

# *Online Appendix for* “Spatial Exporters”

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## **Abstract**

This document presents supplemental material for the paper “Spatial Exporters”. It contains further descriptive evidence for firm-specific heterogeneity in export destinations, detailed first stage regression results, further dynamic panel estimates using only a one-period lag, an additional external instrument as well as results using the difference-GMM estimator by Arellano and Bond (1991), further multi-product firm regressions, miscellaneous robustness checks, all regressions from the main text including country-specific time trends, dynamic panel results for a sample including firms which entered MFA-restricted countries between 2000 and 2004, as well as the empirical probabilities of exporting to a country and descriptive statistics of the samples used in the main text.

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## Appendix

### A Evidence for firm-specific heterogeneity in export destinations

In order to shed light on the entry of firms into different markets in our sample of firms, we follow Eaton et al. (2011) and first assume that firms follow a common hierarchy, meaning that a firm that sells to the  $k + 1$ st most popular export destination necessarily sells to the  $k$ th most popular destinations as well. We present the top seven export destinations of the Chinese exporters in our sample, excluding the MFA-restricted countries. In Table A.1 we report the number of firms exporting to each of the seven most popular destinations, as well as the unconditional empirical probability of Chinese exporters selling there. We clearly see that common gravity variables, like distance and country size, matter.

Again following Eaton et al. (2011), in Table A.2 we report strings of the top-seven destinations that obey a hierarchical structure, alongside the number of firms selling to each string. For example, the export string JPN means that the firm exports to Japan but to no other destination among the top 7 non-MFA destinations. Similarly, the string JPN-KOR means that the firm exports to Japan and South Korea but no other destination among the top 7 non-MFA destinations, and so forth. Overall, 66 percent (861/1295) of all firms in our sample adhere to the hierarchy given by the top seven non-MFA export destinations. Hence, about a third of the firms export to a different set of countries, implying a substantial amount of heterogeneity across firms in terms of the set of export destinations they serve. The column labeled “Independence” in Table A.2 reports, based on the unconditional probabilities presented in Table A.1, the number of firms selling to each hierarchical string assuming independence across destination choices of a firm. If a firm chose export destinations independently, the number of firms sticking to the common hierarchy would be 770, implying that only 59 percent (770/1295) would follow a common hierarchy. In the data, we observe 861 firms which stick to

Table A.1: Chinese Textile and Apparel Firms Exporting to the Seven Most Popular Non-MFA Destinations in 2006

Export destination	Number of exporters	Fraction of exporters
Japan (JPN)	973	0.751
South Korea (KOR)	328	0.253
Singapore (SGP)	81	0.063
Australia (AUS)	70	0.054
Vietnam (VNM)	62	0.048
Thailand (THA)	57	0.044
Malaysia (MYS)	46	0.036
All Chinese exporters*	1,295	

*Notes:* \*in our sample. Table shows the seven most popular export destinations of the 1,295 textile and apparel firms in our sample excluding the 27 MFA/ATC restricted export destinations for the year 2006. The table follows closely Table I in Eaton et al. (2011). We describe the construction of the sample in detail in Section 2.1 of the main manuscript.

the common hierarchy, i.e. 12 percent more than what independence would imply. Hence, in our empirical specification we will have to take into account that export destinations within firms are clustered spatially, and that there is considerable heterogeneity in export destinations across firms. We therefore allow for time-invariant firm-specific attractiveness of export destinations.

Table A.2: Chinese Textile and Apparel Firms Exporting to Strings of Top-Seven Non-MFA Destinations in 2006

Export String <sup>a</sup>	Number of Exporters	
	Data	Independence
JPN	676	565
JPN-KOR	175	191
JPN-KOR-SGP	8	13
JPN-KOR-SGP-AUS	1	1
JPN-KOR-SGP-AUS-VNM	0	0
JPN-KOR-SGP-AUS-VNM-THA	0	0
JPN-KOR-SGP-AUS-VNM-THA-MYS	1	0
Total	861	770

*Notes:* <sup>a</sup>The export string JPN means exporting to Japan but no other destination among the top 7 non-MFA destinations; JPN-KOR means exporting to Japan and South Korea but no other destination among the top 7, and so forth. The table follows closely Table II in Eaton et al. (2011). We describe the construction of the sample in detail in Section 2.1 of the main manuscript.

## B Detailed first stage regression results

We present detailed results of the first stage regressions for the instrumental panel regressions presented in Section 3.3 in the main manuscript in Tables A.3 and A.4.

Weak instrument test statistics are derived under the assumption of *iid* errors. If errors are not *iid*, Baum et al. (2007) propose to still use these statistics and compare them to the Stock and Yogo (2005) critical values or the Staiger and Stock (1997) rule of thumb of a  $F$ -statistic for the excluded instruments in the first stage regression to be larger than 10. In our case, all the tests reject that we have a weak instrument problem.

We also provide the partial  $R^2$  (i.e. the  $R^2$  of the instrument in the first stage regression, netting out the explanatory power of exogenous regressors). It measures the explanatory power of our instruments. Admittedly, these are very low. However, this has to be put in perspective: We use a discrete choice panel of export decisions at the firm level.  $R^2$  measures of demeaned panel models such as ours (i.e. of within-models which remove the explanatory power of the firm-destination fixed effects) for firm-level studies tend to be low, even more so for discrete choice data sets of export destination choices, see Albornoz et al. (2012). Therefore, even though low partial  $R^2$ s are not exactly good news, we would like to stress that a low partial  $R^2$  is only a problem if we had weak instruments which are not strictly exogenous. If one believes in our instruments, then we get consistent estimates even if the explanatory power of the instrument is weak. Also, please note that our instruments only vary at the country level by construction; actually, this is the motivation behind our instrument.

Table A.3: Instrumental Variable Regressions First Stage—Dummy

dependent variable $\mathbb{I}(N_{i,j,t-1} > 0)_{i,j,t}$ defined according to...	I.first common border	II.first common language	III.first common colonizer	IV.first common income group	V.first common continent	VI.first.1 common border	VI.first.2 common language	VI.first.3 common colonizer	VI.first.4 common income group	VI.first.5 common continent
$y_{2006t} \times C_j$ defined according to...										
common border	0.025*** (0.002)					0.024*** (0.002)	-0.029*** (0.003)	-0.001* (0.001)	0.001 (0.002)	0.008 (0.007)
common language		0.079*** (0.006)				0.001* (0.001)	0.075*** (0.006)	0.001 (0.001)	0.000 (0.000)	-0.001 (0.003)
common colonizer			0.004 (0.005)			-0.001*** (0.000)	-0.003 (0.004)	0.004 (0.005)	-0.001 (0.000)	0.001 (0.001)
common incomegroup				-0.005 (0.005)		0.004*** (0.001)	0.012*** (0.001)	-0.000 (0.001)	-0.006 (0.005)	-0.002 (0.002)
common continent					0.129*** (0.008)	0.001 (0.001)	0.019*** (0.004)	-0.004*** (0.002)	0.004 (0.003)	0.128*** (0.008)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.003	0.028	0.001	0.004	0.058	0.004	0.029	0.001	0.004	0.058
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.002	0.009	0.000	0.000	0.037	0.002	0.010	0.000	0.000	0.015
partial $R^2$	0.002	0.009	0.000	0.000	0.037	0.003	0.010	0.000	0.000	0.037
$F$ -statistic	1,355.691	5,561.175	37.753	24.381	22,181.220	301.55	1,208.86	17.02	8.55	4,442.68

Notes: This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $\mathbb{I}(N_{i,j,t-1} > 0)_{i,j,t}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\*, \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.

Table A.4: Instrumental Variable Regressions First Stage— $N$

dependent variable $N_{i,j,t-1}$ defined according to...	L-first common border	II-first common language	III-first common colonizer	IV-first common income group	V-first common continent	VI-first-1 common border	VI-first-2 common language	VI-first-3 common colonizer	VI-first-4 common income group	VI-first-5 common continent
$y_{2006t} \times N_j$ defined according to...										
common border	0.013*** (0.002)					0.014*** (0.001)	-0.009*** (0.001)	0.002 (0.002)	0.000*** (0.000)	-0.011*** (0.001)
common language		0.053*** (0.004)				0.000	0.052*** (0.004)	0.001** (0.000)	-0.002*** (0.000)	0.001* (0.001)
common colonizer			0.008 (0.005)			-0.001*** (0.000)	0.005** (0.002)	0.009 (0.006)	-0.001 (0.001)	-0.007*** (0.001)
common income group				0.021*** (0.002)		0.000*** (0.000)	0.000*** (0.000)	0.000 (0.000)	0.021*** (0.002)	0.001*** (0.000)
common continent					0.011*** (0.001)	-0.000* (0.000)	-0.000*** (0.000)	-0.001 (0.000)	0.001** (0.000)	0.012*** (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.004	0.055	0.002	0.038	0.028	0.004	0.055	0.002	0.038	0.028
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.003	0.025	0.000	0.026	0.013	0.002	0.022	0.000	0.027	0.012
partial $R^2$	0.003	0.025	0.000	0.026	0.013	0.003	0.025	0.000	0.026	0.013
$F$ -statistic	1,616.722	15,094.530	192.476	15,703.310	7,770.398	342.941	3,038.046	57.262	3,151.390	1,576.371

Notes: This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $N_{i,j,t-1}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.

## **C Dynamic Panel Estimates Using Only One-Period Lag with Country-Specific Time Trends**

In Tables A.5 and A.6 we present results for System-GMM estimates of the dynamic panel model using only one lag. As can be seen, while coefficient estimates remain similar to our preferred specification, the specifications with only one lag are clearly rejected by all model specification tests. Note that as we only use a one year lag instead of two, the number of observations increases.



Table A.5: Dynamic Panel Estimates Using Only One-Period Lag—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...						
common border	0.024*** (0.004)					0.025*** (0.004)
common language		0.003*** (0.001)				0.002*** (0.001)
common colonizer			0.003*** (0.001)			0.001 (0.001)
common income group				0.003*** (0.001)		0.002*** (0.001)
common continent					-0.001 (0.001)	-0.005*** (0.001)
$y_{i,j,t-1}$	0.302*** (0.013)	0.302*** (0.013)	0.299*** (0.013)	0.300*** (0.013)	0.309*** (0.013)	0.314*** (0.013)
Observations	971,250	971,250	971,250	971,250	971,250	971,250
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	0	0	0	0	0	0
Sargan	0	0	0	0	0	0

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.6: Dynamic Panel Estimates Using Only One-Period Lag— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{ij,t-1}$ defined according to...						
common border	0.024*** (0.004)					0.015*** (0.004)
common language		0.003*** (0.000)				-0.001*** (0.000)
common colonizer			0.005*** (0.001)			0.000 (0.001)
common income group				0.008*** (0.001)		0.005*** (0.001)
common continent					0.005*** (0.001)	0.002*** (0.001)
$y_{ij,t-1}$	0.304*** (0.013)	0.303*** (0.013)	0.300*** (0.013)	0.302*** (0.013)	0.307*** (0.013)	0.316*** (0.014)
Observations	971,250	971,250	971,250	971,250	971,250	971,250
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	0	0	0	0	0	0
Sargan	0	0	0	0	0	0

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%-, 5%- and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## D Dynamic Panel Estimates Using an Additional External Instrument

Dynamic panel models have been developed to provide consistent parameter estimates when only internal instruments are available. However, they also allow to include external instruments to receive additional moment conditions for estimation. We present results where we include our proposed instruments ( $y_{2006_t} \times C_j$  and  $y_{2006_t} \times N_j$ , respectively) from the instrumental variable regressions from Section 3.3 in the main manuscript in Tables A.7 and A.8. Qualitatively, results remain similar, but model specification tests perform considerably better, as the Sargan test for the validity of our instruments cannot be rejected for the majority of specifications in Table A.7. This provides further indirect evidence in favor of our external instrumental variables.

Table A.7: Dynamic Panel Estimates Using  $y2006_t \times C_j$  as an Additional External Instrument—Dummy

	I	II	III	IV	V	VI
$\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$ defined according to...						
common border	0.045*** (0.015)					0.039** (0.015)
common language		0.004* (0.002)				0.002 (0.002)
common colonizer			0.010*** (0.003)			0.006* (0.003)
common income group				0.000 (0.003)		-0.003 (0.003)
common continent					0.002 (0.002)	-0.001 (0.002)
$y_{ij,t-1}$	0.341*** (0.013)	0.346*** (0.013)	0.342*** (0.013)	0.347*** (0.013)	0.344*** (0.013)	0.345*** (0.013)
$y_{ij,t-2}$	0.077*** (0.013)	0.078*** (0.013)	0.076*** (0.013)	0.081*** (0.013)	0.078*** (0.012)	0.074*** (0.013)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.767	.824	.869	.690	.815	.970
Sargan	.592	.273	.376	.499	.377	.095

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. In addition, we use  $y2006_t \times C_j$  as an additional external instrument. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.8: Dynamic Panel Estimates Using  $y_{2006_t} \times N_j$  as an Additional External Instrument— $N$

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	0.041*** (0.012)					0.032*** (0.012)
common language		0.004*** (0.001)				0.001 (0.001)
common colonizer			0.006*** (0.001)			0.000 (0.001)
common income group				0.005*** (0.001)		0.001 (0.001)
common continent					0.007*** (0.001)	0.004*** (0.001)
$y_{ij,t-1}$	0.340*** (0.013)	0.350*** (0.013)	0.343*** (0.013)	0.352*** (0.013)	0.346*** (0.013)	0.350*** (0.013)
$y_{ij,t-1}$	0.076*** (0.013)	0.084*** (0.013)	0.079*** (0.013)	0.093*** (0.013)	0.092*** (0.012)	0.093*** (0.012)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.775	.575	.731	.288	.297	.250
Sargan	.257	.004	.033	0	0	.001

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. In addition, we use  $y_{2006_t} \times N_j$  as an additional external instrument. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\*, and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## **E Dynamic Panel Estimates Using the Arellano and Bond (1991) Difference-GMM-Estimator**

In Tables A.9 and A.10 we use the Difference-GMM estimator from Arellano and Bond (1991) instead of the System-GMM estimator from Blundell and Bond (1998) used in the main manuscript. The Difference-GMM estimator has the main advantage of being more robust in the sense that less restrictive moment conditions are used for estimation. However, it may suffer from severe finite sample bias if the persistence of the dependent variable is high. Note that using the Difference-GMM estimator we lose an additional year of our dataset for the estimation. Results stay very similar. In addition, the model specification tests perform considerably better compared to the System-GMM estimates as they do not reject the model in the majority of cases, including the Sargan test.

Table A.9: Dynamic Panel Estimates Using the Arellano and Bond (1991) Difference-GMM-Estimator—  
 Dummy

	I	II	III	IV	V	VI
$I(N_{ij,t-1} > 0)_{ijt}$ defined according to...						
common border	0.028*** (0.009)					0.019** (0.009)
common language		0.004** (0.001)				0.002 (0.001)
common colonizer			0.004** (0.002)			0.002 (0.002)
common income group				0.005*** (0.002)		0.003* (0.002)
common continent					0.007*** (0.002)	0.003 (0.002)
$y_{ij,t-1}$	0.366*** (0.026)	0.369*** (0.027)	0.359*** (0.026)	0.371*** (0.025)	0.369*** (0.025)	0.358*** (0.024)
$y_{ij,t-2}$	0.084*** (0.016)	0.087*** (0.016)	0.081*** (0.016)	0.090*** (0.016)	0.088*** (0.016)	0.079*** (0.016)
Observations	582,750	582,750	582,750	582,750	582,750	582,750
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.785	.669	.880	.568	.665	.996
Sargan	.412	.322	.082	.365	.394	.096

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step difference GMM estimator from Arellano and Bond (1991) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\*, and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first- and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.10: Dynamic Panel Estimates Using the Arellano and Bond (1991) Difference-GMM-Estimator— $N$

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	0.029*** (0.009)					0.012 (0.008)
common language		0.005*** (0.002)				0.001 (0.002)
common colonizer			0.006*** (0.002)			0.003 (0.002)
common income group				0.007*** (0.002)		0.002 (0.002)
common continent					0.006*** (0.002)	0.002 (0.002)
$y_{i,j,t-1}$	0.366*** (0.026)	0.360*** (0.026)	0.351*** (0.026)	0.352*** (0.025)	0.345*** (0.025)	0.332*** (0.024)
$y_{i,j,t-2}$	0.084*** (0.016)	0.084*** (0.016)	0.080*** (0.016)	0.082*** (0.016)	0.079*** (0.016)	0.069*** (0.015)
Observations	582,750	582,750	582,750	582,750	582,750	582,750
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.757	.689	.793	.759	.819	.873
Sargan	.465	.281	.047	.330	.254	.081

Notes: The dependent variable is  $y_{i,j,t}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step difference GMM estimator from Arellano and Bond (1991) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.



## F Multi-Product Firms: Dynamic Panel Estimates— $N$

In Table A.11 we present multi-product regressions with the number of contiguous export destinations as an alternative regressor:

$$y_{ijt} = \phi_1 y_{ij,t-1} + \phi_2 y_{ij,t-2} + \delta_1 N_{ij,t-1}^{sameproduct} + \delta_2 N_{ij,t-1}^{otherproducts} + \theta_{ij} + \theta_t + \epsilon_{ijt}. \quad (1)$$

By and large, results are very similar when compared to Table 8 in the main text. Common border for the same product has again the largest marginal effect. We again do not find evidence for across product learning. Interestingly, we now find a small but positive and significant effect of having exported to a common continent.

Table A.11: Multi-Product Firms: Dynamic Panel Estimates— $N$

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	$N_{i,j,t-1}^{sameproduct}$ 0.017*** (0.002)					0.010*** (0.002)
	$N_{i,j,t-1}^{otherproducts}$ 0.001*** (0.000)					-0.000 (0.000)
common language	$N_{i,j,t-1}^{sameproduct}$ 0.002*** (0.000)					-0.000 (0.000)
	$N_{i,j,t-1}^{otherproducts}$ -0.000*** (0.000)					-0.000*** (0.000)
common colonizer	$N_{i,j,t-1}^{sameproduct}$ 0.004*** (0.000)					0.001** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ 0.000 (0.000)					-0.000*** (0.000)
common income group	$N_{i,j,t-1}^{sameproduct}$ 0.005*** (0.000)					0.003*** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ 0.000*** (0.000)					0.000*** (0.000)
common continent	$N_{i,j,t-1}^{sameproduct}$ 0.004*** (0.000)					0.002*** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ 0.000*** (0.000)					0.000*** (0.000)
$y_{i,j,t-1}$	0.310*** (0.006)	0.309*** (0.006)	0.312*** (0.006)	0.312*** (0.006)	0.308*** (0.006)	0.349*** (0.006)
$y_{i,j,t-2}$	0.078*** (0.006)	0.075*** (0.006)	0.078*** (0.006)	0.085*** (0.006)	0.080*** (0.006)	0.124*** (0.006)
Observations	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800
# of firm-product couples	6,573	6,573	6,573	6,573	6,573	6,573
# of firms	1,965	1,965	1,965	1,965	1,965	1,965
AR(1)	0	0	0	0	0	0
AR(2)	.876	.597	.816	.605	.948	0
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{i,j,t}$  which is a dummy variable indicating whether a firm-product couple  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-product-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## **G Miscellaneous robustness checks**

Table A.12 presents the regression results for the first six robustness checks discussed in Section 5 in the main manuscript concerning lagged export values, competitors' success, trading agents, state-owned firms, foreign-owned firms, and processing trade.

In Table A.13, we present results for the diff-in-diff specification excluding Russia as an export destination, as also discussed in Section 5 in the main manuscript.

Table A.12: Dynamic Panel Estimates— $N$ —Miscellaneous Robustness Checks

	I	II	III	IV	V	VI
	lagged export value	competitors' success	drop trading agents	drop state owned firms	drop foreign owned firms	drop processing trade firms
$N_{i,j,t-1}$ defined according to...						
common border	0.013*** (0.004)	0.011** (0.004)	0.014*** (0.004)	0.017*** (0.004)	0.007 (0.006)	0.006 (0.007)
common language	-0.001* (0.000)	-0.000 (0.000)	-0.001* (0.000)	-0.001* (0.000)	-0.001 (0.001)	-0.001 (0.001)
common colonizer	0.000 (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)	0.002 (0.001)	0.002 (0.001)
common income group	0.005*** (0.001)	0.003*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.002* (0.001)	0.004*** (0.001)
common continent	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.001)	0.001** (0.001)	0.002* (0.001)	0.002* (0.001)
firmvalue $_{i,t-1}$	-0.000 (0.000)					
$N_{-ij,p,t-1}$ defined according to...						
common border		-0.000* (0.000)				
common language		-0.000* (0.000)				
common colonizer		-0.000*** (0.000)				
common income group		0.000*** (0.000)				
common continent		0.000*** (0.000)				
$y_{i,j,t-1}$	0.357*** (0.013)	0.480*** (0.012)	0.363*** (0.014)	0.368*** (0.015)	0.370*** (0.024)	0.344*** (0.026)
$y_{i,j,t-2}$	0.101*** (0.013)	0.218*** (0.013)	0.100*** (0.014)	0.096*** (0.014)	0.115*** (0.023)	0.077*** (0.025)
Observations	770,000	770,000	738,750	727,800	88,800	160,200
# of firms	1,295	1,295	1,236	1,213	148	547
AR(1)	0	0	0	0	0	0
AR(2)	.156	0	.065	.034	.718	.252
Sargan	0	0	0	0	.033	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.13: Diff-in-Diff Excluding Russia

	I	II	III	IV	V	VI
$y_{2006_t} \times C_j$ defined according to...						
common border	0.001*** (0.000)					0.001*** (0.000)
common language		0.000 (0.000)				0.000 (0.000)
common colonizer			-0.000 (0.000)			-0.000 (0.000)
common income group				-0.000 (0.000)		-0.000* (0.000)
common continent					0.000*** (0.000)	0.000 (0.000)
Observations	771,820	771,820	771,820	771,820	771,820	771,820
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the country level to take into account that the regressor only varies at the country level following the suggestion for differences-in-differences estimates by Bertrand et al. (2004). \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1% level, respectively.

## H Controlling for country-specific time trends

Tables A.14 to A.30 present all the tables from the main manuscript including country-specific time trends as discussed in Section 5 in the main manuscript under the heading “*Country-specific time trends*”.

### H.1 Diff-in-Diff

Table A.14 reports the difference in difference estimates. Clearly, we cannot identify any significant effect of spatial exporters when including country-specific time trends. This is not too surprising, however, as our treatment only varies at the country-level and does not use any firm-specific information for identification.

We therefore also tried out continent-specific time trends. As expected, results lie in between the estimates without the time trends and the country-specific time trends. Specifically, sharing a common border remains significant. We present these results in Table A.15.

Table A.14: Diff-in-Diff with Country-Specific Time Trends

	I	II	III	IV	V	VI
$y_{2006_t} \times C_j$ defined according to...						
common border	-0.000** (0.000)					-0.000 (0.000)
common language		-0.000*** (0.000)				-0.000 (0.000)
common colonizer			-0.000 (0.000)			0.000 (0.000)
common income group				-0.000*** (0.000)		-0.000*** (0.000)
common continent					-0.000 (0.000)	0.000 (0.000)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the country level to take into account that the regressor only varies at the country level following the suggestion for differences-in-differences estimates by Bertrand et al. (2004). \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.

Table A.15: Diff-in-Diff with Continent-Specific Time Trends

	I	II	III	IV	V	VI
$y_{2006_t} \times C_j$ defined according to...						
common border	0.001*** (0.000)					0.001** (0.000)
common language		-0.000 (0.000)				0.000 (0.000)
common colonizer			-0.000*** (0.000)			-0.000* (0.000)
common income group				-0.000** (0.000)		-0.000** (0.000)
common continent					-0.000 (0.000)	-0.000 (0.000)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as continent-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the country level to take into account that the regressor only varies at the country level following the suggestion for differences-in-differences estimates by Bertrand et al. (2004). \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.



## **H.2 Fixed effects regression taking into account firm-level history**

Tables A.16 and A.17 present the fixed effects regressions taking into account firm-level history. In this specifications, results are robust and even become more significant when including country-specific time trends.

Table A.16: Fixed Effects Regression Taking into Account Firm-Level History—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$ defined according to...						
common border	0.014*** (0.003)					0.014*** (0.003)
common language		0.002*** (0.001)				0.001** (0.001)
common colonizer			0.002** (0.001)			0.001 (0.001)
common income group				0.001 (0.001)		0.000 (0.001)
common continent					0.001 (0.001)	-0.001 (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.

Table A.17: Fixed Effects Regression Taking into Account Firm-Level History— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{ij,t-1}$ defined according to...						
common border	0.011*** (0.003)					0.010*** (0.003)
common language		0.001** (0.001)				0.000 (0.000)
common colonizer			0.003*** (0.001)			0.002** (0.001)
common income group				0.002** (0.001)		0.001 (0.001)
common continent					0.001 (0.001)	0.000 (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.

### H.3 Instrumental variable regressions

Tables A.18 to A.21 present instrumental variable regressions including country-specific time trends alongside the accompanying first stage regression results. Here, results seem not to be robust, with the majority of all estimated coefficients being negative and significant. The unrealistically large coefficient estimates for column III in both Tables A.18 and A.20 hint at very high multicollinearity between the country-specific time trends and our regressors of interest. Evidently, identifying coefficients becomes difficult.

We therefore also tried out continent-specific time trends. As expected, results lie in between the estimates without the time trends and the country-specific time trends. Specifically, sharing a common border remains significant. We present these results in Tables A.22 to A.25.

Table A.18: Instrumental Variable Regressions—Dummy with Country-Specific Time Trend

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...						
common border	-0.033 (0.041)					-0.144 (0.288)
common language		-0.011*** (0.004)				-0.045 (0.109)
common colonizer			-3.371*** (0.779)			-1.666 (1.614)
common income group				-0.125 (0.200)		0.054 (0.942)
common continent					-0.003 (0.002)	0.031 (0.064)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
First stage $F$ -statistic	642.7	5,046	0.0344	66.39	13,599	( $\diamond$ )
First stage partial $R^2$	0.001	0.009	0.000	0.000	0.023	( $\diamond$ )

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). We use the two-stage least-squares within panel instrumental variables estimator where we instrument the endogenous regressor by  $y2006_t \times C_j$ . Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\*, and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. First stage  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and first stage partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. ( $\diamond$ ): The five first stage regressions and statistics for the five endogenous variables for column VI are reported in Table A.19.

Table A.19: Instrumental Variable Regressions First Stage—Dummy with Country-Specific Time Trend

dependent variable $\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...	I,first common border	II,first common language	III,first common colonizer	IV,first common income group	V,first common continent	VI,first,1 common border	VI,first,2 common language	VI,first,3 common colonizer	VI,first,4 common income group	VI,first,5 common continent
$y_{2006t} \times C_j$ defined according to...										
common border	0.026*** (0.002)					0.023*** (0.002)	-0.030*** (0.003)	-0.001 (0.001)	0.002 (0.003)	0.004 (0.009)
common language		0.072*** (0.007)				0.001** (0.001)	0.066*** (0.007)	-0.002 (0.002)	0.002 (0.004)	-0.004 (0.005)
common colonizer			0.000 (0.007)			-0.003*** (0.001)	-0.010** (0.004)	0.001 (0.007)	0.002 (0.003)	0.001 (0.003)
common income group				0.011** (0.005)		0.004*** (0.001)	0.009*** (0.002)	0.000 (0.001)	0.009 (0.006)	0.003 (0.002)
common continent					0.130*** (0.007)	0.001 (0.001)	0.024*** (0.004)	0.001 (0.002)	-0.001 (0.004)	0.130*** (0.010)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.008	0.030	0.002	0.005	0.059	0.008	0.031	0.002	0.005	0.059
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.001	0.009	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000
partial $R^2$	0.001	0.009	0.000	0.000	0.023	0.001	0.009	0.000	0.000	0.023
$F$ -statistic	642.666	5,046.303	0.034	66.387	13,598.650	145.213	1,060.290	0.762	14.609	2,724.242

Notes: This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.

Table A.20: Instrumental Variable Regressions— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	-0.032 (0.035)					-0.011 (0.076)
common language		-0.004*** (0.001)				0.001 (0.022)
common colonizer			0.551 (0.750)			0.271 (1.008)
common income group				-0.006** (0.003)		-0.006 (0.007)
common continent					-0.001 (0.001)	-0.001 (0.009)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
First stage $F$ -statistic	754.3	10,923	0.316	8,485	5,357	( $\diamond$ )
First stage partial $R^2$	0.001	0.018	0.000	0.014	0.009	( $\diamond$ )

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). We use the two-stage least-squares within panel instrumental variables estimator where we instrument the endogenous regressor by  $y_{2006t} \times N_j$ . Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. First stage  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and first stage partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. ( $\diamond$ ): The five first stage regressions and statistics for the five endogenous variables for column VI are reported in Table A.21.

Table A.21: Instrumental Variable Regressions First Stage— $N$  with Country-Specific Time Trend

dependent variable $N_{i,j,t-1}$ defined according to...	I-first common border	II-first common language	III-first common colonizer	IV-first common income group	V-first common continent	VI-first-1 common border	VI-first-2 common language	VI-first-3 common colonizer	VI-first-4 common income group	VI-first-5 common continent
$y_{2006,t} \times N_j$ defined according to...										
common border	0.014*** (0.002)					0.014*** (0.001)	-0.008*** (0.001)	-0.000 (0.002)	0.001* (0.000)	-0.012*** (0.001)
common language		0.049*** (0.005)				0.000*** (0.000)	0.048*** (0.005)	-0.001 (0.001)	-0.004* (0.002)	0.007*** (0.002)
common colonizer			-0.000 (0.006)			-0.001*** (0.000)	0.003 (0.002)	0.000 (0.007)	-0.003 (0.002)	-0.005** (0.002)
common income group				0.021*** (0.002)		0.000*** (0.000)	0.000*** (0.000)	0.000 (0.000)	0.022*** (0.002)	0.002*** (0.000)
common continent					0.014*** (0.001)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.001)	0.014*** (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.008	0.057	0.003	0.041	0.031	0.008	0.057	0.003	0.041	0.031
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.001	0.018	0.000	0.014	0.009	0.000	0.000	0.000	0.001	0.000
partial $R^2$	0.001	0.018	0.000	0.014	0.009	0.001	0.018	0.000	0.014	0.010
$F$ -statistic	754.3398	10922.77	0.31565	8484.718	5356.873	164.4725	2188.267	0.7944504	1710.127	1122.998

Notes: This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $N_{i,j,t-1}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.



Table A.22: Instrumental Variable Regressions—Dummy with Continent-Specific Time Trend

	I	II	III	IV	V	VI
$\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$ defined according to...						
common border	0.062** (0.029)					0.053 (0.329)
common language		-0.004 (0.004)				-0.011 (0.173)
common colonizer			-0.265 (33.603)			-0.189 (5.918)
common income group				0.275 (0.956)		0.113 (1.056)
common continent					-0.003 (0.002)	-0.005 (0.122)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
First stage $F$ -statistic	1,337	7,134	25,224	7,255	13,602	( $\diamond$ )
First stage partial $R^2$	0.002	0.012	0.000	0.000	0.023	( $\diamond$ )

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as continent-specific time trends (not reported). We use the two-stage least-squares within panel instrumental variables estimator where we instrument the endogenous regressor by  $y_{2006t} \times C_j$ . Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1% level, respectively. First stage  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and first stage partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. ( $\diamond$ ): The five first stage regressions and statistics for the five endogenous variables for column VI are reported in Table A.23.

Table A.23: Instrumental Variable Regressions First Stage —Dummy with Continent-Specific Time Trend

dependent variable $\mathbb{I}(N_{i,j,t-1} > 0)_{i,j,t}$ defined according to...	I.first common border	II.first common language	III.first common colonizer	IV.first common income group	V.first common continent	VI.first.1 common border	VI.first.2 common language	VI.first.3 common colonizer	VI.first.4 common income group	VI.first.5 common continent
$y_{2006t} \times C_j$ defined according to...										
common border	0.027*** (0.002)					0.026*** (0.002)	-0.022*** (0.002)	-0.001 (0.002)	0.002 (0.002)	0.003 (0.005)
common language		0.073*** (0.006)				0.000 (0.000)	0.068*** (0.006)	-0.002 (0.002)	0.004 (0.003)	-0.003 (0.003)
common colonizer			0.003 (0.005)			-0.001*** (0.000)	-0.005 (0.003)	0.004 (0.005)	0.001 (0.002)	0.000 (0.001)
common income group				-0.003 (0.005)		0.003*** (0.001)	0.009*** (0.001)	0.000 (0.001)	-0.005 (0.005)	0.001 (0.001)
common continent					0.130*** (0.007)	0.001 (0.001)	0.019*** (0.004)	0.000 (0.002)	0.003 (0.005)	0.130*** (0.009)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.004	0.028	0.001	0.004	0.059	0.004	0.029	0.001	0.004	0.059
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.002	0.012	0.000	0.000	0.023	0.002	0.008	0.000	0.000	0.014
partial $R^2$	0.002	0.012	0.000	0.000	0.023	0.002	0.013	0.000	0.000	0.023
$F$ -statistic	1,336.717	7,134.355	25.224	7.255	13,602.040	284.276	1,478.379	6.519	10.547	2,723.211

Notes: This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $\mathbb{I}(N_{i,j,t-1} > 0)_{i,j,t}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as continent-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.

Table A.24: Instrumental Variable Regressions— $N$  with Continent-Specific Time Trends

	I	II	III	IV	V	VI
$N_{ij,t-1}$ defined according to...						
common border	0.053* (0.029)					0.074*** (0.028)
common language		-0.001 (0.001)				0.000 (0.002)
common colonizer			-0.060 (1.057)			-0.028 (0.139)
common income group				-0.004* (0.002)		-0.005** (0.002)
common continent					-0.001 (0.001)	-0.003 (0.002)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
First stage $F$ -statistic	1,551	19,472	158.0	15,974	5,358	( $\diamond$ )
First stage partial $R^2$	0.003	0.032	0.000	0.027	0.009	( $\diamond$ )

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as continent-specific time trends (not reported). We use the two-stage least-squares within panel instrumental variables estimator where we instrument the endogenous regressor by  $y_{2006t} \times N_j$ . Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. First stage  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and first stage partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. ( $\diamond$ ): The five first stage regressions and statistics for the five endogenous variables for column VI are reported in Table A.25.

Table A.25: Instrumental Variable Regressions First Stage— $N$  with Continent-Specific Time Trend

dependent variable $N_{i,j,t-1}$ defined according to...	I.first common border	II.first common language	III.first common colonizer	IV.first common income group	V.first common continent	VI.first_1 common border	VI.first_2 common language	VI.first_3 common colonizer	VI.first_4 common income group	VI.first_5 common continent
$y_{2006t} \times N_j$ defined according to...										
common border	0.014*** (0.002)					0.014*** (0.001)	-0.007*** (0.001)	0.002 (0.002)	-0.001*** (0.000)	-0.005*** (0.001)
common language		0.051*** (0.004)				0.000 (0.000)	0.051*** (0.004)	-0.001 (0.001)	-0.002* (0.001)	0.004*** (0.001)
common colonizer			0.006 (0.005)			-0.001*** (0.000)	0.005*** (0.002)	0.008 (0.006)	-0.003*** (0.001)	-0.001 (0.001)
common income group				0.021*** (0.002)		0.000*** (0.000)	-0.000 (0.000)	0.000 (0.000)	0.021*** (0.002)	0.001*** (0.000)
common continent					0.014*** (0.001)	-0.000 (0.000)	-0.000* (0.000)	-0.000 (0.000)	0.000 (0.001)	0.014*** (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000	777,000
$R^2$	0.004	0.056	0.002	0.039	0.031	0.004	0.056	0.002	0.039	0.031
# of firms	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295	1,295
Shea (1997) $R^2$	0.003	0.032	0.000	0.027	0.009	0.002	0.034	0.000	0.026	0.010
partial $R^2$	0.003	0.032	0.000	0.027	0.009	0.003	0.032	0.000	0.027	0.009
$F$ -statistic	1,550.751	19,471.750	157,998	15,973.810	5,358.207	321.739	3,905.798	35.265	3,205.205	1,102.421

*Notes:* This table shows the first stage regressions for the instrumental variable regressions shown in the main text. The dependent variable is the potentially endogenous regressor  $N_{i,j,t-1}$  defined as in the columns I-VI in the main text. As column VI contains five potentially endogenous regressors, there are five according first stage regressions which are labelled using arabic numbers. All regressions include firm-destination fixed effects, as well as continent-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.  $F$ -statistic denotes the value of the  $F$ -statistic of excluding the endogenous regressor from the first stage regression and partial  $R^2$  reports the explanatory power of the instrument, netting out exogenous regressors from the first stage regression. Shea (1997) generalizes the partial  $R^2$  to the case of multiple endogenous regressors but is identical to the partial  $R^2$  in the case of a single endogenous regressor.

## **H.4 Dynamic panel results taking into account state dependence**

Tables A.26 and A.27 present dynamic panel estimates including country-specific time trends. Results are very similar to the dynamic panel estimates presented in the main manuscript.

Table A.26: Dynamic Panel Estimates—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)$ defined according to...						
common border	0.023*** (0.004)					0.025*** (0.004)
common language		0.003*** (0.001)				0.002*** (0.001)
common colonizer			0.003*** (0.001)			0.001 (0.001)
common income group				0.003*** (0.001)		0.002*** (0.001)
common continent					-0.002** (0.001)	-0.006*** (0.001)
$y_{i,j,t-1}$	0.343*** (0.013)	0.344*** (0.013)	0.342*** (0.013)	0.343*** (0.013)	0.346*** (0.013)	0.348*** (0.014)
$y_{i,j,t-2}$	0.077*** (0.013)	0.079*** (0.013)	0.076*** (0.013)	0.079*** (0.013)	0.078*** (0.013)	0.075*** (0.013)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.780	.730	.837	.734	.819	.992
Sargan	.385	.475	.223	.249	.025	.012

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.27: Dynamic Panel Estimates— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{ij,t-1}$ defined according to...						
common border	0.022*** (0.004)					0.013*** (0.004)
common language		0.002*** (0.000)				-0.001*** (0.000)
common colonizer			0.004*** (0.001)			0.000 (0.001)
common income group				0.007*** (0.001)		0.005*** (0.001)
common continent					0.004*** (0.001)	0.002*** (0.001)
$y_{ij,t-1}$	0.343*** (0.013)	0.347*** (0.014)	0.342*** (0.014)	0.340*** (0.013)	0.340*** (0.014)	0.358*** (0.014)
$y_{ij,t-2}$	0.077*** (0.013)	0.082*** (0.013)	0.079*** (0.013)	0.085*** (0.013)	0.084*** (0.013)	0.101*** (0.013)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295
AR(1)	0	0	0	0	0	0
AR(2)	.786	.614	.701	.449	.492	.161
Sargan	.367	.060	.105	.002	.002	0

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%-, 5%- and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## **H.5 Multi-product firms**

We present results for multi-product firm regressions including country-specific time trends in Tables A.28 and A.29. Again, results remain similar to those from specifications without time trends.



Table A.28: Multi-Product Firms: Dynamic Panel Estimates—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...						
common border	0.018*** (0.002)					0.019*** (0.002)
	0.002** (0.001)					0.004*** (0.001)
common language		0.002*** (0.000)				0.001*** (0.000)
		-0.000* (0.000)				-0.000 (0.000)
common colonizer			0.002*** (0.001)			0.001** (0.001)
			-0.001** (0.000)			-0.000 (0.000)
common income group				0.001*** (0.000)		0.001* (0.000)
				-0.000 (0.000)		-0.000 (0.000)
common continent					-0.001 (0.000)	-0.003*** (0.001)
						-0.004*** (0.000)
$y_{i,j,t-1}$	0.307*** (0.007)	0.314*** (0.007)	0.308*** (0.007)	0.308*** (0.007)	0.327*** (0.007)	0.336*** (0.007)
$y_{i,j,t-2}$	0.076*** (0.006)	0.081*** (0.006)	0.076*** (0.006)	0.077*** (0.006)	0.096*** (0.006)	0.105*** (0.006)
Observations	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800
# of firms	1,965	1,965	1,965	1,965	1,965	1,965
AR(1)	0	0	0	0	0	0
AR(2)	.738	.915	.703	.790	.106	.014
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm-product couple  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-product-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%-, 5%-, and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.29: Multi-Product Firms: Dynamic Panel Estimates— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	$N^{sameproduct}_{i,j,t-1}$ 0.017*** (0.002)					0.010*** (0.002)
	$N^{otherproducts}_{i,j,t-1}$ 0.001*** (0.000)					-0.000 (0.000)
common language	$N^{sameproduct}_{i,j,t-1}$ 0.002*** (0.000)					-0.001*** (0.000)
	$N^{otherproducts}_{i,j,t-1}$ -0.000*** (0.000)					-0.000*** (0.000)
common colonizer	$N^{sameproduct}_{i,j,t-1}$ 0.004*** (0.000)					0.001** (0.000)
	$N^{otherproducts}_{i,j,t-1}$ -0.000 (0.000)					-0.000*** (0.000)
common income group	$N^{sameproduct}_{i,j,t-1}$ 0.006*** (0.000)					0.003*** (0.000)
	$N^{otherproducts}_{i,j,t-1}$ 0.000*** (0.000)					0.000*** (0.000)
common continent	$N^{sameproduct}_{i,j,t-1}$ 0.004*** (0.000)					0.003*** (0.000)
	$N^{otherproducts}_{i,j,t-1}$ 0.308*** (0.007)	0.307*** (0.007)	0.309*** (0.007)	0.313*** (0.007)	0.305*** (0.007)	0.347*** (0.007)
$y_{i,j,t-1}$	0.078*** (0.006)	0.075*** (0.006)	0.077*** (0.006)	0.088*** (0.006)	0.079*** (0.006)	0.122*** (0.006)
$y_{i,j,t-2}$						
Observations	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800	3,943,800
# of firms	1,965	1,965	1,965	1,965	1,965	1,965
AR(1)	0	0	0	0	0	0
AR(2)	.912	.649	.85	.348	.966	0
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm-product couple  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-product-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## **H.6 Miscellaneous robustness checks**

In this Section, we present the results of including country-specific time trends in the specifications presented in Table A.12.

Table A.30: Dynamic Panel Estimates— $N$ —Miscellaneous Robustness Checks with Country-Specific Time Trends

	I	II	III	IV	V	VI
	lagged export value	competitors' success	drop trading agents	drop state owned firms	drop foreign owned firms	drop processing trade firms
$N_{i,j,t-1}$ defined according to...						
common border	0.012** (0.004)	0.012** (0.004)	0.014*** (0.004)	0.016*** (0.004)	0.007 (0.007)	0.007 (0.007)
common language	-0.001** (0.000)	0.000 (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001 (0.001)	-0.002* (0.001)
common colonizer	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.002 (0.001)	0.003 (0.001)
common income group	0.005*** (0.001)	0.003*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.002* (0.001)	0.004*** (0.001)
common continent	0.002** (0.001)	0.002*** (0.001)	0.002** (0.001)	0.001** (0.001)	0.002* (0.001)	0.002 (0.001)
firmvalue $_{i,t-1}$	-0.000 (0.000)					
$N_{-ij,p,t-1}$ defined according to...						
common border		-0.000*** (0.000)				
common language		-0.000*** (0.000)				
common colonizer		-0.000*** (0.000)				
common income group		0.000*** (0.000)				
common continent		0.000*** (0.000)				
$y_{i,j,t-1}$	0.358*** (0.014)	0.441*** (0.012)	0.365*** (0.015)	0.370*** (0.015)	0.371*** (0.024)	0.348*** (0.027)
$y_{i,j,t-2}$	0.105*** (0.013)	0.178*** (0.013)	0.103*** (0.014)	0.099*** (0.014)	0.116*** (0.023)	0.081** (0.025)
Observations	777,000	777,000	738,750	727,800	88,800	160,200
# of firms	1,295	1,295	1,236	1,213	148	547
AR(1)	0	0	0	0	0	0
AR(2)	.102	0	.048	.022	.683	.188
Sargan	0	0	0	0	.033	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

# I Different specification for fixed effects regression taking into account firm-level history

We follow up on footnote 16 in the main manuscript of the paper and introduce  $N_{ij,t-1}^{MFA}$ , the number of contiguous previous export destinations which are MFA countries, and  $N_{ij,t-1}^{nonMFA}$ , the number of contiguous previous export destinations which are not MFA countries, instead of our default regressor  $N_{ij,t-1}$ , the total number of contiguous previous export destinations, in our regressions from Section 3.2 from the main manuscript which present fixed effects regressions which take into account firm-level history. Note that  $N_{ij,t-1} = N_{ij,t-1}^{MFA} + N_{ij,t-1}^{nonMFA}$ . As always, we begin by presenting results where we apply  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$  to each definition of  $N_{ij,t-1}$ . Obviously, evidence for spatial exporters in our sample comes predominantly from entering in previously restricted MFA countries if we define our regressor of interest as sharing a common border, consistent with our identification and sample selection strategy as explained in the main text.

Table A.31: Different Specification for Fixed Effects Regression Taking into Account Firm-Level History—Dummy

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...						
common border and MFA member	0.043*** (0.014)					0.042*** (0.014)
common border but no MFA member	0.011*** (0.004)					0.011*** (0.003)
common language and MFA member		0.002* (0.001)				0.001 (0.001)
common language but no MFA member		0.002*** (0.001)				0.001** (0.001)
common colonizer and MFA member			-0.028 (0.032)			-0.029 (0.031)
common colonizer but no MFA member			0.002*** (0.001)			0.001 (0.001)
common income group and MFA member				0.000 (0.003)		-0.001 (0.003)
common income group but no MFA member				0.001 (0.001)		0.001 (0.001)
common continent and MFA member					0.003** (0.001)	0.001 (0.001)
common continent but no MFA member					0.000 (0.001)	-0.002 (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%-, 5%- and 1%-level, respectively.

Table A.32: Different Specification for Fixed Effects Regression Taking into Account Firm-Level History— $N$

	I	II	III	IV	V	VI
$N_{ij,t-1}$ defined according to...						
common border and MFA member	0.031** (0.013)					0.027** (0.011)
common border but no MFA member	0.009*** (0.003)					0.008** (0.003)
common language and MFA member		0.000 (0.001)				-0.000 (0.001)
common language but no MFA member		0.002** (0.001)				0.001 (0.001)
common colonizer and MFA member			-0.029 (0.028)			-0.031 (0.028)
common colonizer but no MFA member			0.003*** (0.001)			0.002** (0.001)
common income group and MFA member				0.001 (0.002)		0.000 (0.002)
common income group but no MFA member				0.002** (0.001)		0.001** (0.001)
common continent and MFA member					0.002* (0.001)	0.001 (0.001)
common continent but no MFA member					0.001 (0.001)	-0.000 (0.001)
Observations	777,000	777,000	777,000	777,000	777,000	777,000
# of firms	1,295	1,295	1,295	1,295	1,295	1,295

*Notes:* The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as year dummies (not reported). Standard errors are in parentheses. All regressions use robust standard errors clustered at the firm level to take into account the potential autocorrelation in the export destination choice at the firm level. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively.

## **J Dynamic Panel Estimates Including Firms Which Entered MFA-Restricted Countries between 2000 and 2004— $N$ with Country-Specific Time Trends**

As in principle the dynamic panel regressions take account of the previous export experience of a firm by the lagged dependent variable, we re-estimate our model by including also those firms which entered in MFA-restricted countries between 2000 and 2004, i.e. those which did have an export license. We present results in Tables A.33 to A.36. Estimated coefficients remain similar. However, the model specification tests clearly reject all regressions, hinting at the endogeneity bias introduced by not restricting the sample to firms who have never exported to MFA-restricted countries between 2000 and 2004.



Table A.33: Dynamic Panel Estimates Including Firms Which Entered MFA-Restricted Countries between 2000 and 2004—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$ defined according to...						
common border	0.032*** (0.001)					0.031*** (0.001)
common language		0.004*** (0.001)				0.001* (0.001)
common colonizer			0.004*** (0.000)			0.003*** (0.001)
common income group				0.002*** (0.000)		0.001*** (0.000)
common continent					-0.001** (0.000)	-0.004*** (0.000)
$y_{ij,t-1}$	0.334*** (0.003)	0.336*** (0.003)	0.336*** (0.003)	0.335*** (0.003)	0.337*** (0.003)	0.335*** (0.003)
$y_{ij,t-2}$	0.082*** (0.003)	0.083*** (0.003)	0.082*** (0.003)	0.082*** (0.003)	0.084*** (0.003)	0.084*** (0.003)
Observations	2,923,800	2,923,800	2,923,800	2,923,800	2,923,800	2,923,800
# of firms	4,873	4,873	4,873	4,873	4,873	4,873
AR(1)	0	0	0	0	0	0
AR(2)	.006	.006	.013	.009	.004	.003
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.34: Dynamic Panel Estimates Including Firms Which Entered MFA-Restricted Countries between 2000 and 2004— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	0.035*** (0.001)					0.018*** (0.001)
common language		0.007*** (0.000)				0.002*** (0.000)
common colonizer			0.007*** (0.000)			-0.001*** (0.000)
common income group				0.010*** (0.000)		0.008*** (0.000)
common continent					0.008*** (0.000)	0.002*** (0.000)
$y_{i,j,t-1}$	0.331*** (0.003)	0.330*** (0.003)	0.334*** (0.003)	0.309*** (0.003)	0.318*** (0.003)	0.306*** (0.003)
$y_{i,j,t-2}$	0.081*** (0.003)	0.080*** (0.003)	0.081*** (0.003)	0.074*** (0.003)	0.079*** (0.003)	0.073*** (0.003)
Observations	2,923,800	2,923,800	2,923,800	2,923,800	2,923,800	2,923,800
# of firms	4,873	4,873	4,873	4,873	4,873	4,873
AR(1)	0	0	0	0	0	0
AR(2)	.004	.010	.010	.033	.005	.040
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{i,j,t}$  which is a dummy variable indicating whether a firm  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\*, and \*\*\* denote significance at the 10%, 5%, and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.35: Multi-Product Firms: Dynamic Panel Estimates Including Firms Which Entered MFA-Restricted Countries between 2000 and 2004—Dummy with Country-Specific Time Trends

	I	II	III	IV	V	VI
$\mathbb{I}(N_{i,j,t-1} > 0)_{ijt}$ defined according to...						
common border	$\mathbb{I}(N_{i,j,t-1}^{sameproduct} > 0)_{ijt}$ 0.019*** (0.001)					0.019*** (0.001)
	$\mathbb{I}(N_{i,j,t-1}^{otherproducts} > 0)_{ijt}$ 0.003*** (0.000)					0.003*** (0.000)
common language		0.002*** (0.000)				0.001*** (0.000)
		-0.000** (0.000)				-0.001*** (0.000)
common colonizer			0.002*** (0.000)			0.001*** (0.000)
			-0.001*** (0.000)			-0.001*** (0.000)
common income group				0.001*** (0.000)		0.001*** (0.000)
				-0.001*** (0.000)		-0.001*** (0.000)
common continent					-0.001*** (0.000)	-0.002*** (0.000)
					-0.002*** (0.000)	-0.001*** (0.000)
$y_{i,j,t-1}$	0.285*** (0.002)	0.285*** (0.002)	0.285*** (0.002)	0.286*** (0.002)	0.286*** (0.002)	0.288*** (0.002)
$y_{i,j,t-1}$	0.072*** (0.002)	0.072*** (0.002)	0.072*** (0.002)	0.072*** (0.002)	0.073*** (0.002)	0.075*** (0.002)
Observations	11,997,000	11,997,000	11,997,000	11,997,000	11,997,000	11,997,000
# of firm-product couples	19,995	19,995	19,995	19,995	19,995	19,995
# of firms	3,524	3,524	3,524	3,524	3,524	3,524
AR(1)	0	0	0	0	0	0
AR(2)	.116	.109	.165	.104	.06	.01
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm-product couple  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-product-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

Table A.36: Multi-Product Firms: Dynamic Panel Estimates Including Firms Which Entered MFA-Restricted Countries between 2000 and 2004— $N$  with Country-Specific Time Trends

	I	II	III	IV	V	VI
$N_{i,j,t-1}$ defined according to...						
common border	$N_{i,j,t-1}^{sameproduct}$ 0.020*** (0.001)					0.011*** (0.001)
	$N_{i,j,t-1}^{otherproducts}$ 0.000*** (0.000)					0.000*** (0.000)
common language	$N_{i,j,t-1}^{sameproduct}$ 0.004*** (0.000)					0.001*** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ -0.000*** (0.000)					-0.000*** (0.000)
common colonizer	$N_{i,j,t-1}^{sameproduct}$ 0.004*** (0.000)		0.004*** (0.000)			-0.000 (0.000)
	$N_{i,j,t-1}^{otherproducts}$ -0.000*** (0.000)		-0.000*** (0.000)			-0.000*** (0.000)
common income group	$N_{i,j,t-1}^{sameproduct}$ 0.008*** (0.000)			0.008*** (0.000)		0.006*** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ 0.000*** (0.000)			0.000*** (0.000)		0.000*** (0.000)
common continent	$N_{i,j,t-1}^{sameproduct}$ 0.005*** (0.000)				0.005*** (0.000)	0.001*** (0.000)
	$N_{i,j,t-1}^{otherproducts}$ -0.000*** (0.000)				-0.000*** (0.000)	-0.000*** (0.000)
$y_{i,j,t-1}$	0.284*** (0.002)	0.283*** (0.002)	0.285*** (0.002)	0.274*** (0.002)	0.278*** (0.002)	0.276*** (0.002)
$y_{i,j,t-2}$	0.072*** (0.002)	0.071*** (0.002)	0.072*** (0.002)	0.072*** (0.002)	0.072*** (0.002)	0.075*** (0.002)
Observations	11,997,000	11,997,000	11,997,000	11,997,000	11,997,000	11,997,000
# of firm-product couples	19,995	19,995	19,995	19,995	19,995	19,995
# of firms	3,524	3,524	3,524	3,524	3,524	3,524
AR(1)	0	0	0	0	0	0
AR(2)	.060	.200	.127	.038	.083	.003
Sargan	0	0	0	0	0	0

Notes: The dependent variable is  $y_{ijt}$  which is a dummy variable indicating whether a firm-product couple  $i$  exported to country  $j$  in year  $t$ . All regressions include firm-product-destination fixed effects, as well as country-specific time trends (not reported). Standard errors are in parentheses. All regressions use robust standard errors and treat the lags of the dependent variable as well as the regressors of interest as predetermined. We use the two-step system GMM estimator from Blundell and Bond (1998) and, due to the two-step estimation, we use the Windmeijer (2005) finite sample correction for the standard errors. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1%-level, respectively. The values reported for AR(1) and AR(2) are the  $p$ -values for first and second order autocorrelated disturbances in the first differences equations. The row for the Sargan reports the  $p$ -values for the null hypothesis of validity of the overidentifying restrictions and can only be computed assuming homoskedasticity. To report this statistic, we re-estimate the model accordingly.

## K Empirical probability of exports

Table A.37 presents the empirical probabilities of exporting to a country which are used to interpret the size of the estimated coefficients in the main manuscript. Note that the empirical probabilities given in Table A.37 are slightly different to those reported in Table A.1 as we use all years in our regression data set to calculate the empirical probabilities.

Table A.37: Empirical Probability of Exports—Firm Level Sample

Rank	Country	Probability	Rank	Country	Probability
1	Japan	0.75695	16	New Zealand	0.01853
2	South Korea	0.25367	17	Republic of South Africa	0.01718
3	Singapore	0.07008	18	Switzerland	0.01602
4	Australia	0.05367	19	Sri Lanka	0.01467
5	Vietnam	0.04691	20	Chile	0.01293
6	Thailand	0.04305	21	Panama	0.01236
7	Malaysia	0.03552	22	Egypt	0.01120
8	United Arab Emirates	0.03185	23	Cambodia	0.01062
9	Indonesia	0.03127	24	Mexico	0.00965
10	Philippines	0.02529	25	Pakistan	0.00907
11	Saudi Arabia	0.02201	26	Israel	0.00888
12	Russia	0.02162	27	Kuwait	0.00753
13	Bangladesh	0.02143	28	Brazil	0.00714
14	Myanmar	0.02124	29	Norway	0.00676
15	India	0.01873	30	Ukraine	0.00579

Turkey, Guatemala, Morocco, Madagascar, Jordan, Kenya, Algeria, Honduras, Venezuela, Romania, Ghana, El Salvador, Sudan, Mongolia, Togo, Peru, Nigeria, Mozambique, Lebanon, Nepal, Djibouti, Yemen, Tanzania, Benin, Nicaragua, Jamaica, Croatia, Zimbabwe, Congo (Republic of), Sierra Leone, Argentina, Iran, Syria, Mauritius, Mauritania, Papua New Guinea, Colombia, Kazakstan, Bermuda, Bahrain, Tunisia, Iceland, Angola, Fiji, Senegal, Mali, Uganda, Liberia, Ecuador, Serbia, Oman, Costa Rica, Azerbaijan, Guinea Bissau, Guinea, Gabon, Afghanistan, Gambia, Trinidad and Tabago, Ethiopia, Iraq, Laos, Congo (Democratic Republic), Swaziland, Cameroon, Côte d'Ivoire, Cuba, Paraguay, Lesotho, Dominican Republic, Brunei, Puerto Rico, Niger, Rwanda, Bulgaria, Samoa, Guyana, Suriname, Uruguay, Central African Republic, Botswana, Barbados, Bolivia, Zambia, Tajikistan, Comoros Islands, Libya, Micronesia (Federated States of), Antigua and Barbuda, Malawi, Albania, Eritrea, Chad, New Caledonia, Macedonia, Maldive Islands, Belize, Kiribati and Tuvalu, Moldova, São Tomé and Príncipe, Grenada, Haiti, Palau, Bahamas, Vanuatu and New Hebrides, Burundi, Solomon Islands, Bhutan, Tonga, Burkina, Turkmenistan, Cape Verde Islands, Namibia, Marshall Islands, Georgia, Uzbekistan, Bosnia Herzegovina, Seychelles, Dominica, Armenia.

*Notes:* Table gives the observed frequencies of exporting firms in the firm-level regression sample for the top 30 export destinations outside the MFA countries in descending order. The rest of the 150 export destinations considered in our sample are given, again in descending order. A detailed description of our sample is provided in Section 2.1 of the main manuscript.

## L Explanatory variables

We construct different contiguity indicators  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt}$  using common border, common language, common colonizer, common income group, and common continent contiguity indicators from data provided by CEPII, see Mayer and Zignago (2011). For the different contiguity measures  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  is defined as follows:

Common border:  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  for firm  $i$  if country  $j$  shares a land border with at least one export destination of firm  $i$  in  $t - 1$  and 0 otherwise.

Common language:  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  for firm  $i$  if country  $j$  shares a language with at least one export destination of firm  $i$  in  $t - 1$  and 0 otherwise which is spoken by at least 9 percent of the population in both countries.

Common colonizer:  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  for firm  $i$  if country  $j$  shares a common colonizer after 1945 with at least one export destination of firm  $i$  in  $t - 1$  and 0 otherwise.

Common income group:  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  for firm  $i$  if country  $j$  is in the same income group with at least one export destination of firm  $i$  in  $t - 1$  and 0 otherwise. The four different categories (very low income, low income, medium income, and high income) follow the World Bank's 2006 World Development Indicators (WDI) classification.

Common continent:  $\mathbb{I}(N_{ij,t-1} > 0)_{ijt} = 1$  for firm  $i$  if country  $j$  is located on the same continent as at least one export destination of firm  $i$  in  $t - 1$  and 0 otherwise.

$C_j$  is defined accordingly.

## M Descriptive statistics

Table A.38: Descriptive Statistics—Firm Level Sample

Variable	Mean	Std. Dev.	Min.	Max.
$y_{ijt}$	0.01189	0.10837	0	1
$C_j$ defined according to...				
common border	0.08000	0.27129	0	1
common language	0.64000	0.48000	0	1
common colonizer	0.36667	0.48189	0	1
common income group	0.27333	0.44567	0	1
common continent	0.34000	0.47371	0	1
$N_j$ defined according to...				
common border	0.15333	0.64017	0	5
common language	2.48667	2.30575	0	7
common colonizer	0.78667	1.05569	0	3
common income group	3.38667	6.45785	0	20
common continent	3.74667	8.37392	0	25
$\mathbb{I}(N_{ij,t-1} > 0)$ defined according to...				
common border	0.01176	0.10781	0	1
common language	0.15567	0.36254	0	1
common colonizer	0.06478	0.24614	0	1
common income group	0.20637	0.40470	0	1
common continent	0.26975	0.44383	0	1
$N_{ij,t-1}$ defined according to...				
common border	0.01344	0.13153	0	5
common language	0.23624	0.72363	0	22
common colonizer	0.10450	0.52529	0	20
common income group	0.32240	0.84828	0	17
common continent	0.41640	0.93765	0	20
# of firms				1,295
# of observations				770,000

*Notes:* Table gives descriptive statistics of the dependent and the explanatory variables used in our empirical analysis at the firm level. A detailed description of our sample is provided in Section 2.1 of the main manuscript.

Table A.39: Descriptive Statistics—Firm-Product Couple Level Sample

Variable	Mean	Std. Dev.	Min.	Max.
$y_{ijt}$	0.00987	0.09885	0	1
$\mathbb{I}(N_{ij,t-1}^{sameproduct} > 0)$ defined according to...				
common border	0.00763	0.08699	0	1
common language	0.11944	0.32431	0	1
common colonizer	0.04459	0.20640	0	1
common incomegroup	0.17092	0.37644	0	1
common continent	0.26266	0.44008	0	1
$\mathbb{I}(N_{ij,t-1}^{otherproducts} > 0)$ defined according to...				
common border	0.01420	0.11831	0	1
common language	0.07914	0.26995	0	1
common colonizer	0.03716	0.18916	0	1
common incomegroup	0.06440	0.24547	0	1
common continent	0.05955	0.23666	0	1
$N_{ij,t-1}^{sameproduct}$ defined according to...				
common border	0.00839	0.10025	0	4
common language	0.17192	0.57271	0	19
common colonizer	0.06833	0.38434	0	15
common incomegroup	0.24435	0.68145	0	17
common continent	0.35050	0.74127	0	19
$N_{ij,t-1}^{otherproducts}$ defined according to...				
common border	0.05293	0.73395	0	45
common language	1.02048	4.73813	0	98
common colonizer	0.49207	4.37562	0	131
common incomegroup	1.91062	8.16292	0	135
common continent	2.73516	9.17680	0	154
# of firms				6,573
# of firms-product-couples				1,965
# of observations				3,943,800

*Notes:* Table gives descriptive statistics of the dependent and the explanatory variables used in our empirical analysis at the firm-product couple level. A detailed description of our sample is provided in Section 4 of the main manuscript.



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