Online Appendix

A. Tables

Table A1: Table A1: VSIC-ISIC Modification

VSIC 2007		VSIC 2018		ISIC Rev 4	
Code	**Definition**	**Code**	**Definition**	**Code**	**Definition**
		23	Other forestry product logging	22	Logging
73	Mining of precious metals ores	73	Mining of precious metals ores	72	Mining of non-ferrous metal ores
132	Manufacture of other textiles			139	Manufacture of other textiles
493	Other land transport	493	Other land transport	492	Other land transport
494	Transport via pipeline	494	Transport via pipeline	493	Transport via pipeline
632	Other information service activities			639	Other information service activities
792	Other reservation service activities			799	Other reservation services and related activities
852	Primary education	8521	Primary education	851	Pre-primary and primary education
853	Secondary education			852	Secondary education
854	Higher education	854	Higher education	853	Higher education
855	Other educational activities	855	Other educational activities	854	Other education
856	Educational support services	856	Educational support services	855	Educational support activities
961	Sauna and steam baths, massage and similar health care services (except sport activities)	961	Sauna and steam baths, massage and similar health care services (except sport activities)	960	Other personal service activities
962	Washing and cleaning of textile and fur products	962	Washing and cleaning of textile and fur products		
963	Personal service activities n.e.c	963	Personal service activities n.e.c		

<Table A2: China's Export to Vietnam vs. Vietnam's Export to the United States>

Year	China's Export to Vietnam (A)			Vietnam's Export to the US (B)		
	# 6-digit HS†	in billion (USD)	% HS6 under China tariff ‡	# HS6	In billion (USD)	#HS6 belongs to (A)
2017	3,909	67.46	0%	2,059	48.31	87.81%
2018	4,014	83.30	0.11%	2,145	50.94	89.79%
2019	4,014	96.33	26.80%	2,290	69.39	90.13%

Notes. † The number excludes the reported product code more aggregate than the six-digit HS code or with no observations. ‡The number indicates the share of HS6 code indicates whether any product under the HS6 was during the US-China trade war. The tariff increased targeted product rather than product-country was excluded when we calculated it.

Table A3. The Impact of US-China Trade War on Export from Vietnam to Japan 2017-2019

	Log (Export)					
	A: Products belong to both categories †			B: All products exported from Vietnam to Japan‡		
	(1)	(2)	(3)	(4)	(5)	(6)
Measure of US-China Trade War						
The share of products hit by China tariff (#)	0.079			-0.042		
	(0.110)			(0.070)		
The share of products under China tariffs (in USD)		0.085			-0.042	
		(0.107)			(0.070)	
Weighted tariffs			0.326			-0.102
			(0.533)			(0.297)
Japan's import tariffs against Vietnamese products	√	√	√	√	√	√
Constant	8.234***	8.236***	8.363***	5.879***	5.879***	5.878***
	(0.045)	(0.044)	(0.101)	(0.016)	(0.016)	(0.024)
Observations	21,767	21,749	21,749	55,087	55,087	55,087
R-squared	0.776	0.777	0.777	0.727	0.727	0.727

Note. † These are products whose six-digit HS codes belong to both (1) Vietnam's export to Japan and (2) Vietnam's export to the United States.

‡ These are all products exported from Vietnam to Japan. If products exported from Vietnam to Japan do not have matching HS6 exported from Vietnam to the US, we coded measures of US-China trade war as zero.

All specifications include Japan's tariffs imposed on Vietnamese imports, six-digit HS code, and monthly fixed effects. The error terms are clustered within HS6.

Table A4: Exporters and non-Exporters by the Type of Investment

	(1) log(sales)	(2) log(employment)	(3) log(fixed capital)	(4) log(wage bill)
Domestic Exporters	4.215***	2.196***	4.089***	0.216***
(DE)	(0.078)	(0.096)	(0.114)	(0.030)
FDI Non-exporters	1.996***	1.167***	2.536***	0.231***
(FN)	(0.105)	(0.100)	(0.252)	(0.064)
FDI Exporters	4.156***	2.277***	4.419***	0.565***
(FE)	(0.097)	(0.123)	(0.251)	(0.059)
Constant	6.290***	1.646***	3.551***	4.325***
	(0.002)	(0.003)	(0.007)	(0.002)
Observations	2,384,671	2,384,610	2,384,670	1,807,698
R-squared	0.120	0.242	0.158	0.245
F-statistic				
DE=FE	0.27	0.93	2.41	39.05
	(p=0.601)	(p=0.335)	(p=0.122)	(p=0.000)
FN=FE	314.99	290.69	195.35	60.60
	(p=0.000)	(p=0.000)	(p=0.000)	(p=0.000)
Industry FE	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes

Note. The table is estimated using three rounds of the VES conducted from 2017 to 2019. Standard errors are clustered at the three-digit industry level. Province and three-digit industry fixed effects are controlled in all regressions. Total sales and fixed assets are deflated by PPI at the two-digit industry level (if available) or a letter code level. Export and FDI-receiving firms' premiums are estimated from a regression of the form: $Y_{ijp} = \alpha_0 + \alpha_1 DE_{ijp} + \alpha_2 FN_{ijp} + \alpha_3 FE_{ijP} + I_j + P_p + \varepsilon_{ijp}$, where i indexes firm and j indexes three-digit industry, and p indicates province. ***, **, and * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A5: Estimated Coefficients of the Production Function

Two-digit Industry code	Labor			Capital		
	OLS	Wooldridge	ACF	OLS	Wooldridge	ACF
1	0.372	0.675	0.404	0.026	-0.033	0.008
2	0.067	-0.500	0.153	0.176	0.312	0.015
3	0.234	0.852	0.354	0.199	-0.294	-0.241
5	0.174	0.273	0.182	0.215	-0.173	0.054
6	-1.312	-	-	0.000	-	-
7	0.870	2.943	0.886	0.038	-0.044	-0.017
8	0.818	0.602	0.837	0.087	0.009	0.076
9	0.741	-	0.786	0.197	-	-0.014
10	0.480	0.646	0.514	0.111	-0.004	0.060
11	0.733	0.780	0.779	0.170	0.065	0.073
12	1.277	1.361	1.243	-0.030	0.040	-0.006
13	0.402	0.566	0.423	0.113	0.020	0.044
14	0.548	0.753	0.579	0.075	0.009	0.038
15	0.625	0.703	0.612	0.072	0.009	0.051
16	0.396	0.466	0.418	0.130	0.029	0.071
17	0.448	0.493	0.477	0.125	0.023	0.060
18	0.457	0.786	0.483	0.135	0.024	0.020
19	1.548	-	4.800	-0.486	-	-1.554
20	0.617	0.653	0.643	0.133	0.023	0.071
21	0.717	0.858	0.683	0.006	-0.022	0.017
22	0.486	0.477	0.496	0.140	0.043	0.079
23	0.661	0.790	0.682	0.133	0.022	0.045
24	0.379	0.105	0.424	0.078	0.015	0.008
25	0.487	0.598	0.505	0.163	0.009	0.090
26	0.640	0.630	0.652	0.066	0.006	0.022
27	0.648	0.628	0.659	0.191	0.035	0.120
28	0.787	0.803	0.817	0.066	-0.029	-0.021
29	0.706	0.851	0.755	0.096	0.014	0.045
30	0.447	0.737	0.412	0.060	-0.012	0.000
31	0.536	0.804	0.547	0.117	0.042	0.072
32	0.618	0.739	0.617	0.124	0.048	0.107
33	0.637	1.026	0.674	0.094	0.087	0.016
35	0.175	0.165	0.263	0.185	0.017	0.035
36	0.779	0.987	0.812	0.049	0.007	0.027
37	0.842	0.782	0.874	0.107	0.013	0.065
38	0.378	0.678	0.399	0.101	-0.071	-0.017
39	1.937	-	1.933	0.085	-	0.081
41	0.594	0.970	0.605	0.125	0.049	0.113
42	0.533	0.680	0.564	0.145	0.039	0.102

Table A5: Estimated Coefficients of the Production Function (continued)

Two-digit		Labor			Capital	
Industry code	OLS	Wooldridge	ACF	OLS	Wooldridge	ACF
43	0.563	0.928	0.574	0.143	0.007	0.097
45	0.534	0.665	0.541	0.195	0.071	0.228
46	0.399	0.557	0.422	0.184	0.039	0.176
47	0.604	0.730	0.623	0.108	0.020	0.090
49	0.455	0.734	0.465	0.079	-0.020	0.064
50	0.545	0.952	0.551	0.096	0.009	0.057
52	0.502	0.815	0.530	0.140	0.040	0.069
53	0.183	0.439	0.159	0.197	0.560	0.223
55	0.549	0.789	0.566	0.079	0.004	0.019
56	0.641	0.929	0.646	0.081	0.034	0.044
58	0.690	0.399	0.654	0.168	-0.197	0.192
59	0.810	0.619	0.855	0.052	-0.300	0.006
60	0.419	-	1.307	0.236	-	0.732
61	0.486	-6.301	0.502	0.143	0.336	0.040
62	0.627	0.776	0.644	0.095	0.027	0.087
63	0.619	0.949	0.828	0.170	-0.007	0.120
64	0.986	1.956	1.045	0.012	0.016	0.049
65	0.978	0.929	1.035	0.103	-0.109	-0.159
66	0.712	1.084	0.766	0.213	0.044	-0.019
68	0.727	1.085	0.668	0.178	0.082	0.154
69	0.713	1.035	0.725	0.063	-0.086	0.035
70	0.666	0.838	0.684	0.081	0.125	0.065
71	0.470	0.987	0.487	0.115	0.029	0.091
72	0.611	-	-0.067	0.272	-	-0.028
73	0.744	0.809	0.698	0.149	0.213	0.206
74	0.286	0.936	0.311	0.170	0.155	0.039
77	0.907	1.122	0.999	0.142	-0.061	-0.002
78	0.497	0.908	0.510	0.063	0.080	0.053
79	0.535	0.785	2.298	-0.012	-0.069	-0.024
80	0.480	0.883	0.497	0.054	-0.001	0.004
81	0.477	0.654	0.482	0.091	0.022	0.038
82	0.648	1.105	0.693	0.102	0.034	0.058
85	0.459	0.981	0.482	0.084	0.013	0.028
86	0.662	0.887	0.711	0.079	-0.020	0.011
90	0.983	-	0.985	-0.133	-	-0.131
91	1.036	-	1.033	0.033	-	0.030
92	1.861	-0.485	5.968	0.173	-0.005	-0.043
93	0.542	1.070	0.339	0.008	0.010	-0.028
94	4.860	-	-	0.000	-	-
95	0.849	-	0.796	0.004	-	0.005
96	0.490	0.435	0.478	0.065	-0.020	0.085

Table A6: Summary Statistics for Productivity

Log of Productivity	Observations	Mean	Std. Dev	Min	Max
using OP method	46,590	6.038	1.614	-37.55	20.08
using LP method	46,590	5.436	1.552	-37.50	16.63
using Wooldridge method	46,466	7.363	3.397	-64.39	33.12
using ACF method	46,588	7.700	2.247	-1.681	56.77
Labor Productivity	49,372	6.100	1.389	-6.363	10.33

Note. The table is estimated using three rounds of the VES conducted from 2017 to 2019. The sample is restricted to firms with more than 100 employees.

Table A7: Summary Statistic for TFP by Types of Enterprises

	Before Trade war		After Trade war	
	Mean	Std. Dev	Mean	Std. Dev
Exporter	8.31	1.57	8.37	1.66
Non-Exporter	7.29	2.53	7.32	2.43
Domestic Exporter	7.97	1.62	8.03	1.75
FDI Exporter	8.59	1.47	8.64	1.54
FDI Non-Exporter	8.18	2.55	8.14	2.86

Notes: The table is estimated using three rounds of the VES conducted from 2017 to 2019. The VES data in 2017 is used to estimate for before trade war, while after trade war used VES for 2018 and 2019. The sample is restricted to firms with more than 100 employees. Productivity is estimated as the logarithm of TFP using ACF method.

Table A8: The Effect of Export Status on Total Factor Productivity Using Various Alternative Methods

Dependent var.	(1)	(2)	(3)	(4)	(5)	(6)
TFP	OP	LP	Woodridge	LP	OP	Woodridge
Exporter	1.480**	1.420**	2.023**			
	(0.708)	(0.698)	(0.877)			
FDI Exporter				2.632**	2.525**	3.604**
				(1.193)	(1.164)	(1.531)
Observations	40,297	40,297	40,189	40,297	40,297	40,189
Dependent var.	(7)	(8)	(9)	(10)	(11)	(12)
TFP	OP	LP	Woodridge	LP	OP	Woodridge
Log of FDI	1.551*	1.489*	2.130*			
	(0.934)	(0.900)	(1.243)			
Log of Export				0.134**	0.128**	0.183**
				(0.060)	(0.059)	(0.074)
Observations	40,297	40,297	40,189	40,297	40,297	40,189

Note. Column title OP represents estimates using the Olley Pakes (1996) method in acquiring TFP, while the title LP represents results using the Levinsohn Petrin (2003) method for that. The columns with title Woodridge imply that the TFP is calculated using Woodridge (2009) method.

The table is estimated using three rounds of the VES conducted from 2017 to 2019. The sample is restricted to firms with more than 100 employees. Standard errors are clustered at the three-digit industry level. Province, three-digit industry, and year-fixed effects are controlled in all regressions. ***, **, and * indicate statistical significance at 1%, 5%, and 10%, respectively.

B. Notes

B1. Sampling of Vietnam Enterprise Survey (VES) Data

VES covers a population of all state-owned firms, foreign direct investment (FDI) firms, and firms with more than 100 employees in all industries. Firms with less than 100 employees are also included to represent Vietnam's industry properly. These firms are randomly selected within three levels of stratification: four-digit industry, the number of employees (fewer than 10, 10-49, and 50-99), and region. The proportion of firm selection was determined based on the size of each stratification. In Hanoi, for example, 50%, 20%, and 10% were assigned to firms with more than 50 but less than 99 workers, firms with more than 10 but less than 50 workers, and firms with less than 10 workers, respectively.