Effect of Tax Cut on Investment: Evidence from Indian Manufacturing firms

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Abstract

Does a reduction in the corporate income tax rate trigger investments in developing countries? This paper answers this question in a difference in differences framework. Using firm-level data on Indian manufacturing firms I study the effect of the 2019 and 2020 Indian tax reform that reduced the corporate income tax rate for domestic firms by 5 %. I find that the reduction in corporate income tax led to a significant increase in the investments of domestic firms. The magnitude of the effect is found to be stronger for larger domestic firms than the smaller ones. These results imply that corporate income tax cuts can increase investment in developing countries and large domestic firms benefit more than small firms from a tax cut.

Keywords: Investment, Corporate tax, Indian manufacturing firms.

JEL Codes: G31, H25, H71

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1 Introduction

Investment is considered one of the most important factors that determine the growth of a country. How do tax cuts affect the investment decisions of firms, economists figured out the theoretical answer to this question long ago (Jorgenson 1963). Intuitively because taxes drive a significant portion of profit away from firms therefore there should be a negative relationship between the two. The conjecture that there is a negative relationship between taxes and investment inspires Governments around the world to encourage investment through tax cuts. Although intuitively there is a negative relationship between tax cuts and investment, Empirical evidence on the effect of tax cuts on investment varies in terms of magnitude and robustness. This paper attempts to furnish new evidence on the relationship between tax cuts and investment by exploiting recent Indian tax reform.

Economists have majorly used two theories to study the effect of tax cuts on Investment, the Q theory of investment and the User cost of capital theory. Studies that used the user cost of capital theory to explain the relationship between tax and investment (see, for example, Hall and D. W. Jorgenson 1967; Chirinko, Fazzari, and Meyer 1999; Dwenger 2014) found a negative relationship between tax rate and investment. These studies agree on the direction of the impact but they differ widely in magnitude. Similarly, Studies that used the Q theory of investment(see, for example, Summers et al. 1981; Cummins, Hassett, and Hubbard 1996; Auerbach 2002) found a positive relationship between tax incentive and investment, but even among them the magnitude of impact varies widely. Previous studies conducted on the topic of tax and investment found that the income level of a country plays a crucial role in determining the tax responsiveness of firms(Mutti and Grubert 2004). Empirical studies done on the topic of tax and investment(Djankov et al. 2010). Similarly Dobbins and Jacob 2016, in their studies find that the reduction in corporate tax payments led to a one-to-one increase in the real investments of domestic German firms. Though economists have done a lot of work on this topic, most of the work deals with developed countries. There is a dearth of quantitative work to understand the interaction and interrelation between tax and investment in developing countries.

Economists have found evidence of heterogeneity of effective tax rates between foreign and local firms. Studies conducted in the United States (see, for example, Rego 2003; Dyreng and Lindsey 2009) found that due to cross-border profit shifting foreign firms have lower effective tax rates than local firms. Despite institutional differences between the United States and Europe, studies conducted in Europe found the same results (see, for example, Weichenrieder 2009;Dischinger, Knoll, and Riedel 2014). The literature has evidence that tax avoidance and profit-shifting activities vary considerably across firms. Studies have found that the sensitivity of reported profits to profit-shifting incentives is negatively related to the level of economic and institutional development(see, for example, Huizinga and Laeven 2008; Dischinger and Riedel 2011; Dharmapala and Riedel 2013).

There is a small and limited literature that has investigated the impact of tax cuts on firms' investment in developing countries. Using data on Vietnamese firms Pham 2020 showed that investment increased during the tax cut policy years but came back to its pre-policy level after the policy ended. Similarly, in the Thai context, Muthitacharoen 2021 showed that the Thai government's tax cuts have significantly increased corporate investment. In the case of India Sankarganesh and Shanmugam 2021 found that the effective corporate tax rate has a negative and significant impact on corporate investment. Unfortunately, I could not find any work that studies the impact of India's recent tax cuts on corporate investment. I attempt to bridge the gap through this paper.

I answered the fundamental question using recent Indian tax reform and a well-administered data set of Indian manufacturing firms. India provides a superb opportunity to study the causal relationship between tax cuts and investment due to the availability of data and clear policy design. The tax cuts that I study provide a substantial corporate income tax cut in 2019 and 2020. Before 2019 corporate income tax for domestic firms in India was 30%, which was brought down¹ to 25% in 2019 for domestic firms that had sales below 50Cr in 2016. These tax cuts differed slightly from the past tax cuts in other countries because it was not accompanied by an increase in the tax base. By lowering the corporate income tax rate by 5% the reform generated a strong incentive for domestic firms to increase their investment.

Focusing on the corporate income tax reform I estimated the effect of tax cuts on Indian manufacturing firms. The Indian tax reform is a rare situation where tax rates were brought down directly by 5%. Based on my identification strategy I used Difference in Differences regression to study the effect of tax cuts on firms' investment. I used data from the CMIE Prowess-IQ data set for the years 2015-2021. I control for firm-level characteristics that may independently affect firms' investment. Once these characteristics are controlled and the treatment and comparison groups have been defined the increase in investment can be ascribed to the tax cut.

My study makes several contributions to existing literature and policy debates. First, I add to the literature on the effectiveness of government policies that aim to accelerate economic growth through tax cuts. Generally, fiscal support program majorly uses grants, subsidies, and loans like accelerated depreciation, R & D tax credits Etc. A direct cut in the statutory corporate tax rate that aims to reduce the tax burden is rarely encountered. Second, my study is closely related to the existing literature in the sense that it contributes to the growing literature on the effectiveness of tax incentives in a developing country.

¹ These tax cuts applied only to eligible domestic firms. Tax rates for foreign firms remain unchanged.

2 Policy Background

Indian corporate tax has historically been one of the highest in the world. It is not only the tax rate that a company pays but surcharges and ceases along with tax. Owing to the whopping surcharges and cess the statutory tax rate² remained between 50% to 65% during the 1990s. Various tax committees that were appointed during the early 2000s (see, for example, Shome 2001) made consistent recommendations for the reduction of corporate income tax rates. As a result of these recommendations, the Government brought down the effective corporate income tax rate³ to 35.7% in 2002–2003. The effective CIT rate inclusive of ceases and surcharges were further reduced to 33.66% with a basic rate of 30 in 2005–2006. During the period from 2005 to 2018, the effective corporate income tax rate remained between 33% and 35%.

Recently in 2017 governments around the world slashed their corporate income tax rate. Especially the Organisation for Economic Co-operation and Development brought down its corporate tax rate from 32% in 2000 to 24% in 2018 on average. Similar to OECD countries, the Government of India had also made drastic changes in its corporate tax structure. In 2017, the Government of India announced a massive tax cut of 5% for existing domestic firms, that had a turnover of less than 50Cr in the Financial Year 2015-2016. The rate reduction was initially supposed to be applicable only in the assessment year 2018-19 but was subsequently renewed for the assessment year 2019-20. Along with the extension of the time limit the qualifying threshold was also raised from 50 Cr to 250Cr to extend the benefits of lower tax rates to more domestic firms. The corporate tax cut was a part of a series of steps taken by the government to tackle the slowdown in economic growth. Although the tax cut was not announced as a response measure to Covid-19, it seemed to have played an important role in ensuring corporate sector resilience during covid-19.

AY 2018-19	Corporation Tax Rate
Domestic with annual	25%
turnover up to Rs 50cr in FY 2015-16 $$	
Any other Domestic Company	30%
Foreign Companies	40%
AY 2019-20	Corporation Tax Rate
Domestic with annual	25%
Domestic with annual turnover up to Rs 250cr in FY 2016-17	25%
	25% 30%

Table 1 : Corporate tax rate in 2019 and 2020

 $^{^{2}}$ The statutory tax rate is the tax rate imposed by law on taxable income that falls within a given tax bracket.

³ The effective tax rate is the percentage of income actually paid by a company after taking into account all deductions.

3 Methodology and data

I use a standard difference-in-differences (DID) strategy to identify the effect of the tax cut on domestic firms. I estimate the following equation for each cohort⁴ $c \in \{2019, 2020\}$:

$$Inv_{i,t,c} = \beta_c^{DID} Domestic_c \times Reform_c + \lambda_c X_{i,t-1,c} + \varphi_{i,c} + \varepsilon_{i,t,c}$$
(1)

Where $Inv_{i,t,c}$ is our dependent variable. $Domestic_c$ is an indicator of being treated by the tax cut in year c. I consider a firm as being treated in year c if it's a domestic firm and its turnover was below the qualifying threshold. The independent variable of interest is β^{DID} the interaction between Domestic×Reform. The interaction term Domestic×Reform captures differences in the level of investment between domestic and foreign firms after the tax reform. The identification of a causal effect of corporate tax reform on investment is based on the assumption of parallel trend, that is the tax reform is the only event affecting the relative investment of domestic and foreign firms after the reform. That is in the absence of tax reform investment would have evolved in the same way across treatment and control groups. $Reform_c$ is an indicator for post-treatment years:

$$Reform_c = \begin{cases} 1 & if \quad t \ge c \\ 0 & \text{Otherwise} \end{cases}$$

My regression model controls for several firm-level variables that play an important role in a firm's investment decisions. In our regression equation, $X_{i,t-1,c}$ is a set of time-varying controls at the firm level. Since profitable firms tend to invest more because of the greater availability of funds (Faulkender and M. Petersen 2012), I include the ratio of profit to prior years' total assets as a control in my equation. Similarly, Since firm-level investment is strongly correlated with firm sales (Abel and Blanchard 1986), I control firms' annual sales. Finally, since firm size is an important determinant of investment opportunities (Carpenter and B. C. Petersen 2002), I include the log of total assets as a control for firm size in my regression equation. The regression equation contains firm-fixed effects $\varphi_{i,c}$ to capture time-invariant firm-level fixed effect.

I allocate all those domestic firms to the treatment group that had turnover less than the qualifying threshold, which was 50Cr in the financial year 2016 for cohort 2019 and 250Cr in the financial year 2017 for cohort 2020. My control group for cohorts 2019 and 2020 consists of foreign firms that had turnover less than the qualifying threshold, which was 50Cr in the financial year 2016 for cohort 2019 and 250Cr in the financial year 2017 for cohort 2020. There are two reasons for using foreign firms as the control group. First,

⁴ Cohort 2019 consists of all those firms that had turnover less than the qualifying threshold for the tax cut in the year 2019. Similarly, Cohort 2020 consists of all those firms that had turnover less than the qualifying threshold for the tax cut in the year 2020.

for foreign firms tax rate did not change in these years. For foreign firms, the tax rate is 40% excluding ceases and surcharges. Second, foreign firms are less sensitive to the host country's tax rate relative to domestic firms due to the existence of the scope of international tax avoidance through profit shifting to their foreign parents (Johannesen, Tørsløv, and Wier 2020). These two things make foreign firms a suitable option for my control group.

To eliminate the problem of group heterogeneity, I use a propensity score based nearest neighborhood matching procedure without replacement before estimating equation 1. Each foreign firm is matched with domestic firms according to the average natural logarithms of total assets of the pre-reform years. This matching algorithm ensures that reform does not affect assignment to the treatment and control group since matching is based on Pre-reform characteristics. Additionally, it also ensures that firms cannot enter the treatment or control group after the reform. These factors altogether ensure that group heterogeneity is being taken care of and that it does not affect my results. The matching algorithm ensures two groups of domestic and foreign firms that are comparable in asset size sales volume and profit.

I use firm-level panel data from the Centre for Monitoring Indian Economy (CMIE)-Prowess IQ database. I use data from 2015 to 2021. The Prowess IQ data set include information on firms' identity, ownership structure, financial Statement, stock prices, capital changes, and business segments. Firms are divided into different industries in the Prowss-IQ data set. CMIE-Prowess has detailed estimates of firms' financial statements, allowing us to measure different components and sub-components of income, expense, profit, assets, etc. The data also includes information on the ultimate ownership of the firms. I differentiate between domestic and foreign companies according to the ownership group and 21-digit Corporate Identification Number(CIN).

Table 2 represents the summary statistics of our sample. Our data set comprised 11,292 and 25,668 observations for cohorts 2019 and 2020 respectively. Cohort 2019 and 2020 consist of firms that had turnover less than the qualifying threshold, which was 50Cr in 2016 for cohort 2019 and 250Cr in 2017 for cohort 2020. I construct a balanced panel that requires each firm to have non-missing observations throughout the sample period from 2015 to 2021. I define the dummy variable Domestic as equal to one for companies owned by Indian business groups. The mean of Domestic equals 0.98 and 0.97 for cohorts 2019 and 2020 respectively in our full sample. I define the investment variable as the ratio of total expenditure on fixed assets to the previous year's total assets. I further add information on profit, total assets, and sales. Profits and sales are scaled by the previous year's total assets. Table 2A provides details on the quality of my matching procedure.

The simplest way to test my identifying assumption is to plot the investments of domestic and foreign firms over time. Figure 1 plots the average investment of domestic and foreign firms of the matched sample of cohort 2019. I notice a weak parallel trend in the investments of domestic and foreign firms prior to the reform. Prior to the reform, both domestic and foreign firms invest about 2% to 3% of their total asset in fixed assets each year. After the 2019 tax cut, the investments of these two groups diverge significantly. The effect of the tax cut is visible after one year of the reform. The increase in investment of domestic firms can be attributed to two factors. first, a lower tax rate lowers the required rates of return for investments which induces firms to invest more. second, a lower tax rate increases firms' cash availability. Figure 2 plots the average investment of domestic and foreign firms prior to the reform. Prior to the reform, both domestic and foreign firms of the matched sample of cohort 2020. I notice a parallel trend in the investments of domestic and foreign firms prior to the reform. Prior to the reform, both domestic and foreign firms prior to the reform. Prior to the reform, both domestic and foreign firms invest about 3% of their total asset in fixed assets each year. After the 2020 tax cut, investments of these two groups diverge significantly. The effect of the tax cut is visible immediately after the reform.

4 Results

I report the difference in differences (DID) estimation results based on equation 1 in Table 3, where the dependent variable investment is the ratio of expenditure on fixed assets to the previous year's total assets. Columns 2 and 4 of table 3 represent the DID estimates of equation 1 for cohorts 2019 and 2020 respectively. Similarly, columns 1 and 3 use the full sample of cohorts 2019 and 2020 respectively. The estimated coefficient of Domestic × Reform is positive and significant in all specifications. It shows that qualified domestic firms in both cohorts increase their investment significantly after the tax cut. Firms in cohort 2019 increased their investment by 3.1% whereas firms in cohort 2020 increased their investment by 6.7%. The increase of 3.1% in investments of domestic firms compared to foreign firms is equivalent to an average increase in investments in fixed assets by rupees 85 million (or USD 1.0 million approximately) for each domestic firm that qualified in 2019. Similarly, an increase of 6.7% in investments of domestic firms compared to foreign firms is equivalent to an average increase in investments in fixed assets by rupees 138 million (or USD 1.6 million approximately) for each domestic firm that qualified in 2019. Similarly, an increase in investments in fixed assets by rupees 138 million (or USD 1.6 million approximately) for each domestic firm that qualified in 2020. My results show that cohort 2020 which consists of large firms responded more strongly than cohort 2019 which consists of relatively small firms than cohort 2020.

To validate my results, I conducted a placebo test on both cohorts. Columns 1 and 4 of table 4 represent the DID estimates of the placebo results for cohorts 2019 and 2020 respectively. In the placebo tests, I replaced my treatment group with large-size domestic firms(total assets more than 1500Cr) that never qualified for the tax cut. I continue to use the foreign firm as the control group. The estimated coefficients for both cohorts are statistically insignificant. For cohort 2019 the coefficient is 0.038 whereas for cohort 2020 it is 0.024.

I performed several robustness tests in my study. In my first robustness test, I add two more important control taxes, which are measured as the ratio of the difference between profit before taxes and profit after taxes to the previous year's total expense and GDP growth in equation 1. The effective tax rate influence firms' investment decision through the user cost of capital. A higher effective tax rate raises the user cost of capital which lowers firms' investment. To account for countries' economic conditions I added GDP growth in the robustness analysis. Firms' investment is expected to be positively related to GDP growth. columns 3 and 6 of table 4 represent the results of the matched sample of cohorts 2019 and 2020 respectively. Similarly, columns 2 and 5 of table 4 represent the results of the full sample for cohorts 2019 and 2020 respectively. The estimated coefficient for Domestic× Reform is positive and significant in both specifications for both cohorts. In the matched sample the estimated coefficient is 0.033 and 0.097 for cohorts 2019 and 2020 respectively. Similarly in the full sample, the estimated coefficient is 0.12 and 0.06 for cohorts 2019 and 2020 respectively. This shows that my results are robust to the inclusion of gross domestic product (GDP) growth and tax burden.

An important concern may be that the effect of tax cuts on investment observed after the reform may be due to the relabeling of investment expenditure. To address this concern, in my second robustness test, I replace the investment variable as the ratio of expenditure on property plant, and equipment to the previous year's total assets. Columns 2 and 4 of Table 5 represent the estimates coefficient of the difference-indifferences estimator Domestic×Reform for cohorts 2019 and 2020 respectively. Similarly, columns 1 and 3 of table 5 represent the fixed effect estimation of the full sample for cohorts 2019 and 2020 respectively. The estimated coefficient of Domestic×Reform is positive and statistically significant in all specifications. In the matched sample, the coefficient is 0.031 and 0.022 for cohorts 2019 and 2020 respectively. Similarly, for the full sample, the coefficients are 0.035 and 0.015 for cohorts 2019 and 2020 respectively. This shows that using an alternative dependent variable does not change the results of my study.

5 Conclusion

In this paper, I analyzed the impact of tax cuts on investment. What I find in my study is broadly consistent with the literature that tax cuts indeed trigger investment at the firm level. My study shows that tax cuts increase firms' investment by between 7 and 3 percent depending on the size of the firms. I find that large firms respond much more strongly to the tax cut than small firms. Using unqualified firms as a fake treatment group and appropriate robustness tests my study shows that these effects are not driven by anything else than the tax cut. On the policy side, my result implies that developing economies like India, which has a large market can increase domestic investment through a tax cut.

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Appendix

Table 2: Descriptive Statistics

This table represents the summary statistics and variable descriptions of our variables. Investment is defined as the ratio of expenditure on fixed assets to previous years' total assets. Ln(TA) is the log of total assets. Profit is defined as the ratio of PBDIT relative to the prior year's total assets. Sales is turnover relative to the prior year's total assets. Domestic is a dummy variable equal to 1 if the ultimate ownership group is Indian. Source: Prowess IQ

	Full Sample			Matched Sample				
	Mean	STD	Median	Ν	Mean	STD	Median	Ν
Cohort 2019								
Investment	0.05	1.16	0.01	11,292	0.04	0.07	0.02	414
Ln(TA)	5.28	1.19	5.38	11,292	5.59	1.06	5.76	414
Profit	0.10	0.84	0.09	11,292	0.12	0.39	0.09	414
Sales	1.29	5.62	1.01	$11,\!292$	1.14	0.74	1.04	414
Domestic	0.98	0.14	1.00	$11,\!292$	0.81	0.39	1.00	414
Cohort 2020								
Investment	0.04	0.73	0.01	$25,\!668$	0.04	0.28	0.02	1,128
Ln(TA)	6.19	1.27	6.35	$25,\!668$	6.67	0.93	6.78	1,128
Profit	0.12	0.57	0.11	$25,\!668$	0.15	0.38	0.12	1,128
Sales	1.45	3.84	1.19	$25,\!668$	1.42	0.98	1.24	1,128
Domestic	0.97	0.16	1.00	$25,\!668$	0.79	0.41	1.00	$1,\!128$

Table 2A: Match Quality

This table presents the match quality of our Matched samples. I present Pre-reform averages of dependent and independent variables of matched samples separately for domestic firms and for foreign firms.

	Domestic			Foreign				
	Mean	STD	Median	Max	Mean	STD	Median	Max
Cohort 2019								
Investment	0.03	0.04	0.01	0.24	0.02	0.04	0.02	0.15
Ln(TA)	5.49	1.03	5.59	7.66	5.43	1.17	5.81	6.85
Profit	0.10	0.09	0.09	0.33	0.10	0.37	0.04	2.30
Sales	1.18	0.79	1.10	5.05	0.96	0.70	0.83	2.41
Cohort 2020								
Investment	0.03	0.03	0.02	0.28	0.03	0.04	0.02	0.14
Ln(TA)	6.58	0.84	6.68	8.70	6.63	1.13	6.87	8.21
Profit	0.15	0.42	0.12	9.59	0.12	0.20	0.11	2.30
Sales	1.49	1.02	1.29	8.47	1.16	0.63	1.08	2.90

Figure 1: Average Investment(Cohort 2019): Domestic versus Foreign Firms

This figure plots the average investments of domestic firms and foreign-owned firms of the matched sample of cohort 2019. Investment is defined as the ratio of expenditure in fixed assets to the prior year's total assets. The dashed vertical line separates the pre-reform years from the post-reform years.



Figure 2: Average Investment(Cohort 2020): Domestic versus Foreign Firms

This figure plots the average investments of domestic firms and foreign-owned firms of the matched sample of cohort 2020. Investment is defined as the ratio of expenditure in fixed assets to the prior year's total assets. The dashed vertical line separates the pre-reform years from the post-reform years



Table 3: Investment and the Tax Reform

This table represents the regression results of the estimated effect of tax cuts on firms' investment. The dependent variable is defined as the expenditure on fixed assets to the previous year's fixed assets. The independent variables are defined in Table 2. I report the regression results for the full sample and a matched sample. Firm fixed effects are included in all specifications. Standard errors are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% levels, respectively.

	Coh	ort 2019	Coh	ort 2020
	(1)	(2)	(3)	(4)
	Full Sample	Matched Sample	Full Sample	Matched Sample
Domestic×Reform	$\begin{array}{c} 0.112^{***} \\ (0.023) \end{array}$	$\begin{array}{c} 0.031^{***} \\ (0.007) \end{array}$	$\begin{array}{c} 0.054^{***} \\ (0.010) \end{array}$	0.067^{***} (0.023)
$Sales_{t-1}$	0.060^{***}	0.016^{*}	0.048^{***}	-0.070^{***}
	(0.008)	(0.009)	(0.005)	(0.020)
$\operatorname{Ln}(\operatorname{TA})_{t-1}$	-0.505^{***}	-0.018	-0.238^{***}	-0.073^{*}
	(0.036)	(0.014)	(0.017)	(0.042)
$\operatorname{Profit}_{t-1}$	-0.427^{***} (0.056)	-0.001 (0.009)	-0.340^{***} (0.031)	$0.008 \\ (0.025)$
Constant	$2.630^{***} \\ (0.186)$	$0.106 \\ (0.080)$	$1.470^{***} \\ (0.106)$	0.605^{**} (0.281)
Firm FE	Yes	Yes	Yes	Yes
N	11,292	414	25,668	1,128
R-squared	0.03	0.06	0.02	0.02

Table 4: Investment	and Tax I	Reform -	Robustness
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This table represents the regression results of the estimated effect of tax cuts on firms' investment. The dependent variable is defined as the ratio of total expenditure on fixed assets to the previous year's total assets. The independent variables are defined in Table 2. I additionally control for GDP growth and tax burden. I report the regression results for the full sample and a matched sample. Firm fixed effects are included in all specifications. Standard errors are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% levels, respectively.

		Cohort 2	2019	Cohort 2020			
	(1) Placebo	(2) Full Sample	(3) Matched Sample	(4) Placebo	(5) Full Sample	(6) Matched Sample	
Domestic×Reform	$0.038 \\ (0.030)$	$\begin{array}{c} 0.125^{***} \\ (0.033) \end{array}$	0.033^{***} (0.009)	$0.024 \\ (0.024)$	0.060^{***} (0.016)	$\begin{array}{c} 0.097^{***} \\ (0.029) \end{array}$	
$Sales_{t-1}$	$0.001 \\ (0.022)$	0.058^{***} (0.008)	0.015^{*} (0.009)	$0.013 \\ (0.014)$	0.048^{***} (0.005)	-0.086^{***} (0.022)	
$\operatorname{Ln}(\operatorname{TA})_{t-1}$	$0.028 \\ (0.047)$	-0.503^{***} (0.036)	-0.016 (0.015)	$0.048 \\ (0.033)$	-0.237^{***} (0.017)	-0.054 (0.043)	
$\operatorname{Profit}_{t-1}$	$0.100 \\ (0.107)$	-0.414^{***} (0.056)	-0.001 (0.009)	-0.033 (0.063)	-0.340^{***} (0.031)	$0.006 \\ (0.025)$	
Tax_{t-1}		-0.103^{**} (0.044)	-0.000 (0.005)		-0.002 (0.003)	$0.003 \\ (0.002)$	
GDP_{t-1}		$0.664 \\ (1.147)$	$0.135 \\ (0.293)$		$0.259 \\ (0.517)$	1.404^{*} (0.845)	
Constant	$-0.305 \\ (0.503)$	$2.574^{***} \\ (0.212)$	$0.088 \\ (0.089)$	-0.493 (0.343)	$\frac{1.450^{***}}{(0.117)}$	$0.401 \\ (0.307)$	
Firm FE N R-squared	Yes 528 0.01	Yes 11,262 0.03	Yes 414 0.06	Yes 744 0.01	Yes 25,638 0.02	Yes 1,128 0.03	

Table 5: Investment and Tax Reform - Alternative Dependent Variable

This table replicates Table 3 but uses a different dependent variable, the ratio of expenditure on property, plant, and equipment to the previous year's total assets. The independent variables are defined in Table 2. I report the regression results for the full samples and matched samples. Firm fixed effects are included in all specifications. Standard errors are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% levels, respectively.

	Coh	ort 2019	Coh	ort 2020
	(1)	(2)	(3)	(4)
	Full Sample	Matched Sample	Full Sample	Matched Sample
Domestic×Reform	$\begin{array}{c} 0.035^{***} \\ (0.007) \end{array}$	0.031^{***} (0.007)	$\begin{array}{c} 0.015^{***} \\ (0.003) \end{array}$	0.022^{***} (0.004)
$Sales_{t-1}$	0.009^{***}	0.016^{*}	0.009^{***}	-0.007^{*}
	(0.002)	(0.009)	(0.001)	(0.004)
$\operatorname{Ln}(\operatorname{TA})_{t-1}$	-0.190^{***}	-0.017	-0.099^{***}	-0.011
	(0.011)	(0.014)	(0.005)	(0.008)
$\operatorname{Profit}_{t-1}$	-0.060^{***} (0.016)	-0.001 (0.009)	-0.055^{***} (0.009)	$0.001 \\ (0.005)$
Constant	$\frac{1.014^{***}}{(0.055)}$	$0.103 \\ (0.079)$	$\begin{array}{c} 0.641^{***} \\ (0.032) \end{array}$	0.111^{**} (0.054)
Firm FE	Yes	Yes	Yes	Yes
N	11,292	414	25,668	1,128
R-squared	0.04	0.06	0.02	0.03

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