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Labor Protection, Tax Planning, and Capital Investment: Evidence from Small-Sized Enterprises

Antonio De Vito*

ABSTRACT

This paper examines the effect of labor protection laws on tax planning and capital investment. Exploiting a major reform that introduced firing costs in Italy for firms with fewer than 15 employees but left firing costs unchanged for larger firms combined with matched employer-employee data, I show that the rise in firing costs led small firms to increase tax avoidance and capital investment relative to larger firms. Robustness and placebo tests suggest that the results are causal. Overall, the findings indicate that tax avoidance allows small firms to generate internal funds to substitute labor for capital when employment protection becomes stronger.

JEL classification: G32; H26; J63; K31; M41

Keywords: labor protection, tax planning, tax avoidance, capital investment, small firms

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1. Introduction

Firms must comply with many laws and regulations when making investment and financing decisions. While all laws may affect these decisions (Coffey et al. 2020), prior literature suggests that employment protection laws (EPL) are the *key* obstacle to firms, since they prevent them from flexibly adjusting labor demand when market conditions change (Bentolila and Bertola 1990; Autor et al. 2006; Messina and Vallanti 2007). Empirical evidence suggests that the inability to discharge workers in response to adverse conditions generates two reactions. On the assets side, firms substitute labor—the relatively expensive factor—for capital (Cingano et al. 2016). On the capital structure side, firms reduce leverage because, by making labor costs more rigid, EPL increases the cost of financial distress and crowds out debt (Simintzi et al. 2015; Serfling 2016). Hence, if firms are expected to deepen capital but EPL crowds out debt, a fundamental question is how do firms finance EPL-induced investment?

This paper examines whether firms resort to tax avoidance to generate internal funds to deepen capital in response to stronger employment protection laws.¹ My research question departs from the assumption that internally generated funds through tax planning can be a viable option when it is difficult or more costly to access external funds and when other cost-saving devices, such as cutting staff, are by law unavailable (Edwards et al. 2016). Moreover, the need to resort to tax avoidance is particularly relevant for small firms, which have limited access to external finance and are expected to quickly adjust the input mix in response to changed economic conditions (Beck et al. 2008; Frank and Goyal 2008).

To answer the research question, I exploit the Italian employment protection reform of 1990, which significantly strengthened employment protection for firms with fewer than 15 employees (*treatment* group), while leaving EPL unchanged for larger firms (*control* group). The reform was unanticipated and allows for a regression discontinuity design combined with a difference-in-differences analysis.

¹ I use the terms “tax avoidance” and “tax planning” interchangeably throughout the paper (Wilde and Wilson 2018).

Using an employer-employee matched dataset combined with financial data, I find that the reform led treated firms to increase tax avoidance. Moreover, consistent with Cingano et al. (2016), I also find that the reform led treated firms to deepen capital. These results withstand a variety of robustness tests, indicating that the parallel trends assumption underlying my approach is likely satisfied.

Examining whether firms increase tax avoidance when EPL becomes stronger contributes to three strands of the literature. First, I extend the work of Cingano et al. (2016) by showing that the Italian reform led firms to turn to tax avoidance to deepen capital. Second, I add to the literature on the real effects of tax avoidance and, in particular, the literature on tax avoidance and aggregate outcomes, such as GDP growth rates and aggregate investment. To the extent that firm-level tax avoidance and investments are aggregated to affect future growth, these findings offer insights into why we observe a positive relation between tax avoidance and investment at the macro level (Shevlin et al. 2019). Finally, I answer the call of Jacob (2022) for more research on the role of tax avoidance in shaping corporate investment by focusing on small firms whose tax planning strategies are still largely unexplored.

2. The Italian Institutional Framework

In Italy, prior to 1990, the Labor Code (i.e., Law 300) required only firms with 15 or more employees to reinstate unfairly dismissed employees and pay severance compensation, exempting firms with fewer than 15 employees from reinstating employees or paying severance compensation. However, in 1990, the Italian Parliament enacted a new law, Law 108, which similarly restricted dismissals and introduced severance payments for firms with fewer than 15 employees.

For identification purposes, exploiting the 1990 reform to examine the effect of employment protection on tax avoidance and investment is appealing for several reasons. First, the law imposed substantial firing costs on firms with fewer than 15 employees, while leaving the firing costs for firms with 15 or more employees unchanged (Kugler and Pica 2008). The prior literature has already documented that this reform led firms with fewer than 15 employees to deepen capital (Cingano et al.

2016). Hence, if my theoretical expectation is valid, the reform should have also led these firms to increase tax avoidance to generate internal funds needed to deepen capital. Second, while in the 1990s the Italian tax system had one of the highest corporate tax rates in the OECD area (around 54%), it offered small firms many tax avoidance opportunities.² Third, the change in employment protection was largely unexpected by businesses, individuals, and the media, which mitigates identification concerns arising from the endogeneity of employment protection reforms. The change came after several warnings from the Constitutional Court to harmonize employment protection among firms in Italy (De Luca et al. 1990). The timeline also suggests that the reform came as a surprise and was implemented relatively quickly. Policymakers proposed the reform in late December 1989 and, after a few hearings in both the House of Representatives and the Senate, it was signed into law on May 11, 1990.³ Thus, the adoption period lasted less than five months, further indicating that the reform came as a surprise to firms.

Overall, this setting thus provides data regarding an unanticipated employment protection change in 1990 and a discontinuity in employment protection at the 15-employee threshold. Some firms were subject to the change in employment protection, while others were not; however, all firms were subject to similar variations in economic conditions. This allows the tax avoidance and investment effects of employment protection in this setting to be identified from a regression discontinuity design combined with a difference-in-differences analysis. I compare the change in tax avoidance and investment around the increase in EPL (first difference) for firms just below and above the threshold (second difference). The second difference is arguably exogenous with respect to the increase in EPL since firms could not anticipate the change and sort into or out of the treatment group around the time of the reform.

² Discussions with practitioners confirmed that these tax avoidance strategies were write-offs of receivables, the depreciation of capitalized research and development expenses (R&D), and provisions for future expenses and/or losses, which appeared in the tax return but not in the income statement. Importantly, this anecdotal evidence is consistent with prior literature suggesting that managers primarily employ tax avoidance strategies that reduce the effective tax rate (ETR) and produce both a cash-flow benefit and a financial-statement benefit (Armstrong et al. 2012; Graham et al. 2014).

³ The House of Representatives provides a detailed timeline of events at http://legislature.camera.it/_dati/leg10/lavori/schedela/trovaschedacamera.asp?pdI=4446 (last accessed April 3, 2022).

3. Empirical Strategy

Based on the number of employees, the treatment group is defined as those firms with fewer than 15 employees ($Below\ 15\ employees_{i,1989} = 1$) in the year before the reform (i.e., 1989), and the control firms as those firms with 15 or more employees. This approach ensures that firms do not enter the sample after the reform and that the results are not driven by new firms and their tax avoidance and investment strategies after the 1990 reform. The following equation is then estimated:

$$Y_{i,t} = \alpha_0 + \beta_1 Below\ 15\ employees_{i,1989} \times Post_{1990_1991} + \beta_2 X_{i,t} + \alpha_i + \alpha_{j,t} + \alpha_{k,t} + \varepsilon_{i,t} \quad (1)$$

where the dependent variable $Y_{i,t}$ is either a tax avoidance or investment measure of firm i in year t .

Investment is defined as capital expenditures over the prior year's total assets (*Investment*), whereas tax avoidance is income taxes divided by pretax income (*GAAP ETR*).⁴ *GAAP ETR* is winsorized at zero and one (Dyreng et al. 2008). The variable $Post_{1990_1991}$ is equal to one for the post-reform years 1990–1991. The main variable of interest is the interaction $Below\ 15\ employees_{i,1989} \times Post_{1990_1991}$, which is the difference-in-differences coefficient. Relative to the control group firms, the increase in employment protection is expected to lead to treated firms increasing tax avoidance ($\beta_l < 0$) and investment ($\beta_l > 0$). The estimation equation includes firm fixed effects (α_i), which capture time-invariant firm-specific influences on the levels of tax avoidance and investment. Moreover, I include industry–year fixed effects defined at the one-digit Italian SIC level ($\alpha_{j,t}$) (i.e., ATECO91) and the interaction between geographic dummies (denoting the northeast, northwest, center, and south) and year dummies ($\alpha_{k,t}$).⁵ While the former set of fixed effects accounts for time-varying industry shocks that could affect firms' tax avoidance and investment, the latter set of fixed effects allows comparison of the treated firms with control group firms in the same *local* economic and institutional environment. In line with the prior literature (e.g., Rego 2003; Wilde and Wilson 2018), I control for the determinants of tax

⁴ Similar to Cingano et al. (2016), I do not use the capital-to-labor ratio as the dependent variable, because the identification strategy relies precisely on the number of a firm's employees.

⁵ Alternatively, I employ administrative region–year fixed effects and find unchanged results.

avoidance ($X_{i,t}$). These firm-level variables are firm size, leverage, cash holdings, intangibles, the payout ratio, sales growth, and profitability.⁶ The coefficients on *Below 15 employees*_{*i*,1989} and *Post*_{1990_1991} are not included in the regression, since they are absorbed by firm and industry–year fixed effects. The statistical inference is based on robust standard errors clustered at the firm level.

4. Data, Summary Statistics, and Identifying Assumption

I use data on Italian firms from the Company Accounts Data Service provided by Cerved Group for the period from 1988 to 1991.⁷ These data and sample period are opportune to estimate changes in tax planning because in Italy 1) fiscal years coincide with calendar years and 2) the taxable income strictly derives from the accounting income after adjusting for tax allowances.⁸ Using the value-added tax identifier, I then merge Cerved’s unconsolidated financial statements of unlisted firms with employment-related information from the administrative archives of the Italian National Institute of Social Security (INPS).⁹ This matched employer-employee dataset covers Italian private non-agricultural firms that report exact information on firm-level employment when paying social security contributions. Following Cingano et al. (2016), I focus on firms with 10 to 20 employees to ensure that both affected and unaffected firms are comparable. Loss-making firms and firms with negative equity, cash holdings, or

⁶ I include leverage to control for its effect on tax avoidance for the average firm in the sample beyond the reduction of debt due to EPL. In untabulated tests, the results are unchanged when it is excluded. Note, also, that the Italian GAAP allows firms to capitalize R&D. Hence, the variable *intangibles* also captures tax strategies related to the use of R&D tax incentives.

⁷ The Company Accounts Data Service is a joint venture between the Bank of Italy and the Italian Banking Association to gather high-quality information on borrowers with the Italian legal forms *Società per azioni* (s.p.a.), *Società a responsabilità limitata* (s.r.l.), and *Società in accomandita per azioni* (s.a.p.a.). Note, also, that the sample ends in 1991 because in 1992 the Italian Parliament introduced an extraordinary property tax on firms’ real estate (i.e., *Imposta Straordinaria sugli Immobili*). This could bias the results. Hence, for consistency, the effect of the reform on tax avoidance and investment is tested using the two years before the reform (1988–1989) and the two years after it (1990–1991).

⁸ See Article 83 of the Italian Tax Code at https://def.finanze.it/DocTribFrontend/decodeurn?urn=urn:doctrib::TU:1986-12-22;917_art83 (last accessed September 16, 2022). Discussions with practitioners also confirmed that the time window for filing financial statements overlaps with the time window for filing tax returns. Firms usually end the fiscal year in December 31 and file simultaneously financial statements and tax returns in spring of next year. This timing overlap allows small firms to quickly implement many tax avoidance strategies.

⁹ The data were randomly sampled by the *Fondazione Rodolfo Debenedetti* and confidentially provided to me upon request.

total assets are also excluded. These requirements yield a sample size of 1,107 firm–year observations and 352 unique firms.¹⁰ Table 1 reports descriptive statistics and provides the variable definitions.

Before estimating equation (1), I follow Cattaneo and Jansson (2018) and implement a manipulation test in the years before the change in EPL to ensure 1) no manipulation of the number of employees around the threshold and 2) that firms do not sort into or out of treatment groups. Panel A of Figure 1 plots the density estimate of the number of employees and shows no evidence of discontinuity at the threshold of 15 employees. The absence of a discontinuity in the number of employees suggests that firms were not reluctant to move beyond the threshold and that the reform itself did not change the propensity of affected firms to expand. This evidence is in line with a large number of studies focusing on Italy and investigating the discontinuity in firing costs at the threshold of 15 employees (Boeri and Jimeno 2005; Schivardi and Torrini 2008; Leonardi and Pica 2013).

5. Results

Panel A of Table 2 reports the results of estimating equation (1) using *GAAP ETR* as the dependent variable. As predicted, the coefficient on the interaction is negative and statistically significant at the 5% level in all specifications. In economic terms, the increase in EPL leads firms to increase tax avoidance by 4.6–5.3%. To put this figure into perspective, the decrease of 4.6% in the ETR of treatment group firms compared to the control group firms is equivalent to a decrease in income taxes of, on average, USD 21,500 for the treated firms.¹¹ Hence, the economic magnitude is sizeable. Panel B of Table 2 reports the findings of estimating equation (1) using *Investment* as the dependent variable. In line with the results of Cingano et al. (2016), the coefficients on the interaction term are positive and statistically

¹⁰ Since my chosen bandwidth is sufficiently narrow, the sample size is almost balanced on each side of the 15-employee threshold, with 183 treated firms and 169 control firms. Note, also, that my sample is smaller than that of Cingano et al. (2016) because of missing tax data.

¹¹ The calculation is as follows. First, I retrieve exchange rates from Datastream and convert each variable into real U.S. dollars. Second, I multiply the average pre-tax income of the treated firms by the coefficient estimate in column (2) of Panel A of Table 2 (= USD 468,420 × 0.0459), to obtain USD 21,500.

significant at the 5% level. Economically, these results suggest that greater employment protection leads firms to increase capital investment by 2.6–2.9% relative to the prior year’s total assets.

To test whether the tax avoidance and investment trends of the treatment and control group firms evolved similarly prior to the increase in EPL, Panel C of Table 2 includes the interaction terms with the pre- and post-reform dummy variables. The point estimates for the pre-reform years are not statistically different from zero. This result suggests that treated and control firms followed parallel trends before the reform and did not anticipate their tax avoidance and investment responses. In support of these results, I then follow Ohrn and Seegert (2019) and test for the parallel trends assumption from 1987 to 1989 by regressing *GAAP ETR* and *Investment* on year fixed effects and the interactions of year fixed effects with *Below 15 employees*. The coefficients on the interactions of year fixed effects with these three dummy variables estimate the differences in trends between the different groups. Panel B of Figure 1 presents the coefficient estimates along with the 95% confidence bounds for these interaction terms. All interactions of *Below 15 employees* with any of the year fixed effects are statistically insignificant, as shown by the 95% confidence intervals that include zero. To further support the common trends assumption, I also test for joint significance of the interaction terms. The joint test fails to reject that all interactions are zero, with *p*-values well above 0.10, again supporting the common trends assumption.

Finally, Table A1 of the Online Appendix shows the robustness of the results to alternative definitions of tax avoidance and investment (Atwood and Lewellen 2019), to using a longer period (1987–1992), and to a larger bandwidth (10–25 employees). Following Caetano (2015), I also implement two placebo tests by estimating the treatment effect at a different size threshold (30 employees) and for pseudo-reform years before the year of the adoption (1988). I find no tax avoidance or investment effects in either of the placebo tests, further lending support to a causal interpretation of the main findings. Additionally, I run several tests on different periods while removing the 1990 reform year and continue to find robust results.

6. Conclusion

Exploiting a reform that raised firing costs for Italian firms with fewer than 15 employees but left firing costs unchanged for larger firms together with a matched employer-employee dataset, I find that the reform led to small firms increasing tax avoidance and capital investment relative to larger firms. These results withstand several robustness and placebo tests, indicating that the effects of EPL on tax planning and capital investment are likely causal. Overall, the findings support the notion that tax avoidance helps small firms to generate internal funds to substitute labor for capital when EPL becomes stronger.

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Figure 1. Testing for Manipulation of the Size Threshold and for Parallel Trends

Panel A reports the point and density estimates of the number of employees of treated firms relative to counterfactual firms from 1987 to 1989. The treated firms are those firms with fewer than 15 employees before 1990. The counterfactual firms are those firms with more than 15 employees before 1990. Following Cattaneo and Jansson (2018), I implement a manipulation testing procedure using a sixth-order local polynomial density estimator. The gray area represents the 95% confidence interval. The gray line represents the cutoff value of the number of employees. Panel B plots the coefficient of *Below 15 employees*, which is a dummy variable equal to one if the number of a firm's employees is below 15 before 1990. Following Ohn and Seegert (2019), I run the following regression for each dependent variable: $Y_{i,t} = \text{Below 15 employees} \times \text{Year Dummy}_t + \text{Year Dummy}_t + \epsilon$, where Year Dummy_t is an indicator variable for 1987, 1988, and 1989, respectively. I also present the 95% confidence interval based on standard errors clustered at the firm level.

Panel A: Testing for Manipulation of the Size Threshold

Panel B: Testing for Parallel Trends

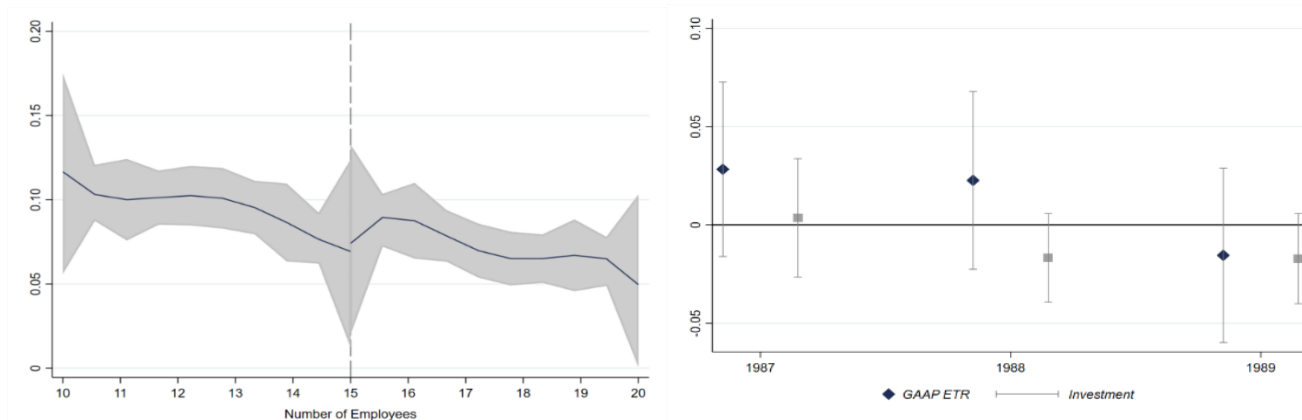


Table 1. Summary Statistics and Variable Definitions

This table reports summary statistics for the main variables in the regression models. All the variables are winsorized at the first and 99th percentiles. **Variable definitions:** *GAAP ETR* is income taxes (*V06029*) divided by pretax income (*V06028*). The variable is bounded between 0 and 1. *Investment* is capital expenditure (*V07014*) relative to the prior year's total assets (*V03023*). *Below 15 employees* is an indicator variable equal to 1 if the number of a firm's employees was below 15 in 1989, and 0 otherwise. *Post_{1990_1991}* is an indicator variable equal to 1 in the post-reform years (1990-1991), and 0 otherwise. *Firm size* is the natural logarithm of the firm's total assets (*V03023*). *Leverage* is total debt (*V04036 - V04015*) relative to total assets (*V03023*). *Cash* is cash and short-term investments (*V03021*) relative to the prior year's total assets (*V03023*). *Intangibles* is intangible assets (*V08011*) relative to total assets (*V03023*). *ROA* is EBITDA (*V09005*) relative to the prior year's total assets (*V03023*). *Payout* is total dividends (*v07006*) relative to the prior year's total assets (*V03023*). *Sales growth* is the natural logarithm of the growth rate of sales (*v06005*) from year $t - 1$ to t .

Variables	Obs.	Mean	Std. Dev.	25 th Percentile	Median	75 th Percentile
Dependent Variables						
<i>GAAP ETR</i>	1,107	0.4704	0.2128	0.3704	0.4788	0.5681
<i>Investment</i>	1,107	0.0686	0.0899	0.0140	0.0376	0.0895
Treatment Variables						
<i>Below 15 employees</i>	1,107	0.5285	0.4994	0.0000	1.0000	1.0000
<i>Post_{1990_1991}</i>	1,107	0.4788	0.4998	0.0000	0.0000	1.0000
Control Variables						
<i>Firm size</i>	1,107	8.3184	1.6014	7.1801	7.9725	9.3549
<i>Leverage</i>	1,107	0.4141	0.1692	0.2874	0.4024	0.5407
<i>Cash</i>	1,107	0.0706	0.0931	0.0077	0.0322	0.1027
<i>Intangibles</i>	1,107	0.0165	0.0272	0.0011	0.0057	0.0183
<i>ROA</i>	1,107	0.1321	0.0873	0.0768	0.1140	0.1714
<i>Payout</i>	1,107	0.0083	0.0220	0.0000	0.0000	0.0052
<i>Sales growth</i>	1,107	0.0845	0.2297	0.0000	0.0623	0.1730

Table 2. Labor Protection, Tax Planning, and Capital Investment

This table examines the effect of labor protection laws on tax planning and capital investment. The table reports (in parentheses) heteroskedasticity-robust standard errors clustered at the firm level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels (two tailed), respectively.

Panel A: Labor protection and tax planning

	GAAP ETR			
	(1)	(2)	(3)	(4)
<i>Below 15 employees</i> × <i>Post_{1990_1991}</i>	-0.0496** (0.0233)	-0.0459** (0.0230)	-0.0529** (0.0241)	-0.0488** (0.0239)
Controls	No	Yes	No	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Industry–year fixed effects	Yes	Yes	Yes	Yes
Economic region–year fixed effects	Yes	Yes	No	No
Administrative region–year fixed effects	No	No	Yes	Yes
Obs.	1,107	1,107	1,107	1,107
Adj. R ²	0.358	0.364	0.353	0.358

Panel B: Labor protection and capital investment

	Investment			
	(1)	(2)	(3)	(4)
<i>Below 15 employees</i> × <i>Post_{1990_1991}</i>	0.0287** (0.0129)	0.0267** (0.0132)	0.0293** (0.0130)	0.0263** (0.0133)
Controls	No	Yes	No	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Industry–year fixed effects	Yes	Yes	Yes	Yes
Economic region–year fixed effects	Yes	Yes	No	No
Administrative region–year fixed effects	No	No	Yes	Yes
Obs.	1,107	1,107	1,107	1,107
Adj. R ²	0.203	0.232	0.187	0.219

Panel C: Labor protection, tax planning, and capital investment: Dynamic analysis

	GAAP ETR	Investment
	(1)	(2)
<i>Below 15 employees</i> × <i>Post₁₉₉₁</i>	-0.0150 (0.0319)	0.0278* (0.0152)
<i>Below 15 employees</i> × <i>Post₁₉₉₀</i>	-0.0447* (0.0271)	0.0254* (0.0149)
<i>Below 15 employees</i> × <i>Post_{1988_1989}</i>	0.0437 (0.0288)	-0.0003 (0.0144)
Controls	Yes	Yes
Firm fixed effects	Yes	Yes
Industry–year fixed effects	Yes	Yes
Economic region–year fixed effects	Yes	Yes
Obs.	1,107	1,107
Adj. R ²	0.365	0.230

Labor Protection, Tax Planning, and Capital Investment: Evidence from Small-Sized Enterprises

— Online Appendix Not for Publication —

Table A1. Labor Protection, Tax Planning, and Capital Investment: Robustness and Placebo Tests

This table examines the robustness of the results of labor protection laws on tax planning and capital investment. In Panel A (Panels B, C, D and E), the dependent variables are *Tax Avoidance* and *Assets Growth* (GAAP ETR and *Investment*). *Tax Avoidance* is the estimated total income tax (pretax income (V06028) multiplied by the statutory corporate tax rate) minus income taxes (V06029), divided by total assets (V03023). Similar to Atwood and Lewellen (2019), the variable *Tax Avoidance* is increasing with a firm’s tax avoidance involvement. *Assets Growth* is the natural logarithm of the growth rate of the firm’s fixed assets (V03010) from $t-1$ to t . The model specifications include firm controls and firm, industry–year, and (economic or administrative) region–year fixed effects where indicated. In Panel B, the variable *Post_{1990_1991_1992}* is an indicator variable equal to 1 in the post-reform years (1990-1992), and 0 otherwise. In Panel C, the variable *Below 30 employees* is an indicator variable equal to 1 if the number of a firm’s employees was below 30 in 1989 and 0 otherwise, whereas the variable *Post_{1988_1989}* is an indicator variable equal to 1 in the pre-reform years (1988-1989) and 0 otherwise. In Panels D and E, the model specifications exclude the 1990 reform year. The table reports (in parentheses) heteroskedasticity-robust standard errors clustered at the firm level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels (two tailed), respectively.

Panel A: Using alternative dependent variables

	Tax Avoidance		Assets Growth	
	(1)	(2)	(3)	(4)
<i>Below 15 employees</i> × <i>Post_{1990_1991}</i>	0.0027** (0.0013)	0.0027* (0.0015)	0.1158** (0.0589)	0.1231** (0.0607)
Controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Industry–year fixed effects	Yes	Yes	Yes	Yes
Economic region–year fixed effects	Yes	No	Yes	No
Administrative region–year fixed effects	No	Yes	No	Yes
Obs.	1,107	1,107	1,107	1,107
Adj. R ²	0.429	0.416	0.356	0.369

Panel B: Testing for a longer period and for a different bandwidth

	1987-1992		1987-1992 & 10-25 employees	
	GAAP ETR	Investment	GAAP ETR	Investment
	(1)	(2)	(3)	(4)
<i>Below 15 employees</i> × <i>Post_{1990_1991_1992}</i>	-0.0374* (0.0224)	0.0188** (0.0090)	-0.0340* (0.0197)	0.0131* (0.0077)
Controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Industry–year fixed effects	Yes	Yes	Yes	Yes
Economic region–year fixed effects	Yes	Yes	Yes	Yes
Obs.	1,644	1,644	2,231	2,231
Adj. R ²	0.349	0.300	0.376	0.342

(Continued)

Table A1. Labor Protection, Tax Planning, and Capital Investment: Robustness and Placebo Tests (continued)

Panel C: Testing for another cutoff value for the no. of employees and for significance in the pre-reform period

	<i>Cutoff value at 30 employees & 10-50 employees</i>		<i>1986-1989</i>	
	GAAP ETR	Investment	GAAP ETR	Investment
	(1)	(2)	(3)	(4)
<i>Below 30 employees × Post₁₉₉₀₋₁₉₉₁</i>	-0.0021 (0.0139)	0.0050 (0.0094)		
<i>Below 15 employees × Post₁₉₈₈₋₁₉₈₉</i>			-0.0140 (0.0267)	0.0006 (0.0127)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Industry-year FE	Yes	Yes	Yes	Yes
Economic region-year fixed effects	Yes	Yes	Yes	Yes
Obs.	2,825	2,825	862	862
Adj. R ²	0.446	0.301	0.446	0.387

Panel D: Excluding the 1990 reform year

	<i>1987-1988 vs. 1991-1992</i>		<i>1988-1989 vs. 1991-1992</i>	
	GAAP ETR	Investment	GAAP ETR	Investment
	(1)	(2)	(3)	(4)
<i>Below 15 employees × Post₁₉₉₁₋₁₉₉₂</i>	-0.0640* (0.0342)	0.0202* (0.0116)	-0.0437* (0.0262)	0.0153* (0.0086)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Industry-year FE	Yes	Yes	Yes	Yes
Economic region-year fixed effects	Yes	Yes	Yes	Yes
Obs.	1,170	1,170	1,301	1,301
Adj. R ²	0.338	0.263	0.336	0.296

Panel E: Dynamic analysis excluding the 1990 reform year (1988-1989 vs. 1991-1992)

	GAAP ETR	Investment
	(1)	(2)
<i>Below 15 employees × Post₁₉₉₂</i>	-0.0717* (0.0399)	0.0234* (0.0140)
<i>Below 15 employees × Post₁₉₉₁</i>	-0.0669** (0.0293)	0.0296** (0.0139)
<i>Below 15 employees × Post₁₉₈₈₋₁₉₈₉</i>	-0.0393 (0.0261)	0.0091 (0.0143)
Controls	Yes	Yes
Firm fixed effects	Yes	Yes
Industry-year fixed effects	Yes	Yes
Economic region-year fixed effects	Yes	Yes
Obs.	1,301	1,301
Adj. R ²	0.341	0.231