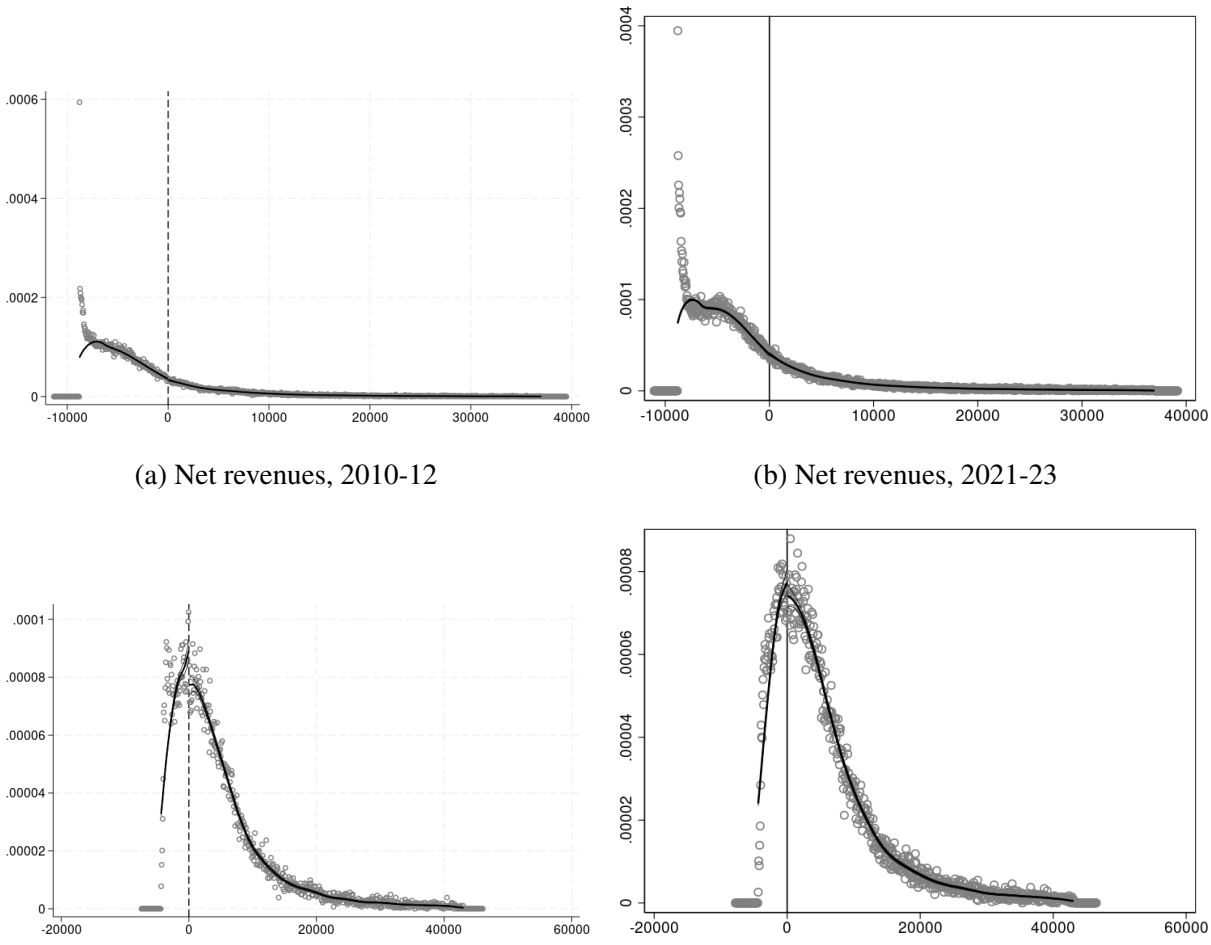
4.3 Evidence of manipulation

In addition to compliance, the empirical strategy requires the absence of manipulation. Applying the manipulation tests by McCrary [2008] and Cattaneo et al. [2018], we do not find evidence of

bunching below the cutoff of net revenues from 2010 to 2012, but we find evidence of bunching below the cutoff of total assets since 2010 (Figure 5 and Table A2). Therefore, in the empirical analysis we do not consider total assets as running variable.

In 2021-23, after the 2019 reform, we do not find evidence of manipulation for any of the three running variables at the old thresholds. The absence of bunching below the old thresholds after 2020 suggests that firms find ordinary financial statements less costly or more beneficial than statutory auditors: they do not engage in the same manipulation efforts as in the previous years.

Figure 5: McCrary test on density of running variables at the *old thresholds*.



(a) Net revenues, 2010-12

(b) Net revenues, 2021-23

(c) Total assets, 2010-12

(d) Total assets, 2021-23

Notes: This figure shows the density of firms grouped in bins defined according to the method by [McCrary, 2008] conditional on the distance of net revenues and total assets from the cutoff in years 2010-12 and 2021-23. The running variables are centered at the old cutoff and the cutoff is indicated by the dashed line. The solid line plots fitted values from a local linear regression of density on the deviation of the running variable from the cutoff, separately estimated on both sides of the cutoff. The thin lines represent the 95 percent confidence interval.

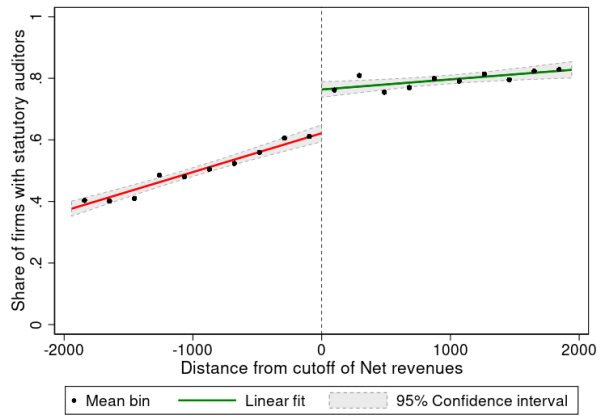
4.4 First stage

Given the evidence presented in Section 4.2 and Section 4.3, we focus our analysis around the old threshold of *net-revenues* (8.8 million euros) in 2010-12 and 2021-23. While we find no evidence of manipulation around this threshold in these periods, we observe a significant increase in the likelihood of appointing statutory auditors in 2010-12 (Panel a of Figure 6 which is identical to Panel a of Figure 3). This increase in the likelihood disappears in 2021-23 when the thresholds are not relevant anymore for the appointment of auditors (Panel b of Figure 6). We also observe a positive discontinuity in the likelihood of filing ordinary financial statements in 2010-12 and 2021-23, smaller in magnitude yet similar across the two periods (Panels c and d of Figure 6). Being above the threshold of net revenues in 2010-12 raises the probability of having statutory auditors by 13 percentage points and ordinary financial statements by 4.7 percentage points (Table A7). In 2021-22 the positive effect remains virtually unchanged for ordinary financial statements (4.6 percentage points) but it disappears for statutory auditors, as the old threshold is no longer binding.

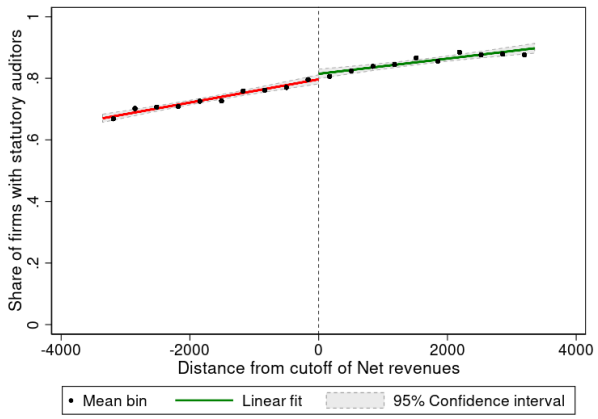
We perform the main analysis separately for the period $2010 \leq t \leq 2012$ and for the period $2021 \leq t \leq 2022$, by estimating equation (1), with different dependent variables. Our coefficient of interest is β: when $2010 \leq t \leq 2012$, β represents the intention-to-treat effect of having both statutory auditors and ordinary financial statements; when $2021 \leq t \leq 2023$, β represents the intention-to-treat effect of having ordinary financial statements only.

As mentioned above, we focus on the sample of private limited companies for which the net-revenue criterion is binding. This means that they have either the number of employees above 50 or the amount of total assets above 4.4 million euros, but not both. As shown in Table A3, the sample of firms in 2010-12 are balanced on the two sides of the net-revenues cutoff in terms of all predetermined outcome variables. Only 1 out of 12 predetermined outcome variables (mortgage amount) presents a significant discontinuity at the cutoff in 2021-23 (Table A4). We do not believe that this represents a systematic difference between the two sides of the cutoff. Performing these regressions as seemingly unrelated regressions, we cannot reject the hypothesis that the coefficients are all equal to zero.

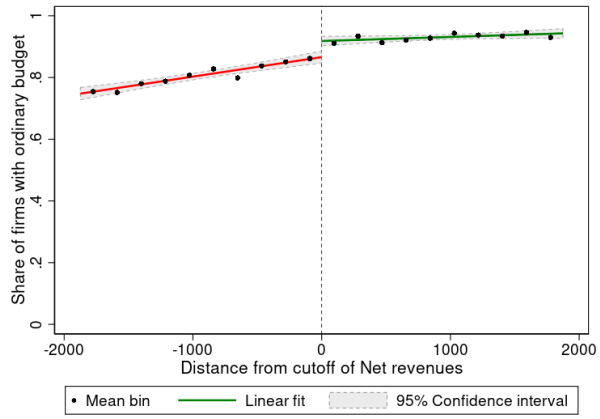
Figure 6: Share of firms with statutory auditors and ordinary financial statements at the *old net-revenue threshold*.



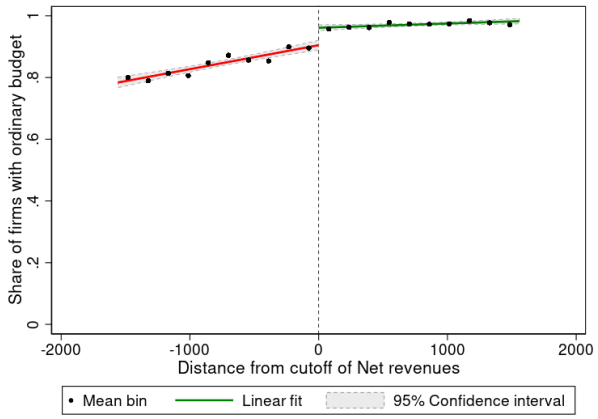
(a) Statutory auditors, 2010-12



(b) Statutory auditors, 2021-23



(c) Ordinary financial statements, 2010-12



(d) Ordinary financial statements, 2021-23

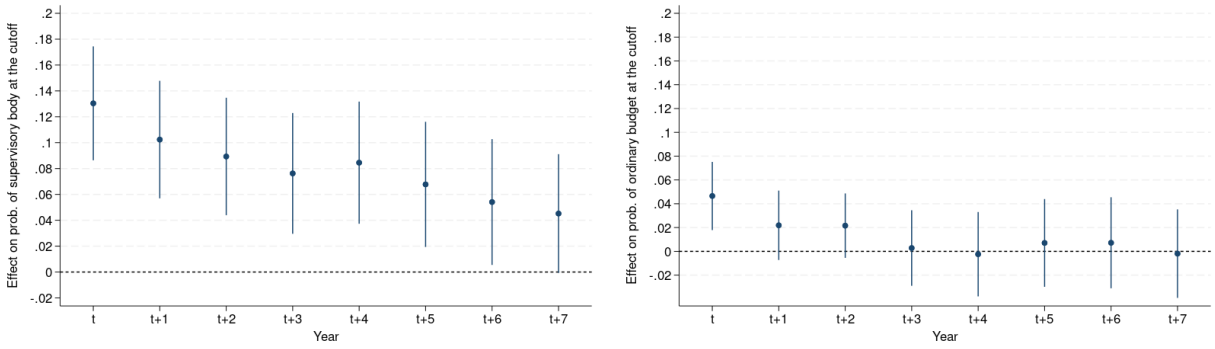
Notes: The figures show the probabilities of having at least one statutory auditor (Panels a-b) and filing ordinary financial statements (Panels c-d) the distance of the running variable from the cutoff in years 2010-12 and 2021-23. The running variable is the minimum net revenues in the previous two years centered at the cutoff of 8.8 million euros, indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

Persistence. The discontinuity in the likelihood of having statutory auditors at the cutoff of net revenues in 2010-12 diminishes over time (Figure 7a and Table A5). Having net revenues just above the cutoff in year t increases the probability of having statutory auditors by 13.1 percentage points in the same year. This difference decreases to 7.6 percentage points in year $t+3$ following the end of the natural term for a board of statutory auditors, and further declines to 4.5 percentage points after seven years. The difference does not drop to zero in year $t+3$ because the board may

be reappointed if the firm continues to meet the legal criteria.

The discontinuity in the probability of having an ordinary budget at the cutoff is both smaller and less persistent. In year t, the difference is only 4.7 percentage points and becomes not statistically different from 0 in the following year (Figure 7b and Table A6).

Figure 7: Persistence in statutory auditors and ordinary budget just above the cutoff



(a) Statutory auditors

(b) Ordinary budget

Notes: Panel (a) shows the change in the probability of having statutory auditors at year-t cutoff from year t to t+7. Panel (b) shows the change in the probability of having an ordinary budget at year-t cutoff from year t to t+10. The cutoff for net revenues is 8.8 million euros. The sample is composed by limited liability companies (s.r.l.) that satisfy only one of the other two criteria that trigger the legal obligation to have ordinary financial statements and are within the optimal bandwidth in years 2010-12. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

4.5 Summary statistics

Table A8 reports means, standard deviations, and the number of non-missing observations for the variables used in the analysis. The sample includes firms within the first-stage optimal bandwidth around the old net-revenue cutoff [Calonico et al., 2014].

The share of firms with statutory auditors rose from 61 percent in 2010–2012 to 77 percent in 2021–2023, after the cutoffs were lowered and compliance requirements were broadened. In contrast, the share of firms drafting an ordinary budget remained stable at approximately 85 percent, as the relevant criteria were unchanged. Among firms with a board of statutory auditors, the average number of auditors decreased from 2.9 to 1.2, due to a reform in 2012 that allowed Srl firms to have a single statutory auditor, while the previous minimum was three. Accordingly, its average annual cost fell from 26-33 to 16-21 thousand euros, according to the different estimates.

The average firm in both periods employed about 28 workers and held €10–11 million in total assets, roughly one-third of which was financed by equity—mainly paid-up capital and re-

serves—with the remainder covered by debt. The share of assets accounted for by paid-up capital and reserves rose from 24 percent in 2010–2012 to 32 percent in 2021–2023, coinciding with the increase in firms subject to oversight by statutory auditors. Around 90 percent of firms that we observe in year t survive by year $t + 2$. Only 1 percent filed for bankruptcy and an additional 1 percent restructured their debt by year $t + 2$ during the 2010–2012 period.

To account for outliers, in the following estimates we trim the distribution of interest rates, paid-up capital and reserves, equity, total assets and debt amounts at the 99^{th} percentile.

5 Results

Statutory auditors increased the regulatory burden. The compensation range for statutory auditors is established by the law [Desana, 2013](Article 29 of Ministerial Decree 140/2012). As illustrated in Figure B6 and detailed in Table A66, compensation is an increasing piecewise linear function of the sum of the firm's total assets and net revenues. Individual compensation is doubled when the board of statutory auditors consists of a single member (*sindaco unico*) and increased by 50 percent if the member serves as president. Therefore, the minimum and maximum annual compensation for auditors established by the law depend only on three variables that we observe for each firm from 2010 to 2023: total assets, net revenues and number of statutory auditors. Assuming firms complied with the compensation range set by Article 29, we can compute the minimum and maximum annual cost of statutory auditors for each firm in each year.

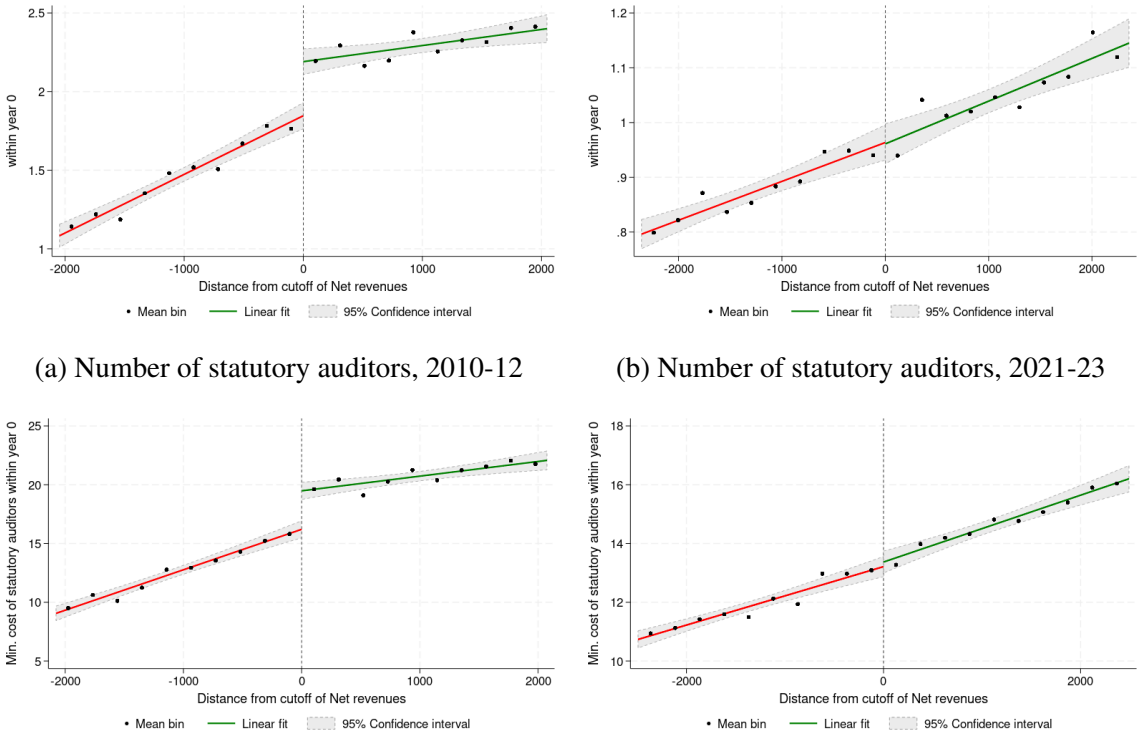
The dashed line in Figure B6 marks private limited companies at the cutoffs in 2010, with total assets at 4.4 million euros and net revenues at 8.8 million euros. For companies at these thresholds, the annual cost of the board of statutory auditors ranged from 13 to 18 thousand euros for a single member, from 24 to 30 thousand euros for three members, and from 37 to 49 thousand euros for five members. Between 2010 and 2023, approximately 64 percent of firms with a board of statutory auditors in our sample had a single member, 33 percent had three members, and fewer than 3 percent had five.

Being above the cutoff prompted firms to appoint 0.32 more statutory auditors in year t, rising from an average of 1.87 auditors during 2010-12 (Figure 8 and Table 1). This corresponds to an intensive-margin increase of 17 percent, slightly more than the 13 percentage point extensive-margin increase in the probability of having a board of auditors. As a result, firms just above the threshold incurred an additional cost of between 3 and 4 thousand euros, compared to the average statutory auditor cost of 16-21 thousand euros just below.[19] No significant changes were observed

[19] Above the threshold, total costs increase by approximately 3–4 thousand euros, while the number of auditors rises by 0.345. This implies a per auditor cost at the threshold of about 9–10 thousand euros in 2010–12. Multiplying this figure by the average number of auditors, which was around 2.6 in 2010–12 (see Figure B8), yields a total cost of roughly 21–27 thousand euros per board of statutory auditors, as reported in Section 6.

in either the number or the cost of statutory auditors in 2021-23, given that the 2010-12 cutoff was no longer binding (Figure 8 and Table A9).[20].

Figure 8: Effects on the number and cost of statutory auditors, in 2010-12 and 2021-23



(a) Number of statutory auditors, 2010-12

(b) Number of statutory auditors, 2021-23

(c) Min. cost of statutory auditors, 2010-12

(d) Min. cost of statutory auditors, 2021-23

Notes: The figures show the average number of statutory auditors (Panels a-b), and their average minimum cost in thousand euros (Panels c-d) in year 0 as a function of the distance of the running variable from the cutoff in years 2010-12 and 2021-23. The running variable is the minimum net revenues in the previous two years centered at the cutoff of 8.8 million euros, indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

[20]These results are very similar if we use a quadratic rather than a linear polynomial of the running variable (Tables A29 and A38)

Table 1: Effect of being above the cutoff on number of auditors and their cost in 2010-2012.

	Number of statutory auditors			Min. cost of statutory auditors			Max. cost of statutory auditors		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.345***	.33***	.297***	3.25***	2.97***	2.84***	4.22***	3.83***	3.64***
	(.0639)	(.0654)	(.0631)	(.564)	(.581)	(.548)	(.725)	(.746)	(.703)
Above cutoff (robust)	.315***	.3***	.268***	3***	2.69***	2.59***	3.88***	3.48***	3.33***
	(.0692)	(.0703)	(.0689)	(.613)	(.626)	(.6)	(.788)	(.804)	(.769)
Mean	1.87	1.81	1.6	16.5	16.7	15.4	21.3	21.6	19.9
Bandwidth	2046	1847	2062	2077	1859	2089	2077	1848	2071
Observations	14263	12073	12900	14531	12160	13072	14528	12085	12972

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Statutory auditors temporarily induced firms to strengthen their balance sheets. Statutory auditors induced owners to raise the amount of paid-up capital and reserves (Table 2 and Figure 9). In 2010-12, paid-up capital and reserves were around 130-150 thousand euros higher just above the cutoff than just below in each of the first three years. Given that the firms in the sample had an average of around 1.8-1.9 million euros at the cutoff, the impact corresponds to a 7-8 percent increase in these three years. [21]

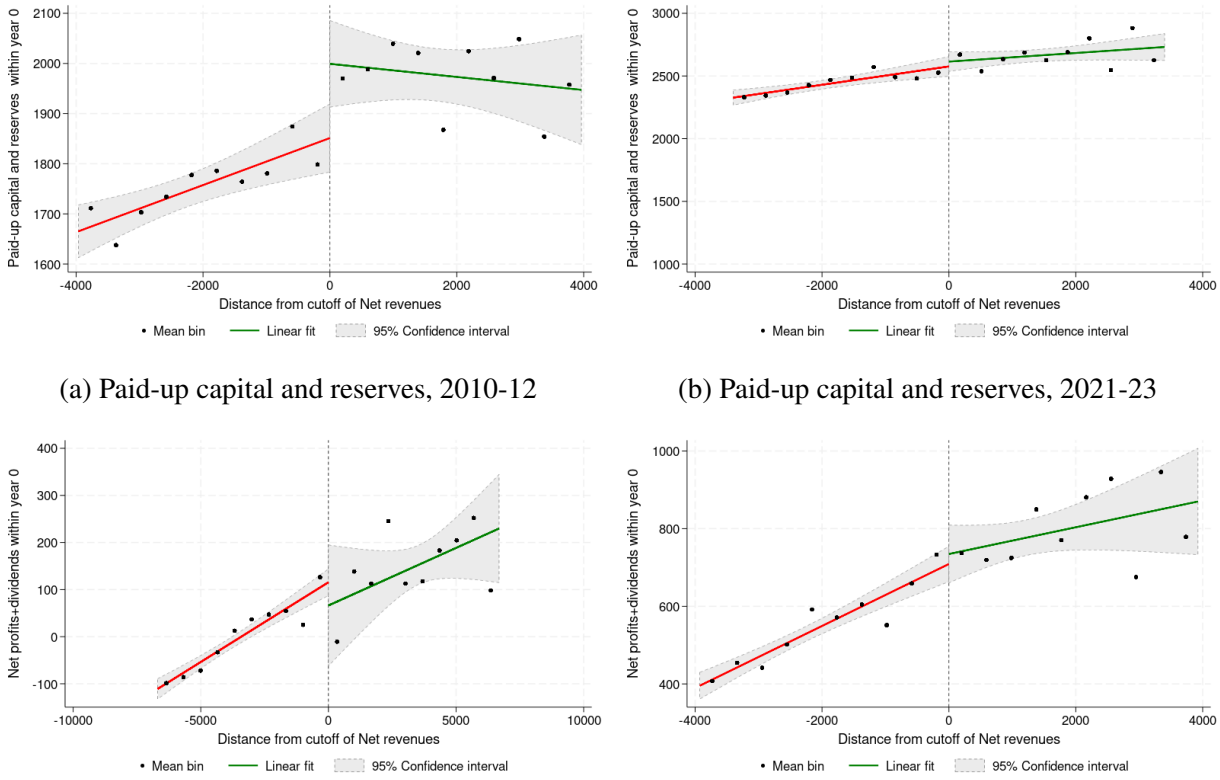
The effect is short-lived: it becomes statistically insignificant by year $t + 2$, it sharply declines in magnitude by year $t + 3$, coinciding with the typical end of the statutory auditors' term, and it remains not statistically different from zero in the following years (Table A51). A limitation of this finding is that it is unclear whether the short duration of the effect is due to some auditors not being reappointed after their initial three-year term (see the persistence analysis in Figure 7a) or to a short-term impact that does not persist even when auditors are re-elected. Moreover, the effect is modest (+1.3 percent) and only marginally significant when paid-up capital and reserves are expressed as a share of assets (Table A11). The obligation to file ordinary financial statement does not explain the short-term rise in paid-up capital and reserves, as no discontinuity is observed in this outcome during 2021–2023 at the relevant threshold (Table A20).

Statutory auditors might also play an advisory role and improve the efficiency of the production process, the managerial practices and the company organization. We find little evidence in support of this. Columns (4)-(6) of Table 2 and Table A15 rule out any significant effect on net profits

[21] This finding is not driven by the presence of outliers, as it is robust to trimming observations above the 99^{th} percentile. The effect is stronger and significant at 5 percent significance level in all three years if we do not trim the sample (Table A10). Note that the effect on paid-up capital and reserves is not driven by asset manipulation (Table A3). Most firms in the sample have more than 4.4 millions in assets (the average below the threshold is 8.8 millions). If we only keep firms above the asset threshold (and below the employee threshold) the results remain qualitatively the same.

and dividends, as well as total factor productivity.[22] On the contrary, in Table A12 we express net profits as a share of assets and estimate a negative effect in year t+1 (-1 percent), which is consistent with the increase in cost for statutory auditors.[23]

Figure 9: Effects on paid-up capital and reserves in year t, net profits and dividends, in 2010-12 and 2021-23



(a) Paid-up capital and reserves, 2010-12

(b) Paid-up capital and reserves, 2021-23

(c) Net profits and dividends, 2010-12

(d) Net profits and dividends, 2021-23

Notes: The figures show the average paid-up capital and reserves (Panel a-b), net profits and dividends (Panel c-d) in year t as a function of the distance of the running variable from the cutoff in years 2010-12 and 2021-23. the running variable is the minimum of net revenues in the previous two years centered at the cutoff of 8.8 million euros, indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

The rise in paid-up capital and reserves has a positive effect on equity in each of the first three years (Table A13). However, this effect is not statistically significant, as it is partially offset by net

[22]Total factor productivity is estimated with the Stata program *prodest* [Rovigatti and Mollisi, 2018]. It assumes a Cobb-Douglas production function and uses deflated net revenues as output and the cost of labor, capital, and intermediate goods as inputs. Parameters are estimated with the method by Wooldridge [2009] to address input endogeneity.

[23]The estimates on paid-up capital and reserves as well as those on net profits can be partially affected by firms being above the threshold having a mechanically larger amount of net revenues than firms below the threshold. That is why we normalize these variables, expressing them as a share of assets.

profits and dividend distributions in year t.[24] This pattern is consistent with stricter enforcement of the legal requirement to allocate 5 percent of annual profits to legal reserves, as well as with the obligation to maintain a minimum level of share capital. Again, the obligation of filing ordinary financial statements did not have any relevant impact on balance sheet variables, as we find no significant effect in 2021-23 (Table A23). If we use a regression specification with a quadratic polynomial for the running variable, the impact on paid-up capital and reserves remains significant in year t (Table A30), while the other estimates are qualitatively unchanged (A34, A40 and A39).

Table 2: Effect of being above the cutoff on equity components in 2010-2012.

	Paid-up capital and reserves			Net profits+dividends		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	148**	130**	136*	-75.3	23.6	79.8
	(60.3)	(63.7)	(71)	(90.3)	(46.1)	(50.4)
Above cutoff (robust)	156**	129*	136	-104	40.2	100*
	(70.4)	(74.6)	(83.3)	(115)	(52.3)	(56.7)
Mean	1838	1876	1887	104	57.1	28.8
Bandwidth	3965	4203	4193	6688	3387	3219
Observations	28371	28572	26754	57779	23650	21166

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Statutory auditors temporarily reduced bankruptcies without improving credit conditions. The increase in paid-up capital and reserves can explain why the presence of statutory auditors reduced the probability of bankruptcy within two years by 0.5 percentage points during the 2010–2012 period, falling from an average of 0.8 percent just below the cutoff (see Table 3). Another channel through which statutory auditors can prevent bankruptcies is by accelerating non-liquidatory procedures, such as in court debt restructuring (e.g. in court composition with creditors, *concordato preventivo*). Indeed, the temporal distance from the first restructuring of debts fell by nearly a year just above the cutoff, compared to an average of 5 years just below it. This reduction in bankruptcy rates appears to be transitory: it disappears at $t + 3$, when the standard three-year tenure of a board of statutory auditors ends (Table A55). Interestingly, market exit is not significantly affected. Firms appear to exit the market at the same rate on the two sides of the cutoff, but with lower probability to go bankrupt before exiting if they have statutory auditors. These findings are robust to using a quadratic instead of a linear specification (Table A33).

[24]The estimates on equity and assets are significantly positive only if we include observations above the 99^{th} percentile of their distribution (Table A14).

The impact of regulation on business crises is assessed over two relatively short periods (2010–12 and 2021–23), as only in these intervals do the key assumptions underlying the empirical strategy plausibly hold (see Section 4). A limitation regarding the external validity of these findings is that the period 2010–12 coincides with a severe and prolonged economic downturn following the Italian sovereign debt crisis. This exceptional macroeconomic environment may, on the one hand, have amplified the estimated effects of statutory auditors on bankruptcies and debt restructurings. On the other hand, the downturn may have induced more cautious behavior by firms, potentially attenuating the effect on exit and the scope for regulatory intervention. More generally, regulatory oversight may be more relevant and justified during expansionary phases of the business cycle, when firms are prone to excessive risk taking or overinvestment, behaviors that can generate moral hazard by shifting risk onto creditors.

Despite the increase in equity, statutory auditors do not seem to help firms obtain better credit conditions, either on the access to credit nor on the borrowing cost. In 2010-12 there is no significant impact on the probability of obtaining a loan from a bank,[25] the number of banks granting a loan (Table A17), on the amounts granted or utilized debts (Table A18), and on mortgage or credit-line interest rates (Table A19). None of these effects become significant using a quadratic polynomial (Tables A35, A36, and A37), or by extending the time horizon up to year $t + 7$ (Tables A57-A61).

The absence of a statistically significant effect on the cost of debt, despite the increase in reserves and paid-in capital, can be explained by several factors. First, the increase in capital and reserves is temporary and tends to fade within three years, while interest rates are typically revised only when new credit lines are opened or existing contracts are renewed. Second, the impact observed is quantitatively small and only marginally significant when expressed in terms of total assets. It may not be sufficient to alter credit conditions for small and medium-sized enterprises, whose financing costs also depend on the strength of their relationship with the bank, and, possibly, of market imperfections[26]. Third, it cannot be ruled out that our empirical strategy lacks sufficient statistical power to detect small variations in credit conditions.

[25] We can only observe whether firms have a loan above 30 thousand euros. See Section 3.

[26] Credit market imperfections may arise from asymmetric information [e.g, Stiglitz and Weiss, 1981]; moral hazard [e.g, Holmstrom and Tirole, 1997], and imperfect competition among lenders [e.g, Petersen and Rajan, 1995]

Table 3: Effect of being above the cutoff on corporate crisis in 2010-2012.

	corporate crisis event		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.000	-0.004*	-0.011
	(0.003)	(0.002)	(0.010)
Above cutoff (robust)	0.002	-0.005**	-0.009
	(0.004)	(0.003)	(0.012)
Mean	0.012	0.008	0.899
Bandwidth	4319	3265	3066
Observations	33517	23993	22383
	Years until corporate crises		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.817**	0.158	0.079
	(0.365)	(0.284)	(0.092)
Above cutoff (robust)	-0.951**	0.167	0.098
	(0.411)	(0.333)	(0.106)
Mean	4.928	6.525	11.497
Bandwidth	3668	4239	3959
Observations	1959	4608	12244

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Ordinary financial statements do not seem to have a strong impact on credit conditions either (Tables A26 and A27).[27] For the sample of firms around the cutoff in 2021-2023, we only estimate a significant decrease of 0.3 percentage points in the mortgage interest interest in year t, from an average of 4.2 percent (Table A28 and A45). This is in line with the findings by Accetturo et al. [2025] that the extent of information disclosed in financial statements can affect access to credit. However, this effect appears to be relatively small and disappears from year $t+1$. All the other estimates on credit conditions and borrowing costs are not statistically different from zero, either with the linear (Tables A26 and A27) or the quadratic specification (Tables A43 and A44).

Heterogeneity analysis. Given the observed effects on balance sheets and company crises, a natural dimension along which to explore heterogeneous impacts is equity. Since statutory auditors have legal responsibilities when firms go bankrupt, do they exert more influence when firms are in financial distress?

To investigate this, we divide the sample based on whether firms reported negative or positive equity in year $t-1$ and re-estimate the main regressions separately for each group. Only a minority of limited liability companies (7.5 percent in 2010–12) reported negative equity during this period. As shown in Table A62, firms with negative equity were less likely to have a supervisory body just below the cutoff (47 percent) compared to those with positive equity (64 percent). While the

[27] Ordinary financial statements do not have any significant impact on business crises (Table A25).

discontinuity in the likelihood of having statutory auditors at the cutoff is not statistically different across the two groups, we estimate a significant effect only for firms with positive equity, reflecting their larger sample size and smaller standard errors.

The reduction in bankruptcies is concentrated on firms with negative equity, which see a 9-percentage-point reduction in the likelihood of bankruptcy by year t+2, down from a baseline probability of 11 percent at the cutoff (Panel B of Table A63 and Figure B4).[28] On the intensive margin, among firms that go bankrupt, those just above the cutoff fail 2.4 years later than those just below, who go bankrupt after 3.8 years on average (Panel D). Statutory auditors do not reduce the bankruptcy rate for firms with positive equity (Panel A of Table A63 and Figure B5), but they accelerate debt restructuring by 1.1 years, relative to an average of 5.4 years at the cutoff (Panel C). In terms of paid-up capital and reserves, the impact of statutory auditors is larger in year t for firms with negative equity (Table A65). However, the standard errors are too large to identify a statistically significant difference compared to firms with positive equity. The heterogeneity of the effects is not affected by the order of the polynomial of the running variable (Tables A46 and A47).

6 Cost-benefit analysis

As documented in section 4.3, limited liability companies started to bunch below the cutoffs just few years after the introduction of the obligation to appoint a board of statutory auditors above these thresholds. A revealed preferences argument suggests that firms perceived the private costs of statutory auditors as exceeding the private benefits. However, the potential presence of positive externalities associated with reduced bankruptcy risk, better governance, or better compliance with regulations and tax rules warrants a more comprehensive cost-benefit analysis that weighs aggregate costs against social benefits.

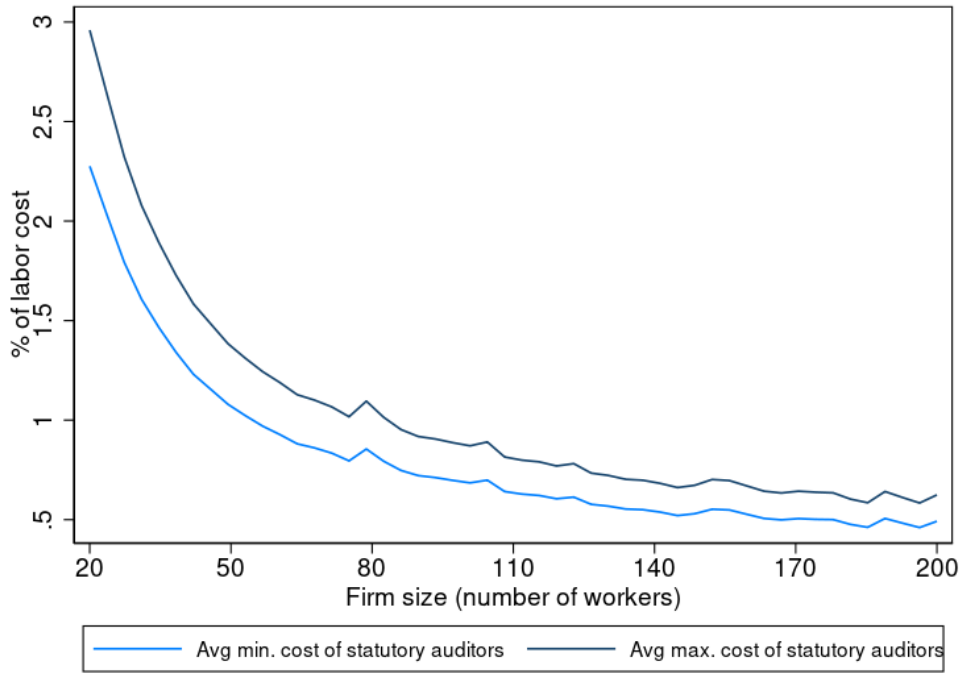
The cost of statutory auditors is a transfer from firm owners to auditors. Nonetheless, mandatory supervision reduces overall welfare by imposing a utility loss for the hours of work spent on external firm supervision and diverted from alternative productive activities or leisure. In a static model with money-metric utility, this welfare loss can be proxied by the wage, which is equivalent to the marginal rate of substitution between consumption and leisure.

Over the 2010–2023 period, the average compensation for auditors per Srl ranged between 21 and 27 thousand euros annually. This cost represents a substantial burden for small firms but its weight in terms of labor cost and net revenues rapidly decreases with firm size (Figures 10 and B9). A firm with 20 employees (one of the current cutoffs) pays 1 to 1.3 percent of net revenues and 2.8 to 3.5 percent of labor cost to compensate statutory auditors. The cost falls to 0.6-0.8 percent

[28] The negative effect on bankruptcy is also stronger for firms with positive below-median equity, compared to firms with above-median equity, but neither effects are statistically different from zero (Table A64).

of labor cost for a firm with 50-249 employees and to 0.3-0.4 percent for firms with 250 or more employees. This sharp reduction of the proportional costs, coupled with a potential increase in the proportional benefits of appointing auditors warrant caution in extending the analysis to firms far above the thresholds. As a point of comparison, labor regulations for French firms with more than 50 employees raised per-worker variable costs by 2.3 percent, according to estimates by Garicano et al. [2016].[29]

Figure 10: Cost of statutory auditors as a percentage of labor cost by firm size



Notes: The figure show the average minimum and maximum cost of statutory auditors as a percentage of net revenues by firm size. The values are smoothed using a kernel-weighted local mean regression of the cost of statutory auditors as a share of labor cost on the firm's number of workers.

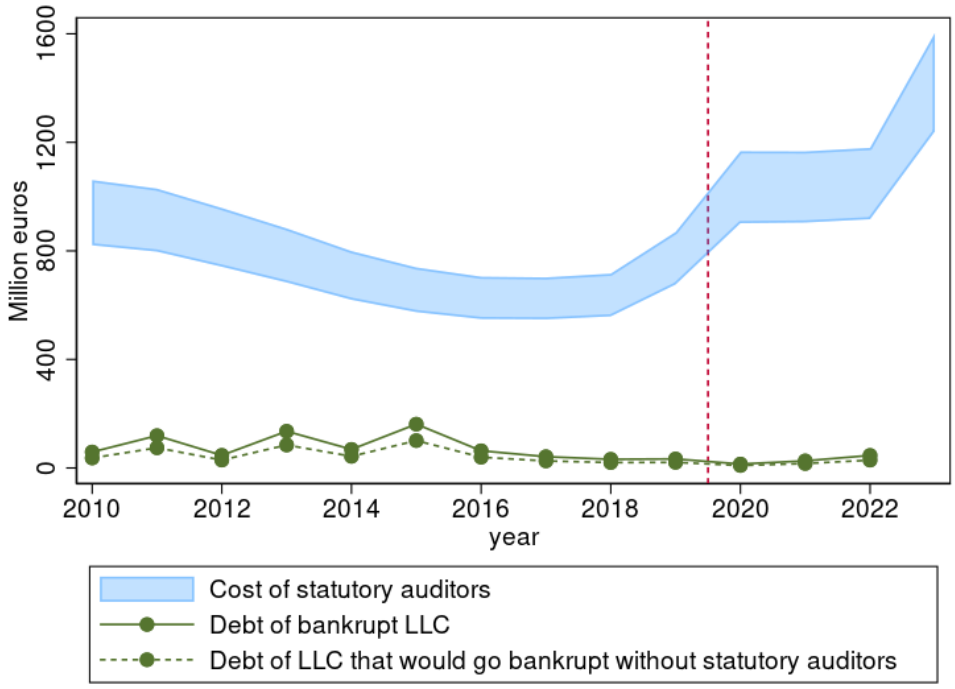
The range of aggregate annual cost of statutory auditors across all Srl firms is represented by the blue-shaded area in Figure 11. The minimum total cost of statutory auditors declined from 820 million euros in 2010 to 547 million in 2017, as firms reduced the average number of auditors from 3 to 1.5 (Figure B8). This decrease can likely be attributed to a legal change in 2012 that allowed Srl firms to have a single statutory auditor, while the previous minimum was three auditors. From 2019 onward, costs rose again, reaching at least 1.2 billion euros in 2023, as more firms appointed statutory auditors to comply with the lower cutoffs introduced in 2019 (Figure B10).

[29] Among the main requirements, French firms with 50 or more employees must establish a works council, set up a health and safety committee, report detailed employee information to the Labor Ministry, and appoint a union representative [Garicano et al., 2016].

On the benefit side, while there is no evidence of improved credit conditions, we do observe a decrease in the probability of bankruptcy within the first three years. This result should be interpreted as an illustrative example of potential positive effects rather than a comprehensive measure of the social benefits of statutory auditors, as other benefits such as improved tax compliance or governance may exist but are not directly observable in our data.

Empirically, a reduction in bankruptcy risk can result both in a reduction of costs directly associated with bankruptcy [Bris et al., 2006] and in positive externalities, including less congested courts, lower borrowing costs and better access to credit for consumers [Gross et al., 2021], preventing negative spillover effects in local labor markets [Bernstein et al., 2019]. To evaluate the social benefits of statutory auditors, we sum the total debt of all private limited companies that went bankrupt each year from 2010 to 2022, as shown by the solid green line in Figure 11. We then multiply this debt by the estimated reduction in bankruptcy probability, as reported in Table 3, and show this as the dashed green line in Figure 11.

Figure 11: Total cost and benefit of statutory auditors for private limited companies.



Notes: The figure shows the total cost and benefit of statutory auditors. The blue-shaded area represents the range of total annual cost of statutory auditors paid by limited liability companies in each year from 2010 to 2013. We assume that the compensation of statutory auditors lies within the range set by Article 29 of Ministerial Decree 140/2012 for the level of total assets and net revenues reported by each company. The solid green line represents the total debt of limited liability companies that went bankrupt in each year. The dashed green line represents the total debt of limited liability companies that went bankrupt in each year multiplied by the percentage reduction in the probability of bankruptcy reported in table 3. The dashed gray line indicates when cutoffs were reduced (between 2019 and 2020).

Although unpaid debt represents a transfer from creditors to debtors rather than a direct welfare loss, its reduction may yield positive externalities by enhancing financial stability, improving credit access for other firms, and alleviating court congestion. We therefore treat the reduction in total debt from bankrupt Srl firms as a proxy for the social benefits of statutory auditors. The total debt of bankrupt Srl firms peaked in 2015 at 161 million euros, when the estimated reduction due to statutory auditors was 101 million.

The costs of statutory auditors appear to outweigh the benefits (Figure 11). On average, annual statutory auditors costs were twelve times higher than the total debt of bankrupt Srl firms and eighteen times higher than the estimated reduction in this debt. Although the precise value of the positive externalities from fewer bankruptcies is difficult to quantify, it would have to be eighteen times the total debt involved in these bankruptcies to offset the total cost that Srl firms incur for statutory auditors. Existing studies suggest that the welfare loss per unpaid dollar due to bankruptcy is relatively modest. Jansen et al. [2022] estimate that for each dollar of surplus transferred to previously-bankrupt borrowers, 3.15 cents of social surplus are destroyed.

A caveat to this cost benefit analysis is that, while we can rule out certain potential advantages of statutory auditors, such as improved access to credit or productivity gains, other benefits cannot be assessed because of data limitations. Most of the potential benefits they generate are difficult to observe and aggregate. A salient benefit is the production of more reliable accounting information and financial statements, on which creditors and the general public can rely. Although our results indicate that the presence of statutory auditors does not reduce the cost of debt—a direct effect one might expect from improved accounting quality—this finding may be attributable to imperfections in credit markets. More accurate balance sheet information may still indirectly enhance tax compliance, potentially expanding the tax base and reducing tax evasion and fraud. This benefit is likely to increase with firm size, while the relative costs of statutory auditors decline.

A reduction in bankruptcies, beyond lowering creditors' losses, may generate additional unmeasured benefits. These include lower costs for workers in the form of unpaid wages, reduced job opportunities, and wage penalties associated with labor market reallocation, particularly in sluggish labor markets, as well as diminished negative spillovers on local economic systems when a major firm fails. As with other benefits, these effects are likely to be more pronounced for larger firms, suggesting caution in extrapolating the cost–benefit analysis far above the regulatory threshold.

Finally, as described in the institutional setting, a distinctive feature of the Italian system of statutory auditors is the breadth of their responsibilities and enforcement powers in cases of noncompliance by directors. Auditors are required not only to issue an opinion on financial statements, but also to oversee the legality of directors' actions more broadly. Although the extent of the resulting increase in regulatory compliance cannot be quantified with the available data, it plausibly

generates social benefits across a wide range of domains, which are likely to grow with the complexity of firms' activities.

7 Conclusions

This paper estimates the causal impact of mandatory firm supervision through statutory auditors on the financial and real outcomes of Italian private limited companies. Leveraging thresholds for legal compliance in a regression discontinuity design, we find that statutory auditors marginally strengthen firms' balance sheets in the short term, inducing them to raise paid-up capital and reserves within the first three years. This effect vanish immediately after the standard tenure of a statutory audit board. Consistent with their legal responsibility during company crises, auditors accelerate debt restructuring and reduce bankruptcy risk, but again only during their tenure span and without affecting firm exit in the long term. As with any RD analysis, these findings pertain to firms operating close to the threshold and do not readily extend to firms that are further away from the threshold.

Reflecting the short-lived nature of these effects, we find little evidence that auditors reduce the credit-market failures associated with asymmetric information. We do not estimate any significant effect on credit access, interest rates, or firm survival up to seven years after meeting the legal requirements to appoint statutory auditors. On the other hand, compensation for statutory auditors imposes a non-negligible aggregate cost to firms, which is particularly burdensome for smaller ones. Our cost benefit analysis indicates that the aggregate costs of supervision exceed its measurable benefits for firms close to the threshold.

These findings highlight a broader tension in corporate regulation. Although external supervision may reduce financial mismanagement and alter the timing of firm distress, its welfare implications depend on its effectiveness in alleviating credit frictions, the burden of compliance costs, and the characteristics of the firms it targets. Imposing uniform regulatory mandates risks generating substantial deadweight losses with limited systemic benefit.

References

Accetturo, A., A. Baltrunaite, G. Cariola, A. Frigo, and M. Gallo (2025). The Value of Words: Evidence from Non-Financial Disclosure Regulation. Mimeo.

Allee, K. D. and T. L. Yohn (2009). Does audit quality matter to financial reporting quality? Evidence from restatements. *Auditing: A Journal of Practice & Theory 28*(1), 1–25.

Banerjee, R. N., L. Gambacorta, and E. Sette (2021). The real effects of relationship lending. *Journal of Financial Intermediation 48*, 100923.

Bernstein, S., E. Colonnelli, X. Giroud, and B. Iverson (2019). Bankruptcy spillovers. *Journal of Financial Economics 133*(3), 608–633.

Blackwell, D. W., T. R. Noland, and D. B. Winters (1998). The value of auditor assurance: Evidence from loan pricing. *Journal of Accounting Research 36*(1), 57–70.

Boeri, T. and P. Garibaldi (2019). A tale of comprehensive labor market reforms: evidence from the Italian jobs act. *Labour Economics 59*, 33–48.

Braguinsky, S., L. G. Branstetter, and A. Regateiro (2011). The incredible shrinking Portuguese firm. National Bureau of Economic Research.

Bris, A., I. Welch, and N. Zhu (2006). The costs of bankruptcy: Chapter 7 liquidation versus chapter 11 reorganization. *The Journal of Finance 61*(3), 1253–1303.

Bryan, D., S. L. Tiras, and C. M. Wheatley (2000). The relation of audit opinion and auditor change with bankruptcy emergence. In *AAA Audit Section Midyear Meeting*. Citeseer.

Bugamelli, M., F. Lotti, M. Amici, E. Ciapanna, F. Colonna, F. D'Amuri, S. Giacomelli, A. Linarello, F. Manaresi, G. Palumbo, et al. (2018). Productivity growth in Italy: a tale of a slow-motion change. *Bank of Italy Occasional Paper* (422), 1–98.

Calonico, S., M. D. Cattaneo, and R. Titiunik (2014). Robust nonparametric confidence intervals for regression-discontinuity designs. *Econometrica 82*(6), 2295–2326.

Cattaneo, M. D., M. Jansson, and X. Ma (2018). Manipulation testing based on density discontinuity. *The Stata Journal 18*(1), 234–261.

Daskalaki, C. and N. Karampinis (2023). Statutory auditors and tax compliance: Evidence from a quasi-natural experiment. *The International Journal of Accounting 58*(02), 1–38.

Dechow, P. M., R. G. Sloan, and A. P. Sweeney (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research 13*(1), 1–36.

Dedman, E. and A. Kausar (2012). The impact of voluntary audit on credit ratings: Evidence from UK private firms. *Accounting and Business Research 42*(4), 397–418.

Desana, G. (2013). I compensi dei sindaci dopo l'abrogazione delle tariffe professionali. *Businessjus 4*, 27.

Dezzani, F. (2021). Revisore legale e collegio sindacale: il controllo del bilancio d'esercizio e consolidato compete al revisore legale. *Il Nuovo Diritto delle Società 2*, 365–379.

Direction de l'information légale et administrative (2025). La désignation d'un commissaire aux comptes est-elle obligatoire ? Accessed: 2025-05-21.

Garicano, L., C. Lelarge, and J. Van Reenen (2016). Firm size distortions and the productivity distribution: Evidence from France. *American Economic Review 106*(11), 3439–3479.

Goldstein, I. and L. Yang (2017). Information disclosure in financial markets. *Annual Review of Financial Economics 9*(1), 101–125.

Gross, T., R. Kluender, F. Liu, M. Notowidigdo, and J. Wang (2021). The Economic Consequences of Bankruptcy Reform. *American Economic Review 111*(7), 2309–41.

Holmstrom, B. and J. Tirole (1997). Financial intermediation, loanable funds, and the real sector. *The Quarterly Journal of Economics 112*(3), 663–691.

Jansen, M., F. Nagel, C. Yannelis, and A. L. Zhang (2022). Data and welfare in credit markets. University of Chicago, Becker Friedman Institute for Economics Working Paper, 2022-88.

Kausar, A., N. Shroff, and H. D. White (2016). The real effects of financial reporting quality: Evidence from the UK private firm sector. *The Accounting Review 91*(4), 933–963.

Langli, J. C. (2015). Evaluation of a change in the Norwegian legislation: The effects of making audit voluntary for small firms. Memorandum, BI Norwegian business school.

Langli, J. C. and M. Willekens (2018). Chapter 10: The economics of auditor regulation. In *At the Forefront, Looking Ahead: Research-Based Answers to Contemporary Uncertainties of Management*, pp. 159–176. Universitetsforlaget Oslo.

Lennox, C. S. and J. A. Pittman (2011). Voluntary audits versus mandatory audits. *The Accounting Review 86*(5), 1655–1678.

McCrary, J. (2008). Manipulation of the running variable in the regression discontinuity design: A density test. *Journal of Econometrics 142*(2), 698–714.

Minnis, M. and N. Shroff (2017). Why regulate private firm disclosure and auditing? *Accounting and Business Research 47*(5), 473–502.

Petersen, M. A. and R. G. Rajan (1995). The effect of credit market competition on ending relationships. *The Quarterly Journal of Economics 110*(2), 407–443.

Rovigatti, G. and V. Mollisi (2018). Theory and practice of tfp estimation: the control function approach using stata. the stata journal, 18 (3), 618–662.

Rubin, D. B. (1980). Randomization analysis of experimental data: The Fisher randomization test comment. *Journal of the American Statistical Association 75*(371), 591–593.

Schivardi, F. and R. Torrini (2008). Identifying the effects of firing restrictions through size-contingent differences in regulation. *Labour Economics 15*(3), 482–511.

Schmieder, J. F., T. von Wachter, and J. Heining (2023, May). The Costs of Job Displacement over the Business Cycle and Its Sources: Evidence from Germany. *American Economic Review 113*(5), 1208–54.

Stiglitz, J. E. and A. Weiss (1981). Credit rationing in markets with imperfect information. *American Economic Review 71*(3), 393–410.

UK Government (2024). Audit exemptions for private limited companies. Accessed: 2025-05-21.

Unioncamere (2024). Manuale operativo per il DEPOSITO BILANCI al Registro delle Imprese. Campagna bilanci 2024.

Vanstraelen, A. and C. Schelleman (2017). Auditing private companies: what do we know? *Accounting and Business Research 47*(5), 565–584.

Wolfgang Dittrich GmbH (2020). Is an audit compulsory for your German company? Non-compliance may have unpleasant consequences. Accessed: 2025-05-21.

Wooldridge, J. M. (2009). On estimating firm-level production functions using proxy variables to control for unobservables. *Economics letters 104*(3), 112–114.

Appendix A Additional Tables

A.1 Validity tests and first-stage

Table A1: Effect of being above the cutoff on the probabilities of having a board of statutory auditors and ordinary financial statements, by year

	(1) 2010	(2) 2011	(3) 2012	(4) 2013	(5) 2014	(6) 2015	(7) 2016	(8) 2017	(9) 2018	(10) 2019	(11) 2020	(12) 2021	(13) 2022	(14) 2023
Net revenues														
							Statutory auditors							
Above	0.08***	0.11***	0.17***	0.16***	0.20***	0.15***	0.27***	0.34***	0.37***	0.12***	0.04*	0.01	-0.01	0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.01)
Mean	0.717	0.652	0.563	0.566	0.525	0.555	0.477	0.392	0.370	0.519	0.736	0.746	0.724	0.883
Bw	2,591	2,213	2,057	1,984	2,099	1,672	1,960	2,269	2,479	1,885	2,718	3,000	3,069	3,474
Obs	5,930	5,011	5,139	4,820	5,016	4,041	5,031	6,118	7,042	5,689	8,824	9,226	10040	14009
							Ordinary financial statements							
Above	0.04*	0.01	0.08***	0.06***	0.05**	0.05**	0.08***	0.15***	0.12***	0.08***	0.12***	0.07***	0.03**	0.05***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)
Mean	0.883	0.907	0.833	0.861	0.856	0.876	0.835	0.798	0.840	0.867	0.819	0.890	0.936	0.904
Bw	2,361	2,515	2,299	2,158	1,996	1,926	1,832	2,060	1,856	1,595	1,963	1,700	2,287	1,684
Obs	5,375	5,781	5,808	5,269	4,738	4,696	4,680	5,493	5,194	4,805	6,228	4,921	7,174	6,468
Total assets														
							Statutory auditors							
Above	0.03	0.20***	0.23***	0.27***	0.14**	0.17***	0.17***	0.21***	0.24***	0.19***	0.02	0.05	-0.05	0.03
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)
Mean	0.602	0.503	0.381	0.370	0.460	0.435	0.402	0.382	0.319	0.398	0.681	0.649	0.697	0.851
Bw	1,252	1,519	1,333	1,387	968	1,065	1,051	1,036	1,206	1,600	1,496	1,596	1,580	1,375
Obs	2,330	2,809	2,610	2,704	1,907	2,184	2,160	2,280	2,745	3,796	3,754	3,627	3,541	3,402
							Ordinary financial statements							
Above	0.02	0.02	0.10***	0.11***	0.03	0.11***	0.06*	0.09***	0.08**	0.09***	0.11***	0.09***	-0.01	0.06**
	(0.04)	(0.04)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)
Mean	0.870	0.827	0.775	0.793	0.829	0.811	0.816	0.802	0.837	0.837	0.812	0.859	0.926	0.904
Bw	1,174	1,124	1,560	1,614	1,150	1,421	1,137	1,297	1,360	1,362	1,728	1,565	1,160	1,392
Obs	2,175	2,089	3,012	3,127	2,249	2,876	2,331	2,829	3,078	3,282	4,316	3,555	2,582	3,441
Number of employees														
							Statutory auditors							
Above	0.06	0.03	0.13***	0.15***	-0.14*	0.01	-0.01	-0.02	0.01	0.08*	0.08*	-0.00	0.02	-0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.07)	(0.07)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)	(0.04)	(0.02)
Mean	0.526	0.506	0.425	0.393	0.573	0.484	0.482	0.478	0.403	0.440	0.661	0.714	0.680	0.872
Bw	13	15	16	17	7	8	9	9	10	16	16	16	16	24
Obs	2,703	3,329	3,479	3,713	1,197	1,392	1,657	1,703	2,008	3,724	3,739	4,151	4,758	7,487
							Ordinary financial statements							
Above	-0.03	-0.02	0.06	0.04	0.00	0.07**	0.09**	0.04	0.06	0.03	0.02	0.01	0.03	-0.01
	(0.04)	(0.03)	(0.04)	(0.04)	(0.05)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)
Mean	0.853	0.863	0.819	0.762	0.795	0.806	0.759	0.795	0.824	0.849	0.818	0.867	0.877	0.909
Bw	15	17	16	15	12	17	13	14	14	10	12	10	11	10
Obs	3,128	3,699	3,289	3,058	2,335	3,462	2,512	2,721	2,925	2,079	2,781	2,546	3,078	2,437

Notes: This table reports the effect of being above the cutoff of the running variable within the optimal bandwidth on the probability of having a board of statutory auditors and on the probability of having ordinary financial statements by year. The running variable is indicated above each panel. The cutoff for net revenues is 8.8 million Euros. The cutoff for total assets is 4.4 million Euros. The cutoff for number of workers is 50. The bandwidth for net revenues and total assets is in thousand Euros. We estimate the optimal bandwidth and the treatment effect using the robust approach with bias-correction by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A2: McCrary (2008) and Cattaneo et al (2018) tests on the manipulation of the running variables around the cutoff, by year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							Net revenues							
McCrary t-statistic	.323	-1.358	-1.589	-2.074	-2.02	-.593	-1.718	-2.946	-2.727	-2.605	-1.215	1.542	.686	-.462
McCrary p-value	.747	.174	.112	.038	.043	.553	.086	.003	.006	.009	.224	.123	.493	.644
Cattaneo t-statistic	1.727	-.311	-1.173	-1.182	-.309	.461	-2.194	-1.036	-2.562	-1.644	-1.723	-.554	-.363	.306
Cattaneo p-value	.084	.756	.241	.237	.757	.645	.028	.3	.01	.1	.085	.579	.717	.76
							Total assets							
McCrary t-statistic	-1.839	-1.853	-3.243	-3.731	-2.491	-1.92	-1.034	-2.737	-3.729	-1.673	-.261	-.229	-.945	-1.708
McCrary p-value	.066	.064	.001	0	.013	.055	.301	.006	0	.094	.794	.819	.345	.088
Cattaneo t-statistic	-3.254	-2.883	-2.946	-3.366	-1.918	-1.748	-1.151	-1.709	-3.085	-1.331	.108	.666	-1.736	-.889
Cattaneo p-value	.001	.004	.003	.001	.055	.08	.25	.087	.002	.183	.914	.505	.083	.374
							Number of employees							
McCrary t-statistic	.169	1.225	.026	-2.055	-.645	-3.116	-2.778	-3.895	-1.236	-1.534	-3.545	-.025	.018	.431
McCrary p-value	.866	.221	.979	.04	.519	.002	.005	0	.216	.125	0	.98	.986	.666
Cattaneo t-statistic	.077	2.356	1.301	-1.061	-.593	-1.726	-1.002	-1.967	2.264	.743	-2.388	-.5	-.781	.76
Cattaneo p-value	.939	.018	.193	.289	.553	.084	.316	.049	.024	.458	.017	.617	.435	.448

Notes: This table reports the t-statistic and p-value for the tests by McCrary [2008] and by Cattaneo et al. [2018] on the manipulation of the running variable Number of employees. The null hypothesis is the absence of a discontinuity in the density of firms at the cutoff.

Table A3: Effect of being above the cutoff on predetermined variables, 2010-2012.

	(1) Total assets	(2) Equity	(3) Total debt	(4) Paid-up capital and reserves	(5) Net profits	(6) Net dividends	(7) Mortgage rate	(8) Credit lines rate	(9) Bank groups	(10) Granted debt amount	(11) Utilized debt amount	(12) Mortgage amount
Above	-68.034	101.432	-121.801	121.638	38.010	-1.190	0.018	0.209	-0.138	-146.783	-119.045	-1.175
	(170.884)	(84.719)	(134.235)	(78.601)	(30.529)	(10.401)	(0.127)	(0.143)	(0.170)	(125.754)	(91.036)	(4.166)
Mean	8,784.844	2,127.442	5,644.939	1,962.718	178.717	31.325	4.259	7.234	4.892	3,396.617	2,179.380	40.332
Bandwidth	5,579	7,800	5,518	7,883	7,430	6,989	7,311	7,855	8,502	7,077	6,501	7,335
Observations	29,375	42,346	28,793	42,648	42,863	40,031	10,777	32,961	50,575	35,361	32,874	38,427

Notes: This table reports the effect of being above the cutoff within the optimal bandwidth in 2010-2012 on the variables indicated in the column headings lagged by two years. *Above* is the ITT effect estimated using the robust approach with bias-correction within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Effect of being above the cutoff on predetermined variables, 2021-2023.

	(1) Total assets	(2) Equity	(3) Total debt	(4) Paid-up capital and reserves	(5) Net profits	(6) Net dividends	(7) Mortgage rate	(8) Credit lines rate	(9) Bank groups	(10) Granted debt amount	(11) Utilized debt amount	(12) Mortgage amount
Above	-32.552	-83.559	120.327	-74.644	37.462	-17.472	-0.087	0.231	0.092	-108.719	4.521	7.210**
	(137.762)	(80.362)	(103.658)	(69.328)	(39.365)	(12.188)	(0.104)	(0.172)	(0.130)	(82.995)	(61.875)	(3.434)
Mean	9,201.300	2,802.230	4,927.891	2,510.445	423.940	44.653	1.915	3.064	4.305	2,816.006	1,850.024	40.198
Bandwidth	5,556	6,631	5,036	6,306	8,267	7,712	5,467	6,301	8,724	8,364	7,863	8,937
Observations	41,209	45,833	37,898	43,713	66,722	61,164	12,353	19,802	73,904	63,667	58,597	69,402

Notes: This table reports the effect of being above the cutoff within the optimal bandwidth in 2021-2023 on the variables indicated in the column headings lagged by two years. *Above* is the ITT effect estimated using the robust approach with bias-correction within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5: Persistence of the statutory auditors above the cutoff.

	Statutory auditors							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7
Above cutoff (conv.)	.14***	.112***	.099***	.0857***	.093***	.0765***	.0625***	.053**
	(.0206)	(.0216)	(.0213)	(.0216)	(.0214)	(.022)	(.022)	(.0208)
Above cutoff (robust)	.13***	.102***	.0893***	.0762***	.0845***	.0677***	.0541**	.0452*
	(.0225)	(.0232)	(.0232)	(.0238)	(.0241)	(.0247)	(.0248)	(.0234)
Mean	.635	.703	.697	.671	.64	.633	.643	.669
Bandwidth	1943	1643	1823	2057	2445	2540	2718	3089
Observations	13519	10618	11274	12186	14086	14042	14532	16088

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth in 2010-2012 on the probability of having a statutory auditors from year t to year t+7. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A6: Persistence of the ordinary budget above the cutoff.

	Ordinary budget							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7
Above cutoff (conv.)	.0532***	.0287**	.0273**	.00996	.00519	.0147	.0146	.00347
	(.0138)	(.0141)	(.0127)	(.0152)	(.0167)	(.0171)	(.0176)	(.0166)
Above cutoff (robust)	.0465***	.0219	.0216	.00278	-.00241	.00707	.00719	-.00194
	(.0146)	(.0149)	(.0138)	(.0162)	(.0181)	(.0188)	(.0195)	(.019)
Mean	.871	.871	.856	.851	.84	.836	.836	.845
Bandwidth	1874	2005	2967	2423	2265	2362	2491	2833
Observations	13000	13202	19385	14630	12912	12956	13190	14650

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth in 2010-2012 on the probability of having a ordinary budget from year t to year t+7. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7: Effect of being above the cutoff on the probabilities of having statutory auditors and ordinary financial statements in 2010-12 and 2021-23

	(1) Net revenues	(2) Total assets	(3) Number of employees
		Years 2010-12	
		Statutory auditors	
Above cutoff	0.130***	0.165***	0.0621
	(5.81)	(4.81)	(1.64)
Mean	0.635	0.484	0.486
Bandwidth	1,943	1,301	12
Observations	13,519	7,387	7,170
		Ordinary financial statement	
Above cutoff	0.0465***	0.0484*	0.0131
	(3.19)	(1.94)	(0.51)
Mean	0.871	0.820	0.839
Bandwidth	1874	1097	14
Observations	13000	6216	8683
		Manipulation tests	
McCrary t-statistic	-1.606	-4.450	1.015
McCrary p-value	0.108	0.000	0.310
Cattaneo t-statistic	-0.370	-5.825	2.262
Cattaneo p-value	0.711	0.000	0.024
		Years 2021-23	
		Statutory auditors	
Above cutoff	0.00675	0.00965	-0.00360
	(0.51)	(0.37)	(-0.13)
Mean	0.794	0.733	0.752
Bandwidth	3,356	1,385	15
Observations	35,053	9,670	11,799
		Ordinary financial statement	
Above cutoff	0.0496***	0.0500***	-0.0109
	(4.52)	(2.96)	(-0.47)
Mean	0.908	0.892	0.897
Bandwidth	1559	1282	8
Observations	15282	8928	6088
		Manipulation tests	
McCrary t-statistic	0.877	-1.605	0.250
McCrary p-value	0.380	0.109	0.803
Cattaneo t-statistic	0.720	-0.626	0.185
Cattaneo p-value	0.471	0.531	0.853

Notes: This table reports the effect of being above the cutoff within the optimal bandwidth on the probability of having a board of statutory auditors and on the probability of having ordinary financial statements in 2010-12 and 2021-23. The running variable is indicated in the three column headings. The cutoff for net revenues is 8.8 million Euros. The cutoff for total assets is 4.4 million Euros. The cutoff for number of workers is 50. The bandwidth for net revenues and total assets is in thousand Euros. We estimate the optimal bandwidth and the treatment effect using the robust approach with bias-correction by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. The last four rows report the t-statistic and p-value for the tests by McCrary [2008] and by Cattaneo et al. [2018] on the manipulation of the running variable. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A8: Summary statistics

	Years 2010-12			Years 2021-23		
	(1) Obs.	(2) Mean	(3) S.D.	(4) Obs.	(5) Mean	(6) S.D.
Board of statutory auditors	13519	0.61	0.49	35053	0.77	0.42
Ordinary budget	13519	0.85	0.36	35053	0.84	0.37
Number of statutory auditors	8182	2.93	0.72	26870	1.20	0.62
Min. cost of statutory auditors	8182	25.90	6.78	26870	16.40	5.39
Max. cost of statutory auditors	8182	33.44	8.48	26870	21.12	6.74
Total assets	13519	10354.13	14140.93	35053	11527.24	16198.26
Total debt	13519	7020.93	10012.74	35053	6168.14	12840.22
Equity	13519	2705.91	6946.02	35053	4539.68	7625.67
Paid-up capital and reserves	13519	2690.70	6767.07	35053	3997.39	7241.51
Net profits+dividends	13519	73.10	2435.39	35053	631.99	1784.49
Having a bank loan	13519	0.89	0.32	35053	0.87	0.34
Number of banks	11995	5.67	3.78	30460	4.74	3.43
Mortgage interest rate	3773	4.81	2.00	8177	4.11	2.85
Net interest rate on credit lines	9328	10.05	29.98	12601	5.19	4.56
Granted debt amount	13519	4430.25	7029.68	33240	3341.44	4911.92
Utilized debt amount	13519	3115.05	5340.34	33240	2398.30	4345.44
Number of employees	13519	27.55	31.31	35053	28.19	33.23
Labor cost	13519	1187.20	1027.35	35053	1455.79	1306.44
Debt restructuring within year 2	13519	0.01	0.11	10447	0.00	0.03
Bankruptcy within year 2	13519	0.01	0.08	10447	0.00	0.02
Survive by year 2	13519	0.90	0.31	10447	0.93	0.25

Notes: This table reports the number of observations, mean and standard deviations of the outcome variables. We restrict the samples to the optimal bandwidth of the first-stage regression [Calonico et al., 2014] in years 2010-12 and 2021-23, using the cutoff for net revenues. We restrict the samples to firms satisfying one and only one of the other two criteria (total assets or number of employees). All balance sheet variables are in thousand euros. A crisis event by year 2 (e.g. debt restructuring) is set to missing if the first event occurred in the past or if we do not observe the firm in year 2 (e.g. firms in years 2022-23). Debt amounts are missing in 2023.

A.2 Linear specification

Table A9: Effect of being above the cutoff on number of auditors and their cost in 2021-2023.

	Number of statutory auditors			Min. cost of statutory auditors			Max. cost of statutory auditors		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.00296	-.0446	-.00503	.022	-.0151	.0128	.0136	-.0557	.0019
	(.0269)	(.035)	(.0353)	(.281)	(.34)	(.316)	(.358)	(.433)	(.401)
Above cutoff (robust)	-.0144	-.0598	-.0175	-.1	-.155	-.0416	-.142	-.234	-.0712
	(.0295)	(.0383)	(.0405)	(.306)	(.378)	(.372)	(.39)	(.48)	(.471)
Mean	.968	1.05	1.1	13.3	14.6	15.7	17.1	18.7	20.1
Bandwidth	2358	2285	2885	2491	2680	3695	2484	2658	3650
Observations	23552	13386	8250	24988	16018	10812	24912	15864	10666

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A10: Effect of being above the cutoff on equity components (*untrimmed*) in 2010-2012.

	Paid-up capital and reserves			Net profits+dividends		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	452**	507**	559**	-75.3	23.6	79.8
	(188)	(213)	(235)	(90.3)	(46.1)	(50.4)
Above cutoff (robust)	498**	565**	626**	-104	40.2	100*
	(216)	(246)	(270)	(115)	(52.3)	(56.7)
Mean	2618	2716	2795	104	57.1	28.8
Bandwidth	3986	3809	3651	6688	3387	3219
Observations	30468	27204	24480	57779	23650	21166

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A11: Effect of being above the cutoff on asset components shares in 2010-2012.

	Paid-up capital and reserves/assets			Equity/assets		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.0127*	.0112	.0124	.0114	.00526	.00895
	(.00751)	(.0082)	(.0092)	(.00881)	(.0105)	(.0118)
Above cutoff (robust)	.0119	.0117	.0131	.0118	.00628	.00968
	(.00878)	(.00965)	(.0108)	(.0104)	(.0124)	(.0139)
Mean	.239	.246	.253	.238	.24	.242
Bandwidth	3484	3922	4081	3980	4110	4209
Observations	25828	28251	28041	30425	29853	29113

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A12: Effect of being above the cutoff on net profits as a share of assets in 2010-2012.

	Net profits/assets		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	-0.005	-0.009**	-0.003
	(0.004)	(0.004)	(0.005)
Above cutoff (robust)	-0.005	-0.010*	-0.002
	(0.005)	(0.005)	(0.005)
Mean	0.004	-0.000	-0.006
Bandwidth	3954	4259	4415
Observations	30174	31165	30862

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A13: Effect of being above the cutoff on assets and liabilities in 2010-2012.

	Total assets			Equity			Total debt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	13.1	-134	55.4	75.2	70.3	122	51.1	51.1	94
	(154)	(170)	(175)	(83.7)	(76.6)	(87.1)	(117)	(125)	(126)
Above cutoff (robust)	-24.8	-196	7.51	59.2	70.6	134	47.5	20.3	79
	(180)	(192)	(202)	(103)	(90.2)	(103)	(138)	(145)	(147)
Mean	8621	8574	8431	1873	1873	1859	5577	5461	5240
Bandwidth	2534	2340	2562	5292	4315	4212	2606	2506	2636
Observations	17137	14738	15503	40775	29509	26960	17484	15816	15940

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A14: Effect of being above the cutoff on assets and liabilities (*untrimmed*) in 2010-2012.

	Total assets			Equity			Total debt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	752	915*	982*	333*	525**	612**	368	325	263
	(497)	(543)	(514)	(189)	(230)	(253)	(387)	(363)	(343)
Above cutoff (robust)	859	1065*	1140*	353	596**	695**	447	399	323
	(580)	(629)	(588)	(221)	(263)	(290)	(464)	(423)	(394)
Mean	10492	10366	10022	2664	2715	2775	7221	6963	6599
Bandwidth	3287	3126	2766	4273	3648	3536	3330	3006	2762
Observations	24167	21589	17926	33107	25808	23568	24513	20686	17897

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A15: Effect of being above the cutoff on productivity in 2010-2012.

	Total factor productivity		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	-.036	.0048	.0247
	(.0537)	(.0572)	(.071)
Above cutoff (robust)	-.033	.00319	.0292
	(.0598)	(.0716)	(.0775)
Mean	2.78	2.71	2.77
Bandwidth	2510	1868	2085
Observations	17364	11811	12566

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A16: Effect of being above the cutoff on debts in 2010-2012.

	Impaired debt amount			Non-performing debt amount			Cumulative lost debt amount		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	16.4	-13.4	-33.9	-15.2	-5.73	-9.45	.392	3.39	1.17
	(38.3)	(38.7)	(50)	(12.3)	(19)	(28.5)	(1.38)	(2.88)	(3.4)
Above cutoff (robust)	1.64	-20.5	-31.1	-19.2	-8.18	-16.7	.474	4.32	1.73
	(46.8)	(45.1)	(59.1)	(14)	(22.6)	(35.4)	(1.56)	(3.19)	(3.88)
Mean	119	165	220	37.5	75.2	130	.768	2.5	6.39
Bandwidth	4837	3358	3121	2200	3435	4208	1968	2321	2765
Observations	38684	23419	20472	15483	24031	29096	13697	15494	17915

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A17: Effect of being above the cutoff on access to credit (extensive margin) in 2010-2012.

	Having a bank loan			Number of banks		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.00924	-.0144	-.0175	-.188	-.205	-.193
	(.0115)	(.0121)	(.0125)	(.141)	(.144)	(.145)
Above cutoff (robust)	-.0121	-.0177	-.0196	-.128	-.146	-.14
	(.0132)	(.0138)	(.0145)	(.158)	(.162)	(.165)
Mean	.884	.877	.874	5.66	5.69	5.54
Bandwidth	3509	3578	3873	3733	3827	4044
Observations	26070	25192	26360	24919	24051	24115

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A18: Effect of being above the cutoff on access to credit (intensive margin) in 2010-2012.

	Granted debt amount			Utilized debt amount		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-122	-150	-156	-30.4	-66	-88.1
	(241)	(221)	(217)	(196)	(190)	(190)
Above cutoff (robust)	-110	-137	-118	-21.1	-49.2	-55.3
	(286)	(257)	(253)	(236)	(223)	(222)
Mean	4583	4240	3955	3209	3072	2914
Bandwidth	3161	2799	2700	3179	2813	2654
Observations	23120	19119	17446	23265	19236	17075

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A19: Effect of being above the cutoff on borrowing costs in 2010-2012.

	Mortgage interest rate			Net interest rate on credit lines		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.108	-.0639	-.0556	.0836	.0652	-.126
	(.124)	(.131)	(.141)	(.112)	(.123)	(.142)
Above cutoff (robust)	.146	-.0571	-.0453	.0863	.0863	-.154
	(.145)	(.156)	(.169)	(.133)	(.145)	(.164)
Mean	4.69	5.39	4.89	7.32	7.75	7.82
Bandwidth	2775	2947	3104	4349	4351	4086
Observations	5525	5464	6004	23382	21351	17877

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A20: Effect of being above the cutoff on equity components in 2021-2023.

	Paid-up capital and reserves			Net profits+dividends		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	54.4	41.5	82.9	3.05	70.7	102
	(63)	(74.2)	(95.6)	(41.9)	(54.1)	(73.8)
Above cutoff (robust)	49.9	52.3	115	-8.73	76.3	122
	(74.2)	(87)	(109)	(48.2)	(63.4)	(86.7)
Mean	2549	2723	2893	714	683	757
Bandwidth	3400	3994	3755	3926	4329	3919
Observations	31023	21343	9042	41869	27697	11534

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A21: Effect of being above the cutoff on asset components shares in 2021-2023.

	Paid-up capital and reserves/assets			Equity/assets		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.0000658	.00475	-.00447	.00534	.0123	-.00209
	(.00668)	(.00809)	(.00966)	(.00752)	(.00971)	(.0117)
Above cutoff (robust)	-.00166	.00401	-.00621	.00635	.0148	-.00241
	(.00781)	(.00961)	(.0114)	(.00885)	(.0114)	(.0139)
Mean	.32	.328	.35	.366	.365	.394
Bandwidth	2878	3664	3828	3037	3738	4005
Observations	29501	22853	11269	31336	23381	11853

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A22: Effect of being above the cutoff on net profits as a share of assets in 2021-2023.

	Net profits/assets		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	0.003	0.006	0.001
	(0.003)	(0.004)	(0.005)
Above cutoff (robust)	0.004	0.008*	0.003
	(0.003)	(0.004)	(0.005)
Mean	0.051	0.043	0.049
Bandwidth	3239	3393	3906
Observations	33690	20946	11493

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A23: Effect of being above the cutoff on assets and liabilities in 2021-2023.

	Total assets			Equity			Total debt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	128	283	193	74.6	89.5	60.5	77.6	43.2	28.6
	(132)	(189)	(217)	(69.8)	(90.9)	(112)	(97.3)	(130)	(149)
Above cutoff (robust)	157	338	200	66.1	99.7	102	97.3	73.1	17.8
	(154)	(219)	(260)	(78.6)	(105)	(128)	(114)	(152)	(178)
Mean	9981	10544	10769	2897	2985	3176	5389	5636	5530
Bandwidth	2662	2598	3061	2923	3547	3649	2505	2682	3073
Observations	25088	14043	7908	25426	18000	8448	23896	15068	8289

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A24: Effect of being above the cutoff on productivity in 2021-2023.

	Total factor productivity		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	-.000609	.00409	.0453
	(.0352)	(.0433)	(.0438)
Above cutoff (robust)	-.00597	-.00893	.0359
	(.0409)	(.0512)	(.0518)
Mean	2.86	2.83	2.85
Bandwidth	2307	2511	3015
Observations	22348	14389	8388

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A25: Effect of being above the cutoff on corporate crisis in 2021-2023.

	corporate crisis event		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.000	-0.001	0.019
	(0.001)	(0.001)	(0.013)
Above cutoff (robust)	0.000	-0.001	0.024
	(0.001)	(0.001)	(0.015)
Mean	0.000	0.001	0.923
Bandwidth	3263	3183	2215
Observations	10133	9855	6545
	Years until corporate crises		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.206	-0.346	-0.000
	(0.533)	(0.241)	(0.000)
Above cutoff (robust)	-0.284	-0.395	-0.000***
	(0.653)	(0.284)	(0.000)
Mean	2.116	2.797	2.000
Bandwidth	4814	4516	373
Observations	65	268	45

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A26: Effect of being above the cutoff on access to credit (extensive margin) in 2021-2023.

	Having a bank loan			Number of banks		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.00976	.00283	-.00972	-.0236	-.122	-.177
	(.0112)	(.0142)	(.0165)	(.111)	(.137)	(.16)
Above cutoff (robust)	.0135	.0066	-.00552	.0287	-.0677	-.116
	(.0129)	(.0167)	(.0195)	(.121)	(.157)	(.186)
Mean	.862	.859	.863	4.81	4.9	4.9
Bandwidth	2703	3045	3240	3353	4194	4286
Observations	27415	18562	9366	30419	23082	11013

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A27: Effect of being above the cutoff on access to credit (intensive margin) in 2021-2023.

	Granted debt amount			Utilized debt amount		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	28.3	133	296	37	148	245
	(141)	(195)	(244)	(123)	(163)	(190)
Above cutoff (robust)	-11.7	74.6	236	.322	102	192
	(158)	(217)	(274)	(135)	(181)	(213)
Mean	3549	3798	4028	2517	2654	2712
Bandwidth	3480	3582	3752	3339	3513	3361
Observations	34637	20682	9516	33033	20198	8426

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A28: Effect of being above the cutoff on borrowing costs in 2021-2023.

	Mortgage interest rate			Net interest rate on credit lines		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.283*	-.0803	.0225	-.143	.0633	.135
	(.155)	(.171)	(.219)	(.174)	(.188)	(.226)
Above cutoff (robust)	-.334*	-.117	-.0271	-.199	.00508	.0992
	(.181)	(.204)	(.257)	(.203)	(.22)	(.269)
Mean	4.25	4.98	5.77	4.65	5.11	5.89
Bandwidth	2935	3212	3690	2619	2990	3469
Observations	7033	4475	2321	9211	6453	3544

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.3 Quadratic specification

Table A29: Effect of being above the cutoff on number of auditors and their cost in 2010-2012. *Quadratic polynomial.*

	Number of statutory auditors			Min. cost of statutory auditors			Max. cost of statutory auditors		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.307***	.282***	.261***	2.99***	2.7***	2.56***	3.88***	3.49***	3.28***
	(.0586)	(.0593)	(.059)	(.519)	(.526)	(.514)	(.668)	(.676)	(.659)
Above cutoff (robust)	.282***	.256***	.236***	2.77***	2.47***	2.33***	3.59***	3.19***	2.99***
	(.0599)	(.0603)	(.0601)	(.53)	(.535)	(.523)	(.682)	(.687)	(.671)
Mean	1.91	1.83	1.62	16.7	16.9	15.6	21.6	21.8	20.1
Bandwidth	5465	5114	5292	5484	5139	5325	5467	5113	5287
Observations	44990	39129	38622	45181	39398	38935	45014	39113	38580

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A30: Effect of being above the cutoff on equity components in 2010-2012. *Quadratic polynomial.*

	Paid-up capital and reserves			Net profits+dividends		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	159**	106	97.3	-64.8	22.8	62.1
	(64.2)	(68.7)	(80)	(101)	(46)	(48.9)
Above cutoff (robust)	150**	113	111	-55.1	39.9	81.1
	(69.8)	(74.4)	(85.7)	(104)	(49.2)	(52.4)
Mean	1849	1884	1897	93	47	37.4
Bandwidth	7729	8177	8166	13272	7434	7523
Observations	64810	64795	60332	89027	61781	58912

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A31: Effect of being above the cutoff on asset components shares in 2010-2012.

	Paid-up capital and reserves/assets			Equity/assets		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.015*	.0122	.0144	.0142	.00429	.00892
	(.00804)	(.00881)	(.00985)	(.00948)	(.0112)	(.0126)
Above cutoff (robust)	.012	.00932	.0118	.0113	.0013	.00631
	(.00842)	(.00942)	(.0106)	(.0102)	(.0121)	(.0137)
Mean	.242	.249	.257	.241	.245	.247
Bandwidth	6601	7409	7732	7513	7934	8033
Observations	56891	61552	60983	66760	67107	64028

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A32: Effect of being above the cutoff on net profits as a share of assets in 2010-2012. *Quadratic polynomial.*

	Net profits/assets		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	-0.005	-0.011**	-0.004
	(0.004)	(0.005)	(0.005)
Above cutoff (robust)	-0.003	-0.010**	-0.003
	(0.004)	(0.005)	(0.005)
Mean	0.004	0.000	-0.005
Bandwidth	7404	8374	8431
Observations	65541	72171	68447

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A33: Effect of being above the cutoff on corporate crisis in 2010-2012. *Quadratic polynomial.*

	corporate crisis event		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.001	-0.004*	-0.007
	(0.003)	(0.002)	(0.011)
Above cutoff (robust)	0.002	-0.005**	-0.012
	(0.004)	(0.002)	(0.011)
Mean	0.011	0.009	0.904
Bandwidth	9211	7022	5892
Observations	87066	61384	49473
	Years until corporate crises		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.832**	0.042	0.087
	(0.368)	(0.305)	(0.096)
Above cutoff (robust)	-0.861**	0.111	0.114
	(0.412)	(0.332)	(0.104)
Mean	4.930	6.577	11.466
Bandwidth	8089	7895	7895
Observations	4669	11055	32018

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A34: Effect of being above the cutoff on assets and liabilities in 2010-2012. *Quadratic polynomial.*

	Total assets			Equity			Total debt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.917	-127	53.5	34.3	23.7	72.2	29.7	45.6	86.2
	(161)	(169)	(181)	(96.6)	(87.5)	(96.8)	(125)	(130)	(133)
Above cutoff (robust)	71.2	-51.6	132	24.9	32.5	92.8	84.7	103	145
	(163)	(172)	(184)	(103)	(93.9)	(105)	(127)	(132)	(136)
Mean	8582	8533	8401	1893	1883	1878	5550	5423	5216
Bandwidth	5062	5248	5244	10037	8431	8250	4895	5035	5039
Observations	39001	38412	36221	81832	68028	61445	36955	36208	34355

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A35: Effect of being above the cutoff on access to credit (extensive margin) in 2010-2012. *Quadratic polynomial.*

	Having a bank loan			Number of banks		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.00841	-.0103	-.0138	-.0683	-.0851	-.071
	(.0119)	(.0123)	(.0132)	(.14)	(.144)	(.149)
Above cutoff (robust)	-.0124	-.014	-.0176	-.0337	-.0597	-.0365
	(.0126)	(.0132)	(.0141)	(.152)	(.157)	(.161)
Mean	.888	.88	.876	5.57	5.62	5.48
Bandwidth	7219	7668	7679	8494	8666	8500
Observations	63437	64265	60436	69702	66692	59816

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A36: Effect of being above the cutoff on access to credit (intensive margin) in 2010-2012. *Quadratic polynomial.*

	Granted debt amount			Utilized debt amount		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-270	-256	-211	-142	-137	-109
	(257)	(232)	(222)	(208)	(196)	(192)
Above cutoff (robust)	-136	-150	-107	-32.2	-46.2	-19.2
	(264)	(237)	(227)	(213)	(201)	(196)
Mean	4550	4252	3930	3169	3069	2887
Bandwidth	5955	5492	5418	6064	5566	5388
Observations	50112	42680	39685	51240	43379	39429

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A37: Effect of being above the cutoff on borrowing costs in 2010-2012. *Quadratic polynomial.*

	Mortgage interest rate			Net interest rate on credit lines		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.113	-.0325	-.0541	.158	.156	-.0498
	(.129)	(.143)	(.153)	(.121)	(.131)	(.149)
Above cutoff (robust)	.0586	-.089	-.117	.133	.148	-.0763
	(.133)	(.147)	(.158)	(.132)	(.144)	(.162)
Mean	4.74	5.42	4.95	7.3	7.72	7.78
Bandwidth	5590	5433	5819	8152	8358	8104
Observations	11808	10540	11722	51215	47924	41363

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A38: Effect of being above the cutoff on number of auditors and their cost in 2021-2023. *Quadratic polynomial.*

	Number of statutory auditors			Min. cost of statutory auditors			Max. cost of statutory auditors		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.000537	-.0374	-.000335	.0974	.0108	.0169	.118	-.0171	.0276
	(.0255)	(.0325)	(.0355)	(.261)	(.327)	(.336)	(.332)	(.415)	(.425)
Above cutoff (robust)	-.0102	-.0517	-.0168	-.00842	-.128	-.112	-.0171	-.194	-.138
	(.0262)	(.0335)	(.0368)	(.272)	(.342)	(.359)	(.347)	(.434)	(.454)
Mean	.968	1.06	1.11	13.3	14.7	15.9	17.1	18.8	20.3
Bandwidth	5844	5771	6179	6478	6441	7303	6452	6392	7232
Observations	65848	38832	19246	73454	43769	23047	73157	43395	22807

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A39: Effect of being above the cutoff on assets and liabilities in 2021-2023. *Quadratic polynomial.*

	Total assets			Equity			Total debt		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	t	t+1	t+2	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	98.2	288	182	42.4	68.9	56.6	109	37.2	-8.22
	(139)	(196)	(235)	(67.7)	(92.6)	(113)	(103)	(137)	(161)
Above cutoff (robust)	161	377*	288	20.8	94.6	82.9	155	98.4	64.6
	(141)	(199)	(241)	(72.1)	(100)	(123)	(104)	(140)	(165)
Mean	9933	10465	10654	2943	3022	3188	5302	5556	5446
Bandwidth	5154	5279	5691	7055	7852	8187	4789	5240	5766
Observations	53546	32216	15945	69623	45439	21190	50295	32833	16819

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A40: Effect of being above the cutoff on equity components in 2021-2023. *Quadratic polynomial.*

	Paid-up capital and reserves			Net profits+dividends		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	40.2	31	85.7	12.1	71	84
	(64.3)	(78.1)	(96.7)	(44.1)	(57.8)	(74.9)
Above cutoff (robust)	19.2	43.1	96.4	-2.82	78.2	71.4
	(69)	(85.7)	(106)	(48.9)	(64.3)	(82)
Mean	2580	2747	2909	725	703	777
Bandwidth	6966	8067	8241	8336	8609	8357
Observations	69728	47683	21824	97135	62172	26873

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A41: Effect of being above the cutoff on asset components shares in 2021-2023.

	Paid-up capital and reserves/assets			Equity/assets		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.00274	.00314	-.00456	.0047	.011	-.000148
	(.00707)	(.00874)	(.0104)	(.00807)	(.0103)	(.0127)
Above cutoff (robust)	-.00578	-.000266	-.00823	.00131	.00721	-.00489
	(.00725)	(.00923)	(.0111)	(.0083)	(.011)	(.0136)
Mean	.324	.332	.352	.37	.372	.396
Bandwidth	5529	6814	7249	5658	7312	7392
Observations	61933	46623	22861	63546	50266	23313

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A42: Effect of being above the cutoff on net profits as a share of assets in 2021-2023. *Quadratic polynomial.*

	Net profits/assets		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	0.004	0.006	0.002
	(0.003)	(0.004)	(0.005)
Above cutoff (robust)	0.004	0.007*	0.002
	(0.003)	(0.004)	(0.005)
Mean	0.052	0.044	0.049
Bandwidth	8072	8100	8521
Observations	92938	56335	27694

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A43: Effect of being above the cutoff on access to credit (extensive margin) in 2021-2023. *Quadratic polynomial.*

	Having a bank loan			Number of banks		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	.0135	.00675	-.00769	.141	.0601	.00147
	(.0114)	(.0149)	(.0175)	(.104)	(.14)	(.165)
Above cutoff (robust)	.00851	.000199	-.0153	.151	.049	-.0178
	(.0117)	(.0154)	(.0182)	(.115)	(.156)	(.185)
Mean	.866	.865	.873	4.72	4.85	4.85
Bandwidth	5624	6014	6306	8687	8797	8828
Observations	63143	40599	19645	86648	53295	24074

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A44: Effect of being above the cutoff on access to credit (intensive margin) in 2021-2023. *Quadratic polynomial.*

	Granted debt amount			Utilized debt amount		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.589	147	337	5.64	156	291
	(142)	(194)	(251)	(123)	(164)	(196)
Above cutoff (robust)	-30.1	111	349	-4.41	127	324
	(152)	(207)	(268)	(132)	(173)	(206)
Mean	3612	3900	4059	2572	2740	2688
Bandwidth	8001	8341	8144	8197	8312	7649
Observations	86498	53587	21531	89239	53333	20200

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A45: Effect of being above the cutoff on borrowing costs in 2021-2023. *Quadratic polynomial.*

	Mortgage interest rate			Net interest rate on credit lines		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	-.291*	-.117	.00572	-.217	.0287	.0716
	(.16)	(.182)	(.234)	(.18)	(.196)	(.242)
Above cutoff (robust)	-.354**	-.19	-.0492	-.298	-.0594	-.0267
	(.167)	(.19)	(.251)	(.184)	(.203)	(.255)
Mean	4.22	5.04	5.8	4.72	5.17	6.02
Bandwidth	6032	6266	7170	5322	6035	6507
Observations	14604	8873	4330	20585	14241	7032

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2021-2023. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A46: Heterogeneous effects of being above the cutoff on corporate crisis in 2010-2012. *Quadratic polynomial.*

	corporate crisis event		
	A. positive equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.001	-0.002	-0.010
	(0.002)	(0.002)	(0.011)
Above cutoff (robust)	0.002	-0.002	-0.014
	(0.003)	(0.002)	(0.011)
Mean	0.006	0.005	0.913
Bandwidth	7971	7636	5896
Observations	69208	65479	47839
	B. negative equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.098	-0.084**	0.051
	(0.080)	(0.040)	(0.098)
Above cutoff (robust)	0.102	-0.096**	0.013
	(0.088)	(0.045)	(0.106)
Mean	0.181	0.115	0.676
Bandwidth	10670	7729	8985
Observations	3077	1954	3060
	years until corporate crisis		
	C. positive equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.967**	-0.154	0.090
	(0.386)	(0.307)	(0.099)
Above cutoff (robust)	-1.047**	-0.099	0.117
	(0.428)	(0.337)	(0.107)
Mean	5.395	6.797	11.463
Bandwidth	7609	7936	7810
Observations	4001	10181	29927
	D. negative equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.415	2.404**	-0.067
	(0.603)	(1.144)	(0.310)
Above cutoff (robust)	-0.274	2.705**	-0.057
	(0.655)	(1.239)	(0.343)
Mean	1.432	3.606	11.787
Bandwidth	7307	7936	8273
Observations	307	706	1303

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Panels A and C show the effect for firms with positive equity in the previous year. Panels B and D show the effect for firms with negative equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A47: Heterogeneous effects of being above the cutoff on paid-up capital and reserves in 2010-2012. *Quadratic polynomial.*

	A. positive equity in the previous year		
	Paid-up capital and reserves		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	120*	81.1	117
	(62.3)	(68.6)	(78.4)
Above cutoff (robust)	133**	102	146*
	(67.2)	(73.2)	(82.7)
Mean	1910	1941	1924
Bandwidth	8006	7636	7238
Observations	64917	57574	50597
	B. negative equity in the previous year		
	Paid-up capital and reserves		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	572	-643	-2031
	(566)	(881)	(1413)
Above cutoff (robust)	548	-819	-2275
	(624)	(1029)	(1424)
Mean	-1122	-606	-70.1
Bandwidth	6818	8090	8460
Observations	1452	1561	1459

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. Panel A shows the effect for firms with positive equity in the previous year and panel B shows the effect for firms with negative equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 2. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.4 Long-term effects and heterogeneity

Table A48: Long-term effect of being above the cutoff on Total assets in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	13.1	-134	55.4	-34.7	17.6	11.5	-79.7	-23.4
	(154)	(170)	(175)	(189)	(195)	(204)	(214)	(226)
Above cutoff (robust)	-24.8	-196	7.51	-95.7	-23.5	20	-79.4	13.9
	(180)	(192)	(202)	(215)	(227)	(241)	(253)	(265)
Mean	8621	8574	8431	8559	8648	8880	9126	9162
Bandwidth	2534	2340	2562	2459	2645	2791	2832	2756
Observations	17137	14738	15503	13997	14372	14456	13869	12778

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A49: Long-term effect of being above the cutoff on Equity in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	75.2	70.3	122	-29.9	-135	-196	-33.5	77.9
	(83.7)	(76.6)	(87.1)	(135)	(152)	(168)	(113)	(120)
Above cutoff (robust)	59.2	70.6	134	-76.5	-186	-239	-12.3	105
	(103)	(90.2)	(103)	(167)	(193)	(218)	(135)	(143)
Mean	1873	1873	1859	2002	2108	2163	2157	2225
Bandwidth	5292	4315	4212	5611	6506	6835	4443	4347
Observations	40775	29509	26960	36021	40432	40313	22370	20553

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A50: Long-term effect of being above the cutoff on Total debt in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	368	325	263	646	650	664	242	244
	(387)	(363)	(343)	(416)	(435)	(454)	(399)	(443)
Above cutoff (robust)	447	399	323	776	800	820	319	350
	(464)	(423)	(394)	(498)	(512)	(537)	(466)	(516)
Mean	7221	6963	6599	6456	6424	6568	6713	6740
Bandwidth	3330	3006	2762	3203	3163	3139	2826	2678
Observations	24513	20686	17897	19972	18766	17768	15162	13734

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A51: Long-term effect of being above the cutoff on Paid-up capital and reserves in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	148**	130**	136*	-18.1	-59.3	-119	-157	86.7
	(60.3)	(63.7)	(71)	(131)	(128)	(154)	(175)	(112)
Above cutoff (robust)	156**	129*	136	-68	-97.8	-154	-188	115
	(70.4)	(74.6)	(83.3)	(161)	(165)	(201)	(230)	(133)
Mean	1838	1876	1887	1951	2024	2060	2117	2081
Bandwidth	3965	4203	4193	5438	6269	6769	6749	3983
Observations	28371	28572	26754	34663	38722	39893	37530	18616

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A52: Long-term effect of being above the cutoff on Net profits+dividends in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7
Above cutoff (conv.)	-75.3	23.6	79.8	35.7	-25.9	-29.2	52.2	59.5
	(90.3)	(46.1)	(50.4)	(50.2)	(51.3)	(59.3)	(122)	(63.9)
Above cutoff (robust)	-104	40.2	100*	50.8	-18.7	-24.9	86.8	66.6
	(115)	(52.3)	(56.7)	(57.5)	(60.6)	(70.1)	(160)	(72.6)
Mean	104	57.1	28.8	169	263	335	445	405
Bandwidth	6688	3387	3219	4096	5320	4973	7282	3765
Observations	57779	23650	21166	26709	34987	30691	46011	20166

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A53: Long-term effect of being above the cutoff on Total factor productivity in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7	(8) t+1
Above cutoff (conv.)	-.036	.0048	.0247	-.018	-.0667	-.0285	-.0511	.071
	(.0537)	(.0572)	(.071)	(.0624)	(.0571)	(.0579)	(.0701)	(.129)
Above cutoff (robust)	-.033	.00319	.0292	-.0159	-.0852	-.0335	-.0337	.106
	(.0598)	(.0716)	(.0775)	(.0755)	(.0641)	(.0669)	(.0787)	(.145)
Mean	2.78	2.71	2.77	2.8	2.81	2.78	2.77	2.72
Bandwidth	2510	1868	2085	2838	2036	1989	1703	2157
Observations	17364	11811	12566	16695	10883	10073	8216	10133

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A54: Long-term effect of being above the cutoff on debt restructuring in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7
Above cutoff (conv.)	.000255	.000491	.00445	.00653	.00556	.01	.0092
	(.00141)	(.00313)	(.00484)	(.00649)	(.00721)	(.00795)	(.00835)
Above cutoff (robust)	.000507	.00162	.00622	.00892	.00798	.0129	.0121
	(.00165)	(.00361)	(.00549)	(.00733)	(.0082)	(.00893)	(.00939)
Mean	.00312	.0118	.0233	.0355	.0436	.0474	.0524
Bandwidth	4452	4319	4083	3995	4074	3895	3857
Observations	34848	33517	31334	30553	31247	29634	29293

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t+1 to t+7. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A55: Long-term effect of being above the cutoff on bankruptcy in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7
Above cutoff (conv.)	-.0000803	-.00418*	.000465	-.00273	-.0113	-.00985	-.0061
	(.0000803)	(.00223)	(.00375)	(.00544)	(.0071)	(.00843)	(.00942)
Above cutoff (robust)	-.000096	-.00503**	.0000798	-.00346	-.013	-.0109	-.00645
	(.0000753)	(.00256)	(.00446)	(.00641)	(.00831)	(.01)	(.0112)
Mean	.000096	.00842	.0157	.0303	.05	.0669	.0786
Bandwidth	3906	3265	3590	3658	3282	3367	3339
Observations	29750	23993	26766	27408	24143	24850	24599

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t+1 to t+7. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A56: Long-term effect of being above the cutoff on Having a bank loan in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7
Above cutoff (conv.)	-.00924	-.0144	-.0175	-.0115	-.018	-.00893	-.00613	-.00363
	(.0115)	(.0121)	(.0125)	(.0127)	(.0132)	(.0138)	(.0137)	(.0141)
Above cutoff (robust)	-.0121	-.0177	-.0196	-.0122	-.0199	-.0116	-.00725	-.00386
	(.0132)	(.0138)	(.0145)	(.0149)	(.0153)	(.0159)	(.016)	(.0165)
Mean	.884	.877	.874	.866	.863	.871	.872	.866
Bandwidth	3509	3578	3873	4096	3953	3571	3630	3779
Observations	26070	25192	26360	26700	24352	20555	20048	20264

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A57: Long-term effect of being above the cutoff on Number of bank groups in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	-0.235*	-0.273*	-0.270*	-0.198	-0.195	-0.129	-0.162	-0.217
	(0.136)	(0.140)	(0.142)	(0.145)	(0.149)	(0.156)	(0.159)	(0.158)
Above cutoff (robust)	-0.183	-0.222	-0.226	-0.152	-0.152	-0.081	-0.111	-0.176
	(0.156)	(0.160)	(0.163)	(0.167)	(0.172)	(0.178)	(0.181)	(0.181)
Mean	5.007	4.991	4.845	4.738	4.687	4.600	4.542	4.452
Bandwidth	4043	4167	4244	4241	4279	4088	4058	4205
Observations	30973	30342	29388	27845	26739	24171	22952	23062

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The order of the polynomial of the running variable is 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A58: Long-term effect of being above the cutoff on Granted debt amount in 2010-2012.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+1
Above cutoff (conv.)	-122	-150	-156	-166	-101	-140	-197	-140
	(241)	(221)	(217)	(209)	(204)	(213)	(213)	(217)
Above cutoff (robust)	-110	-137	-118	-150	-74.8	-115	-168	-109
	(286)	(257)	(253)	(244)	(235)	(245)	(246)	(249)
Mean	4583	4240	3955	3785	3693	3738	3764	3696
Bandwidth	3161	2799	2700	2796	2735	2879	2953	2927
Observations	23120	19119	17446	17231	16035	16159	15908	15201

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A59: Long-term effect of being above the cutoff on Utilized debt amount in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7	(8) t+1
Above cutoff (conv.)	-30.4	-66	-88.1	102	129	72.5	-73.6	-115
	(196)	(190)	(190)	(213)	(212)	(208)	(192)	(187)
Above cutoff (robust)	-21.1	-49.2	-55.3	168	193	122	-35.2	-111
	(236)	(223)	(222)	(252)	(253)	(249)	(227)	(221)
Mean	3209	3072	2914	2758	2726	2777	2780	2754
Bandwidth	3179	2813	2654	2920	3066	3330	3253	3318
Observations	23265	19236	17075	18057	18174	18962	17667	17399

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A60: Long-term effect of being above the cutoff on Mortgage interest rate in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7	(8) t+1
Above cutoff (conv.)	.108	-.0639	-.0556	-.0442	.0652	-.0155	-.0381	-.154
	(.124)	(.131)	(.141)	(.146)	(.147)	(.152)	(.145)	(.129)
Above cutoff (robust)	.146	-.0571	-.0453	-.0468	.0611	-.031	-.0395	-.149
	(.145)	(.156)	(.169)	(.175)	(.174)	(.182)	(.174)	(.154)
Mean	4.69	5.39	4.89	4.32	3.45	3.03	2.49	2.18
Bandwidth	2775	2947	3104	3026	3142	3056	3024	3037
Observations	5525	5464	6004	5482	5613	5137	5137	4977

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A61: Long-term effect of being above the cutoff on Net interest rate on credit lines in 2010-2012.

	(1) t+1	(2) t+2	(3) t+3	(4) t+4	(5) t+5	(6) t+6	(7) t+7	(8) t+1
Above cutoff (conv.)	.0836	.0652	-.126	.188	.118	.0887	.196	.184
	(.112)	(.123)	(.142)	(.155)	(.16)	(.168)	(.173)	(.184)
Above cutoff (robust)	.0863	.0863	-.154	.233	.146	.0935	.185	.183
	(.133)	(.145)	(.164)	(.179)	(.188)	(.2)	(.205)	(.218)
Mean	7.32	7.75	7.82	7.45	6.84	6.25	4.99	4.11
Bandwidth	4349	4351	4086	4054	4311	4282	4176	3891
Observations	23382	21351	17877	15801	15307	13751	12481	10894

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012 from year t to t+7. Any monetary value is in thousand euros. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A62: Heterogeneous effects of being above the cutoff on supervisory body and ordinary budget in 2010-2012.

	A. positive equity in the previous year					
	Statutory auditors			Ordinary budget		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	0.136***	0.108***	0.096***	0.052***	0.026**	0.025*
	(0.021)	(0.022)	(0.021)	(0.013)	(0.013)	(0.013)
Above cutoff (robust)	0.126***	0.098***	0.086***	0.045***	0.020	0.018
	(0.023)	(0.023)	(0.023)	(0.014)	(0.014)	(0.014)
Mean	0.639	0.711	0.707	0.875	0.876	0.863
Bandwidth	1929	1629	1798	2127	2293	2548
Observations	13017	10248	10909	14489	14949	16012
	B. negative equity in the previous year					
	Statutory auditors			Ordinary budget		
	(1)	(2)	(3)	(4)	(5)	(6)
	t	t+1	t+2	t	t+1	t+2
Above cutoff (conv.)	0.175*	0.174	0.100	0.097	-0.017	-0.090
	(0.090)	(0.109)	(0.120)	(0.082)	(0.109)	(0.121)
Above cutoff (robust)	0.150	0.141	0.066	0.097	-0.007	-0.090
	(0.105)	(0.126)	(0.139)	(0.099)	(0.131)	(0.145)
Mean	0.468	0.425	0.386	0.720	0.614	0.635
Bandwidth	5250	4794	4735	4208	4536	4538
Observations	883	564	442	636	519	414

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. Panel A shows the effect for firms with positive equity in the previous year and panel B shows the effect for firms with negative equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A63: Heterogeneous effects of being above the cutoff on corporate crisis in 2010-2012.

	corporate crisis event		
	A. positive equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.001	-0.002	-0.013
	(0.002)	(0.002)	(0.010)
Above cutoff (robust)	0.002	-0.003	-0.011
	(0.003)	(0.002)	(0.012)
Mean	0.006	0.005	0.910
Bandwidth	3574	3401	3101
Observations	25817	24390	21998
	B. negative equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.086	-0.081**	0.033
	(0.074)	(0.039)	(0.091)
Above cutoff (robust)	0.104	-0.090**	0.022
	(0.088)	(0.043)	(0.109)
Mean	0.184	0.106	0.647
Bandwidth	5668	4215	4890
Observations	1016	637	797
	years until corporate crisis		
	C. positive equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.992**	-0.021	0.084
	(0.387)	(0.287)	(0.096)
Above cutoff (robust)	-1.141***	-0.029	0.107
	(0.432)	(0.336)	(0.110)
Mean	5.415	6.726	11.497
Bandwidth	3406	4260	3864
Observations	1604	4325	11383
	D. negative equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.375	2.373**	-0.037
	(0.586)	(0.984)	(0.279)
Above cutoff (robust)	-0.558	2.445**	-0.065
	(0.633)	(1.211)	(0.330)
Mean	1.645	3.845	11.808
Bandwidth	3918	4609	4963
Observations	132	254	431

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Panels A and C show the effect for firms with positive equity in the previous year. Panels B and D show the effect for firms with negative equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A64: Heterogeneous effects of being above the cutoff on corporate crisis in 2010-2012.

	corporate crisis event		
	A. positive above-median equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	0.001	-0.002	-0.013
	(0.002)	(0.002)	(0.010)
Above cutoff (robust)	0.002	-0.002	-0.011
	(0.003)	(0.002)	(0.012)
Mean	0.006	0.005	0.912
Bandwidth	3642	3854	3057
Observations	25569	27409	20988
	B. positive below-median equity in the previous year		
	(1)	(2)	(3)
	Debt restructuring within year 2	Bankruptcy within year 2	Survive by year 2
Above cutoff (conv.)	-0.006	-0.017	0.031
	(0.013)	(0.014)	(0.060)
Above cutoff (robust)	-0.004	-0.020	0.035
	(0.014)	(0.015)	(0.072)
Mean	0.010	0.009	0.817
Bandwidth	3275	3353	4918
Observations	739	765	1362
	years until corporate crisis		
	C. positive above-median equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.992**	0.048	0.065
	(0.392)	(0.296)	(0.099)
Above cutoff (robust)	-1.143***	0.043	0.084
	(0.437)	(0.346)	(0.115)
Mean	5.464	6.729	11.500
Bandwidth	3433	4213	3837
Observations	1566	4034	10725
	D. positive below-median equity in the previous year		
	(1)	(2)	(3)
	Years to Debt restructuring	Years to Bankruptcy	Years from exit
Above cutoff (conv.)	-0.756	-1.234	0.509
	(1.065)	(0.986)	(0.322)
Above cutoff (robust)	-0.600	-1.299	0.587*
	(1.361)	(1.238)	(0.351)
Mean	2.642	6.472	11.488
Bandwidth	3042	4658	3769
Observations	54	288	539

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Panels A and C show the effect for firms with positive above-median equity in the previous year. Panels B and D show the effect for firms with positive below-median equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A65: Heterogeneous effects of being above the cutoff on paid-up capital and reserves in 2010-2012. *Quadratic polynomial.*

	A. positive equity in the previous year		
	Paid-up capital and reserves		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	129**	102	131*
	(58.5)	(64.2)	(73.2)
Above cutoff (robust)	127*	100	134
	(68.4)	(75.2)	(86.2)
Mean	1920	1945	1924
Bandwidth	4152	3971	3782
Observations	29000	26012	23058
	B. negative equity in the previous year		
	Paid-up capital and reserves		
	(1)	(2)	(3)
	t	t+1	t+2
Above cutoff (conv.)	318	12	-700
	(521)	(651)	(707)
Above cutoff (robust)	385	-19.2	-679
	(593)	(758)	(797)
Mean	-1078	-740	-298
Bandwidth	3746	4171	4196
Observations	534	450	356

Notes: This table reports the effect of being above the cutoff of Net revenues within the optimal bandwidth on the outcome variables indicated in the column headings in 2010-2012. Any monetary value is in thousand euros. Panel A shows the effect for firms with positive equity in the previous year and panel B shows the effect for firms with negative equity in the previous year. *Above cutoff (conv.)* is the ITT effect estimated using the conventional RD estimator. *Above cutoff (robust)* is the ITT effect estimated using the robust approach with bias-correction by Calonico et al. [2014]. Both treatment effects are estimated within the optimal bandwidth selected using the method by Calonico et al. [2014]. The running variable is modeled with a polynomial of degree 1. Mean is the average of the dependent variable within the bandwidth and below the cutoff. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

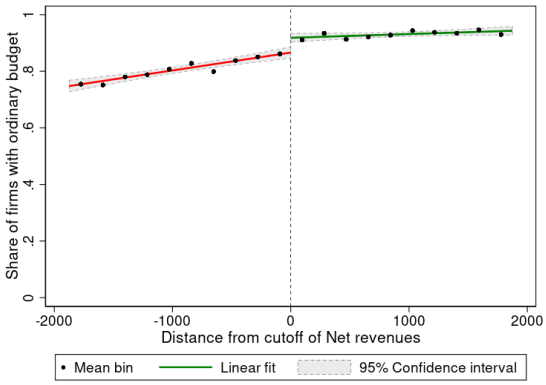
Table A66: Annual compensation range of a statutory auditor as a function of the firm's assets and net revenues.

Assets+net revenues	Compensation	Marginal compensation as percent of assets+ net revenues
≤ 5 mil.	€6,000-8,000	
$5 - 100$ mil.		+0.009%-0.010%
$100 - 300$ mil.		+0.0060%-0.009%
$300 - 800$ mil.		+0.005%-0.006%
≥ 800 mil.		+€7,500-10,000 every 100 mil.

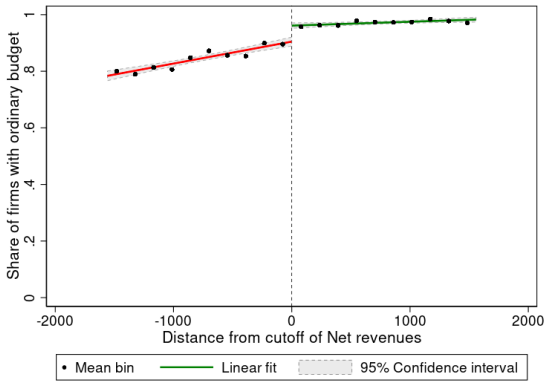
Notes: The annual compensation range is stated in article 29 of ministerial decree 140/2012. The pay is doubled if there is a single member (*sindaco unico*) and it is increased by half if the member is the president of the board of statutory auditors. Compensation depends on the sum of total assets and the positive components of revenues. The latter includes the value of production, excluding changes in the inventory of products in progress, semi-finished products, and finished goods, changes in works in progress on orders, and increases in fixed assets for internal works; the total amount of financial income; all revaluations and restorations of asset values; the total amount of extraordinary income. We approximate the positive components of revenues with net revenues.

Appendix B Additional Figures

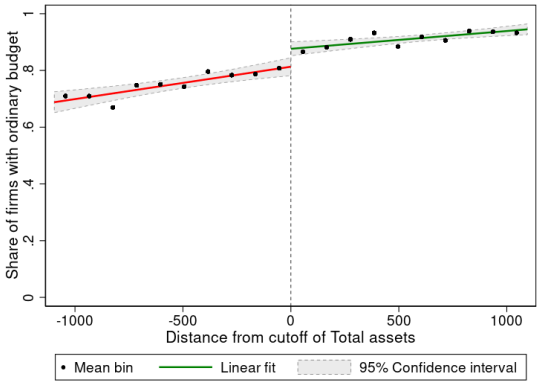
Figure B1: Share of firms with ordinary financial statements on distance from the cutoffs



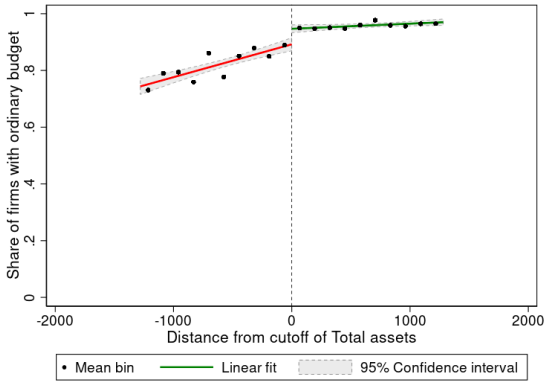
(a) Net revenues, 2010-12



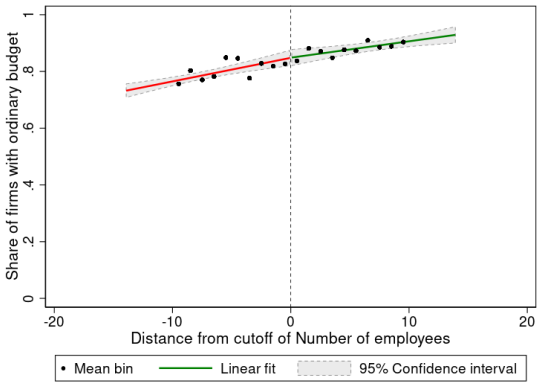
(b) Net revenues, 2021-23



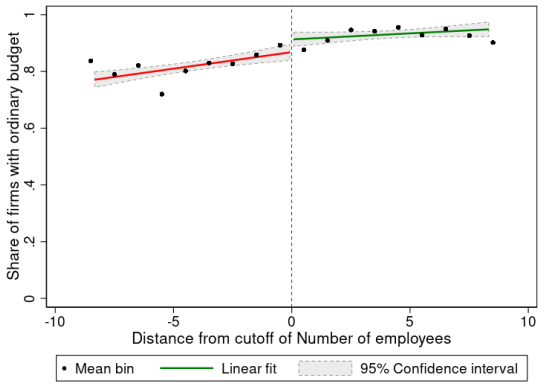
(c) Total assets, 2010-12



(d) Total assets, 2021-23



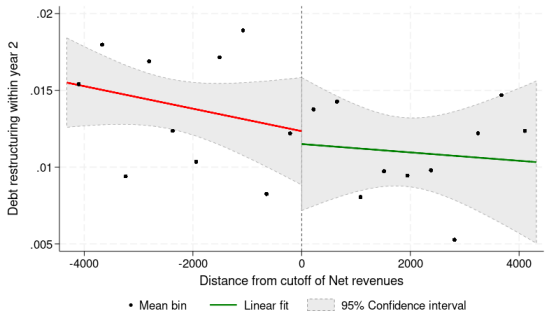
(e) Number of employees, 2010-12



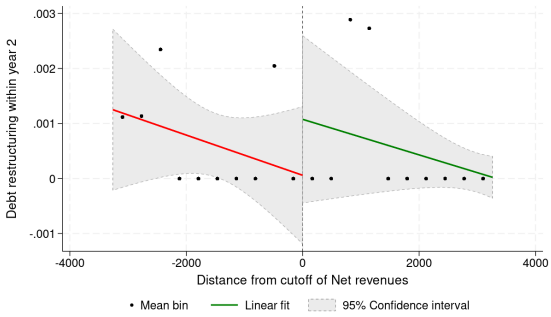
(f) Number of employees, 2021-23

Notes: The figures show the share of firms with ordinary financial statements conditional as a function of the distance of the running variables (the minimum in the previous two years) from the cutoffs in years 2010-12 and 2021-23. The running variables are centered at the cutoff, indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

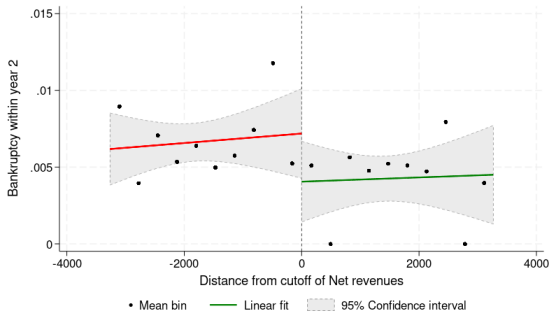
Figure B2: Effects on the probability of crisis events, in 2010-12 and 2021-23



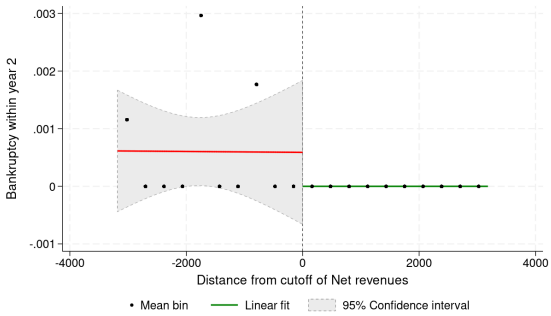
(a) Debt restructuring within year 2, 2010-12



(b) Debt restructuring within year 2, 2021-23



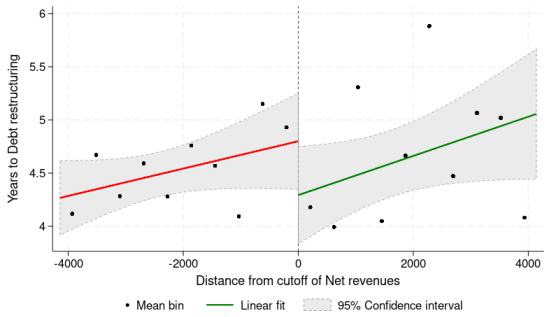
(c) Bankruptcy within year 2, 2010-12



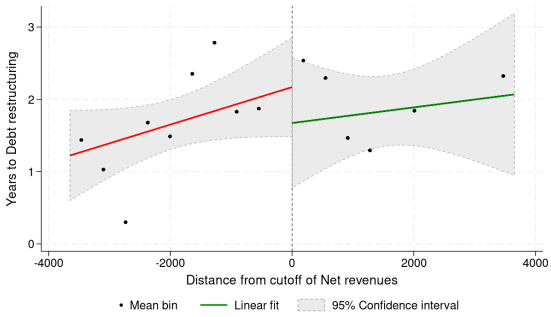
(d) Bankruptcy within year 2, 2021-23

Notes: Panel (a)-(d) show the share of firms with a crisis event as a function of the distance of the running variables (the minimum in the previous two years) from the cutoffs in years 2010-12 and 2021-22. Panel e-f show the average number of years until a crisis occurs as a function of the distance of the running variables (the minimum in the previous two years) from the cutoffs in years 2010-12 and 2021-22. The running variables are centered at the cutoff and the cutoff is indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

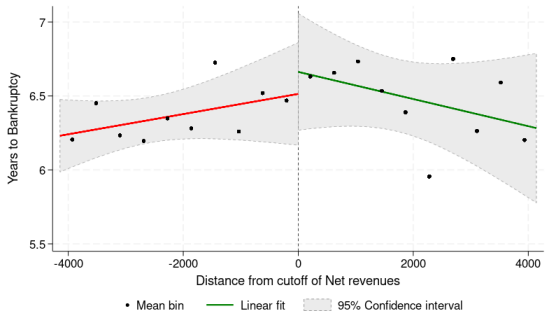
Figure B3: Effects on distance to crisis events, in 2010-12 and 2021-23



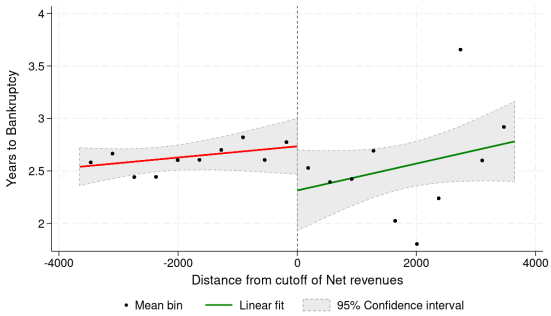
(a) Years until debt restructuring, 2010-12



(b) Years until debt restructuring, 2021-23



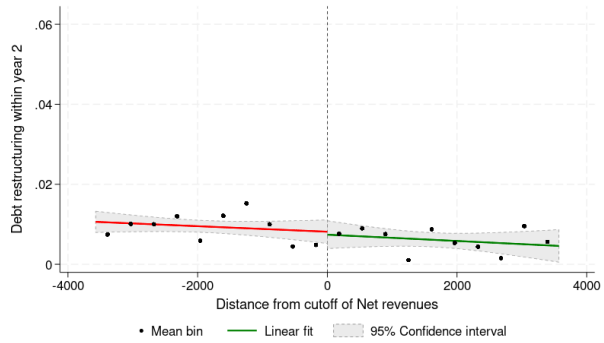
(c) Years until bankruptcy, 2010-12



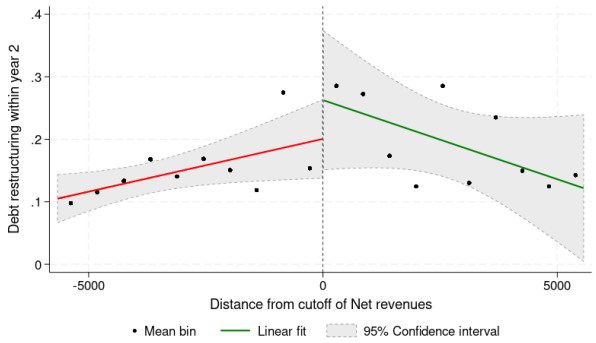
(d) Years until bankruptcy, 2021-23

Notes: Panel (a)-(d) show the average number of years until a crisis event occurs as a function of the distance of the running variables (the minimum in the previous two years) from the cutoffs in years 2010-12 and 2021-22. The running variables are centered at the cutoff and the cutoff is indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

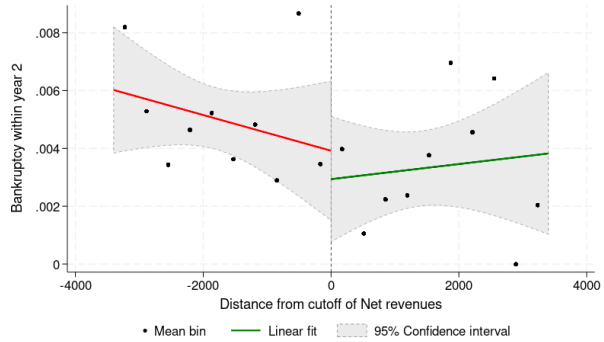
Figure B4: Heterogeneous effects on the probability of crisis events, by positive and negative equity



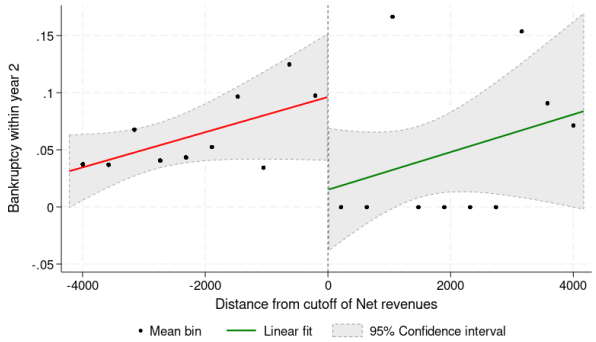
(a) Debt restructuring by year 2 in 2010-12, positive equity



(b) Debt restructuring by year 2 in 2010-12, negative equity



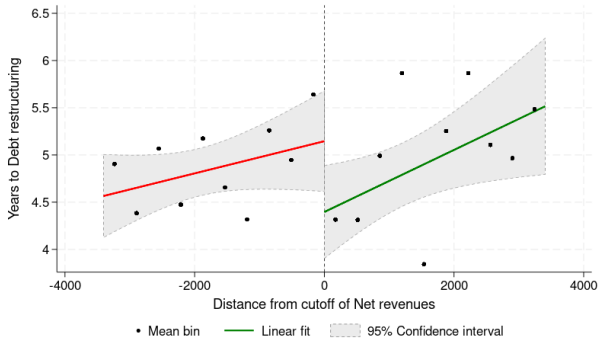
(c) Bankruptcy by year 2 in 2010-12, positive equity



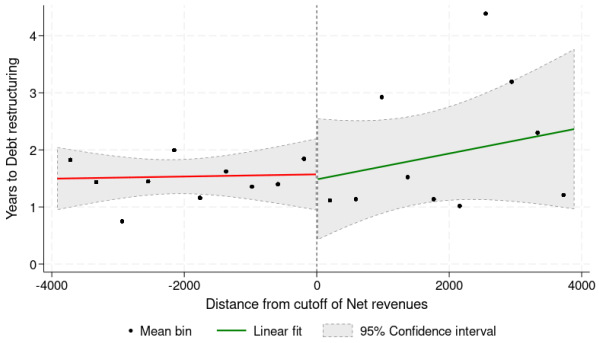
(d) Bankruptcy by year 2 in 2010-12, negative equity

Notes: Panel (a)-(d) show the share of firms with a crisis event on the distance of the net revenues (the minimum in the previous two years) from the cutoff for firms with negative and positive equity in the previous year. The running variables are centered at the cutoff and the cutoff is indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

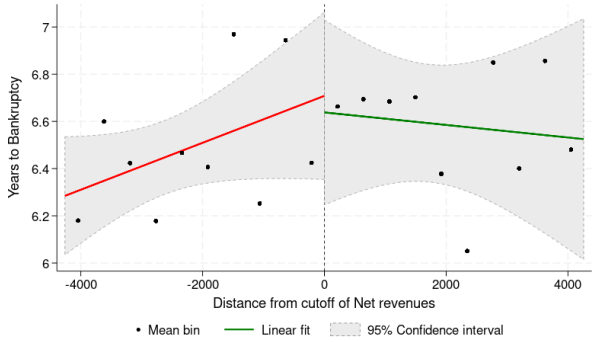
Figure B5: Heterogeneous effects on distance to crisis events, by positive and negative equity



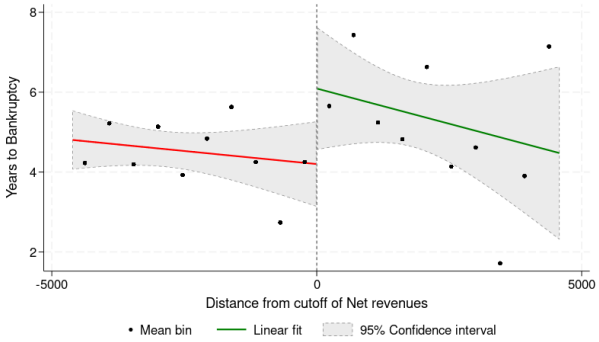
(a) Time to debt restructuring by year 2 in 2010-12, positive equity



(b) Time to debt restructuring by year 2 in 2010-12, negative equity



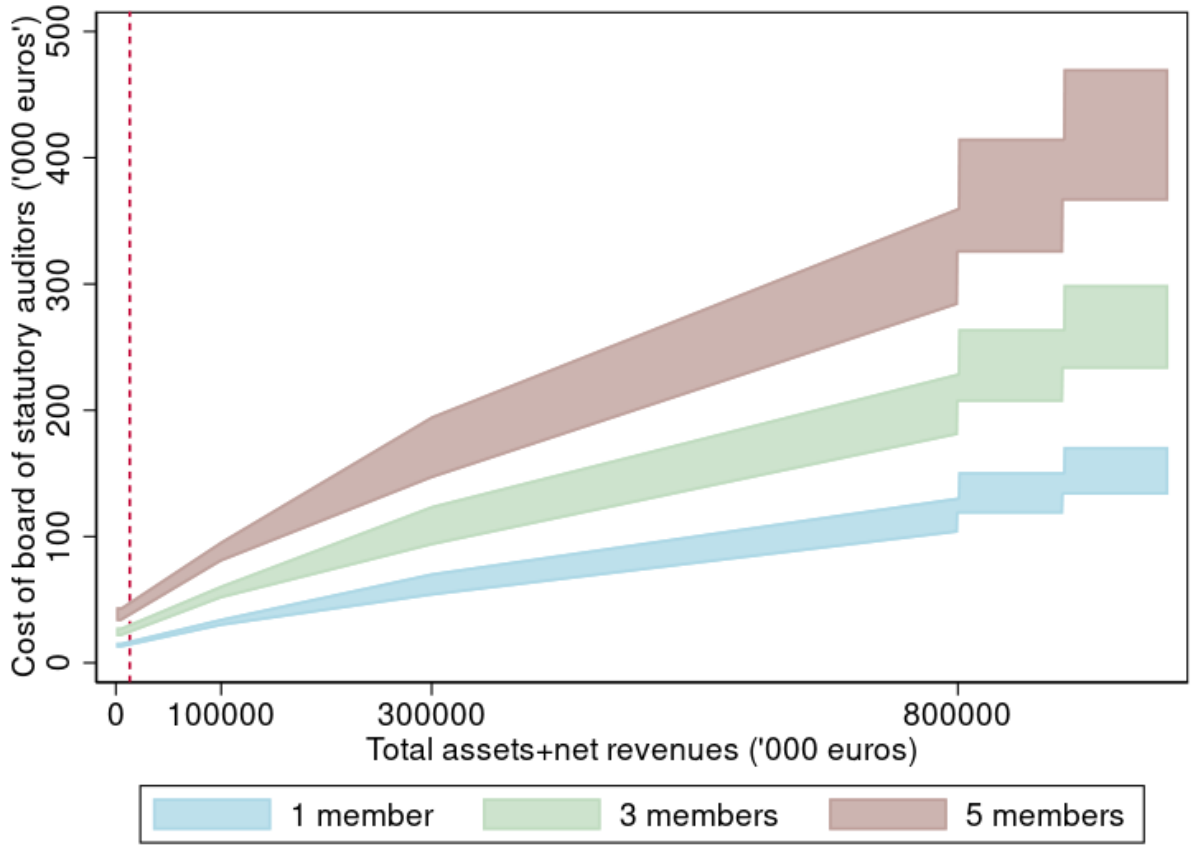
(c) Time to bankruptcy by year 2 in 2010-12, positive equity



(d) Time to bankruptcy by year 2 in 2010-12, negative equity

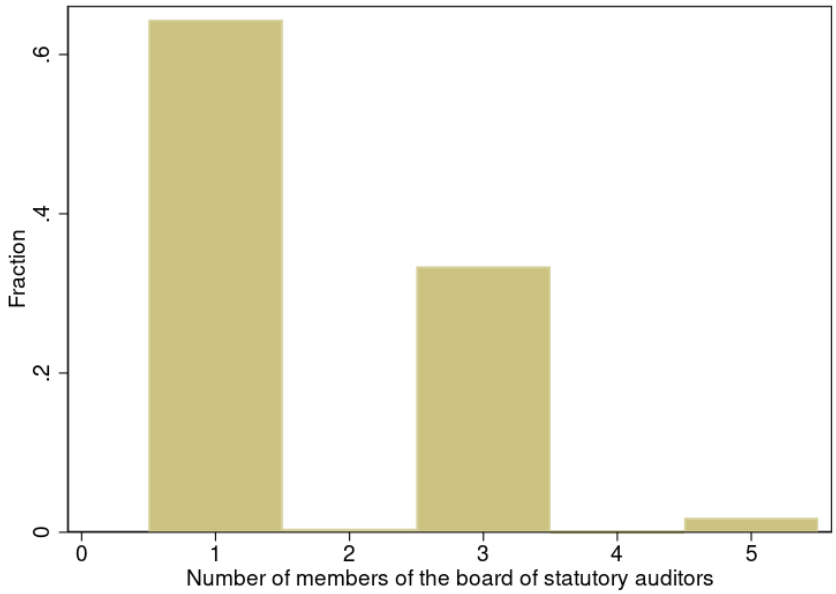
Notes: Panel (a)-(d) show the average number of years until a crisis event occurs as a function of the distance of the running variables (the minimum in the previous two years) from the cutoffs for firms with negative and positive equity in the previous year. The running variables are centered at the cutoff and the cutoff is indicated by the dashed line. The sample is composed by limited liability companies. The circles are the share of firms with ordinary financial statements in 10 equally-sized bins on either side of the threshold, while the solid and dashed lines represent the predicted values and 95 percent confidence intervals. The range of the running variable corresponds to the optimal bandwidth computed following Calonico et al. [2014].

Figure B6: Annual cost of statutory auditors as a function of firm's total assets and net revenues.



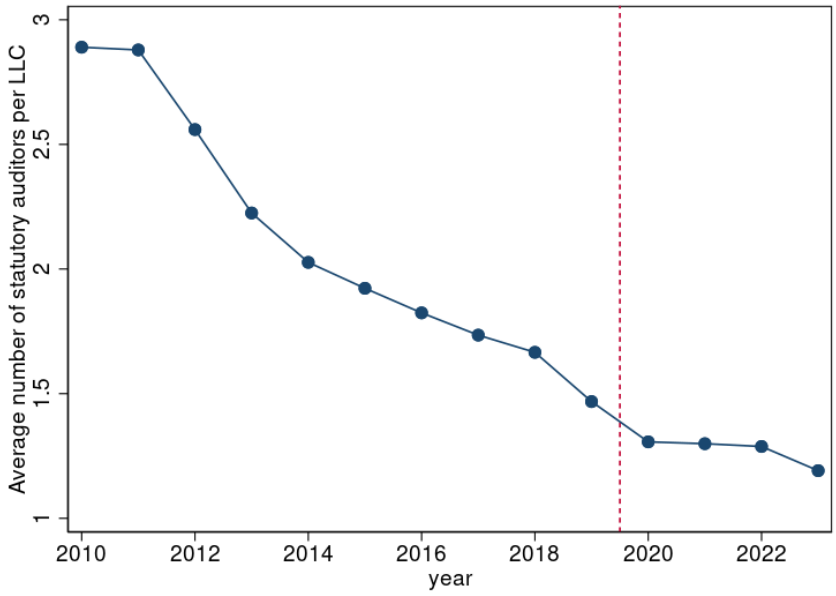
Notes: The figure shows the annual cost range for the board of statutory auditors composed by 1 member (in light blue), 3 members (in green) or 5 members (in rose), as a function of the sum of total assets and net revenues of the firm, according to article 29 of ministerial decree 140/2012. The dashed line is placed where both total assets and net revenues are at their respective 2010 cutoff (13.2 million euros in total).

Figure B7: Shares of Srl with a board of statutory auditors by number of members.



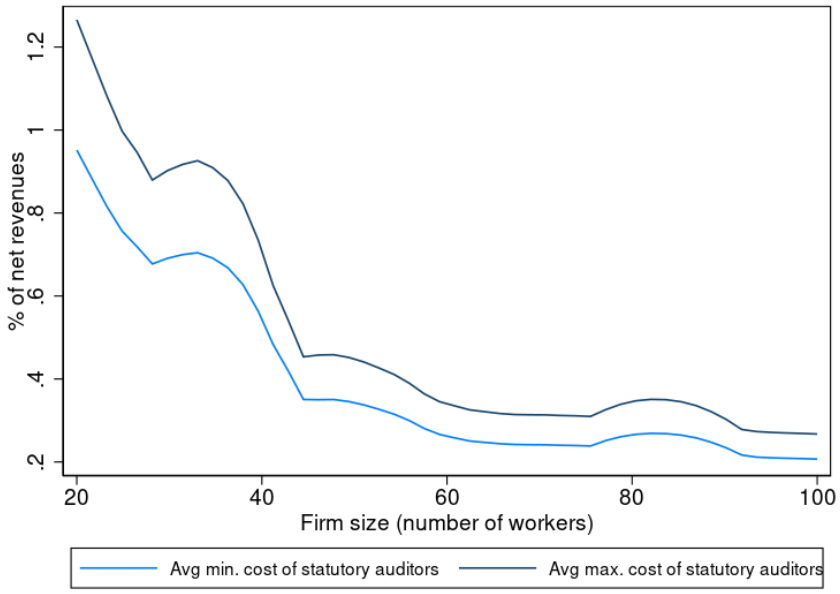
Notes: The figure shows the fractions of Srl with a board of statutory auditors from 2010 to 2023 that had one, three or five members.

Figure B8: Average number of statutory auditors in Srl by year.



Notes: The figure shows the average number of statutory auditors per limited-liability company in each year from 2010 to 2023.

Figure B9: Cost of statutory auditors as a percentage of net revenues by firm size



Notes: The figure show the average minimum and maximum cost of statutory auditors as a percentage of net revenues by firm size. The values are smoothed using a kernel-weighted local mean regression of the cost of statutory auditors as a share of net revenues on the firm's number of workers.

Figure B10: Number of Srl with statutory auditors by year.