Corporate Taxation, Prices, and Inequality *

Manon Francois †
Sébastien Laffitte ‡
Clément Malgouyres §
Mathieu Parenti ¶

VERY PRELIMINARY, PLEASE DO NOT CIRCULATE

Abstract

This paper examines the incidence of a substantial and temporary corporate tax increase in France, targeting large firms with turnover above €250 million between 2011 and 2016. Using a difference-in-differences (DiD) framework and administrative data, we analyze the effects of this tax hike on prices, wages, and investment. Our identification strategy exploits the structure of fiscal groups, allowing us to exploit firm-level variation in exposure to the reform that is driven by the turnover of the fiscal groups, conditional on own-firm size as well as the size of the broader business group the firm belongs to. We find evidence of significant pass-through to output prices, with treated firms increasing prices by approximately 2%. On the labor market, we observe reductions in the total wage bill driven by declines in employment, particularly for mid-level workers, with minimal impact on average wages. Investment also contracted, with treated firms reducing their assets by up to 8% after the second tax increase. These findings highlight the heterogeneous effects of corporate taxes, emphasizing their impact not only on shareholders but also on workers and consumers. We then combine our estimates with data on firm ownership, consumption and labor earnings along the income distribution to assess how the estimated pass-through affect the progressivity of the corporate income tax.

*

†Stanford GSB
‡CYU Cergy Paris University
§CREST - CNRS
¶Paris School of Economics - INRAE

1 Introduction

Corporate tax rates have been in decline globally, raising concerns about their impact on public revenue (Zucman et al., 2022) and economic inequality (Nallareddy et al., 2022). Naturally, understanding the current burden of the CIT—whether it falls on workers, shareholders, or consumers—is essential for evaluating the consequences of its decline. Historically, the corporate income tax (CIT) was designed as a mechanism to tax wealthy shareholders indirectly, given the difficulty of directly taxing capital income (Bank, 2010). This intent positioned the CIT as a progressive alternative to regressive taxation mechanisms like tariffs, which disproportionately burdened lower-income consumers (Bank, 2010). Understanding the pass-through of the CIT into wages and prices is therefore all the more important: if workers bear a large share of the tax through lower wages or if consumers face higher prices, the progressivity of the CIT may be undermined.

This paper examines a unique set of tax reforms in France, where an exceptional corporate tax increase was imposed on large businesses between 2011 and 2016. Firms which were part of fiscal groups with turnover above €250 million were subject to an additional tax rate of 5% during the first phase, increasing to 10.7% in subsequent years. We analyze how this tax affected prices, wages, and investment, leveraging rich administrative datasets that provide detailed information on firm-level behavior. Key to our study is our ability to reconstruct the structuration of firms into fiscal groups and larger business groups, which allows to compare firms differentially impacted by the policy due to the size of their fiscal groups but holding their own size and the size of their business groups constant.

Using comprehensive administrative datasets, we implement a difference-in-differences (DiD) framework that compares firms subject to this tax with smaller firms that were exempt. Our DiD framework is designed to evaluate the effects of the tax increase along three key margins of adjustment: prices, wages, and investment. First, we estimate the pass-through of the tax to output prices using production price data at the firm level. Second, we assess the impact on labor market outcomes, including total wage bills, employment levels, and wage distribution within firms. Third, we examine how the tax affected investment, measured through changes in firm-level assets and capital expenditures. To ensure robustness, we employ a range of sensitivity tests, including excluding firms near the tax threshold, fixing fiscal group structures at their pre-reform definition, and validating parallel trends through

event-study analyses.

Our findings reveal that the corporate tax increase had significant and heterogeneous effects on firm behavior. We find evidence of substantial pass-through to output prices, with treated firms increasing prices by approximately 2% following the tax hike. On the labor market side, we observe a reduction in the total wage bill of treated firms, driven primarily by lower employment levels rather than reductions in average wages. This effect is most pronounced for mid-level workers in the upper middle of the wage distribution (p60 to p70). Lastly, we document a marked decline in investment, with treated firms reducing their assets by up to 8% after the second tax increase. Taken together, these results highlight how corporate taxes affect not only shareholders but also workers and consumers.

Literature review. Roughly speaking, the incidence of corporate taxation has been the subject of two major waves of research. The classical literature, pioneered by Harberger (1962), modeled the incidence of corporate taxes in closed economies, concluding that the burden primarily falls on the owners of capital. Subsequent work extended these models to open economies, suggesting that workers may also bear part of the tax burden through reduced wages (see Auerbach, 2018, for a review). However, these theoretical insights were largely untested due to the lack of detailed microdata.

The "new" literature on corporate tax incidence leverages granular data and modern econometric techniques to explore these questions empirically, combined with a variety of theoretical assumptions in order to map their empirical results into estimates of incidence. Serrato and Zidar (2016) find that a substantial portion of the corporate tax burden falls on workers. Fuest et al. (2018) provide similar evidence using German administrative data. Both papers exploit local variation which can be rationalized by competitive labor market to the extent that their unit of analysis (state or municipality) are good approximation for local labor markets. In contrast, other papers exploit cross-firm variation in the corporate tax burden within the same labor market (e.g. Arulampalam et al., 2012; Carbonnier et al., 2022; Risch, 2024) and find also substantial effect of taxes on firm-level wages. In this set-up, finding a causal, firm-level effect of changes in CIT on wages can be most easily rationalized by model of imperfectly competitive labor market featuring residual wage inequality.[1] Kennedy et al. (2024) examine the effects of the U.S. Tax Cuts and Jobs Act (TCJA) on wages and

[1] In fact, Lamadon et al. (2022) shows that estimates of the wage pass-through of firm shocks can be used to estimate the extent of rents in the labor market.

investment, finding that much of the tax benefit accrues to high-income workers and capital owners. Carbonnier et al. (2022) similarly find that most of the incidence of a corporate income tax credit falls on skilled workers. While Serrato and Zidar (2016) develop a model of firm location choice, best suited to understand the incidence of local/state corporate taxes, Margolin (2024) provides a framework to assess the aggregate (i.e. economy-wide) distributional consequences of corporate taxes under monopsony power and discipline his model using French data similar to ours.

Despite these recent advances, the effects of corporate taxes on consumer prices remain understudied. In particular, most papers interested in the incidence of the CIT on workers, suppose either competitive output markets (Fuest et al., 2018) or monopolistic competition with full pass-through (Serrato and Zidar, 2016). Recent empirical work has begun addressing this gap. Dedola et al. (2022) and Jacob et al. (2023) study the effect of the local corporate tax in Germany, using variation similar to Fuest et al. (2018), into retail prices and gasoline prices, respectively. They find evidence of substantial pass-through into prices and conclude that consumer bear an important part of the overall incidence of the CIT. A recent study by Baker et al. (2020) finds a significant effect of the state-level corporate taxes on the retail prices of affected manufacturers.[2]

Overall, our paper contributes to the literature by examining jointly the price effect and wage effect of a nation-wide increase in CIT in France that affected only firms that are part of large business groups.

Our paper is structured as follows. We present the institutional context and the data in Section 2. In Section 3, we lay out our empirical analysis and present our main results. Finally, we conclusion in section 4.

2 Context and Data

2.1 Institutional Set-Up: Exceptional Taxes in France

We leverage a significant tax increase on large French firms. Companies subject to corporate tax whose annual turnover exceeds €250 million were liable of an exceptional contribution amounting to 5% of their corporate tax liability for financial years ending between

[2]Their results should be interpreted in the context of sales-based tax apportionment across states. Apportionment weights based on sales imply that selling to high CIT states generate an increase in the overall effective tax rates faced by the firm, which could lead to price distortions of corporate tax even if it was based on pure profits and non-distorsive otherwise.

2011 and 2013 and then 10.7% for financial years ending between 2014 and 2016. After repealing the 2011-2016 exceptional contribution in 2016, a new surtax ("exceptional and additional contribution") is introduced in November 2017. Entities subject to CIT with revenue exceeding €1 billion would be subject to a 15% exceptional tax on CIT due, and entities subject to CIT with revenue exceeding €3 billion would be subject to an additional contribution of 15%, resulting in a global exceptional surtax of 30% on CIT due for the largest firms.

These surtaxes are legally distinct from standard corporate taxation, as they increase the total tax liability before the application of any tax credits, reductions, or other credits. The primary objective of these measures was to address the substantial budget deficit, which stood at 6% of Gross Domestic Product in 2011 and remained close to 5% until 2015. The 2017 surtax, specifically, was enacted to mitigate the budgetary impact of the recent repeal of the 3% tax on dividend distributions.

Firms were therefore subject to the standard corporate income tax with a main rate of 33.33%.[3] Large firms were also subject to a social contribution equal to 3.3% of the tax assessed on their taxable profits at the standard rate and at the reduced rates, minus relief that may not exceed €763,000 per twelve-month period. The different surtaxes were added on top of these taxes. The overall tax rate applied to different groups of taxpayers is shown in Figure 1. From 2017, there is a global decrease of the CIT, applied progressively to different groups of firms, based on their turnover. To avoid exploiting confounding variation, we will end our analysis in 2017.

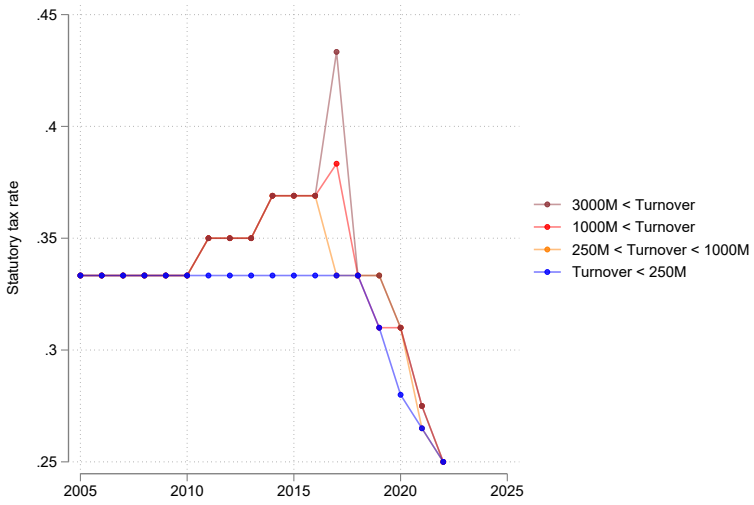
Although the tax was presented as a temporary tax, it was still expected to last for a few years, so we can expect that firms reacted to the introduction and to the increase of the tax.

For identification, we leverage a specific rule of the exceptional contribution. Indeed, France allows firms to consolidate the profits and losses of the entities in a tax group. Domestic subsidiaries need to be 95% owned by the Parent Company, that can be a foreign company.[4] The tax consolidation perimeter can therefore be different from the ownership

[3]Small and medium-sized businesses (SMEs) pay a reduced corporate tax rate of 15% up to €38,120 of profits and then the standard 33.33% rate on the remainder. Large companies pay the 33.33% tax rate.

[4]"A French subsidiary can be included in a tax consolidated group even if its parent company is not located in France. However, at least 95% of the share capital of the foreign company must be held, directly or indirectly, by the French company that is head of the tax consolidated group. In addition, the foreign company must be subject to CIT, be located in the European Union or in a member state of the European

Figure 1: Statutory rate changes (2005-2022)



Note:

perimeter. Firms that elect for tax consolidation have to remain in the tax group for 5 years. The corporate income tax is then levied on the aggregate income after certain adjustments (e.g. neutralisation/de-neutralisation of capital gain or loss on the sale of assets, provisions) have been made. The tax is paid by the head of the fiscal group but the tax charge is freely allocated between members of the tax group through internal contracts.[5] The main benefit of such a system is to offset the profits of some affiliates with the losses of others. Importantly for our identification strategy, the threshold for paying the exceptional contribution depends on the sum of the turnover of each entity in the group (and not consolidated for internal transactions).[6]

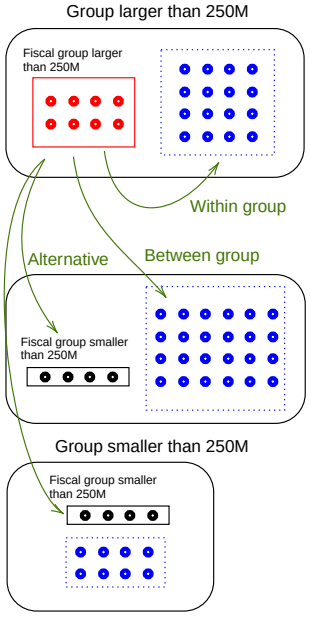
This feature of the French tax law is useful for identification as some firms that are similar with respect to many different characteristics will or will not be subject to the contribution based on whether they are fiscally integrated in a group larger than the €250

Economic Area whose tax treaty with France includes a mutual administrative assistance clause to fight tax fraud and tax evasion, and hold 95% of the lower-tier subsidiary's shares. For financial years starting on or after 1 January 2015, firms can also adopt horizontal tax consolidation. This allows tax consolidation among French sister or cousin companies that have a common parent company in an EU member state or a member state of the European Economic Area (EEA) that has concluded an administrative assistance agreement with France (i.e., Iceland, Liechtenstein, or Norway)." PWC

[5]The most common contract make individual firms liable of the tax they would have paid in absence of consolidation (Dondero et al., 2020)

[6]The French Constitutional Court validated the fact that contribution is based on the sum of turnover rather than the consolidated turnover of the group that would erase internal transactions in its decision n°2014-456, arguing that it does not goes against the constitutional principle of equality before the tax.

Figure 2: Identification strategy



million threshold. We will leverage this feature to compare similar firms and study the responses of firm to the increase in taxation.

2.2 Data

Data sources. We use the universe of tax returns in France for the period 2005-2017 provided by the French Tax Administration. This dataset allows us to have information on the balance sheet and income statement of the firms. We also have details about their tax situation and we can compute their effective tax rate. Our analysis concentrates specifically on firms operating under the normal tax regime, thus excluding self-employed individuals and the smallest enterprises which are taxed under a simplified regime.

We also use the information on tax consolidation from the PERIM and FDG-IS GROUPE datasets. PERIM is a dataset that provides us with the list of entities that are part of a tax group and the identifier of the head of the tax group. FDG (until 2015) and then IS GROUPE provide the taxable income statement for such tax group. The data is available from 2005.

Complementing the tax data, the LIFI database offers critical insights into the ownership structures of legal entities resident in France. This source is particularly valuable for determining firm nationality and the geographical distribution of affiliates, including nuanced

details such as ownership rank and control rates. Using this data, we identify corporate groups, giving us information useful for our identification strategy that compares firms in both corporate and fiscal groups to similar firms in corporate groups without tax integration.

For employment and wage analysis, we utilize the DADS (*Déclarations Annuelles des Données Sociales*) dataset, a comprehensive matched employer-employee database derived from social security records. This source provides exhaustive coverage of French firms and private sector employment, with contract-level data that include gross and net wage earnings, working hours, occupation, contract type, and key employee demographics such as age and gender. The unique SIREN administrative identifier enables precise firm tracking and longitudinal analysis of employment and wage policies. While individual employee identifiers are annual and prevent long-term individual tracking, the dataset includes previous year's contract characteristics, facilitating the examination of inter-firm mobility and year-on-year changes in wage and work hours.

Finally, our output price data come from the Survey on Observation of Prices in Industry and Services (OPISE), conducted by INSEE (National Statistics Institute). This survey tracks production price changes for goods and services across domestic and foreign markets at monthly and quarterly frequencies. Surveyed firms report selling prices for "reference services", which are products representative of their production. INSEE uses these prices to construct production price indices. It covers 93% of manufacturing and service production in France. The data is only available starting in 2013 and are provided at the quarterly frequency. Given the new increase of the tax rate in 2014 and the fact that the previous increase was three years before, we have four quarters that we use as pre-trends. We create a quantity-weighted average unit price at the firm-level at a quarterly basis. We have 10,086 observations, covering 751 unique firm of which 591 are treated.

Sample selection. We use the Siren identifier to match firms across all datasets. For each fiscal year between 2005 and 2017, we match the BIC-IS database with the tax consolidation information (PERIM) to infer whether or not a firm is part of a tax group. If it is, we match the firm to its tax group information from the FDG-IS GROUPE database. For firms that are in a tax group, we consolidate non-tax information at the tax group level to identify firms in scope for the surtax. The relevant turnover to be subject to the surtax is computed as the sum of the turnover of all subsidiaries that form the tax group, without any netting

out for intra-group transactions.[7] Our analysis is however run at the individual firm level.

We then merge the data to LIFI to obtain ownership information. This allows us to know whether a firm is a standalone, part of a domestic group or part of a multinational and whether the multinational is domestic or foreign. We use this information to construct economic groups to know whether or not, had an entity been part of a fiscal group, it would have been subject to the surtax.

We complement the financial information with employer-employee matched data to obtain granular information on the workforce composition at the firm-level. Finally, we add the data on prices for the firms that are surveyed in OPISE.

We exclude firms in the financial and insurance sectors as they may be subject to different tax rules and are absent from the LIFI database. We also restrict our sample to individual firms with turnover below €250 million, so that a firm cannot be individually subject to the surtax but can only be in scope if it belongs to a tax group whose consolidated turnover is larger than €250 million. Indeed, it is harder to find good comparables for large individual entities, larger than the threshold.

In order to maintain a consistent group of firms and control for potential changes in firm ownership, we fix the ownership structures of the group as they were pre-reform. We use 2010 as our base year. We also drop firms that we observe for less than 3 years over the period 2011-2016.

Table 1 describes our sample in 2011. Out of 10815 firms, 89% are multinational enterprises and 24% are foreign MNEs. The majority of them, 72% are part of a fiscal group. Firms in the sample are relatively large, with an average number of employees of 143 and a maximum of 6163. The average turnover is larger than €35 million, while the maximum is set by design at €250 million.

3 Empirical Analysis

3.1 Identification Strategy

Our research design compares firms in a tax group, individually smaller than the €250 million threshold but whose aggregated turnover is larger than €250 million, to firms that are not part of a tax group but whose consolidated turnover would be larger than €250 million had the firms been fiscally integrated. For both control and treated firms, we consider that

[7] This was confirmed by by the French Consistutional Council in 2014. See here.

Table 1: Main sample - descriptive statistics

	Observations	Mean	Std. Dev.	Maximum
Turnover*	10,880	36,251.6	47,815.9	24,995.5
Taxable Income*	10,880	802.9	10,884.9	405,975.1
Net Operating Surplus*	9,067	1,207.1	40,501.6	166,999.8
Employment	10,880	143	281	6,163
Wage Bill*	9,388	5,279.8	8,873.3	139,576
Fiscal Group	10,880	0.72	0.45	-
MNE	10,815	0.89	0.31	-
Foreign MNE	10,815	0.24	0.43	-

Note: Variables with a "*" are in thousand euros.

the business group has a total turnover larger than €250 million. We estimate a standard dynamic difference-in-difference:

$$\ln(Y_{f(i)t}) = \sum_{\substack{k=2006 \\ k\neq 2010}}^{2017} \beta_k \times \mathbb{1}_{Treated_f^{t-j}} + \mu_f + \mu_{it} + \varepsilon_{ft}, \tag{1}$$

where $Y_{f(i)t}$ is the outcome of interest of firm f in sector i and year t. $\mathbb{1}_{Treated_f^{t-j}}$ is a dummy variable equal to 1 if firm f belongs to a tax group with a consolidated revenue larger than €250 million and 0 if a firm had a counterfactual consolidated revenue with its other subsidiaries larger than €250 million, had the firms been in a tax group. μ_f and μ_{it} are firm and sector-year fixed effects respectively. The coefficients of interest, β_k, capture the average differences in outcomes between our treated and control firms in the same industry. We use 2010 as the reference year, allowing us to compare the trends of the two groups for several years prior to the introduction of the surtax. Standard errors are clustered at the firm level.

We estimate equation 1 on an 11-year window, which allows for four years pre-treatment and seven years after the introduction of the first exceptional contribution in 2011.

The key identifying assumption is that treated and control group would have trended similarly in absence of the tax rate change. We advance several points to support the validity of the common trend assumption. First, the surtax was plausibly unanticipated as the law was passed in September 2011 and applies to financial years ending after 31 December 2011. In addition, tax consolidation lasts for five years. Therefore, treated firms had limited scope to anticipate the reform and to adjust their behavior endogenously prior to the policy changes. We also show in Figure 3 that there is no bunching mass that forms around policy threshold after the introduction of the surtax, as it is costly to leave a tax

group before the end of the required five-year period. Similarly, Figure A1 supports this claim. When analyzing the robustness of our results, we also replicate the main estimation strategy excluding firms belonging to groups close to the threshold and fixing the definition of the tax group one year before the policy announcement.

Second, the inclusion of industry-year fixed effects and the focus on large business groups allow us to compare firms that operate in the same sector and that belong to business groups of similar size. Third, as we will show below, our event-studies support the assumption that we have parallel trends in the outcomes of our treated and control firms in the years directly prior to the the introduction of the surtax. Lastly, in Section 3.6, we present a series of robustness checks to consider many alternative control groups, placebo tests and alternative sets of fixed effects.

Last, we also investigate the determinants that lead firms to enter a tax group. We provide the evidence in Table 2. We show that on average, firms that are part of a tax group are not different from firms that are not. We find no differences in terms of wage bill, turnover or the growth of their activity. Subsidiaries of MNEs are not more likely to be in a tax group. The only difference is that firms in a tax group have on average a lower profit to wage ratio and a lower growth rate of their assets. In column (2), we add fixed effects at the level of the economic group. Within ownership groups, switching to the Foreign MNE status decreases the probability to be in a tax group. Overall, this descriptive evidence suggest that concerns about potential bias coming from the selection into tax consolidation are probably limited.

Since our goal is to quantify the distributional effects of corporate taxes, through the study of a tax increase, we need to estimate elasticities of profits, investments, employment and earnings with respect to the tax rate. We estimate the following reduced-form equations to obtain key elasticities and semi-elasticities.

$$\ln(Y_{f(i)t}) = \beta STR_t + \mu_f + \mu_{it} + \varepsilon_{ft}, \tag{2}$$

$$\ln(Y_{f(i)t}) = \delta ln(STR_t) + \mu_f + \mu_{it} + \varepsilon_{ft}, \tag{3}$$

Figure 3: Distribution of tax groups by their consolidated turnover

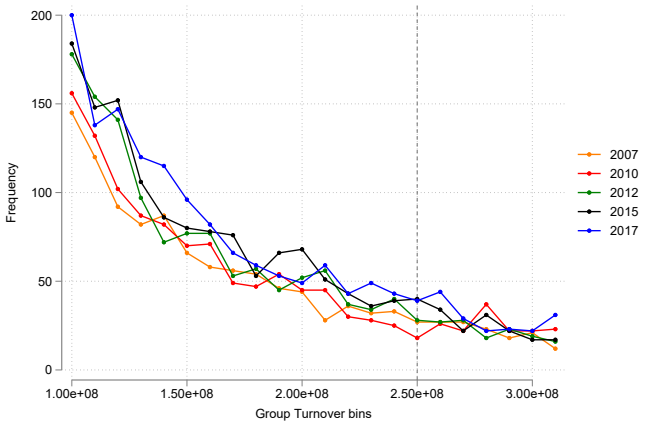


Table 2: Selection into tax group

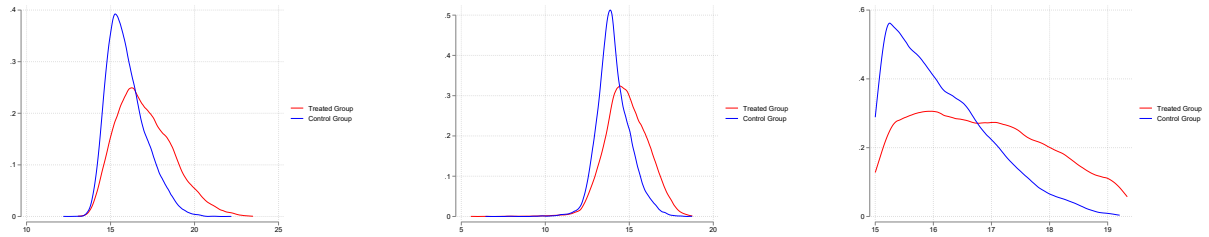
	Dep. var. $\mathbb{1}_{\text{Tax Consolidation}}$	
	(1) OLS	(2) OLS
ln(Wage Bill)	0.001	-0.002
	-0.010	-0.010
ln(Turnover)	0.013	0.010
	-0.010	-0.010
ln(Profit/Wage)	-0.004**	-0.002
	-0.002	-0.002
MNE	0.012	-0.010
	-0.013	-0.018
Foreign MNE	-0.014	-0.078***
	-0.016	-0.017
Growth Turnover	0.000	0.000
	0.000	0.000
Growth Wage Bill	-0.002	-0.002
	-0.005	-0.005
Growth Assets	-0.008***	-0.008***
	-0.002	-0.003
Growth Profits	0.000	0.000
	0.000	0.000
Growth Employees	0.001	0.002
	-0.005	-0.005
Observations	96,644	93,541
R-squared	0.831	0.853
Firm FE	Yes	Yes
Industry-year FE	Yes	Yes
Group FE	No	Yes

Note: Robust standard errors are clustered at the XXX level. ***p<0.01, **p<0.05, *p<0.1.

3.2 Descriptive Statistics

Figure 4 shows the distribution of total assets, wage bill, and turnover for treated and control firms. This shows that we have a common support in the distribution of these outcomes, with the distribution of profits over wages being slightly more right-skewed for treated firms, suggesting that treated firms are slightly larger in terms of profits.

Figure 4: Firm size distribution (in logs)



(a) Total assets (b) Wage bill (c) Turnover

Note:

Despite our focus on individual firms with turnover lower than €250 million of turnover, treated firms might be part of large groups. Among the 100 largest economic groups, 45% of affiliates are in the treated group. Only five of these groups have no entities ever treated. This illustrates that our results concern relatively large firms in the distribution of firms. This is in contrast with most of the literature, where identification relies on smaller firms (e.g. in Fuest et al., 2018).

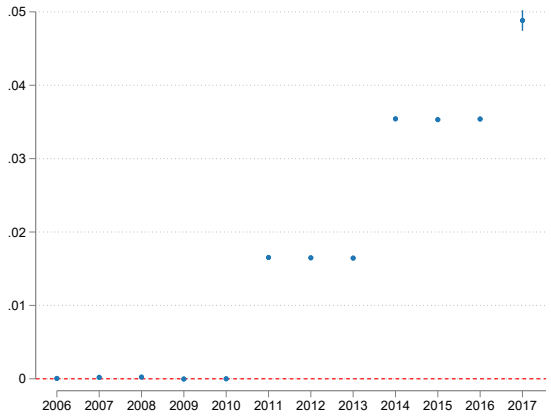
3.3 Results

In this section, we show the results of our difference-in-differences strategy on different firm-level outcomes. We also provide robustness analyses.

3.3.1 Change in STR

Figure 5 depicts the change in statutory tax rate in our treated group with respect to the control group. The confidence interval around the change in the statutory tax rate in 2017 comes from the fact that the additional taxation in this year only applies to very large entities (larger than 1 billion) while the previous exceptional taxes applied from 250 million. Therefore, some of the firms that were treated during the 2011-2016 exceptional contribution period are no longer treated in 2017.

Figure 5: Event study - Statutory tax rate



Note: This figure shows the estimates of the event-study as presented in equation (1). 95% confidence interval are displayed. Robust standard errors are clustered at the firm level.

3.3.2 Effects on sales and profits

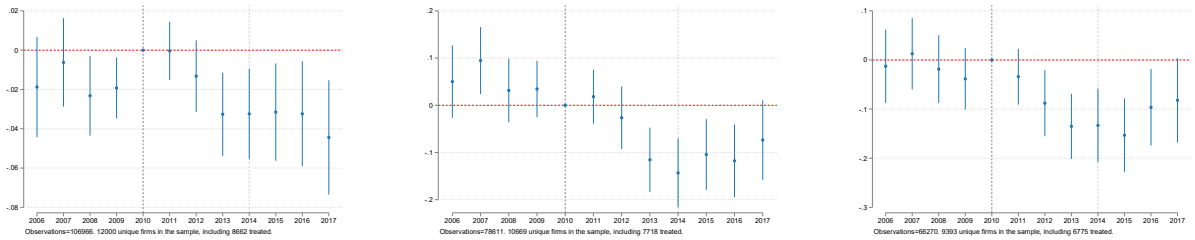
We then turn to the effect of the exceptional contribution on the firm output. We consider as outcome variables the log of firm sales and the log of firm pre-tax profits (measure as net income). We observe on Figure 6a that firms subject to the surtax experienced a drop in their sales, by about 3.5 percentage points after 2 years, relative to control firms and the difference remains constant until the end of our sample period.

While turnover dropped by 3.5 percentage points, pre-tax profits dropped by 10 percentage points, which suggests that treated firms faced lower revenue and higher costs, relative to control firms (Figure 6b). Alternatively, we use the log of Earnings before Interest and Taxes (EBIT) as a measure of profits in Figure 6c, which only accounts for sales and direct production costs (input costs and wage bill) and depreciation, thereby removing the effects of financial revenue and costs on the pre-tax profit. The EBIT of treated firms also decreased by about 10 percentage points, suggesting that the increased costs come from higher input costs or higher labor costs.

3.3.3 Effects on Input Use and Input Prices

We now turn to the effects of the surtax on inputs. Figure 7 plots the event-study coefficients β_k for total assets, employment and wage bill (in logs). The figure shows that firms were following similar trends in the years prior to the introduction of the surtax. After the introduction of the surtax, total assets dropped by about 3 percentage points when the

Figure 6: Event-studies: turnover and profits

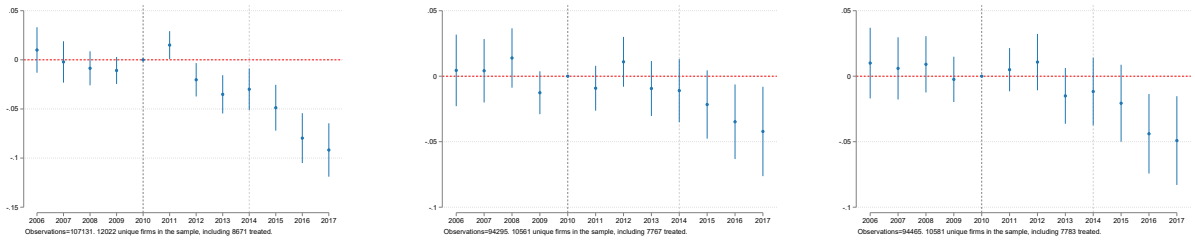


(a) Turnover (b) Pre-tax profits (c) EBIT

Note: This figure shows the estimates of the event-study as presented in equation (1). 95% confidence interval are displayed. Robust standard errors are clustered at the firm level.

surtax was 5% and then by almost 8 percentage points when the surtax was 10.7%.

Figure 7: Event-studies: total assets, employment and wage bill



(a) Total assets (b) Employment (c) Wage bill

Note: This table shows estimates of event-study as presented in equation (1). 95% confidence interval are displayed. Robust standard errors are clustered at the firm level. ***p<0.01, **p<0.05, *p<0.1.

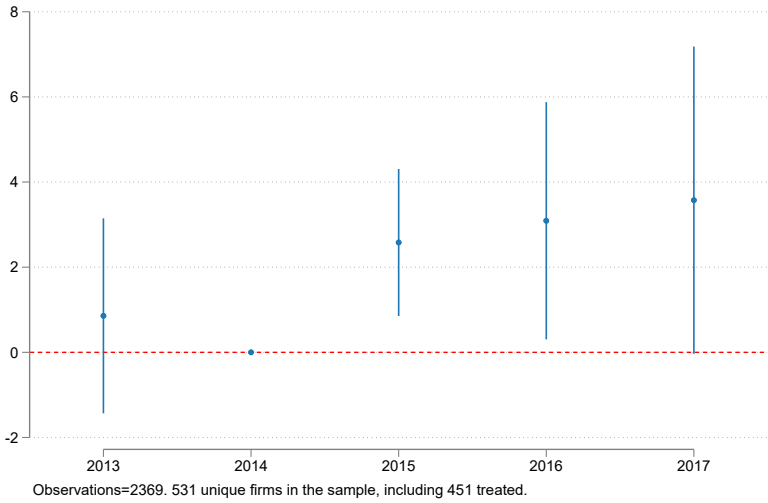
The total wage bill of treated firms on average reacted only after the increase of the rate of the surtax in 2014 and treated firms lowered their wage bill by about 5 percentage points. This decrease in the wage bill is driven by a decrease in employment that follows a similar trend as that of wage bill. Employment in treated firms dropped by about 4 percentage points relative to control firms.

3.3.4 Effects on Output Prices

We now use our firm-level data on price indexes to study an important margin of firms' response to taxes. Our coverage begins in 2013, so we only use the second increase in the exceptional contribution, in 2014 to study the elasticity of prices to the CIT. This still allows

us to have one year to control for pre-trends. We find that price increased by 2% after the introduction of the surtax, with an effect appearing after one year and constant over time as shown in Figure 8.

Figure 8: Event study: output prices



Notes: This figure shows the estimates of the event-study as presented in equation (1). 95% confidence interval are displayed. Robust standard errors are clustered at the firm level.

We show in Table 3 the results of estimating equations (2) and (3) to obtain the semi-elasticities with respect to different measures of firm output and input.

Table 3: Semi-elasticities

	(1) Pre-tax profit (log)	(2) EBIT (log)	(3) Turnover (log)	(4) Median wage (log)	(5) Wage bill (log)	(6) Nb. Emp. (log)	(7) Assets (log)
Statutory tax rate	-4.442***	-3.286***	-0.526	-0.192*	-0.765**	-0.623*	-1.342***
	(0.850)	(0.835)	(0.341)	(0.104)	(0.384)	(0.360)	(0.324)
Observations	72,609	61,062	98,717	87,007	87,125	86,959	98,865
R-squared	0.828	0.807	0.925	0.839	0.941	0.942	0.973
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: This table shows the semi-elasticity estimates as presented in equations (2) and (3). Robust standard errors are clustered at the firm level. ***p<0.01, **p<0.05, *p<0.1.

3.4 Worker heterogeneity

In Table 4, we use the log of the wage at different levels of earnings and compare the elasticity of wages to the CIT along the wage distribution. We find that the incidence along the wage distribution follows a a U-shaped pattern. The elasticity at the first within-firm wage decile is -0.07 and statistically significant only at the 10% level. The elasticity then increases in absolute value until the 7th decile, where it is -0.17, and statistically significant at the 1% level. Then the elasticity decreases to 0.14 at the last decile of the distribution.

We show in Table 4 that the minimum wage seems to protect workers at the bottom of the distribution. On the contrary, it is likely that bargaining power enables top wage-earners within companies bear less of the incidence of the tax.

Table 4: Elasticities along the earning distribution

	(1)	(2)	(3)	(4)	(5)
			Prices		
	$\ln(Wage^{p10})$	$\ln(Wage^{p30})$	$\ln(Wage^{p50})$	$\ln(Wage^{p70})$	$\ln(Wage^{p90})$
ln(STR)	-0.068*	-0.091***	-0.124***	-0.169***	-0.140**
	(0.0360)	(0.0345)	(0.0393)	(0.0465)	(0.0621)
Obs.	78,532	78,532	78,532	78,532	78,532
R2	0.794	0.857	0.870	0.863	0.834

Note: We use data from the DADS and create decile of wages within firm. This table shows the elasticity estimates as presented in equation (3). Robust standard errors are clustered at the firm level. ***p<0.01, **p<0.05, *p<0.1.

3.5 Firm heterogeneity

3.5.1 Nationality of the MNE

Using the information on firm ownership, we can identify whether an MNE is foreign-owned or domestically-owned. We compare the outcomes of control and treated firms on the subsample of Foreign MNEs and on the subsample of French MNEs. We show in Figure A2 that foreign MNEs seem to respond more markedly to the introduction of the surtax than French MNEs. While total assets of French MNEs first dropped by 2 percentage points during the 5.7% surtax and then by 6.5 percentage points after 2015, Foreign MNEs reduced their assets first by 5 percentage points and then that share kept on falling to reach a 15 percentage points decline by 2017.

Regarding employment, it appears from Figure A2c that French MNEs did not reduce their number of employees but that the 5 percentage point reduction in employment shown

in Figure 7b is driven by foreign MNEs which reduced their number of employees gradually up to 10 percentage points in 2017. This is also corroborated when we look at the wage bill of firms in Figures A2e and A2f.

Prices, however, are a notable exception to this pattern as they evolved comparably among both French and foreign MNEs.

Table 5 confirms the event-study findings and shows that foreign MNEs have larger net-of-tax rate elasticities than French MNEs on all outcomes. French MNEs have a -0.16 wage bill elasticity and a -0.13 price elasticity, compared to -0.66 and -0.31 for foreign MNEs respectively.

Table 5: Elasticities by nationality of the MNE

	(1) Median wage (log)	(2) Wage bill (log)	(3) Nb. Emp (log)	(4) Assets (log)	(5) Turnover (log)	(6) Pre-tax profits (log)	(7) EBIT (log)
				French MNEs			
ln(STR)	-0.00975	-0.0868	-0.107	-0.287**	0.0556	-1.305***	-1.198***
	(0.0408)	(0.153)	(0.142)	(0.126)	(0.132)	(0.326)	(0.323)
Observations	63,502	63,584	63,467	73,054	72,926	53,913	45,376
R-squared	0.841	0.943	0.946	0.973	0.931	0.830	0.808
				Foreign MNEs			
ln(STR)	-0.112**	-0.550***	-0.473**	-0.922***	-0.656***	-1.611***	-0.614
	(0.0522)	(0.197)	(0.194)	(0.164)	(0.184)	(0.439)	(0.433)
Observations	38,637	38,696	38,616	44,320	44,235	32,911	27,181
R-squared	0.837	0.944	0.945	0.975	0.927	0.838	0.834
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: This table shows the elasticity estimates as presented in equation (3). Robust standard errors are clustered at the firm level. ***p<0.01, **p<0.05, *p<0.1.

3.5.2 By capital intensity

Recent studies of corporate tax incidence suggest that one element of firm heterogeneity is key in determining the responsiveness of firms to changes in the corporate tax (Fuest et al., 2018; Kennedy et al., 2024). As capital costs are often only partially tax-deductible while labor costs are fully tax-deductible, capital-intensive firms should react more strongly to the introduction of the surtax.

We estimate the elasticity of labor-intensive firms based on their share of service trade and compare it to the elasticity of capital intensive firms. We find that XXX.

3.6 Robustness

We run several test to validate the robustness of our results. We first exclude firms that are around the surtax threshold. We remove firms that have a turnover between €225 million and €275 million to make sure that our effect is not driven by firms close to the threshold than come in and out of our sample. We show in Figure A3 that the effect on the wage bill and on prices still hold even when we remove these firms.

We also run a placebo test using 2005 as our reference year. We fix the ownership structure and the industry in 2005 and run our estimation from eq. 1. As we should expect if the effects shown in Section 3.3 are driven by the introduction of the exceptional contribution, we do not find any effect following the 2005 placebo reform, as shown on Figure A4c.

Finally, we introduce group fixed effects in equation 1 to compare treated and control firms that belong to the same economic group. We therefore compare entities that belong to a large tax group to their subsidiaries that belong to the same economic group but that are not members of the tax group. We show in Figure A5 that our within-group results are similar to our baseline results presented in Section 3.3.

4 Conclusion

This paper investigates the distributional effects of corporate taxation by analyzing an exceptional tax increase on large businesses in France. By leveraging detailed administrative data and reconstructing fiscal group structures, we compare firms differentially impacted by the policy while holding their individual size and business group ownership constant. Our difference-in-differences framework enables a comprehensive study of firms' responses along three key margins: prices, wages, and investment.

Our analysis reveals substantial economic incidence beyond shareholders, with significant pass-through to both consumers and workers. Specifically, treated firms responded to the tax increase by raising output prices by approximately 2% and reducing their total wage bill, primarily through employment adjustments rather than wage cuts. The employment effects were particularly pronounced for workers in the 60th to 70th percentiles of the wage distribution. Additionally, we documented an 8% decline in firm-level assets following a larger tax increase, indicating meaningful effects on investment behavior.

These findings contribute to the ongoing debate about corporate tax policy amid de-

clining global rates. While corporate income tax was historically designed as a progressive mechanism to tax wealthy shareholders indirectly, our results suggest that the burden of corporate taxes is partially shifted to consumers through higher prices and to workers through reduced employment opportunities. These findings have important implications for tax policy design, particularly as policymakers evaluate the progressivity and efficiency of corporate taxation in addressing economic inequality.

References

Wiji Arulampalam, Michael P Devereux, and Giorgia Maffini. The direct incidence of corporate income tax on wages. *European Economic Review*, 56(6):1038–1054, 2012.

Alan J. Auerbach. Corporate tax incidence and its implications for tax reform. *University of Chicago Press*, 2018.

Scott R Baker, Stephen Teng Sun, and Constantine Yannelis. Corporate taxes and retail prices. Technical report, National Bureau of Economic Research, 2020.

Steven A. Bank. *From Sword to Shield: The Transformation of the Corporate Income Tax, 1861 to Present*. Oxford University Press, 2010.

Clément Carbonnier et al. Corporate taxes and labor: Evidence from a quasi-experiment. *Journal of Public Economics*, 200, 2022.

Luca Dedola, Chiara Osbat, and Timo Reinelt. Tax thy neighbour: Corporate tax pass-through into downstream consumer prices in a monetary union. ECB working paper no. 2022/2681, European Central Bank (ECB), July 2022.

B. Dondero, L. Duguet, L. Gouthiere, P. Juline Saint-Amans, and G. Viardot. *Les Holdings*. Francis Lefebvre, Levallois, 8e édition edition, October 2020.

Clemens Fuest, Andreas Peichl, and Sebastian Siegloch. Do higher corporate taxes reduce wages? micro evidence from Germany. *American Economic Review*, 108(2):393–418, 2018.

Arnold C Harberger. The incidence of the corporation income tax. *Journal of Political economy*, 70(3):215–240, 1962.

Martin Jacob, Maximilian A Müller, and Thorben Wulff. Do consumers pay the corporate tax? *Contemporary Accounting Research*, 40(4):2785–2815, 2023.

Patrick J. Kennedy, Christine L. Dobridge, Paul Landefeld, and Jacob Mortenson. The efficiency-equity tradeoff of the corporate income tax: Evidence from the Tax Cuts and Jobs Act. *Working Paper*, 2024.

Thibaut Lamadon, Magne Mogstad, and Bradley Setzler. Imperfect competition, compensating differentials, and rent sharing in the US labor market. *American Economic Review*, 112(1):169–212, 2022.

Simon Margolin. Micro vs. macro corporate tax incidence. *Princeton University Working Paper*, 2024.

Suresh Nallareddy, Ethan Rouen, and Juan Carlos Suárez Serrato. Do corporate tax cuts increase income inequality? *Tax Policy and the Economy*, 36(1):35–91, 2022.

Max Risch. Does taxing business owners affect employees? Evidence from a change in the top marginal tax rate. *The Quarterly Journal of Economics*, 139(1):637–692, 2024.

Juan Carlos Suarez Serrato and Owen Zidar. Who benefits from state corporate tax cuts? a local labor markets approach with heterogeneous firms. *American Economic Review*, 106 (9):2582–2624, 2016. doi: 10.1257/aer.20141702.

Gabriel Zucman, Thomas Tørsløv, and Ludvig Wier. The missing profits of nations. *Review of Economic Studies*, 89(4):1569–1611, 2022. doi: 10.1093/restud/rdab044.

Appendix

Figure A1: Distribution of tax groups by consolidated turnover (%)

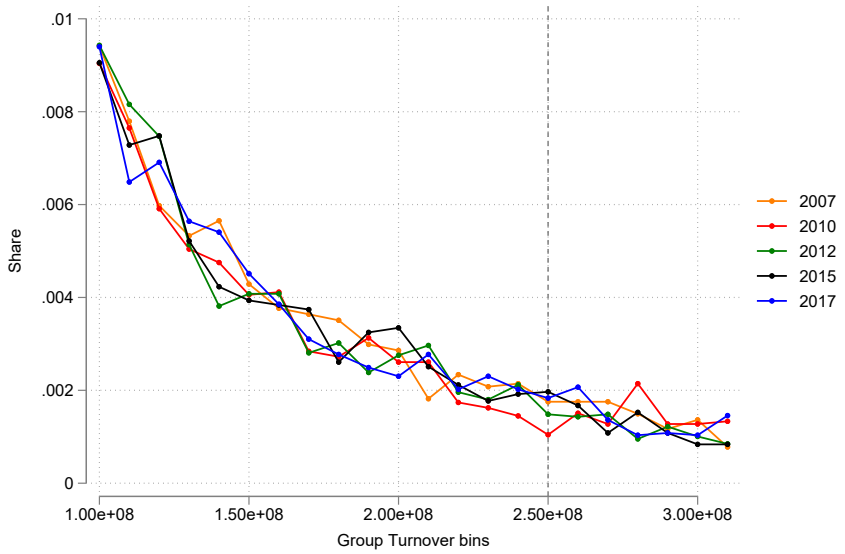
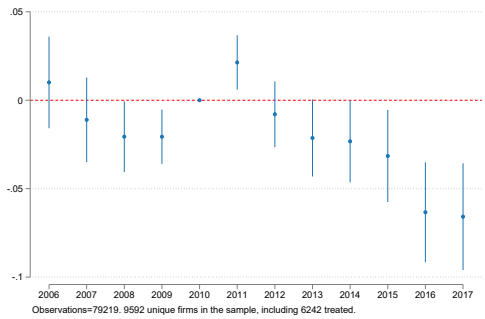
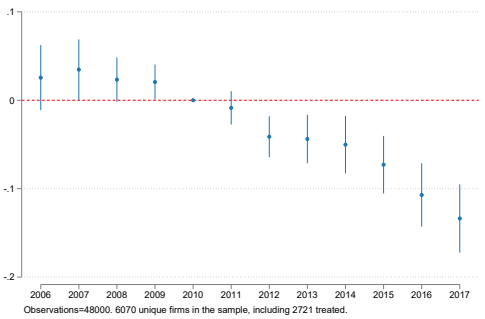


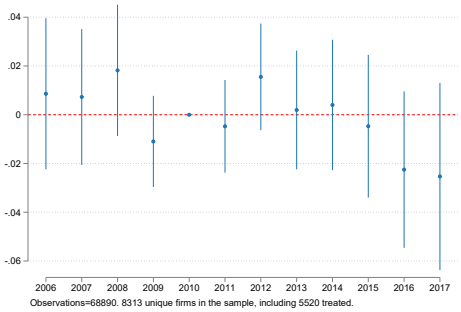
Figure A2: Event-studies: total assets, employment and wage bill by nationality



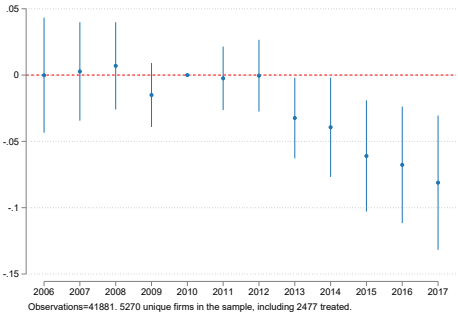
(a) Total assets (French)



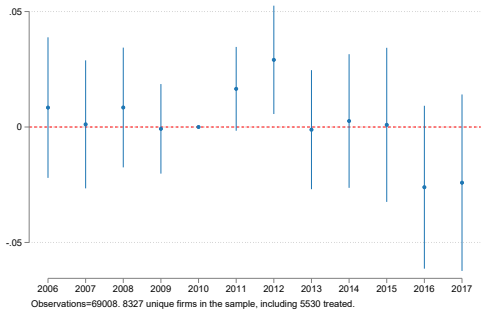
(b) Total assets (Foreign)



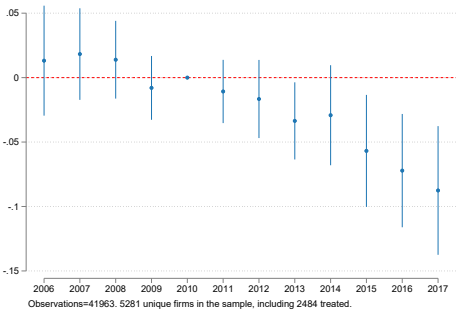
(c) Employment (French)



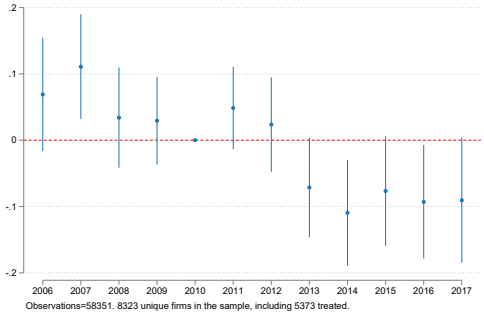
(d) Employment (Foreign)



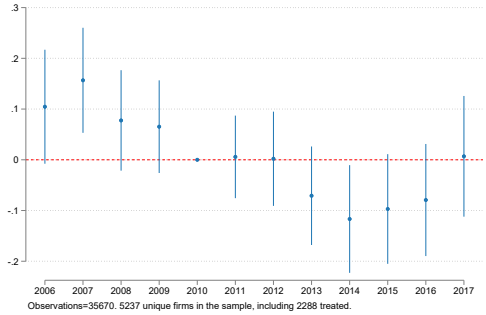
(e) Wage bill (French)



(f) Wage bill (Foreign)



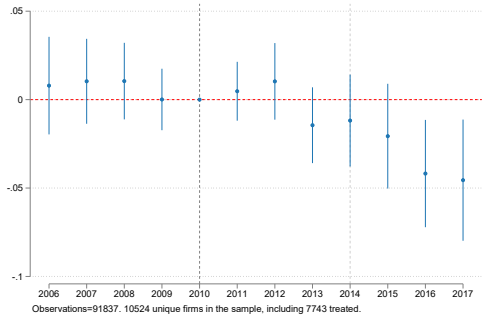
(g) Prices (French)



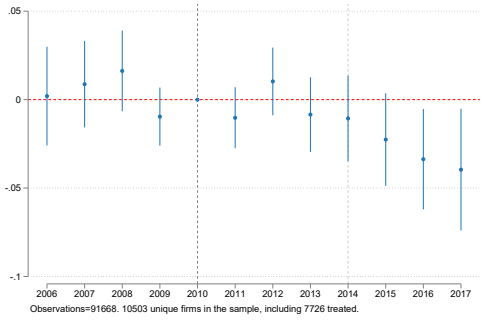
(h) Prices (Foreign)

Note:

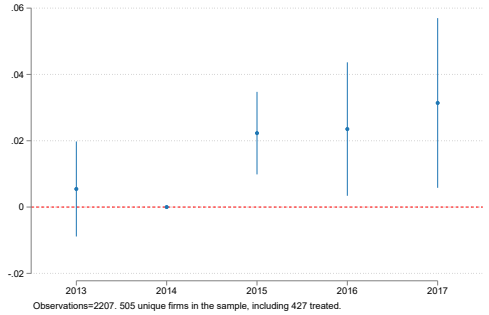
Figure A3: Event-studies: exclusion of firms around the threshold



(a) Wage bill



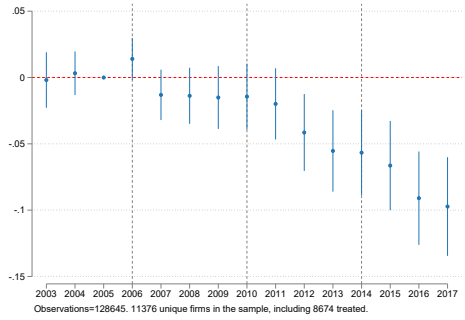
(b) Number of employees



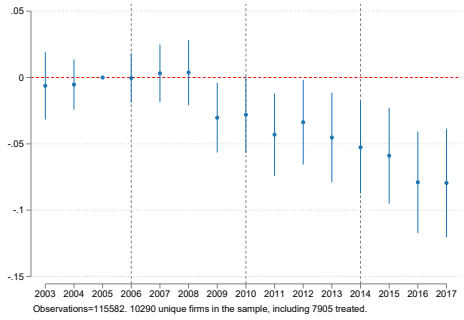
(c) Prices

Note:

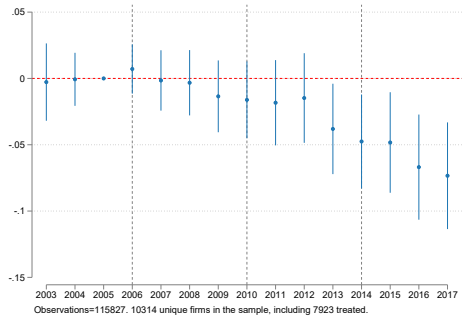
Figure A4: Event-studies: 2005 placebo



(a) Assets



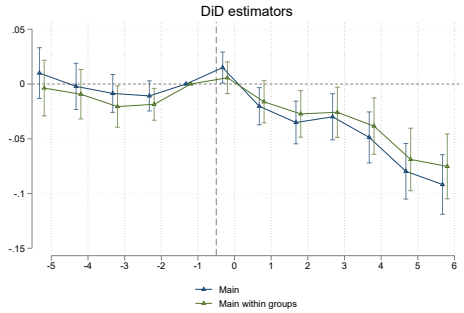
(b) Number of employees



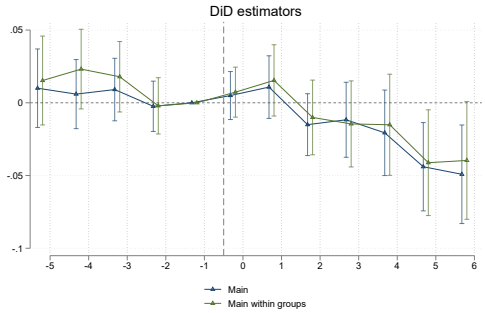
(c) Wage bill

Note:

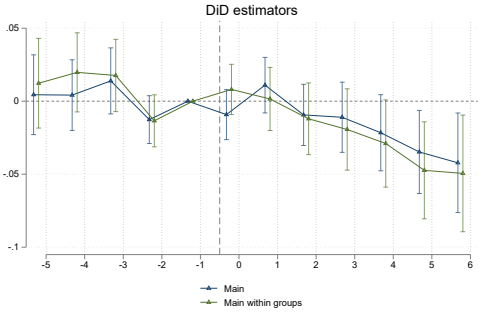
Figure A5: Event-studies: within group



(a) Assets



(b) Wage bill



(c) Number of employees

Note: