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Does national-level trade policies impact State-level exports? A case of Focus Product Scheme 2010-2014 in India

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Abstract

The paper looks at the impact of Central Government trade policies on State-level Exports. State-level data at HS 6-digit level is exploited to look at the impact of Focus Product Scheme (FPS) on the exports of an Indian state called West Bengal. Extending the Goldstein and Khan (1978) framework to include FPS, an export supply function is estimated for the state. Results show that there is a significant positive impact of FPS on state exports. Further the impact of time-specific effects is positive.
JEL Classification F11, F13, F14

Key Words;- International Trade, Export Supply Function, Trade Policy

Section 1: Introduction

Regions within countries which are large can have vastly different endowments resulting in different sets of advantages. International trade from regions is thus impacted by such pattern of advantages. The economic wellbeing of such regions, among other things, also depend on exportability of the products that can be efficiently produced within their boundaries. Given this potential, however, whether the states can engage in international trade may also depend on the policies formulated at the Country-level. Especially in countries like India trade policy is formulated by the Central Government. Further, the negotiations at the multilateral and plurilateral level are also done by the negotiators under the guidance of the Central Government. For a large country like India given differing endowments across states such an approach may lead to ignoring regional sensitivities. This can have far-reaching consequences for states whose potential export products failed to get greater market access in the target markets and /or were ignored while incentives were announced for other products. Trade policies can have asymmetric impact on states when it is a Central subject. At the State-level mostly the policies which can boost trade are part of industrial and agricultural sector policies, policies related to infrastructure within the states and services sector initiatives. Most of leading states in India have proactively formulated policies in this regard (for details see Sinha Roy, Das and Das 2016). An interesting question, however, is, are Central Government Trade Policies helping or inhibiting the state-level exports? In this paper we are going to address this issue.

This issue assumes a lot of importance in an emerging country like India where the new Government at the Centre have categorically stated that the states must formulate their own Trade Policies. Depending on such strategy documents the states would be eligible for funds to enhance Exports. This broad change in Policy direction has forced the state governments to re-think their trade strategies and gave them a formal channel through which they can now push their potential products for concessions at the Central level. One of the first questions thus they must answer is whether the Central-level trade policies have impacted their exports? This would help the states to determine the policy package comprising of such border measures and within the border incentives. In this paper we attempt to estimate the impact of Central Trade Policy measures, specifically we will look at the impact of "Focus Product Scheme (FPS)". This Scheme was introduced in the year 2006 to diversify the export of employment-intensive products. The benefit was a concession on imported inputs proportional to the exports of the last period. The list of products according to the 6-digit HS Code was published by Directorate General of Foreign Trade (DGFT). The list was amended from time to time with additional products and/benefits.

Section 2: Past Studies

A review of earliest studies in this area can be found in Coughlin and Cartwright (1987). Studies mostly focusing on U.S. tried to find out how state-export promotion activities were impacting their exports. The results show a positive impact of export promotional expenditure on state exports (Coughlin and Cartwright (1987)). Erickson and Hayward (1992) look at

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relative export performance of states in U.S. with respect to the factor endowments theory. They found that though factor endowments are significant determinants of relative export performance of states other factors like global product demand, scale economies and industrial inertia are also major influencers. Gazel and Schwer (1998) used a modified shift share model to gauge the importance of demand and supply factors in explaining variation in exports among U.S. states. They concluded that demand side factors are more important than supply side factors in explaining variation in exports among the states. Leichenko (2000) looks at causality between manufacturing exports and manufacturing employment, productivity, and output for U.S. states. The author found a bi- directional causality between exports and these variables supporting the conjectures of the New Trade Theory.

Sinha Roy, Das and Das (2016) look at determinants of state-level exports in India. They found that physical infrastructure stock and Gross State Domestic Product (GSDP) are significant determinants of state-level exports.

None of the studies reviewed above and others to the best of our knowledge have considered product-level data to look at state-level exports. We exploit the state-level exports data published by the Director General of Commercial Intelligence and Statistics (DGCI&S). The data is published at HS 8-digit level. In a departure from earlier studies, we concentrate on one state and look at the variation in its exports and its relationship to FPS formulated by the Central government. The rest of the paper is organized as follows: the next section would discuss the methodology adopted for the study. Section 4 discusses the data and descriptive. Section 5 presents the results and discussions. Finally, Section 6 concludes the paper.

Section 3: Methodology

In this paper we follow Goldstein and Khan (1978) and estimate an export supply function for the state of West Bengal, India. The supply of exports is expressed as a function of the relative price of exports and an index of production capacity of the state. Additionally, we use a dummy for the FPS. The products which are mentioned in the list are coded as 1 or 0 otherwise to capture the impact of central trade policy on state-level exports. The estimable equations are mentioned as follows:

$$logX\_it^S=\beta\_0+\beta\_1 log⁡(〖PX/P)〗\_it+\beta\_2 Y\_t^*+\varepsilon\_it……..(1)$$
$$logX\_it^S=\beta\_0+\beta\_1 log⁡(〖PX/P)〗\_it+\beta\_2 Y\_t^*+\beta\_3 X\_it^I+\varepsilon\_it……..(2)$$
$$logX\_it^S=\beta\_0+\beta\_1 log⁡(〖PX/P)〗\_it+\beta\_2 Y\_t^*+\beta\_3 X\_it^I+\beta\_4 D\_it+\varepsilon\_it……..(3)$$

Where XS is export supply by the state, PX is the price of the export product, P is the domestic price of the exported product, Y* is the world income and XI is the export of the country for the same product. D is the dummy which takes value 1 for products getting the incentive and 0 otherwise. We have included exports at the national level to account for factors which are helping state exports of that product other than state-level factors.

Section 4: Data

The following table presents the data and its sources.

Table 1: Variables and Sources

Variable	**Sources**
Export from West Bengal (X^S):	Source DGCI&S for the year 2009-10 to 2013-14
Export Price (PX)	EXIM Databank, MOC, GOI
Domestic Price (P)	WPI, Department of Economic Affairs, GOI
Production Capacity (Y*): GVA Source ASI	GVA Source ASI
Exports India: (X^I)	EXIM Databank, MOC, GOI
Policy Dummy (D)	Focus Product Scheme, Trade Policy Document, 2009-14 (DGFT)

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Matching Industry and trade data is a difficult task given the basis for data capturing. Trade data is user –based whereas industry data is activity-based. We have matched the data according to the methodology mentioned in Raju, Ray Chaudhuri, and Mishra (2016).

The state of West Bengal is not among the leading states in terms of exports but figures in the top ten as depicted in the following table.

Table2: West Bengal and Major Exporting States (in INR Crores*)

States/UTs	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Maharashtra	240337.8	329086.3	361460.2	434591	445349.7
Gujarat	258229.6	311746.7	334069.8	444477.8	364313.6
Tamil Nadu	99112.44	133312.4	147581.7	163008.7	168001.3
Karnataka	55165.28	75264.68	95301.81	107592.7	144410.6
Andhra Pradesh	54752.87	75880.85	77846.8	93860.34	97162.41
Uttar Pradesh	38214.81	51225.1	59546.32	80523.45	85034.43
Haryana	34905.63	43462.48	53077.36	64477.46	69061.76
Delhi	28894.27	39266.06	46632.99	55894.42	61273.79
West Bengal	30644.7	42788.92	51298.44	63731.95	55884.87
Punjab	19436.02	28256.37	35311.36	42729.58	41425.7
India	1136964	1465959	1634319	1905011	1897842

Source: DGCI&S (*1 crore = 10 million)

In terms of the growth rate of exports West Bengal started at a higher rate than the leading states during the start of the last decade. But the exports receded faster than the others in recent times.

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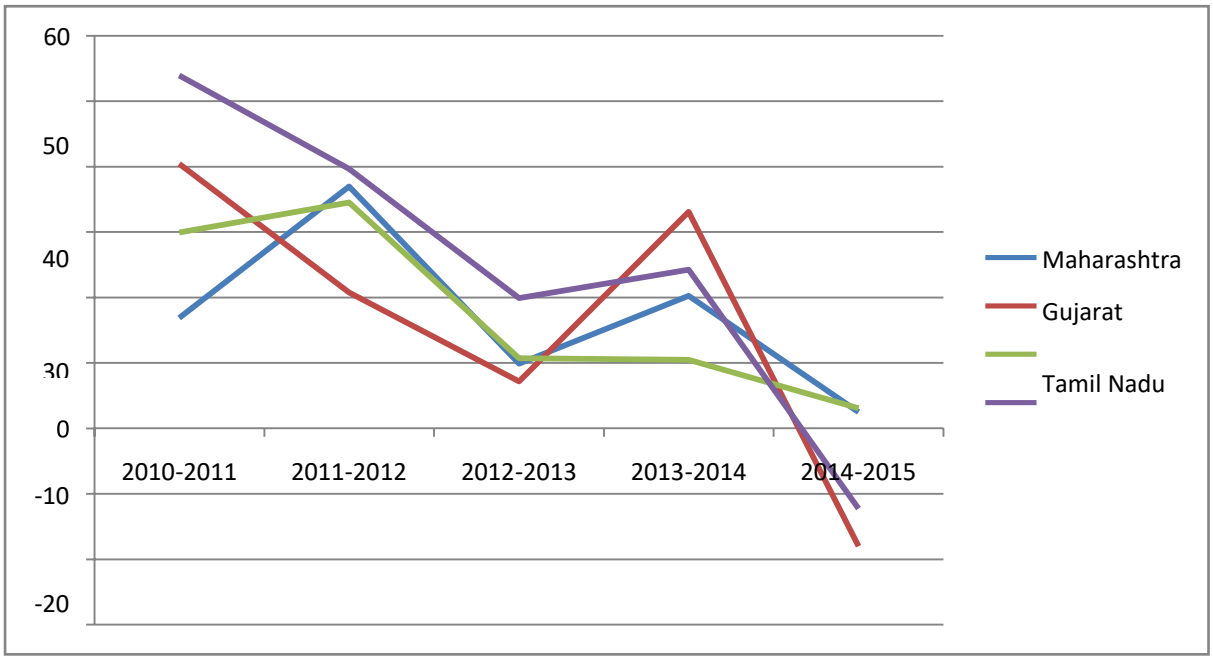
Figure 1: Growth rate of exports from Major states and West Bengal



Source: Authors' calculations

Thus, it is apparent that exports from the state suffered during the contraction of World Demand. Though all the states experienced the decline it is somewhat higher for West Bengal. Government of India took several initiatives to boost exports. It is thus important to gauge the impact of such policy initiatives on state exports. The moot question is: are the promotional policies helping the state exports at all? The future of exports from the state crucially dependent on the policies at both the state and central level. The fate of the state exports crucially hinges on this question. The implementation of Goods and Services Tax (GST) which has subsumed many of the erstwhile taxes and its success also depends on trade policies and their impact on flow of goods and services. Again, withdrawal of USA from TPP and BREXIT are proof of increased protectionist tendencies in traditional markets for emerging economies. Thus, a re- orientation of trade policy is the need of the hour. An evaluation of the existing policies can give proper directions for future policy making.

Section 5: Results

Table 3 below presents the results of pooled OLS and instrumental variable estimations of the models specified in Section 3.

Table 3: Results

Dependent Var (LogXs)	**Pooled Regression**	**Pooled Regression**	**Pooled Regression**	**Pooled Regression**	**IVREG**
logPXP	0.06308**	0.06516**		0.064576**	0.42769**
logPX			0.033485**		
logWPI			-1.00686**		

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FPS		0.433479**	0.383491**	0.435942**	0.534382**
2011				0.037091	
2012				0.122396	
2013				0.153535*	
2014				0.183365**	
Constant	14.19403**	14.00428**	19.01862**	13.90033**	13.68533**
No. of observations	15491	15491	15491	15491	14475
Prob>F	0.0000	0.0000	0.0000	0.0000	0.0000
R^2	0.0026	0.0078	0.0173	0.0083	

* Means significant at 5% and ** significant at 1%

The results show that all the variables have the expected signs. FPS has a significant positive impact on state-level exports. This shows that all other things remaining the same Central trade policy at product-level impacts state-level exports positively. Finally, the time effects are more significant towards the terminal years. Showing that compared to 2010 the impact of policies has been more positive for state exports as we progressed in time.

While scrutinizing the reasons for time effects to be significantly positive towards the later years the picture that emerges is that the Government viewing slowing down of exports had increased the incentives during that period. Specifically, the additional benefit of a 2% bonus, over and above the existing benefits of 5% / 2% under FPS, allowed for about 135 existing products to get additional help. These were the products which had suffered due to the contraction in business. Major sectors included were all Handicrafts items, Silk Carpets, Toys, and Sports Goods (all of which were earlier eligible for 5% benefits), Leather Products and Leather Footwear, Handloom Products and some of the Engineering Items including Bicycle parts and Grinding Media Balls (all of which were earlier eligible for 2% benefit). Moreover, 256 new products were added under FPS (at 8-digit level), which became entitled for benefits @ 2% of FOB value of exports to all markets. Major Sectors / Product Groups covered were Engineering, Electronics, Rubber & Rubber Products, Other Oil Meals, Finished Leather, Packaged Coconut Water and Coconut Shell worked items. These were implemented during the later years and included major export items from the state of West Bengal.

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Section 6: Conclusions

This paper ventured to find out the impact of Central trade policies on state-level exports in case of India. The state of West Bengal was chosen as a case for this purpose. The study exploited the product-level state export data then made available (now discontinued) by DGCI&S for this purpose. Using the Goldstein and Khan (1978) framework and extending it to include Central government trade policy FPS the empirical model was estimated using state-level trade data at 6-digit level for years 2009-10 to 2013-14. The results show that Central Policies have positively impacted state-level exports. Further the time effects are also significant and positive for the later years. Thus, there is a case for continuing the FPS/similar schemes for boosting state-level exports. Additionally, the result also shows that the reason for the decline in exports for the states must lie elsewhere. Global demand contraction is a plausible reason for such a decline.

Future Research Agenda

The authors are currently compiling data on India's Regional Trading Agreement (RTA) obligations at HS 6-digit level. This will be used as an additional variable to run the above models. Given the protectionist tendencies mentioned earlier, RTAs may be the only route through which trade would be possible in the future. Hence the impact of existing RTAs on state exports must also be seen. Further, given the possibility of endogeneity in estimating such equations one must attempt to use the export demand equation also as mentioned in Goldstein and Khan (1978) to estimate a robust model of determinants of exports at the state-level.

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