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# **Local Corporate Taxation and Business Activity**

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## Abstract

We use a natural experiment and administrative data to study the effect of corporate tax cuts on business activity. For identification, we exploit the abolition of municipal corporate income taxation in Sweden in 1985, which created variation in corporate tax changes faced by different municipalities. Our findings indicate an expansion of business activity and employment in large firms following a tax cut. However, we find no significant impact on these outcomes for small firms. In addition, firm entry rates increase in municipalities experiencing the largest tax cuts.

**JEL codes:** G31, G38, H21, H25.

**Keywords:** Corporate taxation, Business activity, Employment, Firm entry.

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# 1 Introduction

A fundamental question in economics concerns the extent to which corporate taxation affects business activity and employment. While a large body of empirical work has examined behavioral responses of firms to corporate tax changes, causal evidence on how tax cuts affect economic activity is limited and often focuses on specific subsets of firms. Specifically, much of the existing literature studies large companies and disregards the effect of tax changes on small firms, mostly due to data availability or the empirical design. Besides contributing substantially to employment and growth (Decker et al., 2014), small firms tend to differ from larger companies in their access to capital, overall liquidity and ownership structure. As these aspects could affect their responsiveness to tax changes, studying the impact of tax reforms on small firms is crucial for tax design.

In this paper, we fill this gap by studying the impact of corporate tax cuts on business activity using administrative data on the population of Swedish firms and a unique tax reform. We leverage a natural experiment arising from the abolishment of the municipal corporate income tax (CIT) in Sweden in 1985. Prior to the reform, municipalities levied their own corporate income taxes in addition to the national rate, creating variation in municipal tax burdens. The reform eliminated the municipal component, thereby generating differential tax changes across municipalities depending on their pre-reform rates – while the national CIT rate was increased to achieve revenue neutrality. As the reform was implemented by the national government, changes in local CIT rates were arguably exogenous with respect to local economic conditions. Thus, we can estimate the causal effect of corporate tax changes on local business activity – measured by the number of establishments, employment and firm entry rates – using a difference-in-differences (DiD) framework. Specifically, we focus on tax reductions and compare firms active in municipalities that experienced the largest CIT cuts to those active in municipalities experiencing smaller reductions or even tax hikes.

Our results are as follows. First, we show that firms active in municipalities experiencing large CIT cuts following the abolition of local business taxation experience a significant increase in the number of establishments – but that this effect is driven by large firms. Employment also grew in these firms, suggesting that corporate tax reductions can stimulate expansion among existing large businesses. Importantly, our findings suggest that the size of the tax change matters, as these effects are significantly different from zero when we focus on firms active in municipalities experiencing the largest tax cuts but lose power when we expand the treatment group to include firms experiencing smaller CIT reductions. A possible explanation is threshold effects, whereby only sufficiently large tax reductions can overcome adjustment frictions and stimulate investment.<sup>1</sup> This in

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<sup>1</sup>Alternatively, the loss of statistical significance when broadening the treatment group could reflect

turn could help explain why we do not find a significant effect of tax reductions on small firms – even when focusing on those active in municipalities experiencing the largest CIT reductions. The null effect of CIT cuts on small firms in turn highlights the presence of heterogeneous responses based on firm size and points to the importance of economies of scale. Finally, we observe an increase in firms’ entry rate in municipalities facing the largest CIT increases. This suggests that corporate tax cuts improve the expected profitability of entrepreneurship, even if their immediate economic effects are confined to established large firms.

Besides providing evidence of parallel trends pre-reform, the validity of our identification strategy and robustness of our findings is corroborated by additional checks. First, we find no change in municipal expenditure per capita of treated municipalities, suggesting that the abolition of local business taxation did not trigger compensatory local fiscal responses that could confound the interpretation of our findings. Second, we conduct the analysis focusing on geographically proximate municipalities with different exposure to the reform to address concerns that treatment effects may be confounded by regional shocks – which leaves our main result unchanged. In addition, our findings are robust to the inclusion of municipality-type-by-year fixed effects, which account for time-varying shocks that may differentially affect urban, suburban, and rural areas.

Recent research has explored the effects of corporate tax changes on firm behavior using various empirical strategies. One strand of the literature relies on narratively identified corporate tax changes (e.g., Cloyne et al., 2025; Eskandari and Zamanian, 2023; Mertens and Ravn, 2013). However, the classification of tax changes as exogenous relies on subjective judgments and lacks clear counterfactuals, thus limiting causal inference. In contrast, we use a quasi-experimental setting with identifiable treatment and control groups, enabling a more credible estimation of causal effects.

Another strand of the literature uses quasi-experimental variation in targeted deductions or accelerated depreciation allowances that result in differential exposure to tax reductions for different firms (e.g., Curtis et al., 2021; Dobridge et al., 2021; Lerche, 2025; Maffini et al., 2019; Ohrn, 2018; Suárez Serrato and Zidar, 2016; Suárez Serrato and Zidar, 2018; Zwick and Mahon, 2017). While informative, these estimates are difficult to generalize to changes in tax rates (Link et al., 2024). In contrast, our setting allows us to study the direct effect of corporate tax rates changes.

Finally, a related body of work exploits changes to national and state taxes and the differential tax treatment of firms depending on a business’ organizational form (e.g., Chodorow-Reich et al., 2024; Giroud and Rauh, 2019; Kennedy et al., 2024).<sup>2</sup> However,

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reduced statistical power, as the treatment–control contrast in tax changes becomes smaller.

<sup>2</sup>For instance, Giroud and Rauh (2019) study the effect of state tax changes on the reallocation of labor and capital. For C-corporations, they find short run elasticities of employment and the capital

as highlighted by Link et al. (2024), if tax policy changes in response to changing economic conditions results may be biased. In our setting, the abolishment of the municipal corporate income tax decided by the central government created variation in corporate tax rates that is arguably exogenous to local economic conditions.

In addition, existing quasi-experimental evidence tends to focus on large companies and/or specific industries (e.g., Link et al., 2024).<sup>3</sup> To the best of our knowledge, only two papers investigate the effect of corporate tax cuts on small firms in a quasi-experimental setting – and find somewhat contrasting results. Harju et al. (2022) study a 6 percentage point reduction in the CIT rate in Finland on small firms with sales below 2.5 million euros. They find no effect of the reform on investments and labor costs, but a significant increase in sales and variable costs. These results mask heterogeneity, as investments and labor costs increase significantly after the reform for cash-constrained firms. Duan and Moon (2025) study the effect of a CIT reduction for small firms operating in manufacturing and processing industries in Quebec. In contrast to Harju et al. (2022), they find that investments and workers earnings increase by similar magnitudes across different measures of financial constraints.<sup>4</sup> These differences may reflect heterogeneity in firm characteristics, institutional contexts, or the nature of reforms (Duan and Moon, 2025) – and highlight the need for further research.

We add to this literature by providing quasi-experimental evidence on the effect of corporate tax changes on economic activity, measured as the number of establishments and employees per firm and business entry. Unlike prior studies that primarily focus on large or small firms alone or on firms operating in specific sectors, our identification strategy and comprehensive firm-level data allow us to study the impact of the reform on the full population. This enables us to assess heterogeneous effects across firm size categories and improve our understanding of how CIT rate changes shape both firm behavior and local economic dynamics.

Finally, we contribute to the literature by providing causal evidence on the effect of corporate taxation of business entry. In contrast with evidence suggesting that that higher taxes reduce firm entry (e.g., Bacher and Brühlhart, 2013; Colciago et al., 2025; Da

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stock between  $-0.04$  and  $-0.05$ . Kennedy et al. (2024) study the effect of the Tax Cuts and Jobs Act enacted in 2017 in the US using a sample of large firms and comparing C-corporations to S-corporations. They find that tax cuts results in higher sales, profits, investment, employment, and payrolls. Similarly, Chodorow-Reich et al. (2024) study the effect of this reform on multinational firms.

<sup>3</sup>Link et al. (2024) investigate the effect of local tax increases on investments revisions using a representative sample of German manufacturing firms. They find that following a tax hike the share of firms that invest less than previously planned increases by 3 percentage points, and that during recessions the effect is twice as large. Their strategy follows Fuest et al. (2018), who exploit 6,800 tax changes across German municipalities to identify the incidence of corporate tax changes on employees wages.

<sup>4</sup>While Harju et al. (2022) compare corporations to partnerships for identification, Duan and Moon (2025) compare firms affected by the reform to small firms in other sectors in Quebec as well as to small companies in other provinces.

Rin et al., 2011; Rathelot and Sillard, 2008; Riedel et al., 2020), Harju et al. (2022) find no significant effect of a national corporate tax reduction on firm entry.<sup>5</sup> We instead find quasi-experimental evidence of a positive significant effect of large CIT cuts on firms' entry rates. Our results suggest that entry increases with some delay – in line with (Colciago et al., 2025) – but that the effect is short lived.

The remainder of the paper is structured as follows. Section 2 describes the institutional setting and the reform. Sections 3 and 4 outline the methodology and data. Section 5 describes the results and section 6 concludes.

## 2 Institutional setting

During the 1980s, Sweden operated a comprehensive individual income tax system, where labor and capital income were taxed together.<sup>6</sup> A key component of this system was the municipal income tax  $\tau_m$ , which was levied at a flat rate across all income types. Sweden's local government structure comprised three administrative tiers: county council, primary municipality, and parish. Each level independently set its own tax rate, and the total municipal income tax rate  $\tau_m$  was the sum of these components.<sup>7</sup>

Until 1984, corporate taxes were levied both at the state and municipality level. The state corporate income tax rate  $\tau_s$  was 40 percent between 1960 and 1983. In 1984, it was reduced to 32 percent while the tax base was broadened by tightening inventory write-downs. Municipal tax paid was deductible from next year's state taxable income, implying a total tax rate of  $\tau = \tau_m + \tau_s(1 - \tau_m)$ .

Corporate taxable income was determined based on nationally standardized rules, so municipalities had no discretion over the definition of the tax base. Corporations were taxed in the municipality in which effective management was exercised on November 1st the year before the fiscal year. If a corporation had permanent establishments in several municipalities, taxable income was apportioned among them. As a general rule, the municipality where the headquarters were located was allocated 5 percent of taxable income and the remainder was apportioned to other municipalities according to production, turnover and number of employees.<sup>8</sup>

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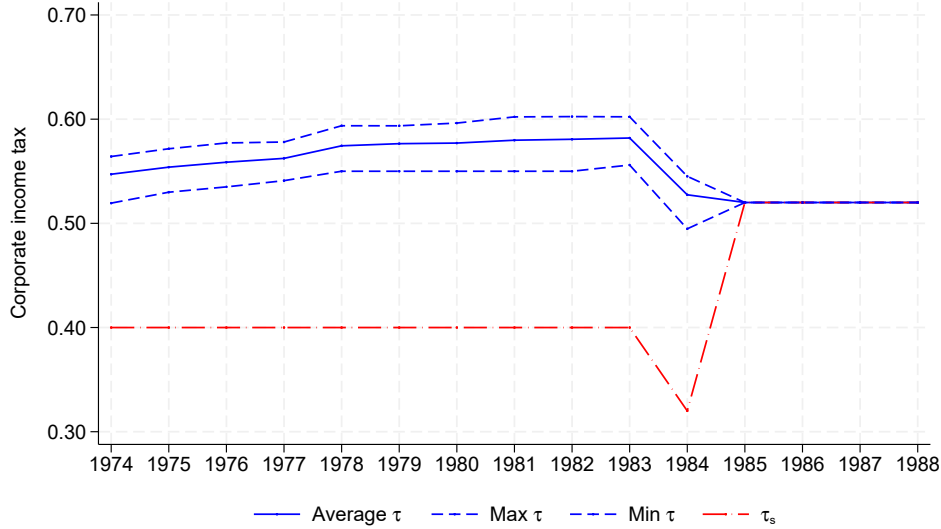
<sup>5</sup>Quasi-experimental evidence in this literature is scarce and most papers offer correlational evidence (Bacher and Brühlhart, 2013; Da Rin et al., 2011) or narrative tax changes (Colciago et al., 2025) while others use instrumental variables (Riedel et al., 2020).

<sup>6</sup>Dividends were taxed under a classical double taxation system, i.e., both at the individual and corporate level, with no imputation of corporate taxes. Effective marginal tax rates on equity-financed investments were very high, exceeding 100 percent in some years (Du Rietz et al., 2015b).

<sup>7</sup>In 1984, average  $\tau_m$  was 30.3%, of which 17.22% primary municipality, 12% county and 1.08% parish.

<sup>8</sup>Special allocation rules were used for, e.g., railways and banks. Rudimentary transfer pricing rules, relying on the arm's-length principle, applied. Losses in one municipality could not be deducted against profits in another. There were special rules for groups of companies, which encompassed practically all listed firms.

Figure 1: Evolution of corporate income taxes in Sweden



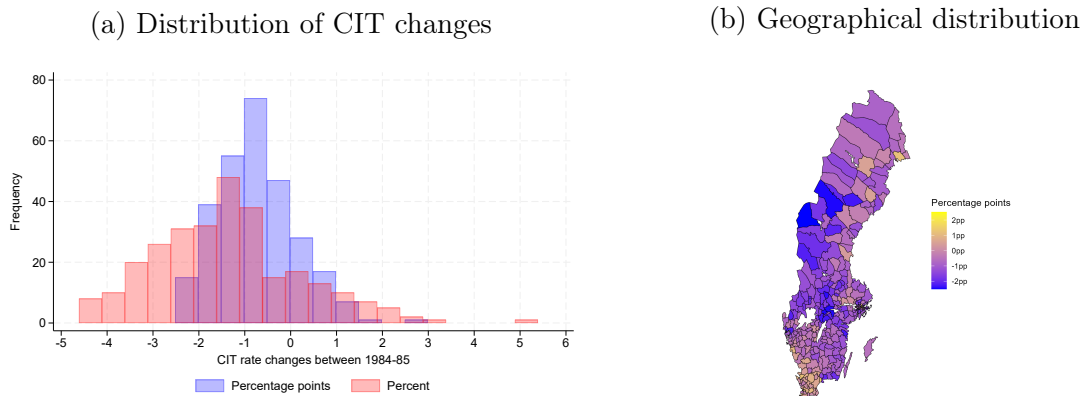
*Notes:* The figure shows the evolution of the corporate income tax rate  $\tau$  in Sweden over time. The solid blue line indicates the average  $\tau$ , and the dashed lines around it the minimum and maximal  $\tau$  faced by firms depending on the municipality in which they are active and the local tax rate  $\tau_m$  that they face. The dashed red line shows the evolution of the state corporate tax rate  $\tau_s$ .

In 1985, the municipal corporate income tax  $\tau_m$  was abolished, implying that from that year  $\tau = \tau_s$ . The state corporate income tax rate was increased to 52 percent, leaving the overall rate almost unchanged on average (Du Rietz et al., 2015a).<sup>9</sup> Figure 1 illustrates the evolution of corporate taxes in Sweden around the reform. The solid blue line represents the average overall CIT rate  $\tau$ , while the dashed blue lines depict the minimum and maximum values of  $\tau$  across municipalities, capturing variation created by the municipal corporate tax rate,  $\tau_m$ . The red dashed line shows the state-level tax rate,  $\tau_s$ . Notably, the 1985 reform unified corporate tax rates by setting the national rate  $\tau$  equal to the state rate  $\tau_s$  and increasing  $\tau_s$  to approximately match the pre-reform average  $\tau$ .

The 1985 reform thus eliminated cross-municipal variation in corporate taxation and created variation in the magnitude of corporate tax changes faced by municipalities in Sweden between 1984 and 1985. As shown by figure 2a, following the reform most municipalities experienced tax cuts – with an average CIT change of  $-0.73$  pp between 1984 and 1985 (see also table A.1). Figure 2b maps these changes geographically, highlighting their spatial distribution. Crucially, municipal CIT changes are the result of central government policy decisions to abolish municipal corporate taxation and are arguably not driven by changes in local economic conditions. Thus, the resulting variation across municipal-

<sup>9</sup>Last year’s municipal income tax could not be deducted in 1985, as the new uniform tax rate was computed taking this into account. However, corporations whose taxable income decreased between 1984 and 1985 could deduct some municipal tax. Municipal taxation was abolished for all legal entities, but the rules defining the tax base were left unchanged. Pass-through entities, such as sole proprietorships and partnerships, continued to be taxed at the municipal level with the rate  $\tau_m$ .

Figure 2: Municipal CIT changes induced by the reform



*Notes:* Figure 2a shows the distribution of CIT changes – measured in percentage points and in percent – faced by Swedish municipalities between 1984 and 1985 following the abolition of municipal corporate income taxation. Figure 2b shows the geographical distribution of tax changes across municipalities. Municipalities experiencing the largest increases in  $\tau$  in percentage points between 1984 and 1985 are marked in yellow, whereas those experiencing the largest CIT decreases are marked in blue.

ities is plausibly exogenous, thereby providing a quasi-experimental setting suitable for estimating the causal impact of the reform.

The aim of the reform was to simplify the tax system and avoid distortion of firms’ location decisions. The repeal of the municipal corporate income tax had initially been recommended by an expert committee in 1977. At the time the recommendation was not implemented, but over the following years a significant portion of municipal corporate tax revenues were redirected to the central government instead of being paid out to municipalities. A municipal equalization system guaranteed municipalities a certain minimum revenue level, implying that for most municipalities the size of the tax base did not matter for revenue at the margin.<sup>10</sup> The government announced its intention to replace the municipal CIT with a uniform state tax in the spring of 1983. The proposal was passed in the spring of 1984 and a technical bill outlining the level of the new uniform rate  $\tau_s$  was approved in the fall of the same year. The new rules applied to fiscal years starting January 1st, 1985 or later.

There are three additional relevant institutional changes over the time period considered. First, between 1984 and 1990 a profit-sharing tax was levied on large corporations to finance the union-controlled wage earner funds. The tax base was different from the corporate income tax, and the tax amounted to about 5 percent of real profits above an

<sup>10</sup>Swedish Government Official Reports (1985). Corporate income made up 5 percent of total taxable income and personal income 95 percent (Statistics Sweden, 1985). Thus, we do not expect the effects on municipal revenue as a threat to identifying the effects of the reform. Nevertheless, as a robustness check we provide evidence on the effect of the reform on municipal expenditure per capita.

exempted amount of SEK 1–1.5 million or six percent of the payroll.<sup>11</sup> This tax thus affected primarily large corporations, but did not vary by municipality and it appears to have been approximately constant throughout its existence. Second, in 1983 five new municipalities were created from existing municipalities.<sup>12</sup> Finally, an extensive reform lowering the corporate tax rate and broadening the tax base was implemented in 1990. The latter limited possibilities to achieve lower effective tax rates by abolishing deductions and a number of deferrals (Du Rietz et al., 2015b).

### 3 Methodology

Leveraging the quasi-experimental variation in corporate tax rates introduced by the 1985 reform, we analyze how changes in municipal-level CIT affect local outcomes and firm behavior. At the municipal level, we hypothesize that municipalities facing CIT decreases may experience an increase in firm entry rates, as lower corporate taxation reduces the cost of doing business and spurs local economic activity by facilitating the creation of new enterprises. To investigate this, we estimate the following dynamic difference-in-difference specification:

$$Y_{mt} = \sum_{t \neq 1984} \beta_t \cdot T_m \cdot \text{Year}_t + \alpha_m + \lambda_t + \epsilon_{mt} \quad (1)$$

where  $Y_{mt}$  is the outcome variable of interest for municipality  $m$  in year  $t$ .  $T_m$  is a dummy indicating whether a municipality is treated and  $\text{Year}_t$  are year indicators.  $\lambda_t$  are year fixed effects and  $\alpha_m$  represent municipality fixed effects. Standard errors are clustered at the municipality level and the reference year is 1984.

As following the reform the majority of municipalities experienced tax decreases, we consider as treated municipalities those experiencing large tax cuts between 1984 and 1985. We transform the continuous treatment variable depicted in figure 2 into a dummy variable  $T_m$  that equals one for municipalities experiencing large CIT decreases and zero otherwise. To capture the fact that larger tax cuts may have a greater impact than smaller CIT cuts, we define two “doses” of treatment, specifically, either above median – corresponding to approximately 1 pp tax rate reduction or more – or in the top quartile – i.e. a reduction of approximately 1.5 pp or more. Control municipalities are those experiencing smaller CIT decreases or increases. The classification of municipalities into treated and control groups is depicted in figure 3.

At the firm-level, we investigate whether the reform had an effect on existing firms by resulting in increased business activity. We thus estimate the following dynamic difference-

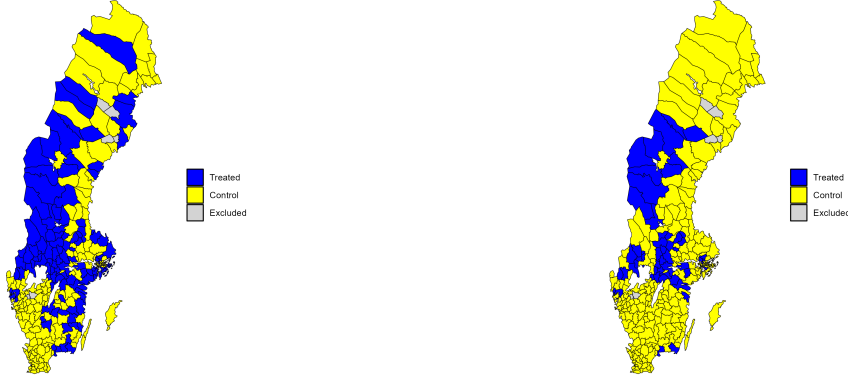
<sup>11</sup>For reference, 1USD = 4.23 SEK in 1980 (Federal Reserve Bank of St. Louis, 2025). See Du Rietz et al. (2015a) for more details on the profit-sharing tax.

<sup>12</sup>The municipalities affected by this change are: Bjurholm, Vännäs, Essunga, Vara, Salem, Botkyrka, Vaxholm, Österåker, Malå and Norsjö.

Figure 3: Municipalities experiencing large CIT decreases

(a) CIT decrease  $\geq 1$  pp

(b) CIT decrease  $\geq 1.5$  pp



*Notes:* The figure provides a visual representation of  $T_m$ , i.e. the classification of Swedish municipalities into treated and control groups. Treated municipalities are depicted in blue and are those facing large tax cuts following the 1985 abolition of local business taxation. Control municipalities are depicted in yellow and experience small CIT decreases or even tax hikes following the reform. In figure (a), treated municipalities are those experiencing above median tax cuts, which corresponds approximately to a 1 pp cut. In figure (b), treated municipalities are those experiencing tax cuts in the top 25th percentile, which correspond approximately to a 1.5 pp cut. Municipalities depicted in gray are excluded from the analysis as they underwent changes in 1983.

in-difference specification:

$$Y_{it} = \sum_{t \neq 1984} \beta_t \cdot T_i \cdot \text{Year}_t + \sum_{t \neq 1984} \delta_t \cdot \mathbf{x}'_i \cdot \text{Year}_t + \alpha_i + \lambda_t + \epsilon_{it} \quad (2)$$

$Y_{it}$  is the outcome variable of interest for firm  $i$  and year  $t$ , namely the number of establishments and the number of employees.  $T_i$  is a dummy variable indicating whether a firm is treated and  $\text{Year}_t$  are year indicators.  $\lambda_t$  are year fixed effects and  $\alpha_i$  represent firm fixed effects.  $\mathbf{x}'_i \cdot \text{Year}_t$  represents the interaction of year dummies with time-invariant firm-level characteristics, namely quintiles of pre-reform turnover and 2-digit industry.<sup>13</sup> Standard errors are clustered at the municipality level. To estimate the overall effect of the reform, equation 2 can be modified by replacing the interaction terms between the treatment dummy and year indicators with a single interaction between the treatment indicator and a post-reform dummy variable.

Treatment  $T_i$  is determined at the firm-level depending on the municipality in which firms are active in the pre-reform year, i.e., using treated and control municipalities  $T_m$ . We consider a firm to be treated if all the municipalities in which it has establishments in 1984 experience large CIT decreases following the reform. Similarly, the firm is assigned

<sup>13</sup>From a theoretical perspective, the use of turnover quintiles fixed effects is justified by the fact that large firms in Sweden were subject to an additional profit-sharing tax over 1984-1990, as described in section 2. These variables are time invariant as they are measured in the pre-reform year.

to the control group if all municipalities in which it operates in 1984 experience small CIT decreases or CIT increases following the reform.<sup>14</sup> The baseline year is 1984, the last pre-reform year.<sup>15</sup>

We hypothesize that the effect of the reform could be different for small firms compared to large firms. We test this by investigating heterogeneity between large firms – i.e., those whose average pre-reform turnover is above median – and small firms – i.e., those for which pre-reform turnover is smaller or equal to the median.

To address concerns that treatment effects may be confounded by time-varying shocks at the regional level, we implement a robustness test that leverages sharp local variation in tax changes across neighboring municipalities. Specifically, we focus on municipalities that experience above median tax cuts and for which there exists a neighboring municipality experiencing a CIT increase. Figure A.1 displays the municipalities for which this is the case, and shows that as only few municipalities experience CIT increases following the reform, the sample is reduced. Next, we determine treatment at the firm-level and consider treated those firms that are active in at least one treated municipality in the year before the reform and compare them to those active in neighboring municipalities that experience a CIT increase. Again, we consider a firm as treated (control) if all the municipalities in which it has establishments are treated (control) municipalities. However, the sample includes firms that have establishments in municipalities that are neither treated or control (marked in gray in Figure A.1). For the empirical analysis, we augment equation 2 with neighboring border id fixed effects, which ensure that we compare firms in neighboring municipalities.

## 4 Data

We use firm-level data from Statistics Sweden on the population of firms in Sweden between 1980 and 1989 (*Företagsdatabasen*, FDB). We choose 1989 as the final sample year as the corporate income tax system was reformed in 1990. For each firm-year observation we observe the entity’s legal form, operational and registration status, whether it is state-owned, turnover (over 1980–1983) and nominal share capital, industry, as well as the number of establishments and employees. In the analysis, we use the inverse hyperbolic sine transformation of the number of employees, as it approximates the logarithm

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<sup>14</sup>Note that this classification implies that the sample may be skewed towards smaller firms that are active in fewer municipalities, as firms not meeting the criteria (i.e., active in both treated and control municipalities) are excluded from the analysis. Table A.2 shows that although the median firm considered in the analysis is comparable to the full sample of firms, the analysis sample used contains smaller firms at the top of the distribution (95th–99th percentile) relative to the full sample.

<sup>15</sup>We consider 1985 to be the reform year as this reflects actual changes in CIT. The bill indicating the level of the new uniform rate was passed at the end of 1984, which meant firms became aware of municipal tax changes by the end of that year. In a robustness test, we show results obtained when considering 1983 the baseline year and 1984 the first reform year.

but accounts for zeros. Monetary values are expressed in real terms using the consumer price index (Statistics Sweden, 2025a). An important feature of the data is that via the firm-level identifier we can link additional information on a firm’s establishments, including the municipality in which each establishment operates. Thus, we can determine in how many and which municipalities a firm has establishments each year and determine treatment  $T_i$  at the firm-level as described in section 3.<sup>16</sup> Before estimating equation 2, we assign companies operating across multiple municipalities each year to the municipality with the highest number of establishments and keep one observation per firm-year.

Table 1: Municipal-level summary statistics for 1984

<b>Panel A:</b>	<b>Treatment: CIT cuts <math>\geq 1</math> pp</b>					<b>Control: other CIT cuts or CIT hikes</b>				
	Mean	SD	p1	p50	p99	Mean	SD	p1	p50	p99
Entry rate	0.029	0.019	0.000	0.028	0.093	0.033	0.024	0.000	0.029	0.098
CIT change (84-85)	-0.015	0.004	-0.025	-0.015	-0.010	-0.002	0.006	-0.009	-0.004	0.016
Expenditure per capita	11.60	1.70	9.19	11.34	16.36	11.11	2.31	8.29	10.61	22.89
Population	24729	23801	3882	15550	117473	33327	64567	4363	16852	424186
Observations	111					163				

<b>Panel B:</b>	<b>Treatment: CIT cuts <math>\geq 1.5</math> pp</b>					<b>Control: other CIT cuts or CIT hikes</b>				
	Mean	SD	p1	p50	p99	Mean	SD	p1	p50	p99
Entry rate	0.028	0.020	0.000	0.025	0.100	0.032	0.023	0.000	0.029	0.095
CIT change (84-85)	-0.018	0.003	-0.025	-0.018	-0.015	-0.004	0.007	-0.014	-0.006	0.014
Expenditure per capita	11.96	1.57	9.26	11.79	16.00	11.14	2.18	8.33	10.66	18.54
Population	23581	24640	3882	14123	118064	31489	57161	4363	16852	229380
Observations	57					217				

*Notes:* The table shows summary statistics for municipal-level outcomes in 1984. Panel A considers as treated all firms active in those municipalities experiencing an above median CIT decrease following the reform – i.e., approximately a 1 pp drop in CIT or more. Control firms are those active in municipalities that are all experiencing smaller decreases or CIT hikes. Panel B focuses on municipalities experiencing CIT cuts within the top 25th percentile – i.e., approximately a 1.5 pp drop in CIT or more. Monetary values are deflated using the consumer price index (1980=100) and expressed in Swedish Kronor – with 1USD=4.23SEK in 1980 (Federal Reserve Bank of St. Louis, 2025). The table also reports the CIT change that municipalities experience between 1984 and 1985 following the abolition of local business taxation.

In addition to firm-level data, we incorporate information at the municipality-level. Municipal corporate tax rates are provided by Statistics Sweden (2025b) and historical data on municipality level population, expenditure and tax base is taken from Tyrefors Hinnerich (2009).<sup>17</sup> We construct a categorical variable classifying municipalities into urban (metropolitan areas and large and medium-sized cities), suburban (commuting and normal municipalities and manufacturing towns) and rural (sparsely populated and rural

<sup>16</sup>We do not know the operational status of the establishment. To the extent that some firms are active in multiple municipalities and have only inactive establishments in a given municipality, this introduces some measurement error in the identification of treated and control firms. As we do not know the operational status of each establishment, we rely on the firm-level count of establishments per firm for the analysis as we expect this to reflect the number of *active* establishments.

<sup>17</sup>Municipality-level data on other relevant variables measuring economic activity are not available at this level of aggregation over the sample period used for the analysis.

municipalities) using data from the Swedish Association of Local Authorities and Regions for 1988, the earliest available year. Finally, we compute municipality-level firm entry rates using firm-level data. We use the year the firms is first observed in the data to define the entry year. Again, for firms that are active in multiple municipalities in the year in which they start operations, we select as main municipality the one with the largest number of establishments and randomly break any tie. We then compute the entry rate at the municipal level as the number of new firms in a given year divided by the stock of existing firms.

Table 2: Firm-level summary statistics for 1984

<b>Panel A:</b>	<b>Treatment: CIT cuts <math>\geq 1</math> pp</b>					<b>Control: other CIT cuts or CIT hikes</b>				
	Mean	SD	p1	p50	p99	Mean	SD	p1	p50	p99
Establishments	1.05	0.29	1.00	1.00	2.00	1.07	0.44	1.00	1.00	3.00
Employees	9.01	41.64	0.00	3.00	94.00	8.89	37.16	0.00	3.00	104.00
Turnover	4283	24083	0	1265	44654	5568	41325	0	1227	67756
Share capital	195	3901	35	35	1816	288	5329	35	35	3003
N. of municipalities	1.02	0.18	1.00	1.00	2.00	1.05	0.32	1.00	1.00	2.00
N. of years observed	8.29	2.18	2.00	10.00	10.00	8.10	2.27	2.00	9.00	10.00
CIT change (84-85)	-0.015	0.004	-0.025	-0.014	-0.010	-0.002	0.006	-0.009	-0.003	0.016
Observations	23807					69556				

<b>Panel B:</b>	<b>Treatment: CIT cuts <math>\geq 1.5</math> pp</b>					<b>Control: other CIT cuts or CIT hikes</b>				
	Mean	SD	p1	p50	p99	Mean	SD	p1	p50	p99
Establishments	1.04	0.24	1.00	1.00	2.00	1.09	0.53	1.00	1.00	3.00
Employees	8.73	43.50	0.00	3.00	84.00	9.86	48.32	0.00	3.00	114.00
Turnover	3940	19030	0	1208	44029	6068	63632	0	1261	70174
Share capital	196	3765	35	35	1676	322	5994	35	35	3282
Age	8.85	4.09	1.00	12.00	12.00	8.79	4.16	1.00	12.00	12.00
N. of municipalities	1.01	0.13	1.00	1.00	1.00	1.06	0.41	1.00	1.00	3.00
N. of years observed	8.27	2.19	2.00	10.00	10.00	8.13	2.25	2.00	9.00	10.00
CIT change (84-85)	-0.018	0.003	-0.025	-0.017	-0.015	-0.003	0.006	-0.014	-0.004	0.016
Observations	10885					83187				

*Notes:* The table shows summary statistics for 1984 for different groups of treated and control firms. Panel A considers as treated all firms active in those municipalities experiencing an above median CIT decrease following the reform, i.e. approximately a 1 pp drop in CIT or more. Control firms are those active in municipalities that are all experiencing smaller CIT decreases or CIT hikes. Panel B focuses on firms active in municipalities experiencing CIT cuts within the top 25th percentile (treated) – i.e. about a 1.5 pp drop in CIT or more – and compares them to those experiencing smaller CIT decreases or CIT hikes (control). Turnover and share capital are deflated using the consumer price index (1980=100) and expressed in thousands of Swedish Kronor – with 1USD=4.23SEK in 1980 (Federal Reserve Bank of St. Louis, 2025). Turnover is the 1980-1983 average for each firm, and the number of observations for this variable is lower than reported in the table as it is not observed for all firms. CIT change is the simple mean of the change in CIT rates that a firm faces between 1984 and 1985 depending on the municipalities in which it is active in 1984.

The estimation sample is selected as follows. At the municipal-level, we exclude ten municipalities that experience changes in 1983: Bjurholm, Vännäs, Essunga, Vara, Salem, Botkyrka, Vaxholm, Malå, Österåker and Norsjö. At the firm-level, we focus on limited liability companies as these are the firms paying corporate income taxes, and exclude companies that change legal form over the time period they are observed. Next, we drop

firm-year observations where the firm is recorded as non-active, non-registered or has zero establishments – as in such case the firm is considered inactive. We also exclude state-owned firms as well as industries that are traditionally treated differently for corporate income tax purposes, i.e. utilities firms and banking and insurance companies. Finally, to avoid confounding effects in connection to the creation of new municipalities in 1983, we exclude firms that at any point in time operate in those municipalities. As identification of treatment is based on the CIT change at the municipality level following the 1985 reform and on firms’ location in 1984, we exclude firms for which the municipality is not observed and firms that are not observed in 1984 from the analysis. Finally, as our regression equation includes industry and turnover quintile fixed effects, firms for which these variables are not observed are also excluded from the analysis.

Table 1 presents summary statistics of municipal level outcomes in 1984 for treated and control municipalities. In panel A treated municipalities experience above median CIT cuts, i.e. a CIT reduction of about 1 pp or more. In panel B treated municipalities experience a CIT decrease within the top 25th percentile, i.e. about 1.5 pp or more. Table 2 presents summary statistics for treated and control firms that in the pre-reform year are active in municipalities that belong either to the treated or to the control group.<sup>18</sup> All in all, the table shows that the median firm in the treated and control groups tend to be similar across panels. However, the control groups seem to include somewhat larger firms. Finally, in figure A.2c we explore the evolution of the outcomes of interest for treated and control municipalities as well as for treated and control firms by plotting raw averages over time.

## 5 Results

### 5.1 Municipality-level analysis: Firm entry

We investigate the effect of the reform on firms’ entry by estimating equation 1 using municipal-level panel data from 1980 to 1989. Figure 4 depicts results obtained for municipalities experiencing above median CIT cuts (blue) and for municipalities experiencing CIT cuts within the top quartile (red). We find no effect on firm entry for municipalities experiencing above median tax cuts. In contrast, we find a statistically significant increase in firm entry rates for municipalities receiving the strongest treatment – i.e., tax cuts of approximately 1.5 percentage points or more. A possible explanation is that despite the large number of observations, the smaller treatment–control contrast in tax changes in the former specification (see also table 2) reduces statistical power. Alternatively, the relationship between tax changes and firm expansion may be non-linear, for example if

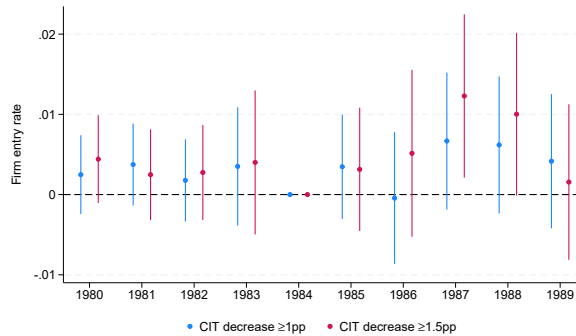
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<sup>18</sup>Note that as discussed in section 2 we exclude firms active in both treated and control municipalities. Table A.2 shows how treated and control firms compare to the full sample of firms.

larger tax cuts are required to overcome fixed costs or other adjustment frictions. The effect emerges with a lag of two years post-reform and dissipates by 1989.<sup>19</sup>

Our results on the delayed effect of CIT cuts on entry rates are in line with macro evidence from Colciago et al. (2025), although we find that the effect dissipates over time whereas they document a sustained increase in entry following corporate tax cuts. These differences however are not surprising given the context we study. The reform eliminated the municipal tax component and brought all municipalities under the same national rate, thus removing tax differences across municipalities. This could explain the observed short-lived effect, as firms that were potentially deterred by higher municipal tax rates in the pre-reform period may have entered in response to the tax cut. But after the reform, since all municipalities faced the same tax rate, there is no incentive for firms to choose one municipality over another for tax reasons. This suggests that the initial increase in firm entry reflects the previously “lost” potential of firm creation that was suppressed by the higher local tax rates.

Figure 4: Effect of the reform on firm entry rate



*Notes:* The figure displays the effect of the reform on firms’ entry rate, which are obtained by estimating equation 1. Confidence intervals are calculated at the 95% confidence level. Treated municipalities are those experiencing large (p25 or p50) CIT decreases, and control municipalities are those experiencing either small decreases of CIT increases. Municipalities experiencing a break in 1983 are excluded from the analysis.

Figure 4 shows that in the years before the treatment there appear to be no significant differences between treated and control municipalities, which lends support to the parallel trend assumption. To further validate the identification strategy, we verify that the abolition of the municipal CIT did not trigger compensatory fiscal responses that could confound the interpretation of the reform’s effect on firm entry. In particular, if treated municipalities had responded to the reform by changing public spending, the effect we find on firms’ entry may result from changes in local infrastructure investment or public

<sup>19</sup>Using a dynamic DiD specification reveals time-varying effects that would otherwise be lost in a static DiD framework. In contrast, a static DiD specification that interacts treatment status with a single post-reform indicator, yields estimated effects that are statistically indistinguishable from zero even for municipalities experiencing the largest CIT cuts (results available upon request).

services rather than by reduced CIT rates. Figure A.3 shows that municipal expenditure per capita remained stable following the reform, suggesting that local governments did not change local fiscal policy.

We further assess the robustness of our result by exploring alternative specifications, as reported in table A.3. Our findings remain broadly consistent with those of figure 4 when we include municipality-class-by-year fixed effects or county-by-year fixed effects.<sup>20</sup> Moreover, we perform a leave-one-out analysis, sequentially excluding one municipality at the time.<sup>21</sup> The results remain stable throughout, indicating that our findings are not driven by outliers.

## 5.2 Firm-level analysis: Establishments and employees

Next, we use firm-level panel data to investigate the effect of the abolishment of the municipal corporate income tax in Sweden on existing firms. Figure 5 presents results obtained when estimating equation 2 for the number of establishments and employees. In the figure, the blue markers indicate results obtained when comparing above median CIT cuts – i.e., approximately 1 pp or more – to other CIT changes, whereas the red markers those obtained when comparing CIT cuts above the 25th percentile – i.e., about 1.5 pp or more – to other CIT changes. Table A.5 reports the results underlying the figure.

When looking at the number of establishments, there appears to be a positive and significant effect in 1985 for firms experiencing CIT cuts of about 1 pp or more, but the effect is not statistically different from zero in any of the following years. In contrast, firms exposed to CIT cuts of approximately 1.5 pp or more following the reform experience increases in the number of establishments, which are significantly different from zero in all post-reform years. Possible reasons for the differential impact depending on treatment intensity include optimization frictions, lack of power due to the smaller treatment–control contrast and non-linear treatment effects.<sup>22</sup> With the exception of 1980 for firms experiencing the largest CIT cuts, there appear to be no significant pre-trends in the number of establishments per firms in the years preceding the reform.

The average treat effect of the reform on the number of establishments is obtained by interacting treatment assignment with a dummy that equals one in all post-reform years. This results in a coefficient of 0.006 for firms experiencing CIT cuts of 1.5 pp or more (see table A.6), significant at the 10 percent level. Relative to the pre-reform mean outcome

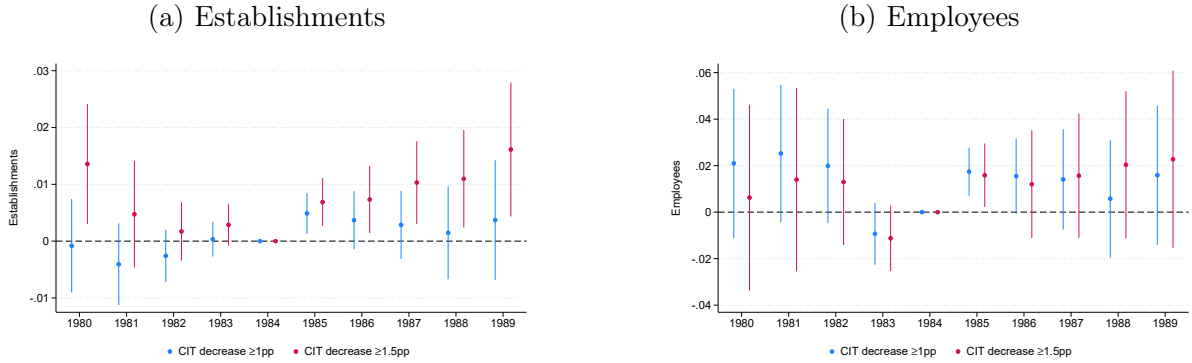
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<sup>20</sup>The significance levels of the results is somewhat reduced by the inclusion of county fixed effects. However, as shown by table A.4 the inclusion of county fixed effects reduces identifying variation.

<sup>21</sup>Results available upon request.

<sup>22</sup>Non-linear treatment effects in turn can explain why, when we consider a regression that interacts the continuous tax change variable and a post-reform dummy that equals one from 1985 onward, we find no significant effect of the reform on the outcomes of interest. This result (available upon request) can also be explained by attenuation bias, as most municipalities experience only small tax cuts (see also table A.1 and figure 2a).

Figure 5: Effect of the reform on establishments and employment



*Notes:* The figure shows the results obtained when estimating equation 2 for the full sample of firms over 1980-1989. Confidence intervals are calculated at the 95% confidence level. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform, defined as above median or above 25th percentile tax cut, which correspond to approximately a drop in CIT of 1 pp or 1.5 pp or larger. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors at the municipality level. The underlying results are reported in table A.5.

for the treated group, this coefficient implies a 0.58 percent increase in the number of establishments for the firms experiencing the largest tax cuts.<sup>23</sup> For firms experiencing a CIT cut of 1 pp or more the number of establishments increases by 0.47 percent, but the coefficient is not statistically different from zero.

Focusing on the number of employees, figure 5 shows a significant and positive effect of the reform immediately after its implementation, which however becomes insignificant in the following years. The coefficients imply an increase in the number of employees relative to the base year of 0.64 and 1.67 percent depending on the treatment intensity. When pooling post-reform years, we find that the average effect of the reform is positive but not statistically different from zero (table A.6). Table A.5 shows that there appear to be no differential pre-trends in the evolution of the variable between treated and control groups, with the exception of 1981 for firms experiencing above median tax cuts.

As shown by table A.7, our results are robust to the inclusion of municipality-type-by-year fixed effects. This specification accounts for time-varying shocks that may differentially affect urban, suburban, and rural areas—such as demographic trends, infrastructure investments, or sector-specific developments—and ensures that our estimates are not confounded by heterogeneity in these dynamics across municipality types. While we do not expect municipality classification to change substantially over time, this variable is only available after the reform, so we restrict its inclusion to the robustness checks.

<sup>23</sup>Excluding 1980 – the year with a significant pre-trend – from the estimation sample, we obtain a coefficient of 0.008 significant at the 5 percent level, which implies a 0.76 percent increase in establishments relative to the pre-reform average (see table A.6). In the dynamic specification of table A.5 the coefficients imply that the number of establishments increase by 0.67 to 1.54 percent depending on the year relative to the 1984 pre-reform mean.

We also estimate a specification with county-by-year fixed effects, which flexibly controls for unobservable county-level trends that may influence all municipalities within a county similarly in a given year. This provides a stringent test for regional confounders, although it substantially reduces the our identifying variation – as shown in table A.4. Including county-by-year fixed effects does not alter our main result: the number of establishments increases significantly in municipalities experiencing the largest tax cuts. However, we observe a reduction in coefficient magnitude and a change in significance levels for other specifications.

To further probe the robustness of our findings and mitigate concerns about broader regional shocks driving the results, we implement an alternative identification strategy. Specifically, we identify neighboring municipalities in which at least one experiences a large (above median) CIT cut and another a CIT increase. We then re-estimate our firm-level regression equation within these matched neighbor sets (see also section 3). This approach compares outcomes of firms that are active in geographically proximate areas with different exposure to the reform, helping to isolate the effect of the tax change from correlated regional developments. As few municipalities experienced tax increases following the reform, the sample is substantially reduced (see table A.8). As shown by figure A.5, results are in line with what found using the base regression: there is a significant positive effect of the reform on the number of establishments and a mostly insignificant effect on the number of employees.

Finally, to assess potential anticipatory effects of the reform, we conduct a robustness test using 1983 as the reference year instead of 1984. While the main analysis defines 1985 as the first reform year – reflecting the actual timing of tax rate changes – we test whether any behavioral responses occurred already in 1984, as the new tax rates became known in Fall that year. As shown by figure A.4, there are no significant anticipatory effects for the number of establishments, while employment does increase in the year of announcement.

### **5.2.1 Heterogeneity by firm size**

Next, we explore heterogeneity of results by estimating equation 2 separately for large and small firms, defined as those with above or below median average pre-reform turnover. Table 3 shows that the reform had a positive and significant overall effect on the number of establishments in large firms, but that there appear to be no significant effect on small firms. In contrast to the baseline results, we find that there is a positive overall effect of the reform on the number of employees in large firms, but only for those firms experiencing the largest CIT cuts. A possible explanation for the difference between small and large firms is that small firms may face greater barriers to expansion while large firms are able

Table 3: Effect of the reform on establishments and employment: Size heterogeneity

	CIT cuts $\geq 1$ pp vs. other changes		CIT cuts $\geq 1.5$ pp vs. other changes	
	Establishments	Employees	Establishments	Employees
<b>Panel A: Small firms</b>				
Treat*Post	0.002 (0.002)	-0.007 (0.008)	0.002 (0.003)	0.002 (0.014)
Observations	305,405	305,405	306,132	306,132
R-squared	0.458	0.656	0.480	0.657
Pre-reform treat. group mean	1.017	1.426	1.015	1.436
<b>Panel B: Large firms</b>				
Treat*Post	0.007 (0.005)	0.011 (0.009)	0.010* (0.006)	0.022** (0.010)
Observations	312,939	312,939	317,806	317,806
R-squared	0.713	0.748	0.749	0.754
Pre-reform treat. group mean	1.109	2.870	1.095	2.844
Firm FEs	Yes	Yes	Yes	Yes
Industry*Year FEs	Yes	Yes	Yes	Yes
Turnover quintiles*Year FEs	Yes	Yes	Yes	Yes

*Notes:* The table shows the results obtained when replacing the year dummies that are interacted with the treatment indicator in equation 2 with a dummy that equals one for all post reform years starting in 1985. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform, defined as above median or above 25th percentile tax cut and corresponding to approximately 1 pp or 1.5 pp drop in CIT. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors are the municipality level. We report results obtained for firms with below median average turnover in the pre-reform period in panel A and above median turnover in panel B.

to leverage economies of scale.

## 6 Conclusion

We use quasi-experimental variation in CIT rates to evaluate the effect of tax cuts on business activity, employment and entry. Specifically, we exploit the abolition of municipal corporate income taxation in Sweden in 1985. Before the reform, companies paid municipal CIT on top of state-level corporate taxes, which generated heterogeneity in business taxation across municipalities. From 1985 onward, companies paid only the state CIT, while the rate was increased to achieve revenue neutrality. Thus, after the reform some municipalities experienced tax cuts, whereas others saw the CIT decrease only slightly or even increase in some cases. Given that the reform was implemented by the central government, it can be argued that local tax rates changes were exogenous to local economic conditions. Thus, we identify municipalities that experienced the largest CIT cuts and compare them to those experiencing smaller CIT reductions or CIT hikes using a difference-in-difference approach.

Our results suggest that tax cuts increase economic activity and employment in large existing firms. In contrast, we find no significant effect of tax cuts on small firms. In

addition, we find that firm entry rates increase in municipalities experiencing the largest tax cuts. Importantly, the effects documented in the paper appear to be dependent on the size of the tax cut experienced by municipalities, with the largest tax cuts driving the results. Our results highlight the need to account for the distributional impact of corporate tax changes.

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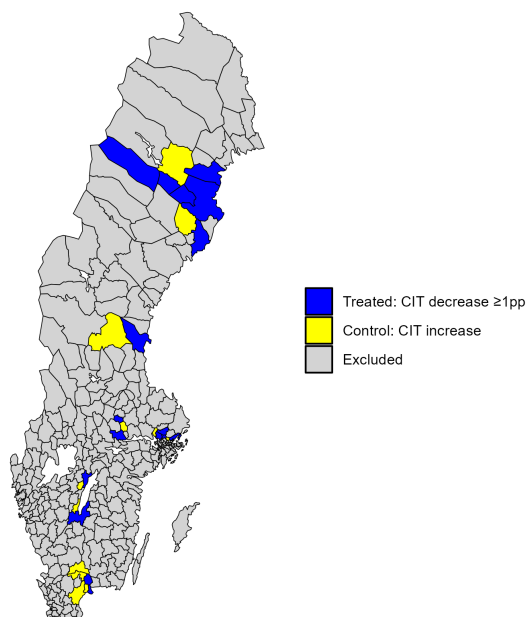
# Appendix

Table A.1: Change in corporate tax rates between 1984 and 1985, by municipality

	PP	%
Mean	-0.73	-1.35
Min	-2.51	-4.61
p1	-2.45	-4.51
p5	-2.03	-3.76
p10	-1.79	-3.33
p25	-1.32	-2.47
p50	-0.77	-1.45
p75	-0.30	-0.57
p90	0.42	0.82
p95	0.82	1.61
p99	1.43	2.83
Max	2.52	5.10
N	274	

*Notes:* The table shows summary statistics of the change in tax rates – in percentage points and percentage – faced by municipalities following the elimination of municipal corporate income taxation in Sweden in 1985. Municipalities experiencing a break in 1983 are excluded.

Figure A.1: Large CIT decreases vs. CIT hikes in neighboring municipalities



*Notes:* The figure shows Swedish municipalities as of 1985. We focus on municipalities that experience a large tax cut and for which there exists at least one neighboring municipality experiencing a tax hike. Treated municipalities are marked in blue and experience above median tax cuts. Control municipalities are those sharing a border with treated municipalities and facing CIT hikes following the reform. Municipalities marked in gray are excluded from the analysis as these criteria are not met or because in the case of Bjurholm, Vännäs, Essunga, Vara, Salem, Botkyrka, Vaxholm, Malå, Österåker, Norsjö these municipalities underwent changes in 1983.

Table A.2: Comparison of analysis samples to full sample

<b>Panel A:</b>		<b>Full sample</b>								
	Mean	SD	p1	p25	p50	p75	p90	p95	p99	N
Establishments	1.17	1.56	1	1	1	1	1	2	4	95497
Employees	13.85	150.59	0	1	3	8	19	37	157	95497
Turnover	8253.77	88226.04	0	479	1286	3533	10132	20569	96213	71805
Share capital	484.07	11026.70	35	35	35	36	140	349	3911	95497
N. of municipalities	1.13	1.26	1	1	1	1	1	2	4	95497
N. of years observed	8.16	2.24	2	7	9	10	10	10	10	95497

<b>Panel B:</b>		<b>CIT cuts <math>\geq 1</math> pp vs. other CIT changes</b>								
	Mean	SD	p1	p25	p50	p75	p90	p95	p99	N
Establishments	1.07	0.41	1	1	1	1	1	1	3	93363
Employees	8.93	38.35	0	1	3	7	17	31	101	93363
Turnover	5226.50	37526.57	0	468	1238	3308	8872	16745	61902	69924
Share capital	263.98	5003.94	35	35	35	35	126	349	2793	93363
N. of municipalities	1.04	0.29	1	1	1	1	1	1	2	93363
N. of years observed	8.15	2.24	2	7	9	10	10	10	10	93363

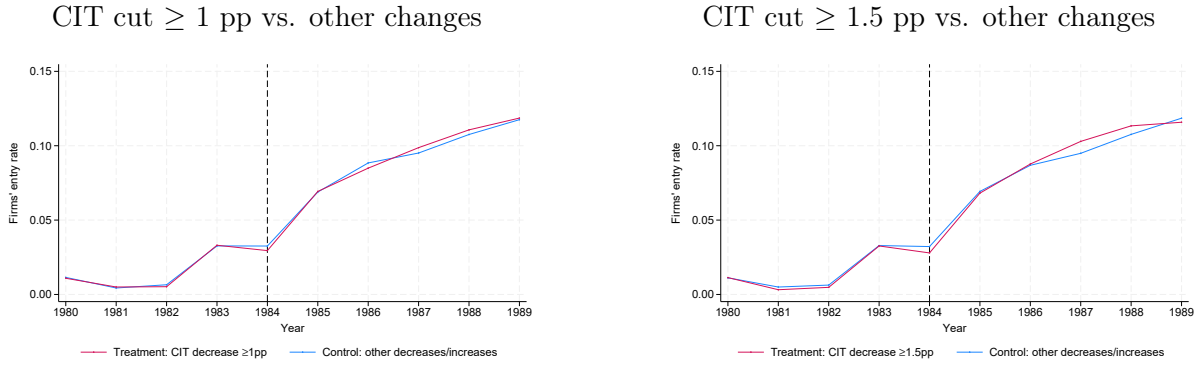
  

<b>Panel C:</b>		<b>CIT cuts <math>\geq 1.5</math> pp vs. other CIT changes</b>								
	Mean	SD	p1	p25	p50	p75	p90	p95	p99	N
Establishments	1.08	0.50	1	1	1	1	1	1	3	94072
Employees	9.73	47.79	0	1	3	7	18	32	111	94072
Turnover	5812.41	60050.36	0	471	1253	3374	9214	17674	66731	70546
Share capital	307.28	5780.71	35	35	35	35	140	349	2933	94072
N. of municipalities	1.06	0.38	1	1	1	1	1	1	3	94072
N. of years observed	8.15	2.24	2	7	9	10	10	10	10	94072

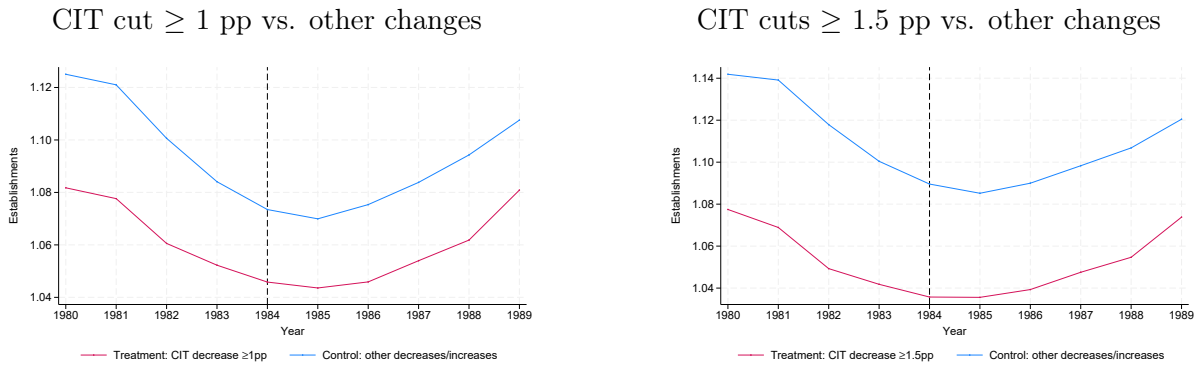
*Notes:* The table shows summary statistics for 1984 for the samples of firms that following the selection described in section 4 are in the treated or control group. Panel B includes firms that are active only in municipalities experiencing above median CIT cuts (treated) or below median CIT cuts (control) – where the median is approximately 1 pp. Panel C includes firms that are active only in municipalities experiencing CIT cuts above the 25th percentile (treated) or below that (control) – where the 25th percentile corresponds to approximately a 1.5 pp cut. In contrast, the full sample in panel A includes firms that are not assigned to treated nor to control groups in panels B and C – i.e., firms that are active in both treated and control municipalities in the pre-reform year. Firms that in 1984 are active in municipalities experiencing a break in 1983 are excluded from the analysis. Turnover and share capital are expressed in thousands of Swedish Kronor and deflated using the consumer price index.

Figure A.2: Average outcomes for treated and control group

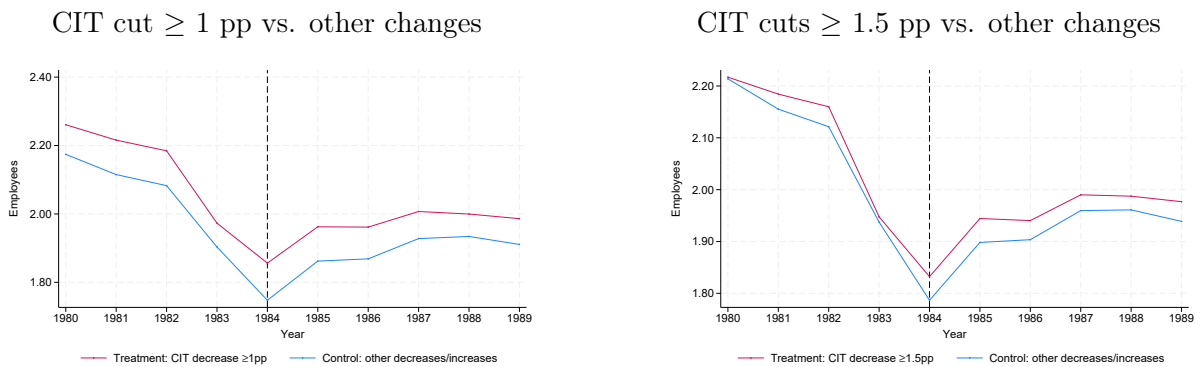
(a) Entry rate



(b) Number of establishments

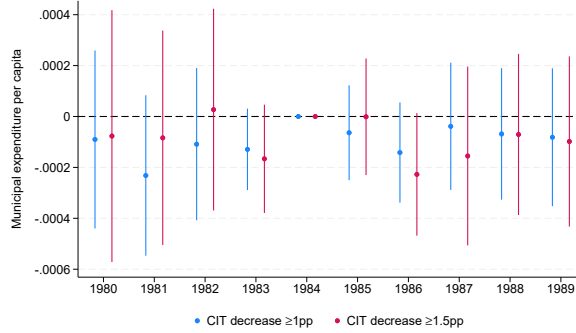


(c) Number of employees



*Notes:* The figure displays yearly raw means of the municipal entry rate, number of establishments per firm and of the inverse sine transformation of the number of employees per firm. The red (blue) line depicts treated (control)municipalities in figure (a) and firms in figure (b). For each figure treatment is defined according to two doses. The left-hand side figures consider treated municipalities and firms active in municipalities experiencing above median CIT decreases ( $\approx 1$ pp or larger) and control firms those experiencing smaller CIT decreases or CIT hikes. The right-hand side figures consider treated municipalities and firms active in municipalities experiencing above median CIT decreases ( $\approx 1$ pp or larger) and control firms those experiencing smaller CIT decreases or CIT hikes. Municipalities and firms active in municipalities experiencing a break in 1983 are excluded from the analysis.

Figure A.3: Effect of the reform on municipal expenditure per capita



*Notes:* The figure displays the effect of the reform on firms' entry rate, which are obtained by estimating equation 1. Confidence intervals are calculated at the 95% confidence level. Treated municipalities are those experiencing large – i.e. p25 or p50 or greater – CIT decreases, and control municipalities are those experiencing either small decreases of CIT increases. Municipalities experiencing a break in 1983 are excluded from the analysis. Standard errors are clustered at the municipality level.

Table A.3: Effect of the reform on firms' entry rates

	CIT cut $\geq 1$ pp vs. other changes			CIT cut $\geq 1.5$ pp vs. other changes		
1980*Treat	0.002 (0.002)	0.003 (0.002)	0.004 (0.003)	0.004 (0.003)	0.004 (0.003)	0.006 (0.004)
1981*Treat	0.004 (0.003)	0.004 (0.003)	0.007 (0.005)	0.002 (0.003)	0.002 (0.003)	0.003 (0.005)
1982*Treat	0.002 (0.003)	0.002 (0.003)	0.005 (0.005)	0.003 (0.003)	0.003 (0.003)	0.006 (0.005)
1983*Treat	0.004 (0.004)	0.004 (0.004)	0.008* (0.005)	0.004 (0.005)	0.004 (0.005)	0.009 (0.008)
1985*Treat	0.003 (0.003)	0.003 (0.003)	0.006 (0.005)	0.003 (0.004)	0.003 (0.004)	0.005 (0.006)
1986*Treat	-0.000 (0.004)	0.000 (0.004)	0.004 (0.007)	0.005 (0.005)	0.005 (0.005)	0.011 (0.007)
1987*Treat	0.007 (0.004)	0.007 (0.004)	0.001 (0.007)	0.012** (0.005)	0.012** (0.005)	0.010 (0.008)
1988*Treat	0.006 (0.004)	0.006 (0.004)	0.007 (0.007)	0.010* (0.005)	0.010* (0.005)	0.014* (0.008)
1989*Treat	0.004 (0.004)	0.005 (0.004)	0.007 (0.007)	0.002 (0.005)	0.002 (0.005)	0.008 (0.007)
Constant	0.031*** (0.001)	0.055*** (0.001)	0.055*** (0.002)	0.031*** (0.001)	0.056*** (0.001)	0.055*** (0.001)
Observations	2,740	2,740	2,730	2,740	2,740	2,730
R-squared	0.805	0.807	0.834	0.805	0.807	0.834
Municipality Fes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-class*Year FEs	No	Yes	No	No	Yes	No
County*Year FEs	No	No	Yes	No	No	Yes
1984 treat. group mean	0.029	0.029	0.029	0.028	0.028	0.028

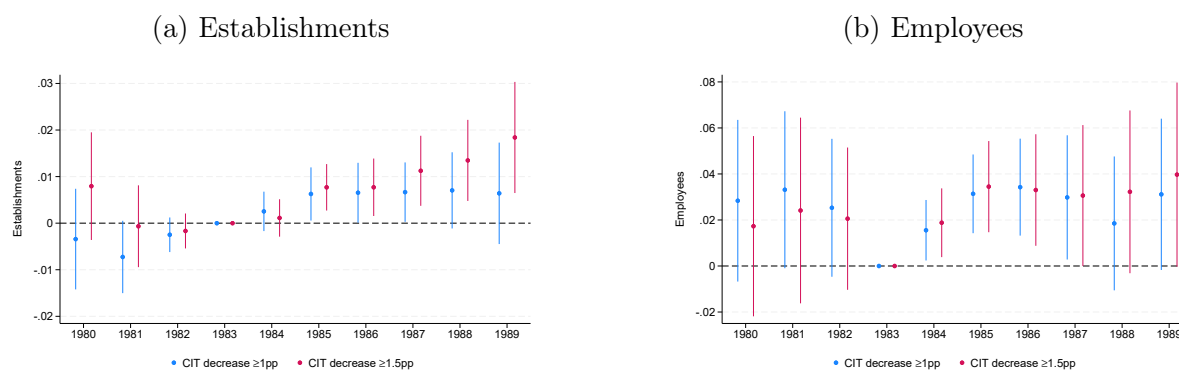
*Notes:* The table displays results obtained by estimating equation 1, with firms' entry rate at the municipal level as the dependent variable. Treated municipalities are those experiencing large CIT decreases – 25th or 50th percentile, corresponding to approximately cuts of 1 or 1.5 pp or larger – and control municipalities are those experiencing either small decreases of CIT increases. Municipalities experiencing a break in 1983 are excluded from the analysis. Standard errors are clustered at the municipality level.

Table A.4: Number of observations in 1984 by county

County	Municipal-level data				Firm-level data			
	CIT cuts $\geq 1$ pp vs. other changes		CIT cuts $\geq 1.5$ pp vs. other changes		CIT cuts $\geq 1$ pp vs. other changes		CIT cuts $\geq 1.5$ pp vs. other changes	
	Treat	Control	Treat	Control	Treat	Control	Treat	Control
Stockholm	11	10	5	16	3986	21089	1894	23358
Uppsala	0	0	0	0	0	0	0	0
Södermanland	3	3	0	6	271	1519	0	1814
Östergötland	4	3	2	5	1529	499	901	1137
Jönköping	6	7	3	10	1539	1371	1105	1830
Kronoberg	5	6	0	11	2550	1577	0	4228
Kalmar	1	7	0	8	128	1684	0	1836
Gotland	6	6	0	12	970	1220	0	2235
Blekinge	0	1	0	1	0	364	0	366
Kristianstad	5	0	3	2	1209	0	873	322
Malmöhus	0	13	0	13	0	2816	0	2831
Halland	0	20	0	20	0	10017	0	10064
Gothenburg and Bohus	0	6	0	6	0	2539	0	2553
Älvsborg	4	11	2	13	915	9898	559	10311
Skaraborg	2	16	2	16	154	4377	153	4390
Värmland	2	13	1	14	111	2107	50	2179
Örebro	16	0	10	6	2508	0	1121	1353
Västmanland	10	1	10	1	2145	159	2133	159
Dalarna	2	9	1	10	315	1734	80	2000
Gävleborg	13	2	8	7	2040	964	1373	1634
Västernorrland	4	6	1	9	529	1710	63	2210
Jämtland	2	5	0	7	391	1818	0	2250
Västerbotten	7	1	7	1	509	482	509	485
Norrbottn	6	5	2	9	1617	349	71	1936
Total	109	151	57	203	23416	68293	10885	81481

*Notes:* The table shows the number of municipalities and firms that in 1984 are in the treated and in the control group for each Swedish county. Treated municipalities are those experiencing large CIT decreases – i.e., p50-p100 or p75-p100 corresponding to about a 1pp or 1.5 pp or larger CIT decrease – and control municipalities are those experiencing other CIT changes. For firms, we define them as treated (control) if they are active in only treated (control) municipalities.

Figure A.4: Effect of the reform on establishments and employment, 1983 base year



*Notes:* The figure shows the results obtained when estimating equation 2 for the full sample of firms over 1980-1989, but using 1983 as the base year. Confidence intervals are calculated at the 95% confidence level. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform, defined as above median or above 25th percentile tax cut, which correspond to approximately a drop in CIT of 1 pp or 1.5 pp or larger. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors at the municipality level.

Table A.5: Effect of the reform on establishments and employment, dynamic DiD

	CIT cuts $\geq 1$ pp vs. other changes		CIT cuts $\geq 1.5$ pp vs. other changes	
	Establishments	Employees	Establishments	Employees
1980*Treat	-0.001 (0.004)	0.021 (0.016)	0.014** (0.005)	0.006 (0.020)
1981*Treat	-0.004 (0.004)	0.025* (0.015)	0.005 (0.005)	0.014 (0.020)
1982*Treat	-0.003 (0.002)	0.020 (0.012)	0.002 (0.003)	0.013 (0.014)
1983*Treat	0.000 (0.002)	-0.009 (0.007)	0.003 (0.002)	-0.011 (0.007)
1985*Treat	0.005*** (0.002)	0.017*** (0.005)	0.007*** (0.002)	0.016** (0.007)
1986*Treat	0.004 (0.003)	0.015* (0.008)	0.007** (0.003)	0.012 (0.012)
1987*Treat	0.003 (0.003)	0.014 (0.011)	0.010*** (0.004)	0.016 (0.014)
1988*Treat	0.001 (0.004)	0.006 (0.013)	0.011** (0.004)	0.020 (0.016)
1989*Treat	0.004 (0.005)	0.016 (0.015)	0.016*** (0.006)	0.023 (0.019)
Constant	1.090*** (0.000)	2.074*** (0.002)	1.109*** (0.000)	2.093*** (0.001)
Observations	618,353	618,353	623,946	623,946
R-squared	0.696	0.796	0.736	0.800
Firm FEs	Yes	Yes	Yes	Yes
Industry*Year FEs	Yes	Yes	Yes	Yes
Turnover quintiles*Year FEs	Yes	Yes	Yes	Yes
1984 treat. group mean	1.053	2.081	1.041	2.061

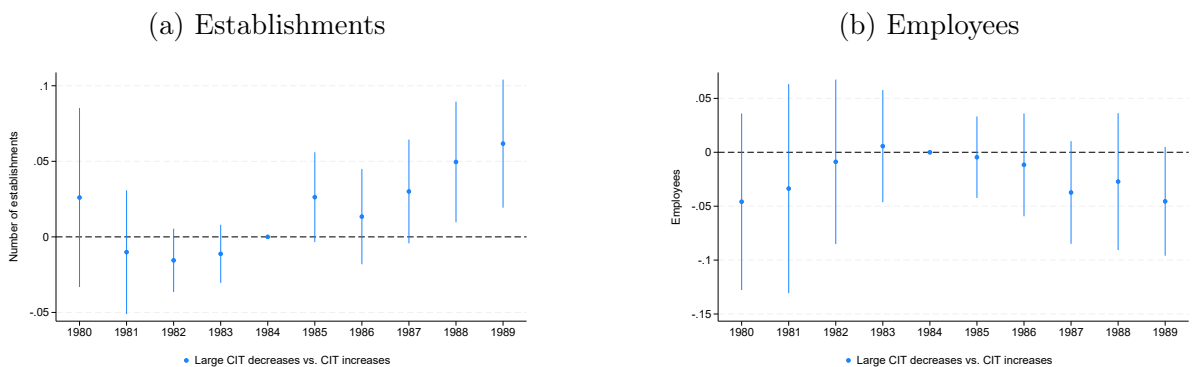
*Notes:* The table shows the results obtained when estimating equation 2 for the full sample of firms over 1980-1989. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform – i.e., above median or above 25th percentile tax cut, corresponding to approximately 1 pp or 1.5 pp drop in CIT. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors are the municipality level.

Table A.6: Effect of the reform on establishments and employment, static DiD

	CIT cuts $\geq 1$ pp vs. other changes		CIT cuts $\geq 1.5$ pp vs. other changes	
	Establishments	Employees	Establishments	Employees
<b>Panel A: 1980-1989</b>				
Treat*Post	0.005 (0.003)	0.004 (0.007)	0.006* (0.003)	0.013 (0.010)
Observations	618,353	618,353	623,946	623,946
R-squared	0.696	0.796	0.736	0.800
Pre-reform treat. group mean	1.065	2.176	1.055	2.148
<b>Panel B: 1981-1989</b>				
Treat*Post	0.005 (0.003)	0.007 (0.007)	0.008** (0.003)	0.014 (0.010)
Observations	563,241	563,241	568,289	568,289
R-squared	0.706	0.808	0.746	0.811
Pre-reform treat. group mean	1.061	2.153	1.050	2.128
Firm FEs	Yes	Yes	Yes	Yes
Industry*Year FEs	Yes	Yes	Yes	Yes
Turnover quintiles*Year FEs	Yes	Yes	Yes	Yes

*Notes:* The table shows the results obtained when replacing the year dummies that are interacted with the treatment indicator in equation 2 with a dummy that equals one for all post reform years starting in 1985. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform, defined as above median or above 25th percentile tax cut and corresponding to approximately 1 pp or 1.5 pp drop in CIT. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors are the municipality level. We report results obtained for the sample period 1980-1989 in panel A and 1981-1989 in panel B.

Figure A.5: Effect of the reform on establishments and employment, neighboring municipalities



*Notes:* The figure shows the DiD results obtained for the alternative specification of treated and control firms depicted in figure A.1. Treated firms are those active in municipalities experiencing above median tax cuts and for which there exists a neighboring municipality that faced a tax hike following the reform. Control firms are those active in municipalities experiencing the tax hike. We estimate equation 2 over 1980-1989 and include neighboring border id fixed effects. Confidence intervals are calculated at the 95% confidence level. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors at the municipality level.

Table A.7: Effect of the reform on establishments and employment, robustness

	CIT cuts $\geq 1$ pp vs. other changes				CIT cuts $\geq 1.5$ pp vs. other changes			
	Establishments		Employees		Establishments		Employees	
1980*Treat	-0.001 (0.004)	0.001 (0.004)	0.019 (0.015)	0.026** (0.011)	0.014*** (0.005)	0.015** (0.007)	0.003 (0.020)	-0.004 (0.014)
1981*Treat	-0.004 (0.004)	-0.004 (0.003)	0.023 (0.014)	0.018 (0.012)	0.005 (0.005)	0.005 (0.005)	0.011 (0.020)	0.002 (0.014)
1982*Treat	-0.003 (0.002)	-0.003 (0.002)	0.017 (0.011)	0.024** (0.010)	0.002 (0.003)	-0.002 (0.004)	0.008 (0.013)	0.016 (0.012)
1983*Treat	0.000 (0.002)	-0.000 (0.002)	-0.008 (0.007)	0.007 (0.006)	0.003 (0.002)	0.000 (0.003)	-0.009 (0.007)	-0.008 (0.008)
1985*Treat	0.005*** (0.002)	0.003 (0.002)	0.017*** (0.005)	0.016*** (0.006)	0.007*** (0.002)	0.004 (0.003)	0.016** (0.007)	0.010 (0.007)
1986*Treat	0.003 (0.003)	0.001 (0.003)	0.016** (0.008)	0.018** (0.009)	0.007** (0.003)	0.007* (0.004)	0.012 (0.012)	0.011 (0.011)
1987*Treat	0.003 (0.003)	-0.001 (0.003)	0.014 (0.010)	0.019* (0.011)	0.010*** (0.004)	0.008* (0.004)	0.015 (0.013)	0.014 (0.013)
1988*Treat	0.001 (0.004)	-0.001 (0.006)	0.006 (0.012)	0.005 (0.012)	0.011** (0.004)	0.009* (0.005)	0.019 (0.016)	0.014 (0.015)
1989*Treat	0.004 (0.005)	0.001 (0.007)	0.017 (0.015)	0.012 (0.014)	0.016*** (0.006)	0.014* (0.007)	0.022 (0.019)	0.010 (0.018)
Constant	1.090*** (0.000)	1.091*** (0.001)	2.074*** (0.002)	2.073*** (0.002)	1.109*** (0.000)	1.109*** (0.000)	2.093*** (0.001)	2.093*** (0.001)
Observations	618,353	618,353	618,353	618,353	623,946	623,946	623,946	623,946
R-squared	0.696	0.696	0.797	0.796	0.736	0.736	0.801	0.800
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry*Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turnover quintiles*Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-class*Year FEs	Yes	No	Yes	No	Yes	No	Yes	No
County*Year FEs	No	Yes	No	Yes	No	Yes	No	Yes
1984 treat. group mean	1.053	1.053	2.081	2.081	1.041	1.041	2.061	2.061

*Notes:* The table shows the results obtained when estimating equation 2 for the full sample of firms over 1980-1989. Treated firms are those active in municipalities experiencing the largest CIT decreases following the reform – i.e., above median or above 25th percentile tax cut, corresponding to approximately 1 pp or 1.5 pp drop in CIT. Firms active in municipalities experiencing a break in 1983 are excluded from the analysis. We use the inverse hyperbolic sine transformation of the number of employees and cluster standard errors are the municipality level.

Table A.8: Summary statistics: Neighboring municipalities

	CIT cuts $\geq$ 1 pp					CIT hike in neighboring municipality				
	Mean	SD	p1	p50	p99	Mean	SD	p1	p50	p99
Establishments	1.03	0.27	1.00	1.00	2.00	1.29	1.51	1.00	1.00	8.00
Employees	8.02	28.29	0.00	3.00	77.00	19.81	127.54	1.00	3.00	250.00
Turnover	4110	13486	0	1312	43201	13255	118689	492	1422	157802
Share capital	164	1933	35	35	1760	703	10814	35	35	8380
Age	8.77	4.17	1.00	12.00	12.00	8.81	4.15	4.00	12.00	12.00
N. of municipalities	1.00	0.06	1.00	1.00	1.00	1.25	1.22	1.00	1.00	7.00
N. of years observed	8.21	2.22	2.00	9.00	10.00	8.19	2.20	7.00	9.00	10.00
CIT change (84-85)	-0.011	0.005	-0.019	-0.010	0.004	0.005	0.007	0.003	0.006	0.014
Observations	4788					2800				

*Notes:* The table shows summary statistics for treated and control firms as summarize in figure A.1. Treated firms are those active in municipalities experiencing an above median CIT decrease following the reform – i.e. approximately a 1 pp drop in CIT or more – and for which there exists a neighboring municipality experiencing a tax hike. Control firms are those active in municipalities that share a border with treated municipalities and experience CIT hikes following the reform. Turnover and share capital are deflated using the consumer price index (1980=100) and expressed in thousands of Swedish Kronor – with 1USD=4.2313 in 1980 (Federal Reserve Bank of St. Louis, 2025). Turnover is the average over 1980-1983 for each firm, and the number of observations for this variable is lower than reported in the table as it is not observed for all firms. CIT change is the simple mean of the change in CIT rates that a firm faces between 1984 and 1985 depending on the municipalities in which it is active in 1984.