

Table 1: VAT export tax and firm's quality upgrading, characteristics of the destination countries, products, and cities

	Dependent variable: Product quality (city/product/trade regime/year)							
	LDC	DC	Homogeneous	Heterogeneous	Small HS6	Large HS6	Small Quantity	Large Quantity
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ln VAT export $\text{tax}_{k,t-1}$								
Ln VAT import $\text{tax}_{k,t-1}$								
lag foreign export share $^R_{ckr}$	0.023 (0.040)	0.021** (0.009)	-0.036 (0.043)	0.022** (0.010)	-0.009 (0.064)	0.020** (0.009)	0.064*** (0.025)	0.014 (0.010)
lag SOE export share $^R_{ckr}$	-0.020 (0.034)	0.041*** (0.010)	0.026 (0.034)	0.038*** (0.010)	0.138*** (0.050)	0.035*** (0.010)	0.063*** (0.023)	0.032*** (0.010)
Ln VAT export $\text{tax}_{k,t-1} \times \text{Eligible}^R$	-0.341* (0.197)	-0.159* (0.090)	-0.005 (0.236)	-0.163* (0.090)	0.627 (0.991)	-0.156* (0.085)	-0.687*** (0.195)	-0.132 (0.088)
Ln VAT import $\text{tax}_{k,t-1} \times \text{Eligible}^R$	-0.108 (0.499)	-0.008 (0.101)	-0.366 (0.313)	0.066 (0.108)	1.239 (1.132)	0.059 (0.106)	0.326 (0.399)	0.049 (0.107)
City-product-regime fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City-sector-regime-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
product-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	512,902	5,319,443	263,803	5,568,542	440,542	5,391,803	1,185,737	4,646,608
R <sup>2</sup>	0.571	0.331	0.391	0.319	0.678	0.294	0.501	0.279

This table estimates eq(3). LDC and DC are defined according to the World Bank country classification. Homogeneous and heterogeneous goods are defined according to the official list of goods's classification, Rauch (1999). Small and large are computed based on either the count of HS6 exported by city  $c$  or the total quantity exported. When one of these two metrics are above national average, the city is considered as large. Note that 'Eligible' refers to the regime entitle to VAT refund, our treatment group. Our control group is processing trade with supplied input, 'Non-Eligible' to VAT refund. Sectors are defined following the Chinese 4-digit GB/T industry classification and regroup several products. Heteroskedasticity-robust standard errors clustered at the product level appear in parentheses. \* Significance at the 10%, \*\* Significance at the 5%, \*\*\* Significance at the 1%.