Online Appendix for "Is Competition from China So Special?"*

Benedikt Heid† Raúl Mínguez‡ Asier Minondo§

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Abstract

Competition from China is perceived as particularly damaging. We study whether this is true for firm performance. Using the universe of Spanish export transactions, we find that an increase in competition from China does not have a more damaging effect on export revenues, prices, and number of exported products than an equally-sized increase in competition from other countries. We document, though, that Chinese competition raises the probability that a firm ceases to export a good to a destination more than competition from other countries. This effect declines over time. We document an omitted variable bias in studies focusing only on Chinese competition, even when controlling for unobserved heterogeneity of destinations for different products within firms.

JEL: F13, F14

Keywords: China, competition, exports, Spain, transaction-level data.

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†Heid: Corresponding author. School of Economics, University of Adelaide and CESifo. 10 Pulteney St., SA 5005 Adelaide (Australia). Email:benedikt.heid@adelaide.edu.au.

‡Mínguez: Universidad Nebrija. Calle de Santa Cruz de Marcenado, 27, 28015, Madrid (Spain). Email:rminguez@nebrija.es.

§Minondo: Deusto Business School, University of Deusto, Camino de Mundaiz 50, 20012 Donostia - San Sebastián (Spain). Email: aminondo@deusto.es

A The impact of competition on exported quantity

In the main text, we find that Chinese competition significantly decreases revenue but does not affect prices. Therefore, quantities sold should decrease by a similar amount as revenues. We use the change in the log of sold quantity as the dependent variable in Equation (4) in the main text. We present results in Table A.1. As predicted, coefficients are of similar magnitude and sign as the revenue coefficients.

Table A.1: The impact of competition on exported quantity

	(1)	(2)
$\Delta China_{jkt}$	-0.240^a	-0.449^a
	(0.013)	(0.014)
$\Delta Germany_{jkt}$		-0.499^a
		(0.015)
$\Delta Italy_{jkt}$		-0.499^a
		(0.016)
$\Delta France_{jkt}$		-0.514^a
		(0.018)
ΔUSA_{jkt}		-0.469^a
		(0.016)
$\Delta Netherlands_{jkt}$		-0.439^a
		(0.023)
$\Delta Belgium_{jkt}$		-0.449^a
		(0.022)
ΔUK_{jkt}		-0.510^a
		(0.022)
$\Delta Japan_{jkt}$		-0.477^a
		(0.031)
$\Delta Turkey_{jkt}$		-0.477^a
		(0.029)
Observations	4355744	4355744
R^2	0.001	0.002

Note: Table reports coefficients of Equation (4) estimated by OLS. Estimations include year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

B Discrete choice estimation of the probability of exit

In the main text, we use a linear probability model. As a robustness check, we reestimate columns (5) and (6) from Table 1 in the main text using a logit model. We report average marginal effects in Table B.1. Results remain similar.

Table B.1: The impact of competition on survival. Logit estimation (average marginal effects).

	(1)	(2)
$\Delta China_{jkt}$	0.079^a	0.090^a
	(0.006)	(0.006)
$\Delta Germany_{jkt}$		0.028^a
		(0.005)
$\Delta Italy_{jkt}$		0.035^a
		(0.005)
$\Delta France_{jkt}$		0.024^a
		(0.006)
ΔUSA_{jkt}		0.008
		(0.006)
$\Delta Netherlands_{jkt}$		0.029^a
		(0.008)
$\Delta Belgium_{jkt}$		0.024^a
		(0.008)
ΔUK_{jkt}		0.037^a
		(0.007)
$\Delta Japan_{jkt}$		0.007
		(0.011)
$\Delta Turkey_{jkt}$		0.075^a
		(0.011)
Observations	4322634	4322634

Note: Table reports average marginal effects of Equation (4) estimated by logit. Estimations include year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

C Cox proportional hazard model

In the main text, we use a linear probability model to analyze whether the increase in Chinese competition leads a firm to stop exporting a good to a given export market. Using a linear probability model, we implicitly assume that the probability of a firm ceasing to export a good to a destination is independent from the duration of the export relationship. Therefore, we assume that firms exit export markets with the same probability, regardless of the amount of time these export relations have been in existence.[1] However, research about firms' survival in export markets shows that the probability of survival increases over time (Besedes and Prusa, 2006; Cadot et al., 2013; Eaton et al., 2014). To address this concern, we estimate the impact of competition on export survival using a Cox proportional hazards model, which allows the survival probability to be a non-parametric function of time. In our data, firms may enter and exit a particular export market with a given product multiple times over the 20-year period of our sample. We consider these multiple export spells as separate events. By definition, we cannot know the duration of the spells in 1997, the first year in our dataset. We therefore focus on export relations that start during our sample period. Table C.1 reports the results. The $\Delta China_{jkt}$ coefficient remains positive and statistically significant. According to the coefficient reported in Column (1), the hazard rate of stopping an export relation is 1.021 times higher for a firm that experiences a ten percentage point greater competition from China (exp(.211*.1)). In Column (2), we confirm that tougher competition from China has a stronger negative impact on the probability of survival.

[1] Estimating a probit or logit model would rely on the same assumption (Jones and Branton, 2005).

Table C.1: Competition and the probability of terminating an export relation: Cox proportional hazard model

	(1)	(2)
$\Delta China_{jkt}$	0.211^a	0.256^a
	(0.016)	(0.016)
$\Delta Germany_{jkt}$		0.110^a
		(0.017)
$\Delta Italy_{jkt}$		0.131^a
		(0.018)
$\Delta France_{jkt}$		0.095^a
		(0.019)
ΔUSA_{jkt}		0.056^a
		(0.018)
$\Delta Netherlands_{jkt}$		0.136^a
		(0.026)
$\Delta Belgium_{jkt}$		0.102^a
		(0.027)
ΔUK_{jkt}		0.123^a
		(0.026)
$\Delta Japan_{jkt}$		0.050
		(0.033)
$\Delta Turkey_{jkt}$		0.221^a
		(0.035)
Observations	3314623	3314623

Note: Dependent variable is $Exit_{fjkt}$. Table reports coefficients of a Cox proportional hazard model estimated by Maximum Likelihood. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

D Subsample analysis for different types of goods

Eichengreen et al. (2007) find that Chinese competition has a larger negative impact on other countries' exports for consumer products than for capital and intermediate goods. We therefore classify goods as consumer (Consu.), capital, or intermediate (Inter.).[2] We estimate the regressions separately for each product category. Table D.1 presents the results. Regarding revenues, we find that the negative impact of Chinese competition is larger for consumer goods than for capital and intermediate goods. This result agrees with that of Eichengreen et al. (2007). However, we find that higher competition from China does not have a more damaging impact on revenues than that from other countries in any category of goods. Tougher competition from China is correlated, though, with an increase in consumer goods' export prices. Moreover, competition from China has a stronger effect. All other coefficients, except Turkey, are small and all of them are statistically not significant. For capital and intermediate goods, tougher competition from China, or from other competitors, does not have any effect on prices.[3] Regarding a firm's risk to stop exporting a good to a destination, the impact of more Chinese competition is larger for consumer goods than for capital and intermediate goods. For all product categories, greater competition from China increases the probability of exit more than heightened competition from other rival countries.

[2]We follow Eichengreen et al.'s (2007) classification. Capital goods is composed by machinery and transport equipment; consumption goods by food, beverages, tobacco, miscellaneous manufactured articles, television and radio receivers, passenger motor vehicles and cycles, and medicinal and pharmaceutical products; the remaining goods belong to intermediates.

[3]The exceptions are USA and UK in capital goods, where tougher competition leads to lower export prices.

Table D.1: The impact of competition on exporters: types of products

	Revenue			Price			Exit		
	(1) Consu.	(2) Capital	(3) Inter.	(4) Consu.	(5) Capital	(6) Inter.	(7) Consu.	(8) Capital	(9) Inter.
$\Delta China_{jkt}$	-0.494^{a}	-0.368^{a}	-0.425^{a}	0.046^{b}	-0.008	-0.004	0.156^{a}	0.085^{a}	0.070^{a}
	(0.029)	(0.042)	(0.013)	(0.019)	(0.035)	(0.008)	(0.014)	(0.016)	(0.007)
$\Delta Germany_{jkt}$	-0.476^{a}	-0.415^{a}	-0.504^{a}	0.006	-0.022	-0.006	0.057^{a}	-0.002	0.032^{a}
	(0.032)	(0.029)	(0.016)	(0.018)	(0.023)	(0.010)	(0.012)	(0.010)	(0.006)
$\Delta Italy_{jkt}$	-0.450^{a}	-0.404^{a}	-0.502^{a}	-0.006	-0.043^{c}	-0.000	0.007	0.017	0.049^{a}
	(0.034)	(0.032)	(0.018)	(0.019)	(0.025)	(0.011)	(0.013)	(0.011)	(0.007)
$\Delta France_{jkt}$	-0.481^{a}	-0.397^{a}	-0.528^{a}	-0.000	-0.001	-0.001	0.032^{b}	-0.011	0.026^{a}
	(0.040)	(0.043)	(0.018)	(0.018)	(0.033)	(0.011)	(0.013)	(0.016)	(0.007)
ΔUSA_{jkt}	-0.404^{a}	-0.422^{a}	-0.482^{a}	0.016	-0.054^{b}	0.016	-0.001	0.015	0.010
	(0.029)	(0.032)	(0.019)	(0.018)	(0.026)	(0.013)	(0.012)	(0.012)	(0.007)
$\Delta Netherlands_{jkt}$	-0.430^{a}	-0.328^{a}	-0.455^{a}	-0.010	-0.049	-0.005	0.043^{a}	0.015	0.022^{b}
	(0.039)	(0.051)	(0.024)	(0.023)	(0.044)	(0.016)	(0.014)	(0.018)	(0.010)
$\Delta Belgium_{jkt}$	-0.457^{a}	-0.396^{a}	-0.457^{a}	-0.014	0.042	0.005	0.055^{a}	-0.015	0.021^{b}
	(0.045)	(0.059)	(0.023)	(0.024)	(0.048)	(0.014)	(0.018)	(0.021)	(0.009)
ΔUK_{jkt}	-0.472^{a}	-0.510^{a}	-0.498^{a}	0.026	-0.085^{b}	-0.013	0.018	0.035^{c}	0.048^{a}
	(0.042)	(0.049)	(0.022)	(0.024)	(0.041)	(0.014)	(0.016)	(0.018)	(0.009)
$\Delta Japan_{jkt}$	-0.487^{a}	-0.402^{a}	-0.545^{a}	-0.041	-0.012	-0.019	-0.029	-0.006	0.032^{b}
	(0.055)	(0.050)	(0.035)	(0.040)	(0.047)	(0.023)	(0.031)	(0.018)	(0.013)
$\Delta Turkey_{jkt}$	-0.660^{a}	-0.547^{a}	-0.422^{a}	0.041	0.048	-0.006	0.099^{a}	0.049	0.066^{a}
	(0.074)	(0.105)	(0.027)	(0.034)	(0.088)	(0.015)	(0.029)	(0.039)	(0.012)
Observations	1492584	525116	2550259	1489794	523861	2545725	1409386	497468	2412984
R^2	0.003	0.004	0.004	0.001	0.000	0.001	0.002	0.001	0.002

Note: Table reports coefficients of Equation (4) for separate product categories. The estimations include year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5% and 10% respectively.

E Time-variant fixed effects

We investigate whether results are robust to using time-variant fixed effects. In Equation (2) in the main text, we substitute the firm×destination×product and year-specific fixed effects by firm×product×year fixed effects and destination×year fixed effects. These alternative fixed effects allow us to control for firm-product specific factors that change over time, such as production costs, and destination specific factors that change over time, such as signing a free trade agreement. A shortcoming of time-variant fixed effects is that they lead to a large reduction in the sample because the identification of the estimated coefficients stems from firms that export the same product to at least two different destinations in a given year.[4] In the product scope analysis identification stems from firms that export to, at least, two destinations.[5]

Results are reported in Table E.1. On average, all the coefficients have a lower (absolute) value than in Table 1 in the main text. Although we find that stiffer competition from China has a negative effect on Spanish exporters' revenues, as in our previous results, this effect is no larger than if competition had originated in other countries. More intense competition from China and other countries does not affect export prices. Compared to other countries, Chinese competition has a slightly stronger effect on the likelihood that a firm ceases to export a good to a destination but not as strong as in Column (6) in Table 1 in the main text. Finally, tougher competition from China does not have a statistically significant effect on the number of exported products (Column (8) in Table F.2 in this Appendix). In sum, use of time-variant fixed effects does not alter the conclusions of our baseline analysis.

[4] 68% of firm×product combinations only export to one destination in our sample.

[5] Firms exporting to only one destination represent 51% of all firms included in our sample.

Table E.1: Robustness: time-variant fixed effects

	Revenue		Price		Exit	
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta China_{jkt}$	-0.190^a	-0.386^a	0.004	0.001	0.022^a	0.028^a
	(0.013)	(0.014)	(0.008)	(0.008)	(0.004)	(0.005)
$\Delta Germany_{jkt}$		-0.459^a		-0.009		0.019^a
		(0.015)		(0.009)		(0.004)
$\Delta Italy_{jkt}$		-0.469^a		-0.001		0.017^a
		(0.016)		(0.010)		(0.005)
$\Delta France_{jkt}$		-0.455^a		0.007		0.016^a
		(0.018)		(0.011)		(0.006)
ΔUSA_{jkt}		-0.439^a		-0.005		0.019^a
		(0.017)		(0.011)		(0.005)
$\Delta Netherlands_{jkt}$		-0.411^a		-0.009		0.012^c
		(0.023)		(0.013)		(0.007)
$\Delta Belgium_{jkt}$		-0.399^a		-0.014		0.010
		(0.023)		(0.013)		(0.007)
ΔUK_{jkt}		-0.456^a		-0.014		0.013^c
		(0.022)		(0.014)		(0.007)
$\Delta Japan_{jkt}$		-0.524^a		-0.025		0.007
		(0.031)		(0.021)		(0.009)
$\Delta Turkey_{jkt}$		-0.430^a		-0.019		-0.000
		(0.029)		(0.016)		(0.010)
Observations	3464356	3464356	3459535	3459535	3276627	3276627
R^2	0.310	0.311	0.336	0.336	0.470	0.470

Note: Table reports coefficients of Equation (4) estimated by OLS. The estimations include firm×product×year and destination×year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

F Additional analyses on product scope

In this section, we present additional results for the scope of products. Variable definitions are equivalent to those used in the main text.

Table F.1: Competition and product scope for high vs. low TFP firms

	(1)	(2)
$\Delta China_{jt}$	−0.139	−0.167^{b}
	(0.084)	(0.076)
$\Delta China_{jt} \times high - TFP_{ft}$	0.336^{a}	0.282^{a}
	(0.081)	(0.081)
$\Delta Germany_{jt}$		0.135
		(0.200)
$\Delta Germany_{jt} \times high - TFP_{ft}$		−0.136
		(0.104)
$\Delta Italy_{jt}$		0.491
		(0.390)
$\Delta Italy_{jt} \times high - TFP_{ft}$		−0.066
		(0.278)
$\Delta France_{jt}$		0.249
		(0.217)
$\Delta France_{jt} \times high - TFP_{ft}$		−0.402^{b}
		(0.200)
ΔUSA_{jt}		−0.165
		(0.138)
$\Delta USA_{jt} \times high - TFP_{ft}$		−0.105
		(0.087)
$\Delta Netherlands_{jt}$		−0.340
		(0.220)
$\Delta Netherlands_{jt} \times high - TFP_{ft}$		−0.029
		(0.178)
$\Delta Belgium_{jt}$		0.006
		(0.252)
$\Delta Belgium_{jt} \times high - TFP_{ft}$		0.373^{c}
		(0.214)
ΔUK_{jt}		−0.055
		(0.134)
$\Delta UK_{jt} \times high - TFP_{ft}$		−0.212
		(0.153)
$\Delta Japan_{jt}$		0.109
		(0.166)
$\Delta Japan_{jt} \times high - TFP_{ft}$		0.008
		(0.067)
$\Delta Turkey_{jt}$		−0.273
		(0.281)
$\Delta Turkey_{jt} \times high - TFP_{ft}$		0.164
		(0.225)
Observations	1127267	1127267
R^2	0.001	0.001

Note: Table reports coefficient of an OLS regression using the change in the number of products exported by firm f to destination j in year t as dependent variable. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table F.2: Product scope. Robustness

	Instruments		Before&After		5-10 intervals		Time-variant FEs	
	(1)	(2)	(3)≤ 2007	(4)> 2007	(5) 5 years	(6) 10 years	(7)	(8)
$\Delta China_{jt}$	1.596	−0.135	0.557[b]	−0.066	−0.000	0.055	0.100	0.049
	(5.213)	(3.051)	(0.235)	(0.094)	(0.097)	(0.095)	(0.089)	(0.084)
$\Delta Germany_{jt}$		−2.518	−0.314[c]	0.269	0.159	0.199		0.052
		(4.620)	(0.157)	(0.206)	(0.159)	(0.134)		(0.137)
$\Delta Italy_{jt}$		−0.006	0.534	0.257	0.268	−0.127		0.357
		(4.758)	(0.397)	(0.202)	(0.290)	(0.129)		(0.219)
$\Delta France_{jt}$		3.232	0.120	0.232	0.113	0.004		0.071
		(2.898)	(0.165)	(0.190)	(0.126)	(0.098)		(0.098)
ΔUSA_{jt}		0.238	−0.156	−0.178	0.055	0.095		−0.189
		(2.018)	(0.163)	(0.126)	(0.120)	(0.059)		(0.128)
$\Delta Netherlands_{jt}$		−1.215	−0.632	−0.091	0.012	0.140		−0.205
		(2.957)	(0.464)	(0.179)	(0.167)	(0.199)		(0.182)
$\Delta Belgium_{jt}$		−2.113	0.294	0.267	0.424	−0.228		0.152
		(5.937)	(0.263)	(0.209)	(0.272)	(0.161)		(0.170)
ΔUK_{jt}		0.691	−0.178	0.000	−0.124	−0.020		−0.109
		(3.988)	(0.149)	(0.076)	(0.138)	(0.143)		(0.088)
$\Delta Japan_{jt}$		−2.963	0.384[b]	0.073	0.064	0.220		0.151
		(6.610)	(0.178)	(0.081)	(0.155)	(0.178)		(0.142)
$\Delta Turkey_{jt}$		6.395	1.149	−0.042	−0.251	−0.176		0.047
		(6.993)	(0.908)	(0.258)	(0.357)	(0.266)		(0.267)
Observations	2847963	2847963	1372533	1540508	340129	110391	2617402	2617402
R^2			0.001	0.001	0.001	0.001	0.214	0.214
Weak iden. stat.	0.121	0.067						

Note: Table reports coefficients of using the change in the number of products exported by firm f to destination j in year t as dependent variable. Columns (1) and (2) are estimated by 2SLS using as instruments the average share in five randomly selected destinations' total imports, analogous to the definition of the instruments at the product-level defined in Equation (5) for the endogenous competition measures. The weak identification statistic corresponds to the Kleibergen-Paap Wald F statistic. Columns (3) to (8) are estimated by OLS. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table F.3: Robustness. Selection in product scope regression

$\Delta China_{jt}$	0.021
	(0.095)
$\Delta Germany_{jt}$	−0.008
	(0.158)
$\Delta Italy_{jt}$	0.333^{c}
	(0.193)
$\Delta France_{jt}$	0.103
	(0.139)
ΔUSA_{jt}	−0.225
	(0.145)
$\Delta Netherlands_{jt}$	−0.221
	(0.196)
$\Delta Belgium_{jt}$	0.277
	(0.176)
ΔUK_{jt}	−0.153
	(0.101)
$\Delta Japan_{jt}$	0.097
	(0.116)
$\Delta Turkey_{jt}$	0.034
	(0.263)
Observations	2647449
R^2	0.001

Note: Table reports coefficients of an OLS regression using the change in the number of products exported by firm f to destination j in year t as dependent variable. Inverse Mills ratio×year dummy interaction variables not reported. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table F.4: Robustness. Selection with instruments in product scope regression

$\Delta China_{jt}$	0.165
	(2.977)
$\Delta Germany_{jt}$	−4.095
	(8.947)
$\Delta Italy_{jt}$	−1.010
	(6.447)
$\Delta France_{jt}$	5.102
	(5.853)
ΔUSA_{jt}	0.460
	(2.111)
$\Delta Netherlands_{jt}$	−0.706
	(3.770)
$\Delta Belgium_{jt}$	−2.934
	(8.355)
ΔUK_{jt}	−0.063
	(6.131)
$\Delta Japan_{jt}$	−3.856
	(12.868)
$\Delta Turkey_{jt}$	7.404
	(9.633)
Observations	2587057
Weak identification statistic	0.028

Note: Table reports coefficients of using the change in the number of products exported by firm f to destination j in year t as dependent variable. Estimation by 2SLS using as instruments the average share in five randomly selected destinations' total imports, analogous to the definition of the instruments at the product-level defined in Equation (5) for the endogenous competition measures. Inverse Mills ratio×year dummy interaction variables not reported. The weak identification statistic corresponds to the Kleibergen-Paap Wald F statistic. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

G Selection in revenue and price regressions using instruments

Table G.1 presents the selection model from Table 8 in the main text but instruments the regressors as described in Section 4.1 in the main text.

Table G.1: Robustness. Selection in revenue and price regressions using instruments

	Revenue	Price
$\Delta China_{jkt}$	-0.818^{a}	0.058
	(0.212)	(0.130)
$\Delta Germany_{jkt}$	-1.663^{a}	-0.266
	(0.362)	(0.240)
$\Delta Italy_{jkt}$	-0.382	-0.380
	(0.537)	(0.365)
$\Delta France_{jkt}$	-1.105^{b}	-0.140
	(0.489)	(0.291)
ΔUSA_{jkt}	-2.077^{a}	-0.109
	(0.522)	(0.349)
$\Delta Netherlands_{jkt}$	-1.564^{b}	0.526
	(0.759)	(0.458)
$\Delta Belgium_{jkt}$	-1.045^{c}	0.327
	(0.582)	(0.354)
ΔUK_{jkt}	-2.373^{b}	-0.348
	(0.930)	(0.594)
$\Delta Japan_{jkt}$	-0.913	-0.451
	(0.840)	(0.535)
$\Delta Turkey_{jkt}$	-0.625	-0.429
	(0.762)	(0.402)
Observations	3032377	3029562
Weak identification statistic	10	10

Note: Table presents coefficients of Equation (8) estimated by 2SLS using the instruments defined in Equation (5) for the endogenous competition measures. Inverse Mills ratio×year dummy interaction variables not reported. The weak identification statistic corresponds to the Kleibergen-Paap Wald F statistic. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

H Results using within estimator

In this Section, we present regression results in Tables H.1 to H.10 estimating Equation (2) using a within estimator to remove the fixed effects instead of the first difference estimator used in the main text. Results remain qualitatively similar.

Table H.1: The impact of competition on exported products' revenues, prices and survival

	Revenue		Price		Exit	
	(1)	(2)	(3)	(4)	(5)	(6)
$China_{jkt}$	-0.307^a	-0.513^a	0.009	0.013	0.031^a	0.043^a
	(0.017)	(0.018)	(0.008)	(0.008)	(0.005)	(0.005)
$Germany_{jkt}$		-0.497^a		0.008		0.023^a
		(0.016)		(0.009)		(0.004)
$Italy_{jkt}$		-0.389^a		-0.001		0.012^b
		(0.021)		(0.011)		(0.005)
$France_{jkt}$		-0.502^a		0.044^a		0.035^a
		(0.022)		(0.011)		(0.006)
USA_{jkt}		-0.487^a		0.021^b		0.039^a
		(0.017)		(0.010)		(0.005)
$Netherlands_{jkt}$		-0.548^a		-0.011		0.031^a
		(0.026)		(0.013)		(0.007)
$Belgium_{jkt}$		-0.478^a		0.022		0.020^a
		(0.026)		(0.014)		(0.007)
UK_{jkt}		-0.600^a		0.019		0.047^a
		(0.026)		(0.013)		(0.007)
$Japan_{jkt}$		-0.486^a		-0.042^b		0.021^b
		(0.031)		(0.017)		(0.010)
$Turkey_{jkt}$		-0.661^a		-0.048^a		0.089^a
		(0.035)		(0.018)		(0.010)
Observations	6839746	6839746	6825903	6825903	6481964	6481964
R^2	0.752	0.752	0.932	0.932	0.371	0.371

Note: Table reports coefficients of Equation (2) estimated by OLS. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.2: The impact of competition on product scope

	(1)	(2)
$China_{jt}$	0.104	0.073
	(0.133)	(0.151)
$Germany_{jt}$		0.418^{c}
		(0.239)
$Italy_{jt}$		1.204^{a}
		(0.390)
$France_{jt}$		−0.213
		(0.244)
USA_{jt}		−0.035
		(0.198)
$Netherlands_{jt}$		−0.630
		(0.393)
$Belgium_{jt}$		0.517
		(0.478)
UK_{jt}		−0.283
		(0.196)
$Japan_{jt}$		−0.013
		(0.155)
$Turkey_{jt}$		0.957^{c}
		(0.555)
Observations	3917193	3917193
R^2	0.691	0.691

Note: Table reports coefficient of an OLS regression using the (log) number of products exported by firm f to destination j in year t as dependent variable. Estimations include firm×destination and year fixed effects. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.3: The impact of competition on exporters: types of products

	Revenue			Price			Exit		
	(1) Consu.	(2) Capital	(3) Inter.	(4) Consu.	(5) Capital	(6) Inter.	(7) Consu.	(8) Capital	(9) Inter.
$China_{jkt}$	-0.706^{a}	-0.394^{a}	-0.476^{a}	0.183^{a}	-0.013	-0.024^{b}	0.083^{a}	0.044^{a}	0.030^{a}
	(0.037)	(0.044)	(0.021)	(0.019)	(0.029)	(0.009)	(0.011)	(0.013)	(0.006)
$Germany_{jkt}$	-0.369^{a}	-0.432^{a}	-0.564^{a}	-0.014	0.002	0.014	0.025^{b}	0.014	0.024^{a}
	(0.044)	(0.031)	(0.020)	(0.018)	(0.020)	(0.012)	(0.011)	(0.009)	(0.006)
$Italy_{jkt}$	-0.289^{a}	-0.362^{a}	-0.436^{a}	-0.066^{a}	-0.013	0.031^{c}	-0.023^{c}	-0.004	0.030^{a}
	(0.057)	(0.032)	(0.025)	(0.021)	(0.023)	(0.016)	(0.013)	(0.010)	(0.007)
$France_{jkt}$	-0.463^{a}	-0.467^{a}	-0.522^{a}	0.059^{a}	-0.013	0.046^{a}	0.061^{a}	0.012	0.029^{a}
	(0.053)	(0.047)	(0.025)	(0.021)	(0.034)	(0.014)	(0.014)	(0.014)	(0.007)
USA_{jkt}	-0.408^{a}	-0.437^{a}	-0.533^{a}	0.032^{c}	-0.018	0.034^{b}	0.021^{c}	0.030^{b}	0.042^{a}
	(0.039)	(0.033)	(0.023)	(0.018)	(0.024)	(0.014)	(0.011)	(0.012)	(0.006)
$Netherlands_{jkt}$	-0.554^{a}	-0.439^{a}	-0.556^{a}	0.012	-0.054	-0.016	0.026^{c}	0.028	0.035^{a}
	(0.054)	(0.058)	(0.032)	(0.022)	(0.039)	(0.018)	(0.014)	(0.019)	(0.009)
$Belgium_{jkt}$	-0.424^{a}	-0.555^{a}	-0.486^{a}	-0.047^{c}	0.015	0.046^{a}	0.048^{a}	-0.010	0.018^{b}
	(0.064)	(0.063)	(0.031)	(0.026)	(0.042)	(0.017)	(0.016)	(0.021)	(0.008)
UK_{jkt}	-0.555^{a}	-0.528^{a}	-0.632^{a}	0.004	-0.046	0.037^{b}	0.033^{b}	0.023	0.056^{a}
	(0.064)	(0.057)	(0.032)	(0.026)	(0.039)	(0.017)	(0.015)	(0.018)	(0.008)
$Japan_{jkt}$	-0.283^{a}	-0.486^{a}	-0.572^{a}	-0.036	-0.041	-0.035	-0.044^{c}	0.011	0.048^{a}
	(0.071)	(0.053)	(0.042)	(0.031)	(0.039)	(0.024)	(0.024)	(0.016)	(0.012)
$Turkey_{jkt}$	-0.648^{a}	-0.846^{a}	-0.647^{a}	0.086^{b}	-0.078	-0.071^{a}	0.093^{a}	0.074^{b}	0.087^{a}
	(0.078)	(0.124)	(0.041)	(0.035)	(0.071)	(0.021)	(0.026)	(0.035)	(0.011)
Observations	2169230	848744	3815621	2164752	846766	3808238	2052601	805116	3618634
R^2	0.763	0.726	0.749	0.956	0.904	0.907	0.358	0.399	0.368

Note: Table reports coefficients of Equation (2) for separate product categories. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5% and 10% respectively.

Table H.4: Impact of competition on high-tech vs. low-tech products

	Revenue		Price		Exit	
	(1)	(2)	(3)	(4)	(5)	(6)
$China_{jkt}$	-0.335^{a}	-0.513^{a}	-0.022^{b}	-0.010	0.042^{a}	0.049^{a}
	(0.022)	(0.023)	(0.009)	(0.010)	(0.006)	(0.006)
$China_{jkt} \times high-tech_k$	0.119^{a}	0.041	0.098^{a}	0.074^{a}	-0.029^{a}	-0.017^{c}
	(0.033)	(0.034)	(0.017)	(0.017)	(0.008)	(0.009)
$Germany_{jkt}$		-0.514^{a}		0.026^{b}		0.021^{a}
		(0.025)		(0.013)		(0.007)
$Germany_{jkt} \times high-tech_k$		0.049		-0.026		-0.001
		(0.033)		(0.018)		(0.009)
$Italy_{jkt}$		-0.373^{a}		0.002		0.006
		(0.030)		(0.016)		(0.007)
$Italy_{jkt} \times high-tech_k$		0.003		-0.020		0.009
		(0.040)		(0.023)		(0.010)
$France_{jkt}$		-0.480^{a}		0.094^{a}		0.027^{a}
		(0.034)		(0.016)		(0.009)
$France_{jkt} \times high-tech_k$		-0.038		-0.107^{a}		0.011
		(0.044)		(0.023)		(0.012)
USA_{jkt}		-0.470^{a}		0.060^{a}		0.018^{b}
		(0.029)		(0.015)		(0.008)
$USA_{jkt} \times high-tech_k$		-0.007		-0.069^{a}		0.033^{a}
		(0.036)		(0.020)		(0.011)
$Netherlands_{jkt}$		-0.513^{a}		0.005		0.025^{b}
		(0.039)		(0.018)		(0.011)
$Netherlands_{jkt} \times high-tech_k$		0.003		-0.050^{c}		0.003
		(0.052)		(0.028)		(0.015)
$Belgium_{jkt}$		-0.457^{a}		0.039^{b}		0.022^{b}
		(0.040)		(0.020)		(0.010)
$Belgium_{jkt} \times high-tech_k$		-0.026		-0.030		-0.013
		(0.053)		(0.028)		(0.014)
UK_{jkt}		-0.568^{a}		0.042^{b}		0.025^{b}
		(0.041)		(0.019)		(0.010)
$UK_{jkt} \times high-tech_k$		-0.043		-0.044^{c}		0.042^{a}
		(0.053)		(0.026)		(0.014)
$Japan_{jkt}$		-0.607^{a}		-0.050^{c}		0.036^{b}
		(0.054)		(0.030)		(0.016)
$Japan_{jkt} \times high-tech_k$		0.185^{a}		0.015		-0.026
		(0.065)		(0.036)		(0.020)
$Turkey_{jkt}$		-0.686^{a}		-0.046^{a}		0.103^{a}
		(0.042)		(0.017)		(0.011)
$Turkey_{jkt} \times high-tech_k$		0.039		0.027		-0.082^{a}
		(0.084)		(0.041)		(0.023)
Observations	6208060	6208060	6195333	6195333	5882177	5882177
R^2	0.753	0.753	0.925	0.925	0.373	0.373

Note: Table reports coefficients of Equation (2) estimated by OLS augmented by interaction terms between the competition measures and $high-tech_k$, a dummy variable indicating high-tech products. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.5: Impact of competition on high-TFP vs. low-TFP firms

	Revenue		Price		Exit	
	(1)	(2)	(3)	(4)	(5)	(6)
$China_{jkt}$	-0.563^{a}	-0.746^{a}	0.036^{a}	0.044^{a}	0.089^{a}	0.096^{a}
	(0.027)	(0.027)	(0.012)	(0.013)	(0.007)	(0.007)
$China_{jkt} \times high - TFP_{ft}$	0.278^{a}	0.210^{a}	-0.004	-0.019^{b}	-0.061^{a}	-0.055^{a}
	(0.015)	(0.015)	(0.008)	(0.008)	(0.005)	(0.005)
$Germany_{jkt}$		-0.527^{a}		0.006		0.016^{b}
		(0.025)		(0.014)		(0.007)
$Germany_{jkt} \times high - TFP_{ft}$		0.040^{b}		0.016^{c}		-0.003
		(0.016)		(0.009)		(0.005)
$Italy_{jkt}$		-0.483^{a}		-0.046^{a}		0.020^{a}
		(0.031)		(0.017)		(0.008)
$Italy_{jkt} \times high - TFP_{ft}$		0.200^{a}		0.020^{b}		-0.028^{a}
		(0.019)		(0.009)		(0.005)
$France_{jkt}$		-0.572^{a}		0.016		0.018^{b}
		(0.033)		(0.018)		(0.009)
$France_{jkt} \times high - TFP_{ft}$		0.049^{b}		0.034^{b}		0.005
		(0.023)		(0.013)		(0.007)
USA_{jkt}		-0.558^{a}		0.005		0.035^{a}
		(0.026)		(0.016)		(0.008)
$USA_{jkt} \times high - TFP_{ft}$		0.038^{b}		0.025^{b}		-0.003
		(0.018)		(0.011)		(0.006)
$Netherlands_{jkt}$		-0.685^{a}		-0.011		0.030^{b}
		(0.046)		(0.025)		(0.013)
$Netherlands_{jkt} \times high - TFP_{ft}$		0.138^{a}		0.001		0.016
		(0.043)		(0.023)		(0.013)
$Belgium_{jkt}$		-0.615^{a}		-0.004		0.019^{c}
		(0.046)		(0.022)		(0.011)
$Belgium_{jkt} \times high - TFP_{ft}$		0.171^{a}		0.065^{a}		-0.009
		(0.041)		(0.020)		(0.011)
UK_{jkt}		-0.631^{a}		-0.004		0.023^{b}
		(0.043)		(0.024)		(0.012)
$UK_{jkt} \times high - TFP_{ft}$		-0.017		0.034		0.026^{b}
		(0.037)		(0.021)		(0.011)
$Japan_{jkt}$		-0.563^{a}		-0.006		0.042^{a}
		(0.053)		(0.029)		(0.014)
$Japan_{jkt} \times high - TFP_{ft}$		-0.050		-0.035		-0.004
		(0.042)		(0.024)		(0.013)
$Turkey_{jkt}$		-0.969^{a}		-0.093^{a}		0.111^{a}
		(0.059)		(0.026)		(0.016)
$Turkey_{jkt} \times high - TFP_{ft}$		0.295^{a}		0.038		-0.063^{a}
		(0.054)		(0.023)		(0.016)
Observations	2270463	2270463	2269042	2269042	2270463	2270463
R^2	0.773	0.774	0.929	0.929	0.392	0.392

Note: Table reports coefficients of Equation (2) estimated by OLS augmented by interaction terms between the competition measures and $high - TFP_{ft}$, a dummy variable indicating firms with productivity above the median within their industry. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.6: Instrumental variables: the impact of competition on exporters

	Revenue		Price		Exit	
	(1)	(2)	(3)	(4)	(5)	(6)
$China_{jkt}$	-0.500^{a}	-0.715^{a}	0.025	-0.043	0.065^{a}	0.059^{a}
	(0.064)	(0.093)	(0.027)	(0.041)	(0.015)	(0.023)
$Germany_{jkt}$		-0.669^{a}		-0.003		-0.028
		(0.180)		(0.088)		(0.044)
$Italy_{jkt}$		0.039		-0.126		-0.069
		(0.196)		(0.090)		(0.048)
$France_{jkt}$		-1.092^{a}		0.169		0.134^{b}
		(0.193)		(0.131)		(0.056)
USA_{jkt}		-0.730^{a}		-0.323^{a}		0.038
		(0.184)		(0.096)		(0.050)
$Netherlands_{jkt}$		-2.398^{a}		0.046		0.321^{a}
		(0.377)		(0.183)		(0.114)
$Belgium_{jkt}$		-0.112		0.152		-0.027
		(0.256)		(0.127)		(0.068)
UK_{jkt}		-2.149^{a}		-0.287^{c}		0.312^{a}
		(0.288)		(0.151)		(0.082)
$Japan_{jkt}$		-1.183^{a}		-0.141		-0.065
		(0.268)		(0.143)		(0.071)
$Turkey_{jkt}$		-1.862^{a}		-0.267^{b}		0.555^{a}
		(0.288)		(0.135)		(0.089)
Weak iden. stat.	4217	34	4217	34	4217	34
Observations	6716279	6716279	6702436	6702436	6367512	6367512

Note: Table reports coefficients of estimating Equation (2) by 2SLS using the instruments defined in Equation (5) for the endogenous competition measures. The weak identification statistic corresponds to the Kleibergen-Paap Wald F statistic. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.7: The impact of competition on exporters: before and after 2007

	Revenue		Price		Exit	
	(1) <=2007	(2) >2007	(3) <=2007	(4) >2007	(5) <=2007	(6) >2007
$China_{jkt}$	-0.623^{a}	-0.425^{a}	-0.013	0.015^{c}	0.087^{a}	0.034^{a}
	(0.027)	(0.017)	(0.011)	(0.009)	(0.008)	(0.008)
$Germany_{jkt}$	-0.559^{a}	-0.417^{a}	0.008	0.002	0.028^{a}	0.016^{b}
	(0.021)	(0.019)	(0.012)	(0.011)	(0.007)	(0.007)
$Italy_{jkt}$	-0.468^{a}	-0.392^{a}	0.007	-0.007	0.022^{a}	0.018^{b}
	(0.025)	(0.022)	(0.016)	(0.013)	(0.007)	(0.008)
$France_{jkt}$	-0.572^{a}	-0.398^{a}	0.013	0.039^{a}	0.029^{a}	0.017^{c}
	(0.027)	(0.027)	(0.012)	(0.015)	(0.008)	(0.009)
USA_{jkt}	-0.518^{a}	-0.444^{a}	0.032^{b}	-0.011	0.025^{a}	0.034^{a}
	(0.022)	(0.021)	(0.013)	(0.014)	(0.007)	(0.009)
$Netherlands_{jkt}$	-0.623^{a}	-0.415^{a}	-0.013	-0.017	0.032^{a}	0.020^{c}
	(0.033)	(0.030)	(0.018)	(0.017)	(0.011)	(0.011)
$Belgium_{jkt}$	-0.523^{a}	-0.406^{a}	0.020	0.015	0.026^{b}	0.015
	(0.032)	(0.030)	(0.018)	(0.018)	(0.010)	(0.011)
UK_{jkt}	-0.618^{a}	-0.519^{a}	0.010	-0.010	0.054^{a}	0.012
	(0.029)	(0.030)	(0.015)	(0.019)	(0.009)	(0.011)
$Japan_{jkt}$	-0.529^{a}	-0.475^{a}	0.001	-0.073^{a}	0.020	-0.006
	(0.036)	(0.040)	(0.020)	(0.025)	(0.013)	(0.018)
$Turkey_{jkt}$	-0.638^{a}	-0.474^{a}	-0.028	-0.004	0.080^{a}	0.079^{a}
	(0.050)	(0.036)	(0.023)	(0.017)	(0.015)	(0.014)
Observations	3098077	3496240	3084595	3496229	3098077	3140567
R^2	0.781	0.809	0.944	0.940	0.392	0.419

Note: Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5% and 10% respectively.

Table H.8: Export revenues and competition: one-by-one estimations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$China_{jkt}$	-0.307^a										-0.513^a
	(0.017)										(0.018)
$Germany_{jkt}$		-0.244^a									-0.497^a
		(0.015)									(0.016)
$Italy_{jkt}$			-0.121^a								-0.389^a
			(0.021)								(0.021)
$France_{jkt}$				-0.278^a							-0.502^a
				(0.022)							(0.022)
USA_{jkt}					-0.216^a						-0.487^a
					(0.016)						(0.017)
$Netherlands_{jkt}$						-0.310^a					-0.548^a
						(0.026)					(0.026)
$Belgium_{jkt}$							-0.217^a				-0.478^a
							(0.026)				(0.026)
UK_{jkt}								-0.351^a			-0.600^a
								(0.026)			(0.026)
$Japan_{jkt}$									-0.190^a		-0.486^a
									(0.030)		(0.031)
$Turkey_{jkt}$										-0.406^a	-0.661^a
										(0.035)	(0.035)
Observations	6839746	6839746	6839746	6839746	6839746	6839746	6839746	6839746	6839746	6839746	6839746
R^2	0.752	0.752	0.752	0.752	0.752	0.752	0.752	0.752	0.752	0.752	0.752

Note: Table reports OLS coefficients. The dependent variable is (log) export revenues. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the product×destination level are in parentheses. a, b, c statistically significant at 1%, 5% and 10% respectively.

Table H.9: Competition and product scope for high vs. low TFP firms

	(1)	(2)
$China_{jt}$	0.063	−0.012
	(0.166)	(0.186)
$China_{jt} \times high - TFP_{ft}$	0.228[a]	0.318[a]
	(0.019)	(0.041)
$Germany_{jt}$		0.718[a]
		(0.255)
$Germany_{jt} \times high - TFP_{ft}$		0.008
		(0.025)
$Italy_{jt}$		1.359[a]
		(0.482)
$Italy_{jt} \times high - TFP_{ft}$		−0.016
		(0.077)
$France_{jt}$		−0.241
		(0.253)
$France_{jt} \times high - TFP_{ft}$		−0.032
		(0.043)
USA_{jt}		0.118
		(0.192)
$USA_{jt} \times high - TFP_{jt}$		−0.025
		(0.016)
$Netherlands_{jt}$		−1.027[b]
		(0.469)
$Netherlands_{jt} \times high - TFP_{ft}$		0.053
		(0.040)
$Belgium_{jt}$		0.597
		(0.531)
$Belgium_{jt} \times high - TFP_{ft}$		−0.084
		(0.080)
UK_{jt}		−0.275
		(0.231)
$UK_{jt} \times high - TFP_{ft}$		−0.037
		(0.064)
$Japan_{jt}$		0.119
		(0.218)
$Japan_{jt} \times high - TFP_{ft}$		−0.234[a]
		(0.087)
$Turkey_{jt}$		0.131
		(0.452)
$Turkey_{jt} \times high - TFP_{ft}$		0.338[c]
		(0.177)
Observations	1359269	1359269
R^2	0.691	0.692

Note: Table reports coefficient of an OLS regression using the change in the number of products exported by firm f to destination j in year t as dependent variable. Estimations include firm×destination×product and year fixed effects. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

Table H.10: Product scope. Robustness

	Instruments		Before&After	
	(1)	(2)	(3)≤ 2007	(4)> 2007
$China_{jt}$	0.181	12.845	−0.005	0.151
	(0.442)	(527.996)	(0.339)	(0.138)
$Germany_{jt}$		−52.124	−0.058	0.550[b]
		(2173.484)	(0.363)	(0.259)
$Italy_{jt}$		83.354	1.843[a]	0.819[c]
		(4020.684)	(0.591)	(0.442)
$France_{jt}$		7.216	0.176	0.131
		(246.105)	(0.404)	(0.223)
USA_{jt}		18.451	−0.096	−0.082
		(861.408)	(0.262)	(0.229)
$Netherlands_{jt}$		−2.627	−0.943	−0.172
		(541.557)	(0.788)	(0.232)
$Belgium_{jt}$		8.793	−0.023	0.332
		(977.981)	(0.392)	(0.389)
UK_{jt}		−8.000	−0.670[b]	0.200
		(238.996)	(0.299)	(0.136)
$Japan_{jt}$		−19.640	0.427	−0.106
		(739.981)	(0.334)	(0.096)
$Turkey_{jt}$		99.032	2.609[c]	−0.086
		(4240.671)	(1.298)	(0.276)
Weak iden. stat.	23	0		
Observations	3827509	3827509	1893897	1927477

Note: Table reports coefficients of using the change in the number of products exported by firm f to destination j in year t as dependent variable. Columns (1) and (2) are estimated by 2SLS using as instruments the average share in five randomly selected destinations' total imports, analogous to the definition of the instruments at the product-level defined in Equation (5) for the endogenous competition measures. The weak identification statistic corresponds to the Kleibergen-Paap Wald F statistic. Columns (3) to (8) are estimated by OLS. Standard errors clustered at the destination level are in parentheses. a, b, c statistically significant at 1%, 5%, and 10% respectively.

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