Firm Performance and Industrial Policy

Yogeshwar Bharat* Anuradha Saha†

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ABSTRACT

This paper examines the effects of India's National Policy on Electronics (NPE) on firm performance within a developing economy. The policy aimed to boost domestic electronics production, making firms globally competitive. However, implementation was slow with weak incentives. The main policy tools were project announcements, grants, and cost approvals. Our findings show that during the NPE era, electronics firms outperformed other manufacturing firms: real sales rose by 10.9%, raw material expenses by 11.9%, real value addition by 7.4%, and domestic sales by 15.2%, with the domestic share increasing by 0.84%. However, the policy had no significant impact on export shares or profit margins. Most of these effects were driven primarily by small electronics firms. Project grants did not enhance value addition and were less effective, as they went to firms with limited marginal gains from extra funding.

Keywords: Firm Behaviour, Government Policies
JEL Codes: D22, D24, E22, O25

*CAFRAL, Reserve Bank of India. Email: yogeshwar.bharat@cafral.org.in.
†Department of Economics, Ashoka University. E-mail: anuradha.saha@ashoka.edu.in.
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1 Introduction

The efficacy of industrial policies remains one of the most contested issues in economic policy. While some economists argue that such policies fail to effectively address market failures (see Pack and Saggi (2006) and Harrison and Rodríguez-Clare (2010)), recent studies have highlighted innovative approaches to implementing industrial policies (see Juhász and Steinwender (2023) and Juhász et al. (2023)). Regardless of these differing views, governments in both developed and developing nations have increasingly adopted industrial policies to tackle a range of contemporary challenges, including climate change, supply chain resilience, and global competition, particularly with China. This paper examines a specific industrial policy in a developing economy, analyzing its impact on firm performance.

On 19th November 2012, the National Policy on Electronics (NPE) was announced by the Government of India. By 2020, it was expected that domestic demand for electronics would be USD 400 billion while domestic production would be USD 100 billion. The Indian government saw a need to meet growing demand and to lower dependence on electronics imports. They considered the value addition of domestically produced electronics, of about 5-10%, to be low. The NPE was aimed to facilitate domestic production of electronics such that domestic firms become globally competitive and move up the global value chain. While the aim was to create over 200 Electronics Manufacturing Clusters (EMCs) by 2018, it was far short of its target even by 2019.[1]

As is the case with most developing economies, it takes time to implement policies. The earliest approval for projects came in Aug 2014. Further, the incentives were slow

[1]By 2019, only 19 Greenfield EMCs and 3 Common Facility Centres (CFCs) measuring an area of 3,464 acres with total project cost of INR 3,743 crore including Government Grant-in-Aid of INR 1,527 crore were approved. Other announcements were those of stable taxes and non-economic incentives such as the promotion of electronic exports from India, human resource development, and developing and mandating standards for electronics.

to percolate to firms. At the macro level, the policy tools appear to be project launch announcements, and grants and project cost approvals. In this paper, we analyse how did electronics industry and those firms respond to such minimal incentives.

In theory, NPE promotes the electronics sector in India by facilitating more production of electronic products. Ex-ante, we hypothesize an increase in the number of firms or plants within the electronics industry, an increase in the intensive margin of production for more productive or large electronics manufacturers, and overall higher sales, input expenditure and employment in the electronics sector. The effects on value-added, R&D, productivity or profit margin are ambiguous as they depend on specific policy tools – whether they encourage the adoption of best practices or protect inefficient firms. The effect on domestic sales share is also ambiguous.[2]

We use the Prowess dataset to analyze the effects of NPE 2012 in the period 2011 to 2020. The Prowess database consists of the financial performance of all listed companies and a larger set of unlisted companies in India. We treat years after 2014 as the period of implementation of NPE framework. We find that electronic firms are significantly better than other manufacturing firms in the NPE era. For electronics firms, the real sales increased by 10.9 percentage points compared to other manufacturing firms post-NPE. Raw material expenses increased by 11.9 percentage points, real value addition increased by 7.4 percentage points, domestic sales for electronics firms increased by 15.2 percentage points, and domestic share of sales increased by 0.84 percentage points for electronic firms compared to other manufacturing firms. There are no significant effects of the policy on export shares or profit margins for electronic firms.

Most of these effects are driven by small firms and not large-treated firms. With higher grants or project costs, overall sales, domestic sales and share of domestic sales in treated firms decreased. There was no significance for value addition to electronic firms, whereas

[2]The aforementioned effects should be higher in regions where EMCs set up and in periods when more grants were allocated.

the expense on raw materials dropped. The results makes sense that such project grants didn't have any effect on the value addition hence it only led to an increase in sales and followed by an increase in raw material expenses. Also, the relation with project grant was negative implying that more grants to these firms were not helping and it was going to those firms where the marginal effect of extra project grant is not significant.

We discuss the empirical strategy in Section 2 and results in Section 3. We discuss the next steps in Section 4. The dataset is described in Appendix A.

2 Empirical Strategy

Using the indicator for firms that belong to electronics industries, we set up a two-way fixed effects model incorporating fixed effects to take into account factors that are either time invariant firm characteristics or time varying factors affecting the total electronics industry.[3] For our purposes, the empirical specification for a baseline difference in differences regression is as follows:

$$y_{fidt} = \beta Post_t \times \mathbb{1}\{Electronics_f\} + \alpha_f + \delta_t + \varphi_{dt} + \epsilon_{fidt} \tag{1}$$

where y_{fidt} measures the various components of a firm f real variable, sales share, etc. located in district d and industry i in year t. $\mathbb{1}\{Electronics_f\}$ is an indicator variable that takes the value 1 for firms that belong to the Electronics industry, $Post_t$ is an indicator variable that takes value 1 if year $\geq$ 2015 and 0 otherwise. We control for firm and time fixed effects to take care of various time varying and in-varying unobservables, as well as take into account interaction of district-year fixed effects, φ_{dt}, to capture time-varying factors at the district in which the firm is located. Equation 1 is a baseline difference in difference specification with high dimensional fixed effect. It will show the average

[3]For more details on two-way fixed effects models with treatment effects, see (Verdier, 2020) and (Schmidheiny and Siegloch, 2023) among others.

treatment effect of the NPE on electronics firms across various indicators of our interest. We are interested in firm level outcomes such as real sales, value addition, profit margin, among other.

We also investigate whether the NPE had heterogeneous effects across firms. One such heterogeneity that we test is whether this policy had differential effects across firm sizes. To test this hypothesis, we run the following regression equation:

$$y_{fidt} = \beta Post_t \times \mathbb{1}\{Electronics_f\} + \gamma Post_t \times \mathbb{1}\{Electronics_f\} \times \mathbb{1}\{Top\ Quintile_f\} + \alpha_f + \delta_t + \varphi_{dt} + \epsilon_{fidt} \quad (2)$$

where y_{fidt}, $\mathbb{1}\{Electronics_f\}$, and $Post_t$ are defined as earlier. Whereas $\mathbb{1}\{Top\ Quintile_f\}$ takes the value 1 if the firm is in the top quintile as per total sales in the year of 2013. As before, we control for firm and time fixed effects as well as take into account interaction of district-year fixed effects. The estimate of triple interaction (γ)shows the differential effect within electronics industry for top quintile firms.

Another heterogeneity that we test is through the amount of project grant pledged by government to firms in different states and project amount spent under NPE. For this, we run the following regression equation:

$$y_{fidt} = \beta Post_t \times \mathbb{1}\{Electronics_f\} + \gamma Post_t \times \mathbb{1}\{Electronics_f\} \times Project\ Grant_{ft} + \alpha_f + \delta_t + \varphi_{dt} + \epsilon_{fidt} \quad (3)$$

where the new variable $Project\ Grant_{ft}$ refers to the governmental grant awarded to electronic firms located in states that were selected for investment under NPE. We use

two variables related to project grant for our purpose. First variable is the ratio of governmental grant to total project cost, and the second variable is the total project amount. We control for firm and time fixed effects and district-year fixed effects. The estimate of triple interaction (γ) shows the differential effect within electronics industry for a percentage change in project fund or share of grant.

3 Results

In this section, we look at the regression results for various specifications that are mentioned in Section 2.

3.1 Benchmark Difference in Differences result

The baseline regression specification for difference in difference is specified in Equation 1 which looks at the effect of new electronics policy on firm level outcomes. Table 3 and 4 shows the baseline regression for some of the variables of interest. Table 3 shows that the sales as well of value addition for electronic firms has increased post implementation of NPE (based on positive and significant β coefficient). For treatment firms, the real sales increases by 10.9 percentage points compared to control group post NPE whereas real value addition increases by 7.4 percentage points. We also find that expense on raw material has increased for treatment firms, by 11.9 percentage points.

Similarly, Table 4 captures the effect of NPE on treatment firms for domestic sales, their share and profit margin. We find that domestic sales for electronics firms has increased significantly post the policy, column 2 shows that domestic sales for treatment firms increased by 15.2 percentage points. The domestic share of sales for treatment firms has increased by 0.84 percentage points, but we do not find any significant effect for export share of sales. There are no significant effects of the policy on profit margins for electronic firms.

The New Electronics Policy increases sales and value added output of electronic firms. The policy has facilitated higher domestic production, but not higher exports share.

3.2 Benchmark results with heterogeneity

3.2.1 Heterogeneity as per size of firms

We supplement our benchmark results by adding different heterogeneity to study how the policy affected different types of treated firms. We tabluate the results for estimating equations 2 in Tables 5 and 6. Table 5 shows the differential impact of large treated firms after the policy where the double interaction shows the effect on the smaller treated firms. The result shows that for smaller treated firms, the real sales has increased whereas for large firms within treated firms shows a decline in sales. We find that for treated small firms, the sales increases by 16 percentage points whereas for larger firms within treated group the sales decline by 14.6 percentage points. The differential impact on large firms is not significant for value added and raw material expense variables, implying the positive effect is driven by small firms and not by larger firms. This is strongly supported by column 2. We cannot reject the null of $\beta + \gamma = 0$ for total sales, pointing to comparable sales for large firms across treated and control industries, similar is the case for other variables too.

Similarly, Table 6 captures the effect on domestic sales, their share and profit margin. With respect to profit margin or export share of sales, we do not find any significance for the double and triple interaction. This is consistent to what we got in Table 4. We find some interesting results with respect to domestic sales and domestic share of sales. Similar to real sales, domestic sales were also driven by small firms and large treated firms didn't have any significant effect on domestic sales. But we find an interesting result that despite the domestic sales for larger firm is not significant but their share is increasing and this can be attributed to the fact that total sales of large firms are going down and

hence the share of domestic sales is increasing post policy reform. Looking the results with respect to firm sizes, we can say the policy appears to be more targeted towards smaller firms and a small support to such firms in form for project funding and grant can have a large marginal effect compared to larger firms where the marginal effects are minuscule. Our results do support this hypothesis that the new policy has a significant impact over small firms in the treated groups vis à vis larger firms in the same group.

3.2.2 Heterogeneity as per projects grants and funds

In this section we capture a spatial heterogeneity by looking at those states which provide project funds to firm under the new electronics policy. For our purpose, we use the project funding provided by these state as a measure of heterogeneity. Tables 7–10 captures the effect of those heterogeneity for different firm indicators. Table 7 and 8 depicts the heterogeneity as per the fraction of grant. We find that treatment firms belonging to states with no project grants had higher sales compared to states with projects grants allocated. The differential effect from the triple interaction shows real sales decreased for those treated firms where project grants were given. With an additional share of grant, the sales in those treated firms were going down by 0.13 percentage points. There was no significance for value addition to those firms, whereas the expense on raw material dropped for those those firms where project grants were given by 0.23 percentage points. The results makes sense that such project grants didn't have any effect on the value addition hence it only led to an increase in sales and followed by an increase in raw material expenses. Also, the relation with project grant was negative implying that more grants to these firms were not helping and it was going to those firms where the marginal effect of extra project grant is not significant (something similar to what we got in last subsection). The result is similar when we look at domestic sales in Table 8, whereas estimates for profit margin and export share of sale is not significant. We find that with respect

to total domestic sales as well as share of domestic sales, treated firms that are in states with no project grants have positive and significant effect. We find that for these firms, domestic sales has increased by 0.14 percentage points whereas share of domestic sales has increased by 1.2 percentage points. But the differential effect on firms in state with government grants are negative and significant showing that domestic sales as well as share declining for these treated firms, this is in line with that we got for total sales.

On the other hand, Table 9 and 10 captures the heterogeneity as per the project cost that was given by the respective state government. The results are similar to those of grant fraction. Project grants didn't have any effect on the value addition; hence it only led to an increase in sales and followed by an increase in raw material expenses. Also, the relation with project costs was negative implying that more project costs to these firms were not helping and it was going to those firms where the marginal effect of extra project grant is not significant (something similar to what we got in the last subsection).

4 Way Forward

So far we have established that the New Electronics Policy has improved the scale of operations and value-added of electronics firms. However, most of these gains are concentrated in smaller firms. More projects and grants do not benefit electronic firms. We need to understand the mechanisms for these effects. We also need to explore the intensive margin effects – how are firms changing their product profile?

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A Tables and Figures

Table 1
Descriptive Statistics

This table presents summary statistics for key variables at both firm levels from 2011 to 2020. Columns 1 and 2 show the mean and standard deviation for all firms. Columns 3-8 compare firms in electronics industry and other industries, as used for treatment and control group for national policy on electronics (NPE). For other industry firms, columns 3 and 4 show mean values before and after the NPE was implemented, while column 5 presents their difference with t-test significance. Similarly, columns 6 and 7 show means for firms in the electronics industry pre- and post-NPE implementation, with column 8 reporting their difference and t-test significance. Column 9 provides the difference-in-differences between firms in electronics and other industries, including significance levels. Definitions for all key variables are provided in Table 2.

Variables	All		Other Industries			Electronics Industry			
	Mean (1)	SD (2)	Pre (3)	Post (4)	Diff. (5)	Pre (6)	Post (7)	Diff. (8)	Diff-in-diff (8-5) (9)
Real Sales (INR billions)	3.63	41.7	4.06	3.58	-0.48**	4.51	4.80	0.29	-0.77**
Real Value Added (INR billions)	2.76	32.9	3.18	2.82	-0.37**	1.99	2.45	0.44*	0.81**
Real Raw Material (INR billions)	2.28	26.1	2.99	2.41	-0.57***	1.79	2.11	0.32	0.89***
Real Domestic Sales (INR billions)	3.22	37.5	3.38	3.26	-0.12	3.88	4.39	0.51	0.63*
Real Export Sales (INR billions)	0.42	10.5	0.65	0.34	-0.31***	0.56	0.42	-0.14***	0.17**
Domestic Sales Share (in %)	93.3	22.6	90.3	91.9	1.6***	86.4	88.5	2.1***	0.5
Export Sales Share (in %)	6.68	20.11	6.35	6.03	-0.32***	11.1	10.3	-0.8***	-0.48
Profit Margin (in %)	9.2	14.3	22.5	21.6	-1.1	8.6	8.8	0.2	1.3
Observations	210,150		191,584			18,566			210,150

Table 2
Important Variables

Variable	Definition
Real Sales	Real sales is defined as the total income from sales of goods and services by the firm deflated by 2011 GDP deflator.
Real Raw Material	It is defined as the total expense on raw materials incurred by firms for production purpose and deflated by 2011 GDP deflator.
Real Value Added	It is defined as sales net of total expense in raw material and deflated by 2011 GDP deflator.
Real Domestic Sales	It is defined as the total sales of goods and services by a firm within the domestic market in a given year and deflated by 2011 GDP deflator.
Real Export Sales	It is defined as the total sales of goods and services by a firm to the foreign market in a given year and deflated by 2011 GDP deflator.
Domestic Sales Share	Domestic sales share is defined as the share of domestic sales done by a firm in a given year as a share to total sales done by the firm; it is represented in %.
Export Sales Share	It is the share of foreign sales done by a firm in a given year as a share to total sales done by the firm; it is represented in %.
Profit Margin	Profit Margin is defined as the share of total sales to total expense of a firm in a given year and by construction it varies from 0 to 100, it is represented in %.
Post	Indicator variable taking the value of 1 if the time period is above 2014, the financial year when new electronics policy grants and project amounts were disclosed, and 0 otherwise.
Electronics	Indicator variable taking the value of 1 if firms belong to the electronics industries that are affected by the new electronics policy and are considered as treated group for our analysis, and 0 otherwise.

Table 3
Standard DiD Regressions for indicators of Real Variables (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries. The dependent variables are different types of firm indicators that capture firms' decision change with respect to the policy. All dependent variables are regressed against Electronics $\times$ Post that is set up in Equation 1 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Sales)		Ln(Real VA)		Ln(Real Raw Mat)	
	(1)	(2)	(3)	(4)	(5)	(6)
Electronics $\times$ Post	0.141***	0.109***	0.099***	0.074***	0.146***	0.119***
	(0.029)	(0.029)	(0.028)	(0.028)	(0.032)	(0.033)
Adjusted R^2	0.877	0.877	0.896	0.897	0.873	0.873
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Distrcit*Year Fixed Effects	No	Yes	No	Yes	No	Yes
N	207790	207008	103119	102287	105819	104970
R-Squared	0.895	0.897	0.912	0.915	0.892	0.895

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4
Standard DiD Regressions for Domestic and Exporting Sales (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries. The dependent variables are different firm indicators showing sales share and profit margin. All dependent variables are regressed against Electronics $\times$ Post that is set up in Equation 1 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Dom Sales)		Dom Sales Share		Export Share		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electronics $\times$ Post	0.191***	0.152***	0.795*	0.838**	78.191	94.434	0.060	0.046
	(0.033)	(0.034)	(0.408)	(0.416)	(92.168)	(111.110)	(0.102)	(0.125)
Adjusted R^2	0.857	0.857	0.712	0.711	-0.023	-0.037	0.202	0.194
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Distrci*Year Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
N	206212	205430	207294	206515	271033	270336	207587	206808
R-Squared	0.878	0.880	0.755	0.758	0.115	0.116	0.319	0.324

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5
DiD Regressions by Top Quintile Firms by sales versus others (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing firms' decision post policy implementation. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Top Quintile Firms and that is set up in Equation 2 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Top Quintile Firms takes value for firms that are in top quintile with respect to sales in the year 2013. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Sales)		Ln(Real VA)		Ln(Real Raw Mat)	
	(1)	(2)	(3)	(4)	(5)	(6)
Electronics $\times$ Post	0.186***	0.160***	0.112***	0.088**	0.175***	0.156***
	(0.042)	(0.043)	(0.039)	(0.039)	(0.047)	(0.048)
Electronics $\times$ Post $\times$ Top Quintile Firms	-0.130**	-0.146**	-0.024	-0.015	-0.079	-0.084
	(0.058)	(0.059)	(0.058)	(0.060)	(0.064)	(0.067)
Adjusted R^2	0.873	0.873	0.893	0.893	0.872	0.872
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Distrci*Year Fixed Effects	No	Yes	No	Yes	No	Yes
N	124159	123473	66286	65521	67323	66550
R-Squared	0.888	0.890	0.907	0.911	0.888	0.892

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6
DiD Regressions by Top Quintile Firms by sales versus others (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing sales share and profit margin. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Top Quintile Firms and that is set up in Equation 2 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Top Quintile Firms takes value for firms that are in top quintile with respect to sales in the year 2013. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Dom Sales)		Dom Sales Share		Export Share		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electronics $\times$ Post	0.189***	0.163***	-0.165	-0.144	164.639	201.358	0.133	0.150
	(0.047)	(0.047)	(0.559)	(0.570)	(151.618)	(194.128)	(0.104)	(0.123)
Electronics $\times$ Post $\times$ Top Quitile Firms	-0.040	-0.059	4.123***	4.128***	14.835	96.611	-0.031**	-0.094
	(0.070)	(0.071)	(1.008)	(1.029)	(19.654)	(106.666)	(0.012)	(0.058)
Adjusted R^2	0.858	0.858	0.693	0.692	-0.011	-0.034	0.116	0.096
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Distrci*Year Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
N	122934	122250	123877	123192	131749	131060	124083	123397
R-Squared	0.875	0.878	0.730	0.735	0.103	0.103	0.221	0.223

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7
DiD Regressions on Real Variables with Grant Fraction (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing firms' decision post policy implementation. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Fraction of Grants and that is set up in Equation 3 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Fraction of Grant is the share of grant given to firms in those states that have investments pledged under new electronics policy. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Sales)		Ln(Real VA)		Ln(Real Raw Mat)	
	(1)	(2)	(3)	(4)	(5)	(6)
Electronics $\times$ Post	0.189***	0.147***	0.111***	0.083**	0.218***	0.189***
	(0.036)	(0.037)	(0.034)	(0.035)	(0.039)	(0.041)
Electronics $\times$ Post $\times$ Fraction of Grant	-0.158***	-0.125**	-0.040	-0.028	-0.240***	-0.230***
	(0.047)	(0.049)	(0.048)	(0.050)	(0.056)	(0.058)
Adjusted R^2	0.877	0.877	0.896	0.897	0.873	0.873
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
District*Year Fixed Effects	No	Yes	No	Yes	No	Yes
N	207790	207008	103119	102287	105819	104970
R-Squared	0.895	0.897	0.912	0.915	0.892	0.895

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8
DiD Regressions by Domestic and Export sales for Grant Fraction (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing sales share and profit margin. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Fraction of Grants and that is set up in Equation 3 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Fraction of Grant is the share of grant given to firms in those states that have investments pledged under new electronics policy. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Dom Sales)		Dom Sales Share		Export Share		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electronics $\times$ Post 2015	0.259***	0.141***	1.764***	1.230***	95.199	42.291	0.080	0.139
	(0.041)	(0.026)	(0.552)	(0.398)	(94.508)	(27.988)	(0.095)	(0.111)
Electronics $\times$ Post $\times$ Fraction of Grant	-0.225***	-0.098**	-3.199***	-1.503**	-56.496	7.711	-0.066	-0.063
	(0.056)	(0.039)	(0.861)	(0.638)	(52.947)	(20.623)	(0.086)	(0.124)
Adjusted R^2	0.857	0.913	0.712	0.771	-0.023	0.265	0.202	0.050
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District*Year Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
N	206212	178603	207294	179917	271033	243616	207587	180473
R-Squared	0.878	0.928	0.755	0.811	0.115	0.382	0.319	0.216

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9
DiD Regressions by Real Variables Project Cost (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing firms' decision post policy implementation. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Log(Real Project Cost) and that is set up in Equation 3 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Log(Real Project Cost) is the log value of the total estimated project cost various project under new electronics policy under these states. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Sales)		Ln(Real VA)		Ln(Real Raw Mat)	
	(1)	(2)	(3)	(4)	(5)	(6)
Electronics $\times$ Post	0.160***	0.123***	0.095***	0.070**	0.180***	0.155***
	(0.033)	(0.034)	(0.031)	(0.032)	(0.036)	(0.037)
Electronics$\times$ Post $\times$ Real Project Cost	-0.005*	-0.003	0.001	0.001	-0.008**	-0.009**
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Adjusted R^2	0.877	0.877	0.896	0.897	0.873	0.873
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Distrci*Year Fixed Effects	No	Yes	No	Yes	No	Yes
N	207790	207008	103119	102287	105819	104970
R-Squared	0.895	0.897	0.912	0.915	0.892	0.895

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10
DiD Regressions by Share Variables Project Cost (Post $>$ 2014)

This table provides estimates of identification regressions to assess the relevance of the New Electronics policy on firms from Electronics industries vis à vis other industries for top versus other quintile firms. The dependent variables are different firm indicators showing sales share and profit margin. All dependent variables are regressed against Electronics $\times$ Post and Electronics $\times$ Post $\times$ Log(Real Project Cost) and that is set up in Equation 3 and Electronics takes the value 1 if firm belongs to electronics industries as per NIC code and Post takes the value 1 if year is 2015 onwards. Whereas Log(Real Project Cost) is the log value of the total estimated project cost various project under new electronics policy under these states. Odd columns refer to the results without district-year fixed effects, while the even columns constitute all the fixed effects. The analysis is at the firm level, is annual in an unbalanced panel. Standard errors are clustered at the firm level.

	Ln(Real Dom Sales)		Dom Sales Share		Export Share		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electronics $\times$ Post	0.227***	0.181***	1.390***	1.395***	88.991	106.662	0.067	0.060
	(0.038)	(0.038)	(0.486)	(0.494)	(93.477)	(112.571)	(0.102)	(0.125)
Electronics $\times$ Post $\times$ Log Real Project Cost	-0.009***	-0.007**	-0.145***	-0.135***	-2.632	-2.979	-0.002	-0.004
	(0.003)	(0.003)	(0.048)	(0.049)	(1.896)	(2.212)	(0.005)	(0.007)
Adjusted R^2	0.857	0.857	0.712	0.711	-0.023	-0.037	0.202	0.194
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District*Year Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
N	206212	205430	207294	206515	271033	270336	207587	206808
R-Squared	0.878	0.880	0.755	0.758	0.115	0.116	0.319	0.324

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$