

An Analysis of Export Performance of Enterprises in Sri Lanka



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Contents



- ❧ What is special about export performance of enterprises?
- ❧ Empirical approach and data
- ❧ Stylized facts about enterprises in Sri Lanka
- ❧ Determinants of export performance
- ❧ Conclusions and implications

Export Performance



- ❧ Export performance is a widely researched area
 - ❧ Propensity to export: Likelihood of becoming an exporter
 - ❧ Differences between exporters and non-exporters
 - ❧ Differences among exporters
 - ❧ Extensive margins of exporters:
 - ❧ Intensive margins of exporters:
- ❧ Why?
 - ❧ The way an industry respond to an external shock (trade policy) is highly dependent on the structure of the industry: homogenous firms vis-à-vis heterogeneous firms

New-new Trade Theory



- ❧ Trade liberalization affects not only existing trade flows, but also the diversification of imported and exported goods
- ❧ Overcoming of fixed and sunk cost to entry in a new foreign market (border measures and trade facilitation): Distributional implications

Melitz Model of Heterogeneous Firms

- ⌘ How an industry with heterogeneous firms reallocate its resources and adjusts its structure to an external shock
- ⌘ Liberalization of trade
 - ⌘ No change in labor productivity
 - ⌘ Less productive incumbent firms exit
 - ⌘ High productivity firms enter and expand
 - ⌘ Increases average productivity of the industry

Studies on Sri Lanka



❧ Athukorala, Jayasuriya and Oczkowski (1995)

- ❧ Multinational firms and export performance
- ❧ 111 firms in 111 industries: ASI data
- ❧ Heckman two stage: Same set of determinants
- ❧ MNE affects export decision
- ❧ MNE does not affect degree of export performance (% exports out of total sales)

Objectives



- ❧ Characterize exporting and non-exporting firms
- ❧ Assess the extent to which different firm characteristics and the external environment within which the firms operate explain export performance of the firms

Heckman Model



Equation 1: The decision to export (i.e. export propensity) is modeled as a dichotomous choice.

$$P(X_{ijk} > 0) = \begin{cases} 1 & \text{if } \xi_{ijk} > 0; \\ 0 & \text{otherwise} \end{cases}$$

$$\xi_{ijk} = \alpha + \beta_1 * BP_{ijk} + \beta_2 * FC_{ijk} + \beta_3 * MC + \beta_4 * X_i \\ + \beta_5 * Y_j + \beta_6 * Z_k + \varepsilon_{ijk}$$



Equation 2: The decision of value of export sales as a OLS

$$X_{ijk} = \alpha + \beta_1 * BP_{ijk} + \beta_2 * FC_{ijk} + \beta_3 * MC + \beta_5 * Y_j + \beta_6 * Z_k + \beta_7 * BC_{ijk} + \varepsilon_{ijk}$$

BP: Business performance indicators

FC: Firm characteristics

MC: Management characteristics

Y, Z: Industry and regional dummies

Enterprise Survey Data



- ❧ World Bank survey: 2011
- ❧ Stratified random sample of 836 manufacturing and services enterprises
- ❧ Size: Small, medium and large
- ❧ Provinces: All except for North and East
- ❧ Industries: Food and others
- ❧ Information on firm characteristics
- ❧ Perceptions of managers on the business environment

General Characteristics



- ✧ 89 exporting firms out of 836 firms (10%)
- ✧ Number of firms and % of exports by size class

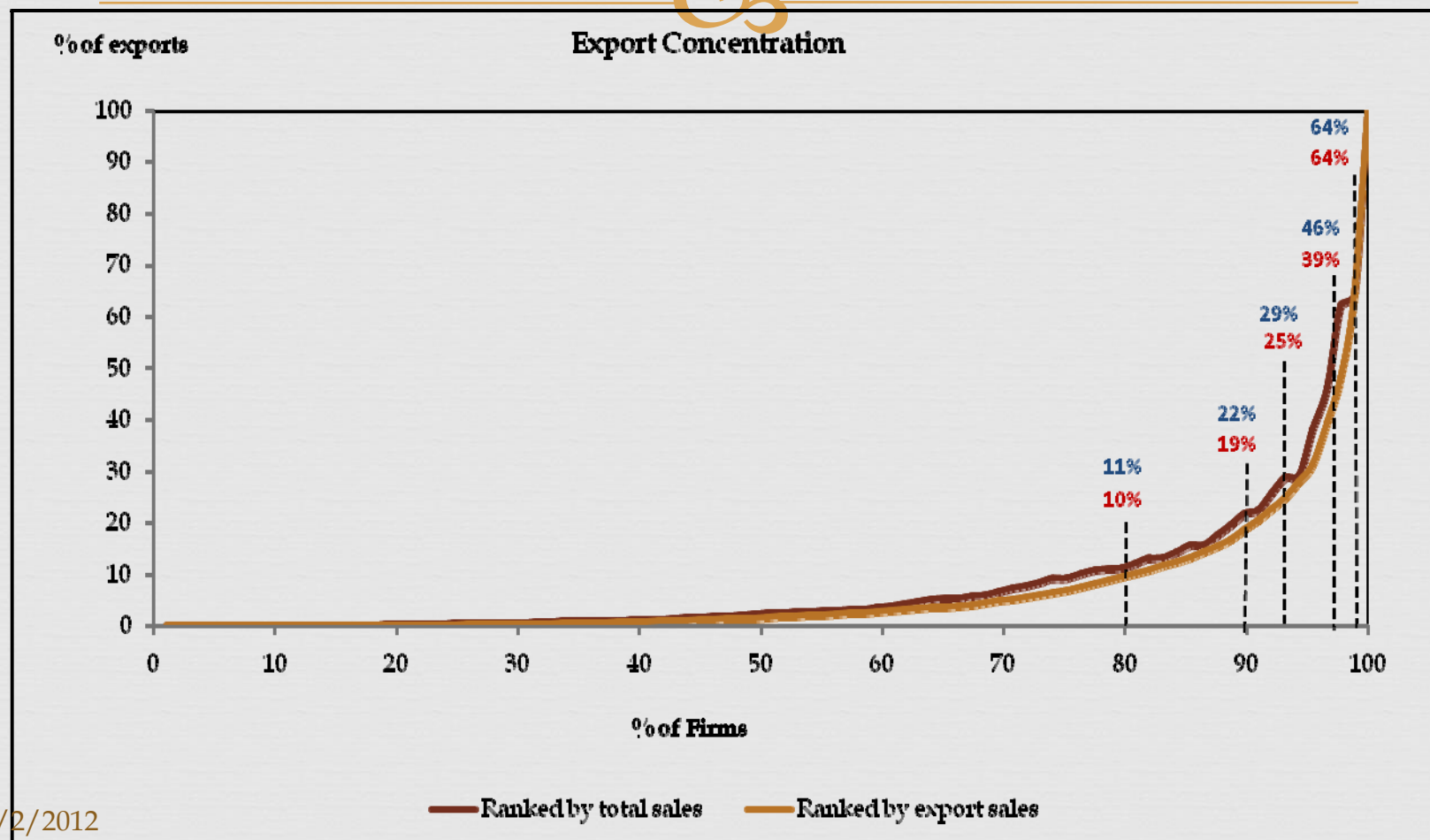
Heterogeneity of firms by size



Size	# of firms	% Firms	# of Exporting Firms	% of Exporting Firms
Large	119	14.23	36	30.25
Medium	278	33.25	39	14.03
Small	439	52.51	14	3.19
Total	836	100.00	89	10.65

Small ≥ 5 and ≤ 19 workers; Medium ≥ 20 and ≤ 99 ; Large ≥ 100 workers

Export Concentration





⌘ Exporters by industry...

Heterogeneity of firms by industry

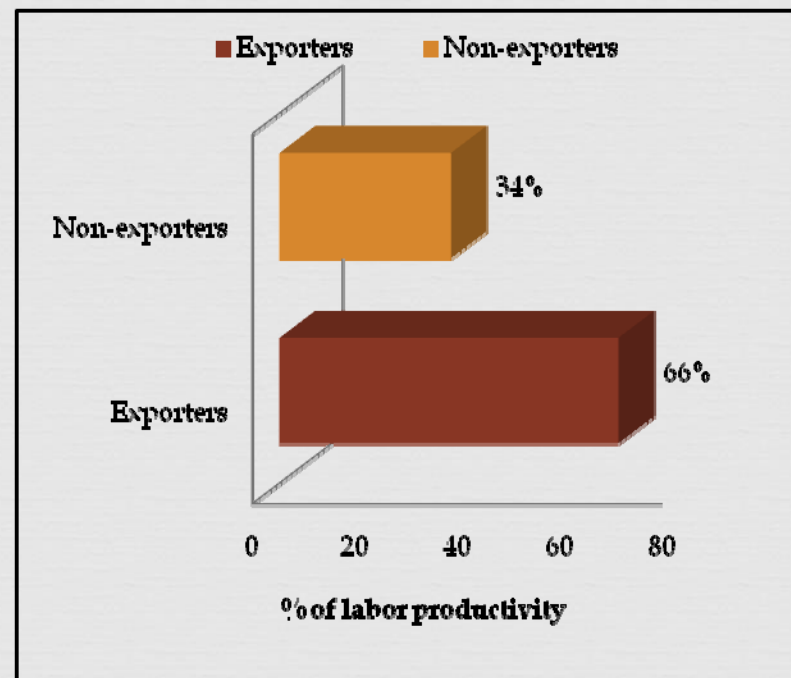
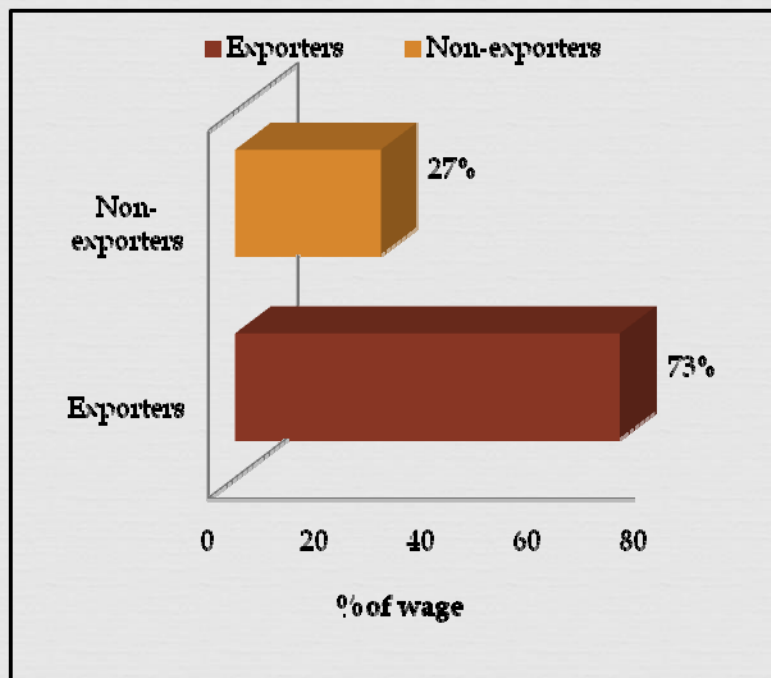


Industry	# of Firms	% of Firms	# of exporting Firms	% of Exporting Firms
Food	121	14.47	30	24.79
Health	124	14.83		
ICT	120	14.35	21	17.50
Manufacturing	231	27.63	32	13.85
Other services	116	13.88	6	5.17
Tourism	124	14.83		
Total	836	100.00	89	10.65

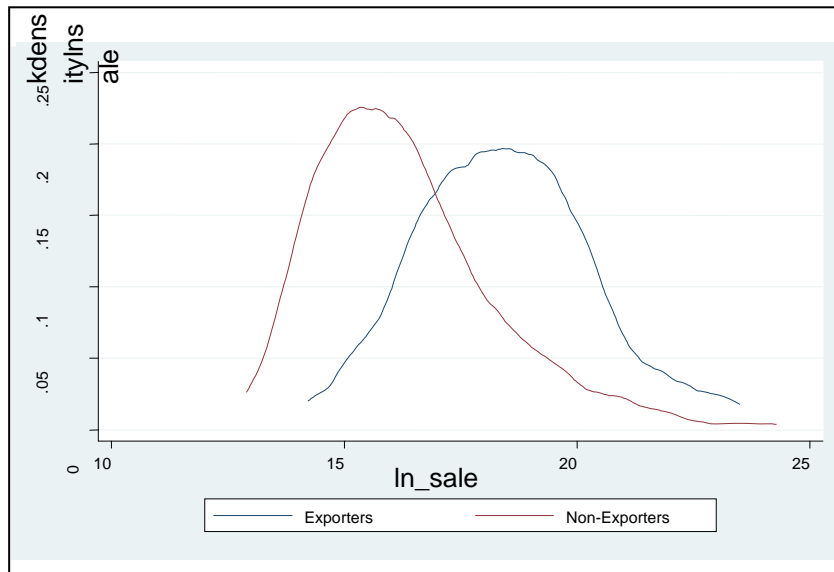
Industry	Sub-category	Region	No. of exporting firms
Food	Food	Southern	11
		Other	19
Light manufacturing	Fabricated metal products	Western	3
		Other	1
	Machinery and equipment	Western	4
Other manufacturing	Basic metals	Central	1
	Non metallic mineral products	Southern/North-west	6
	Paper	Western	1
	Plastics and rubber	Southern/Central	2
	Textiles	Southern/Western/Central	9
		Other	3
	Tobacco	Sabaragamuwa	1
	Wood	Western	1
ICT	IT	Western	15
	Electronics	Western	6
Other services	Wholesale	Western	1
	Retail	Western/Central	2
	Transport	Western	2
	Construction	Western	1
Total			89

Stylized facts:

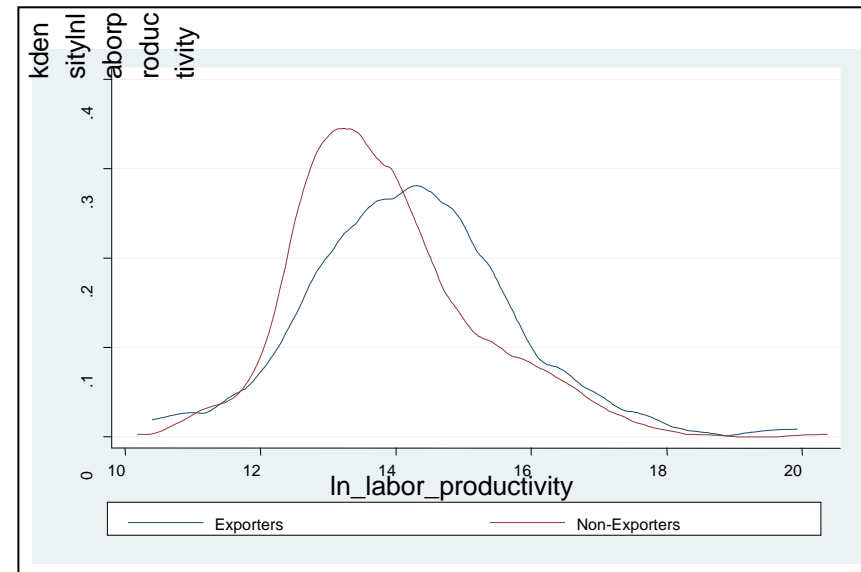
exporters non-exporters



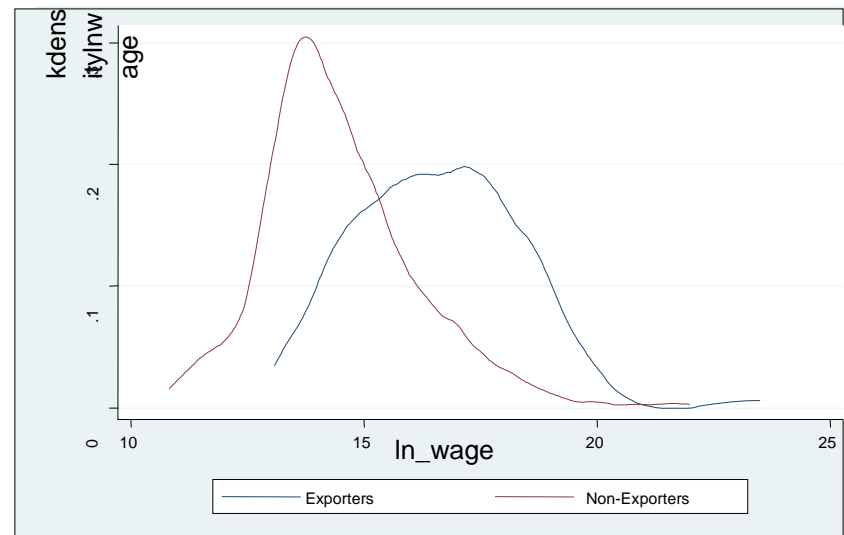
Kernal density of log sale



Kernal density of log labor productivity



Kernal density of log wage



Results of the Estimation of the Heckman Model

Variable	Category	Ln(Export)	Select
Sales		0.834***	0.117**
		(0.164)	(0.057)
Size	Large	0.262	0.854***
		(0.579)	(0.312)
	Medium	0.606	0.490**
		(0.440)	(0.222)
Region	Western		-0.043
			(0.220)
	Southern		0.560**
			(0.244)
Industry	Food	-0.688	1.587***
		(0.874)	(0.310)
	ICT	-1.929**	1.205***
		(0.872)	(0.333)
	Manufacturing	-1.022	1.476***
		(0.833)	(0.297)

11/2/2012

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Conti...

Variable	Category	Ln(Export)	Select
Legal_status	Company		5.079***
			(1.064)
	Partnership		4.933***
			(1.045)
	Sole_proprietorship		4.497***
			(0.993)
Age			-0.288**
			(0.130)
Biggest_obstacle	Custom_regulations	-0.016	
		(0.544)	
	Licence	-1.490**	
		(0.638)	
	Political_instability	-1.997***	
		(0.746)	
	Tax_administration	-0.578	
		(0.399)	

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Conti...

Variable	Category	Ln(Export)	Select
Labor_productivity		-0.031	
		(0.144)	
Manager_experience			0.189
			(0.124)
Quality_certification			0.309
			(0.227)
Constant		4.143	-9.299
		(2.818)	(0.000)
Observations		605	605

Conclusions



- ❧ Significant heterogeneities between exporting and non-exporting firms and also among exporting firms
- ❧ Need for a change in the business environment more conducive through reducing “behind-border barriers”
- ❧ Proper tax administration, increased political stability and revising of the licensing systems

Comments.....



Thank You!