Online Appendix

Appendix Tables

Table A1: Complete first-stage regression of Tables 2 and 4

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-1.150***	-0.472*	-1.608*	-0.582+	-0.601	-0.533
ln(1+tariff)	(-3.66)	(-2.03)	(-2.37)	(-1.66)	(-1.57)	(-1.15)
Exporter late EU signatory[2]	0.081	0.068	0.059	0.163	0.166	0.353**
	(0.83)	(1.09)	(0.30)	(1.50)	(1.33)	(2.58)
Exporter late US-FTA signatory[2]	-0.002	-0.018	-0.144	-0.025	-0.000	-0.111
	(-0.03)	(-0.38)	(-1.12)	(-0.21)	(-0.00)	(-1.64)
RTA	0.022	0.022	-0.029	-0.007	0.050	0.054
	(0.39)	(0.50)	(-0.41)	(-0.10)	(0.97)	(1.13)
Common currency	0.067	0.044	0.092	0.074	0.114+	0.124+
	(1.49)	(1.43)	(1.21)	(1.35)	(1.66)	(1.81)
Both in WTO	-0.096	0.004	-0.040	0.024	-0.154	-0.129
	(-0.71)	(0.03)	(-0.22)	(0.14)	(-0.54)	(-0.56)
Observations	8,120,335	32,162,466	1,583,430	3,329,109	2,466,917	3,069,076
R^2	0.9837	0.9867	0.9730	0.9784	0.9926	0.9914

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations.
[1] Regression includes importer-exporter-product, importer-product-time and exporter-product-time fixed effects.
[2] Takes the value of "1" for intra-EU trade (after accession) of all countries that joined the EU after 1997. Analogously for US FTA.

Table A2: Complete first-stage regression of Table 3

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (OLS).[1] Dependent variable: bilateral share of products with positive imports in a sector						
Exporter late EU signatory[2]	0.020***	0.009**	0.016**	0.007	0.014**	0.011*
	(5.74)	(3.02)	(2.94)	(1.45)	(2.69)	(2.38)
Exporter late US-FTA signatory[2]	0.004	0.003	0.003	0.007	0.012	0.010
	(0.40)	(0.29)	(0.23)	(0.67)	(0.99)	(0.94)
RTA	0.009***	0.010***	-0.0002	0.003	0.011***	0.011***
	(7.41)	(8.82)	(-0.08)	(1.48)	(5.95)	(6.55)
Common currency	0.016**	0.011*	0.021***	0.014*	0.029***	0.028***
	(2.99)	(2.12)	(3.35)	(2.19)	(4.48)	(4.61)
Both in WTO	0.003	0.007**	0.001	0.007+	-0.005	-0.004
	(1.00)	(3.03)	(0.23)	(1.71)	(-1.03)	(-0.93)
Observations	527,823	623,089	366,864	452,240	416,251	435,742
Adjusted R^2	0.9432	0.9487	0.9219	0.9241	0.9206	0.9232

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations.
[1] Given the change in dependent variable, there is no meaningful way here – in contrast to Table 2 – to control for the impact of preferential tariff reductions in stage 1. Stage 1 includes importer-exporter-product, import-product-time and exporter-product-time fixed effects.
[2] Takes the value of "1" for intra-EU trade (after accession) of all countries that joined the EU after 1997. Analogously for US FTA.

Table A3: Complete first-stage regression of Table 5

Type of goods	All goods					
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-1.150***	-0.472*	-0.808**	-0.288+	-0.841**	-0.308*
	(-3.66)	(-2.03)	(-2.85)	(-1.76)	(-2.92)	(-2.04)
Preferential tariff reduction,t-1			-0.676*	-0.294	-1.058***	-0.398**
			(-2.15)	(-1.43)	(-3.78)	(-2.63)
Preferential tariff reduction,t-2					0.822**	0.240
					(2.88)	(1.02)
Sum t to t-2	-1.150***	-0.472*	-1.484**	-0.582+	-1.077+	-0.466
	(-3.66)	(-2.03)	(-2.91)	(-1.74)	(-1.66)	(-1.05)
Exporter late EU signatory[2]	0.081	0.068	0.065	0.057	0.089	0.065
	(0.83)	(1.09)	(0.65)	(0.94)	(0.88)	(1.05)
Exporter late US-FTA signatory[2]	-0.002	-0.018	0.001	-0.011	-0.008	-0.011
	(-0.03)	(-0.38)	(0.02)	(-0.23)	(-0.14)	(-0.23)
RTA	0.022	0.022	0.023	0.020	0.043	0.027
	(0.39)	(0.50)	(0.43)	(0.49)	(0.90)	(0.71)
Common currency	0.067	0.044	0.047	0.031	0.075	0.041
	(1.49)	(1.43)	(1.07)	(1.03)	(1.66)	(1.33)
Both in WTO	-0.096	0.004	-0.115	-0.007	-0.153	-0.011
	(-0.71)	(0.03)	(-0.89)	(-0.06)	(-1.28)	(-0.10)
Observations	8,120,335	32,162,466	7,232,615	28,414,441	6,697,866	26,269,922
R^2	0.9837	0.9867	0.9840	0.9870	0.9842	0.9872

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations.
[1] Regression includes importer-exporter-product, importer-product-time and exporter-product-time fixed effects.
[2] Takes the value of "1" for intra-EU trade (after accession) of all countries that joined the EU after 1997. Analogously for US FTA.

Table A4: Robustness: Analogue to Table 2 with positive trade values only

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-1.083***	-0.444+	-1.614*	-0.568	-0.566	-0.530
ln(1+tariff)	(-3.40)	(-1.91)	(-2.34)	(-1.62)	(-1.45)	(-1.14)
Observations	5,635,912	22,105,280	1,100,335	2,489,738	1,683,823	2,113,942
R^2	0.9838	0.9867	0.9731	0.9784	0.9926	0.9914
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction	-0.038	-0.507***	0.251	-0.497*	-0.203	0.076
	(-0.23)	(-7.07)	(0.51)	(-2.09)	(-0.67)	(0.40)
Tariff elimination effect	0.012	0.023**	0.067+	0.052+	-0.056*	-0.020
	(0.87)	(3.08)	(1.83)	(1.80)	(-2.36)	(-0.88)
Commitment effect:	-0.024	0.063+	0.063	0.129	0.120	0.076
active ITA importers	(-0.53)	(1.74)	(0.59)	(1.62)	(1.43)	(0.94)
Commitment effect:	0.117***	0.076**	0.342***	0.196**	0.033	0.047
passive ITA importers	(3.32)	(2.69)	(3.78)	(2.87)	(0.56)	(0.83)
Observations	367,521	1,729,821	75,069	151,923	105,377	148,161
Adjusted R^2	0.8276	0.7908	0.8154	0.8445	0.8488	0.8229
Stage 2 for exporters (OLS).[3] Dependent variable: exporter-product-time FEs						
Commitment effect:	0.080	0.026	0.152	0.083	0.027	0.041
active ITA exporters	(1.48)	(0.62)	(1.02)	(0.73)	(0.30)	(0.49)
Commitment effect:	0.159**	0.114**	0.179	0.106	0.244**	0.240**
passive ITA exporters	(3.19)	(3.10)	(1.47)	(1.23)	(2.64)	(2.82)
Commitment effect	0.098+	0.082*	0.122	0.108	0.173+	0.165*
other than China[4]	(1.90)	(2.14)	(0.95)	(1.18)	(1.85)	(1.96)
Observations	335,896	1,389,361	63,661	133,096	97,005	130,472
Adjusted R^2	0.7752	0.7473	0.7830	0.7756	0.7733	0.7633

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporter-product combinations, respectively, in the second-stage regressions.

[1] Regression includes importer-exporter-product, import-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are available upon request.

[2] Regression includes importer-time, importer-product and product-time fixed effects.

[3] Regression includes exporter-time, exporter-product and product-time fixed effects.

[4] These coefficients are obtained from an exact analog regression that excludes China's exports from the sample. The commitment effect for passive ITA exporters is the only one to substantially vary as a result of such a sample modification. The full regression results from this restricted sample are available upon request.

Table A5: Robustness: Analogue to Table A4 with OLS estimation in first stage

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (OLS).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-0.572***	-0.293***	-1.144***	-0.276*	-0.247	-0.475**
ln(1+tariff)	(-5.29)	(-6.22)	(-3.97)	(-2.00)	(-1.29)	(-2.94)
Observations	5,207,713	20,282,225	1,023,268	2,327,039	1,565,702	1,950,770
Adjusted R^2	0.7695	0.7640	0.7859	0.7997	0.7633	0.7748
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction	-0.323*	-0.414***	0.056	-0.298	-0.182	0.240
	(-2.41)	(-7.06)	(0.14)	(-1.61)	(-0.81)	(1.59)
Tariff elimination effect	0.025*	0.021***	0.091***	0.037+	-0.008	0.002
	(2.30)	(3.73)	(3.49)	(1.85)	(-0.41)	(0.08)
Commitment effect:	-0.057	0.020	-0.062	0.096	0.058	-0.003
active ITA importers	(-1.57)	(0.67)	(-0.72)	(1.49)	(0.94)	(-0.05)
Commitment effect:	0.062*	0.023	0.145*	0.055	0.026	0.049
passive ITA importers	(2.18)	(1.00)	(2.01)	(1.05)	(0.55)	(1.06)
Observations	317,017	1,468,418	61,991	132,276	94,644	130,233
Adjusted R^2	0.2085	0.1664	0.1794	0.2212	0.2317	0.2210
Stage 2 for exporters (OLS).[3] Dependent variable: exporter-product-time FEs						
Commitment effect:	0.039	0.001	0.036	-0.037	0.068	0.074
active ITA exporters	(0.95)	(0.03)	(0.34)	(-0.49)	(0.95)	(1.12)
Commitment effect:	0.061	0.050	-0.052	-0.020	0.231**	0.226**
passive ITA exporters	(1.42)	(1.56)	(-0.47)	(-0.29)	(2.92)	(3.10)
Commitment effect	0.008	0.011	-0.187	-0.057	0.216**	0.172*
other than China[4]	(0.18)	(0.33)	(-1.52)	(-0.75)	(2.66)	(2.34)
Observations	220,154	904,298	42,524	89,570	63,401	84,377
Adjusted R^2	0.0752	0.0473	0.0899	0.1091	0.1008	0.0779

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporter-product combinations, respectively, in the second-stage regressions.

[1] Regression includes importer-exporter-product, import-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are available upon request.

[2] Regression includes importer-time, importer-product and product-time fixed effects.

[3] Regression includes exporter-time, exporter-product and product-time fixed effects.

[4] These coefficients are obtained from an exact analog regression that excludes China's exports from the sample. The commitment effect for passive ITA exporters is the only one to substantially vary as a result of such a sample modification. The full regression results from this restricted sample are available upon request.

Table A6: Robustness: Analogue to Table 2 with sector-specific tariff effects

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction:	-1.252**	-1.258**	-1.966*	-2.172*	-0.419	-0.315
ITA goods	(-2.59)	(-2.61)	(-2.05)	(-2.30)	(-0.42)	(-0.31)
Preferential tariff reduction:	-1.035*	-0.425	-1.374	-0.334	-0.638	-0.605
other goods	(-2.42)	(-1.58)	(-1.48)	(-0.91)	(-1.59)	(-1.20)
Observations	8,120,335	32,162,466	1,583,430	3,329,109	2,466,917	3,069,076
R^2	0.9837	0.9867	0.9730	0.9784	0.9926	0.9914
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction:	0.042	0.293	0.588	1.735***	-0.713	-0.526
ITA goods	(0.18)	(1.39)	(0.93)	(3.44)	(-1.43)	(-1.09)
MFN tariff reduction:	-0.452*	-0.742***	-1.246+	-1.213***	-0.450	0.083
other goods	(-2.10)	(-9.17)	(-1.95)	(-4.30)	(-1.24)	(0.40)
Tariff elimination effect:	0.033+	0.031+	0.089*	0.094*	-0.075*	-0.064+
ITA goods	(1.83)	(1.82)	(2.10)	(2.47)	(-2.24)	(-1.92)
Tariff elimination effect:	0.122***	0.146***	0.386***	0.213***	0.031	0.140***
other goods	(4.54)	(15.79)	(4.69)	(4.35)	(0.83)	(3.96)
Commitment effect:	-0.007	0.048	0.103	0.168+	0.196*	0.115
active ITA importers	(-0.13)	(1.22)	(0.89)	(1.95)	(2.24)	(1.37)
Commitment effect:	0.141***	0.085**	0.505***	0.252***	0.078	0.114+
passive ITA importers	(3.64)	(2.73)	(5.10)	(3.45)	(1.19)	(1.82)
Observations	367,521	1,729,821	75,069	151,923	105,377	148,161
Adjusted R^2	0.8334	0.7984	0.8260	0.8496	0.8548	0.8302
Stage 2 for exporters (OLS).[3] Dependent variable: exporter-product-time FEs						
Commitment effect:	0.004	-0.051	-0.006	0.092	-0.157	-0.034
active ITA exporters	(0.05)	(-1.00)	(-0.03)	(0.63)	(-1.46)	(-0.35)
Commitment effect:	0.156**	0.212***	0.208	0.188+	0.229*	0.333***
passive ITA exporters	(2.70)	(4.91)	(1.41)	(1.89)	(2.18)	(3.52)
Commitment effect	0.126*	0.218***	0.174	0.202+	0.198+	0.306**
other than China[4]	(2.06)	(4.80)	(1.13)	(1.92)	(1.80)	(3.23)
Observations	335,896	1,389,361	63,661	133,096	97,005	130,472
Adjusted R^2	0.7335	0.6980	0.7496	0.7391	0.7232	0.7225

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporter-product combinations, respectively, in the second-stage regressions.

[1] Regression includes importer-exporter-product, importer-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are available upon request.

[2] Regression includes importer-time, importer-product and product-time fixed effects.

[3] Regression includes exporter-time, exporter-product and product-time fixed effects.

[4] These coefficients are obtained from an exact analog regression that excludes China's exports from the sample. The commitment effect for passive ITA exporters is the only one to substantially vary as a result of such a sample modification. The full regression results from this restricted sample are available upon request.

Table A7: Robustness: Analogue to Table 2 excluding China's exports

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-1.060**	-0.460	-1.324	-0.399	-0.599	-0.624
	(-3.11)	(-1.81)	(-1.95)	(-1.17)	(-1.42)	(-1.29)
Observations	7,854,306	30,991,385	1,531,220	3,224,329	2,385,817	2,962,625
R^2	0.9790	0.9855	0.9558	0.9735	0.9779	0.9900
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction	-0.406*	-0.648***	-0.686	-0.803**	-0.774*	-0.0699
	(-2.23)	(-8.33)	(-1.25)	(-3.16)	(-2.49)	(-0.35)
Tariff elimination effect	0.0716***	0.126***	0.160***	0.119***	0.0246	0.0855***
	(4.54)	(15.36)	(4.00)	(3.80)	(0.94)	(3.45)
Commitment effect:	-0.00952	0.0565	0.0288	0.132	0.286**	0.197*
active ITA importers	(-0.19)	(1.45)	(0.25)	(1.53)	(3.19)	(2.33)
Commitment effect:	0.0947*	0.0442	0.424***	0.201**	-0.0136	0.0253
passive ITA importers	(2.40)	(1.40)	(4.29)	(2.77)	(-0.20)	(0.39)
Observations	364,525	1,714,610	74,378	150,971	104,543	146,773
Adjusted R^2	0.8208	0.7908	0.8213	0.8464	0.8327	0.8146
Stage 2 for exporters (OLS).[3] Dependent variable: exporter-product-time FEs						
Commitment effect:	-0.0127	-0.0494	0.00413	0.0844	-0.148	-0.0120
active ITA exporters	(-0.20)	(-1.00)	(0.02)	(0.59)	(-1.39)	(-0.13)
Commitment effect:	0.126*	0.216***	0.173	0.202	0.198	0.303**
passive ITA exporters	(2.06)	(4.82)	(1.13)	(1.94)	(1.80)	(3.15)
Observations	332,426	1,373,696	62,947	131,758	96,137	129,233
Adjusted R^2	0.7281	0.6979	0.7469	0.7366	0.7119	0.7174

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporter-product combinations, respectively, in the second-stage regressions.

[1] Regression includes importer-exporter-product, import-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are available upon request.

[2] Regression includes importer-time, importer-product and product-time fixed effects.

[3] Regression includes exporter-time, exporter-product and product-time fixed effects.

[4] These coefficients are obtained from an exact analog regression that excludes China's exports from the sample. The commitment effect for passive ITA exporters is the only one to substantially vary as a result of such a sample modification. The full regression results from this restricted sample are available upon request.

Table A8: Robustness: Analogue to Table 2 excluding country pairs with RTAs by 1996

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Preferential tariff reduction	-1.062^{+}	-0.457	-1.734	-0.497	-0.806	-0.866
	(-1.84)	(-1.28)	(-1.33)	(-0.69)	(-1.31)	(-1.18)
Observations	5,701,870	2,250,1666	1,106,049	2,372,692	1,742,614	2,190,899
R^2	0.9881	0.9891	0.9768	0.9771	0.9951	0.9933
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction	-0.222	-0.714***	-0.077	-0.616*	-0.174	0.383^{+}
	(-1.17)	(-8.66)	(-0.14)	(-2.23)	(-0.54)	(1.94)
Tariff elimination effect	0.047**	0.122***	0.153***	0.130***	-0.048^{+}	0.049^{+}
	(2.79)	(13.54)	(3.53)	(3.86)	(-1.67)	(1.82)
Commitment effect:	-0.017	0.003	0.125	0.200*	0.126	0.042
active ITA importers	(-0.34)	(0.08)	(1.07)	(2.30)	(1.38)	(0.48)
Commitment effect:	0.121**	0.091**	0.430***	0.206**	0.007	0.066
passive ITA importers	(2.94)	(2.71)	(4.11)	(2.64)	(0.10)	(0.99)
Observations	348,656	1,629,802	70,679	144,657	100,847	141,432
Adjusted R^2	0.8254	0.7868	0.8211	0.8432	0.8431	0.8188
Stage 2 for exporters (OLS).[3] Dependent variable: exporter-product-time FEs						
Commitment effect:	-0.034	-0.072	-0.012	-0.011	-0.145	-0.092
active ITA exporters	(-0.53)	(-1.42)	(-0.07)	(-0.08)	(-1.42)	(-0.97)
Commitment effect:	0.124*	0.158***	0.144	0.156	0.258*	0.362***
passive ITA exporters	(2.04)	(3.48)	(0.97)	(1.50)	(2.27)	(3.49)
Observations	279,417	1,136,040	53,096	111,123	80,994	109,302
Adjusted R^2	0.8018	0.7495	0.7965	0.7890	0.8102	0.7850

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporterr-product combinations, respectively, in the second-stage regressions.

[1] Regression includes importer-exporter-product, import-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are available upon request.

[2] Regression includes importer-time, importer-product and product-time fixed effects.

[3] Regression includes exporter-time, exporter-product and product-time fixed effects.

Table A9: Extension: Heterogeneity of ITA commitment effects on exports

Stage 2 for exporters (OLS).[1] Dependent variable: exporter-product-time FEs					
Interaction Variable:	None[2]	Remoteness[2]	Education[2]	Business environment[2]	Rule of law[2]
Active ITA Exporter	0.003	0.102	0.201*	0.087	0.134
	(0.05)	(1.27)	(1.97)	(1.11)	(1.56)
Active ITA Exporter		0.037*	-0.063*	-0.110**	-0.167**
* Interaction Variable		(2.13)	(-2.23)	(-3.11)	(-3.27)
Passive ITA Exporter	0.157**	0.103	0.199	0.150*	0.142*
	(2.70)	(1.18)	(1.43)	(2.54)	(2.44)
Passive ITA Exporters		-0.021	-0.026	0.041	0.009
* Interaction Variable		(-0.76)	(-0.66)	(0.47)	(0.12)
Observations	335,896	330,137	243,187	323,254	323,936
Adjusted R^2	0.7336	0.7322	0.7288	0.7277	0.7283
Memorandum item:					
Interaction variable values in 2010 by percentile for passive ITA signatories[3]					
10th		-3.766	1.607	-0.773	-0.885
25th		-3.560	1.652	-0.628	-0.600
50th		-2.864	2.870	-0.352	-0.329
75th		0.520	4.048	0.249	0.480
90th		0.910	4.604	0.854	0.982

Notes: Stage 1 regression is the same as in Regression 1 of Table 2.
+,*, **, ** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or exporter-product combinations, respectively, in the second-stage regressions. The figures in Table 6 are computed from percentile-specific interaction variable values and coefficients for passive signatories. For example, the 0.162 value for the 50th percentile in the "Remoteness" column is obtained by 0.103+(-0.021)*(-2.864), where 0.103 is the passive ITA exporter dummy, -0.021 is the coefficient on the interaction of this dummy with remoteness, and -2.864 is the median value of the remoteness variable. Significance levels in Table 6 are computed using the Delta method.
[1] Regression includes exporter-time, exporter-product and product-time fixed effects.
[2] Remoteness is measured as sum over importers in any given year of Distance ijt*(ITA Imports it/ITA World Imports t). For landlocked countries only, this is then multiplied by a year-specific multiplier of (cost of exporting a container in j)/(cost of exporting a container in nearest coastal country). The data on the cost of exporting a container are from the World Bank's Doing Business Indicators database. Distance is measured in thousands of kilometers and centered around its mean. Therefore the coefficient on the interaction displays how much the benefit of joining the ITA changes for a country that is 1000 km further removed from import hubs than the average country.
Education is proxied by the secondary school completion rate (Prati et al, 2013). This completion rate is divided by 10, so that the interaction coefficient depicts the effect of increasing completion rates by 10 percentage points.
Business environment is proxied by the control of corruption variable of the World Bank's World Governance Indicators. Breen and Gillanders (2010) demonstrate that control of corruption is a good approximation for the quality of the overall business environment.
Rule of law variable is taken from the World Bank's World Governance Indicators.
[3] These percentile values for 2010 are used in the computations in Table 6 and were calculated based on the sample of passive signatories only.

Table A10: Extension: Interaction of tariff reduction and tariff elimination effects

Type of goods	All goods		Intermediate		Final	
Sample	ICT	Machinery	ICT	Machinery	ICT	Machinery
Regression Set	(1)	(2)	(3)	(4)	(5)	(6)
Stage 1 (PPML).[1] Dependent variable: bilateral product-level imports						
Stage 1 regressions are the same as in Table 2.						
Stage 2 for importers (OLS).[2] Dependent variable: importer-product-time FEs						
MFN tariff reduction	-0.262	-0.769***	-0.838	-0.882**	-0.718*	-0.252
	(-1.39)	(-9.26)	(-1.51)	(-3.07)	(-2.11)	(-1.17)
Tariff elimination effect	0.0612**	0.121***	0.136**	0.106**	-0.012	0.068*
	(3.07)	(12.17)	(2.74)	(2.88)	(-0.37)	(2.24)
Tariff reduction x elimination effect	-0.247	-0.572***	-0.049	-0.165	-0.240	-0.501
	(-0.78)	(-3.76)	(-0.07)	(-0.35)	(-0.46)	(-1.24)
Observations	304,034	1,466,540	61,180	132,314	86,944	124,603
Adjusted R^2	0.8274	0.8028	0.8145	0.8475	0.8522	0.8273

Notes: +,*, **, *** denote 10, 5, 1, 0.1 per cent significance levels, based on robust standard errors clustered by country-pair-product combinations in the first-stage regressions and by importer-product or importer-product combinations in the second-stage regressions.
[1] Regression includes importer-exporter-product, importer-product-time and exporter-product-time fixed effects. Additionally, all first-stage regressions include a "Both in WTO" dummy, separate dummies for exports of late joiners of the EU and US FTAs covered under these agreements, and regional trade agreement and common currency dummies. Given the extensive fixed effect controls, the coefficients of these controls are insignificant; these results are in Table A1.
[2] Regression includes importer-time, importer-product and product-time fixed effects.

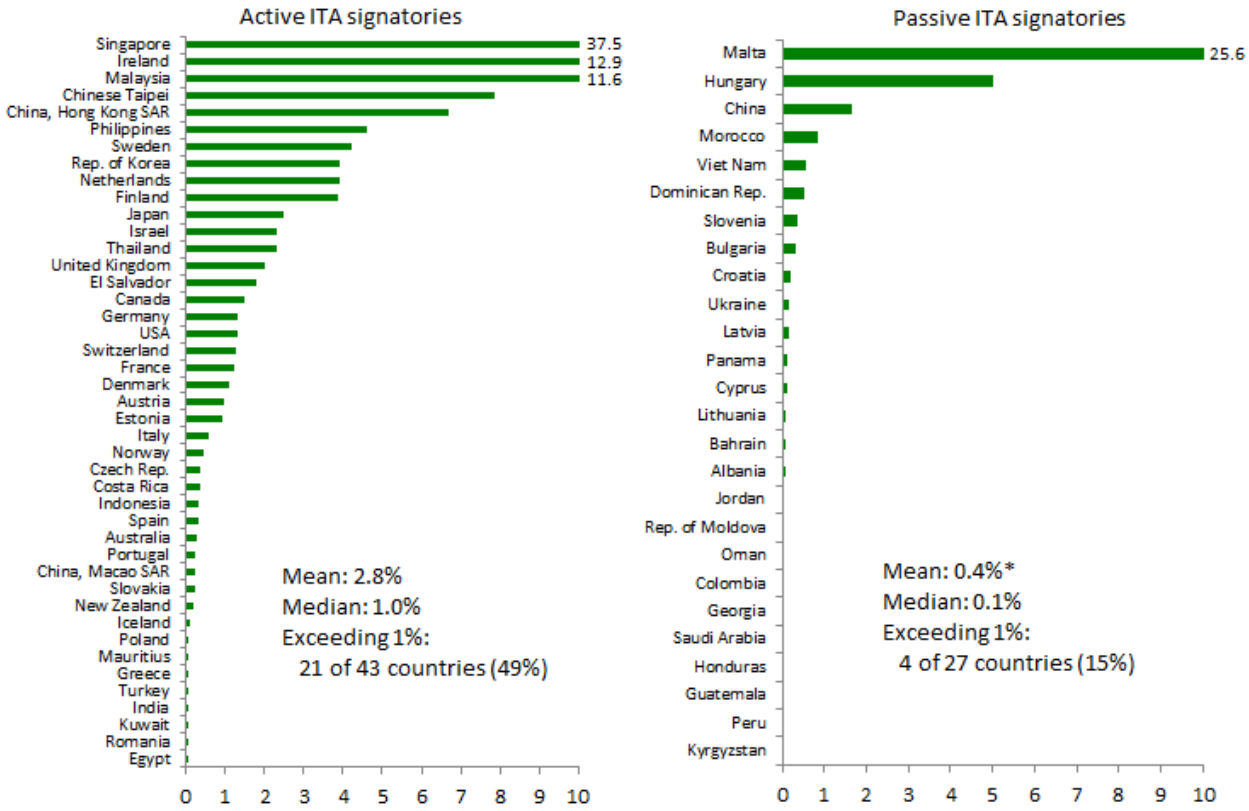
Table A11: Average share of products trade with bilateral partners

Type of goods	All goods			Intermediate			Final		
Sample[1]	ITA	ICT	Machinery	ITA	ICT	Machinery	ITA	ICT	Machinery
Active ITA importers in 1996	0.15	0.13	0.10	0.21	0.16	0.16	0.22	0.18	0.15
Active ITA importers in 2012	0.16	0.14	0.09	0.25	0.18	0.14	0.25	0.22	0.18
Active ITA exporters in 1996	0.21	0.20	0.15	0.29	0.23	0.23	0.34	0.28	0.22
Active ITA exporters in 2012	0.25	0.22	0.15	0.38	0.25	0.21	0.39	0.36	0.28
Passive ITA importers in 1996	0.17	0.16	0.11	0.24	0.19	0.20	0.30	0.24	0.19
Passive ITA importers in 2012	0.14	0.11	0.07	0.20	0.13	0.11	0.21	0.19	0.15
Passive ITA exporters in 1996	0.08	0.07	0.04	0.13	0.09	0.09	0.15	0.11	0.08
Passive ITA exporters in 2012	0.13	0.11	0.06	0.21	0.14	0.11	0.24	0.19	0.14

Notes: This table presents the average share of products traded with bilateral partners, i.e. these are the sample means by product categories of the dependent variable in the first stage of Table 3. For instance, a value of 0.20 for ITA products implies that 20 percent of all ITA products exhibit positive trade, while 80 percent exhibit zero trade flows.
[1] In this table, ICT (Machinery) refers to non-ITA ICT goods (non-ITA Machinery goods), unlike in our regression tables.

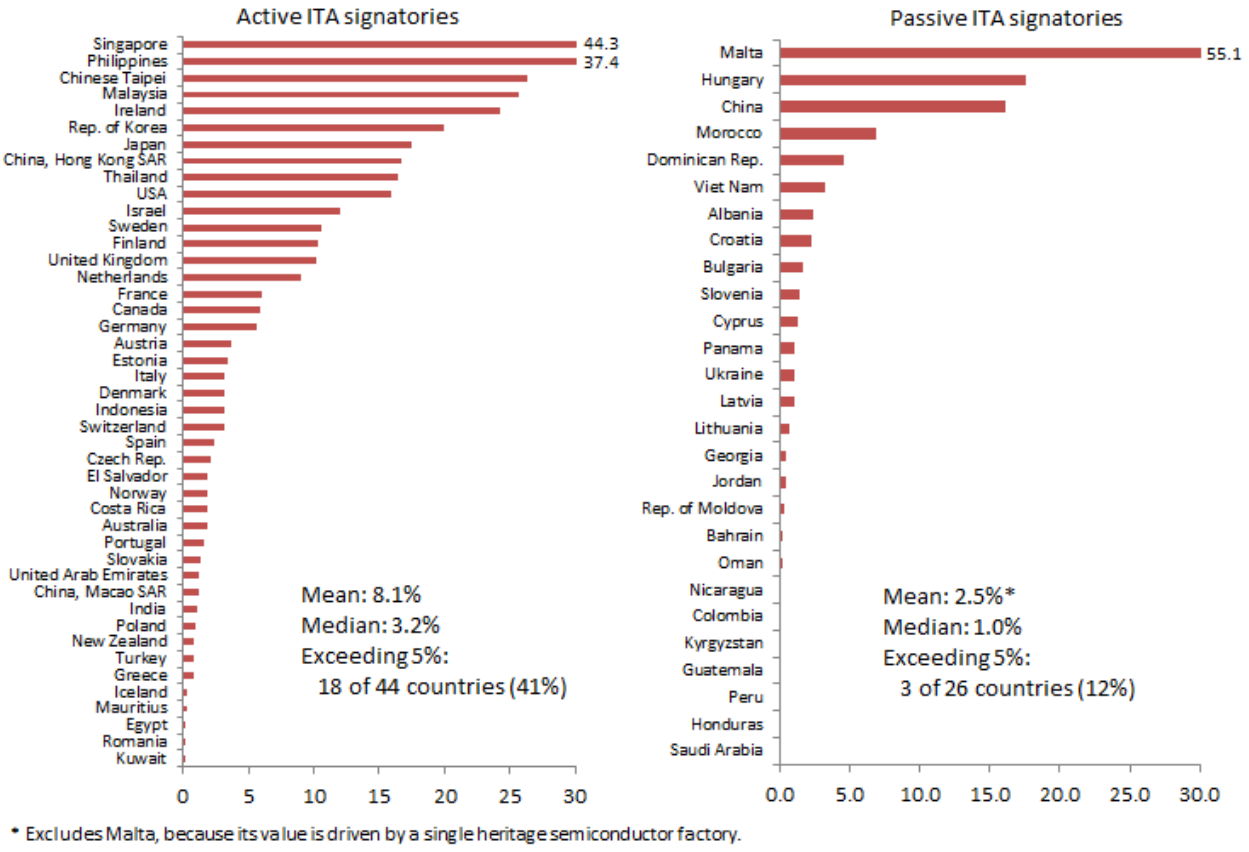
Appendix Figures

Figure A1: ITA product exports in the year previous to accession (percent of GDP)



* Excludes Malta, because its value is driven by a single heritage semiconductor factory.

Figure A2: ITA product share in a country's total exports in the year previous to accession



* Excludes Malta, because its value is driven by a single heritage semiconductor factory.

Data Appendix

Our dataset matches product-level trade data in ITA products to tariffs, ITA membership and common gravity variables. These are discussed in turn, but first we elaborate further on the empirical issues posed by the ITA's aforementioned complex product coverage.

The ITA contains a rigid positive listing of covered products which reaches across categories in the 6-digit HS1996 classification on which the agreement was signed: In total, it affects 154 product lines in this classification, but only 95 product lines are covered fully. The rest are covered partially, creating an issue for empirical analysis, as also highlighted by Anderson and Mohs (2010). We thus consider as ITA products in our analysis all fully covered lines plus another 11 lines, which according to World Trade Organization (WTO) (2012) include a high proportion of ITA products, for a total of 106 lines.

This problem relating to the ITA's coverage becomes further amplified in later years by the updates to the HS2002 and HS2007 vintages. Consequently, its coverage has to be reassessed in each of the vintages instead of being simply mapped. For instance, a given tariff line may have covered a lot of ITA products (relative to non-ITA products), when trade was reported in the HS1996 vintage, and it therefore was considered an ITA product line. However, in latter years, this line may not be considered an ITA tariff line any more due to the shift to HS2007 reporting. The reason is changing trade structure: Now relatively more non-ITA products may be traded under this line as a result of some ITA products having become technologically obsolete. Thus, the lines that we consider to be covered by the ITA vary between vintages. We therefore first obtain separate lists of the product lines covered by the ITA during 1996-2001 in HS1996, 2002-06 in HS2002 and 2007-12 in HS2007.

In a next step, we then map the HS2002 and HS2007 lines into HS1996 using conversion tables from the UN Statistics Division (UNSD) website to obtain a consistent HS1996-based dataset. The HS2002 lines map into the exact same set of lines that we also obtained for HS1996 because the updates in classification methodology were minor between these two vintages. But this is not the case for HS2007, so that our resulting dataset contains a different number of tariff lines during the time periods 1996-2006 and 2007-12: 23 (9) HS1996 lines appear only during the former (latter) period, while 74 HS1996 lines are included in all years, thereby resulting in our abovementioned total of 106 lines.

With this set of ITA-related HS1996 lines on hand, we can then obtain 6-digit HS1996 bilateral trade flow data for 1996-2012 from UN Comtrade. We use the import flow data and complement with exporter-reported mirror data. [1] This gives us 3.86 million observations of non-zero ITA trade flows covering 234 countries, though not all observations are useable in all regressions in light of missing values for tariffs.

These data on tariffs are obtained from UN Trains in HSCombined for the years 1996-2012. This reporting in HSCombined (rather than HS1996 throughout as in Comtrade) makes necessary an additional step. HSCombined gives tariffs for 1996-2001 in HS1996, 2002-06 in

[1] We apply the mirror data whenever a certain import-reporter did not report for the particular year at all. We restrict the mirror data to such cases only, because if a country reports bilateral trade in the particular year, but doesn't specify some line or it is zero while it is present in the mirror data, then there is not actually a lack of reporting issue but a difference in methodology of classifying products between importer and exporter.

HS2002 and 2007-12 in HS2007. We therefore again employ the conversion tables to generate tariffs for our set of HS1996 lines throughout all years.[2] To fill in some missing observations, we then linearly intrapolate tariffs between years for which observations exist.[3]

As further right-hand side variables, we collect any standard gravity variables which vary across time within any country or country-pair.[4] GDP and GDP per capita were taken from Penn World Table Version 8.0. RTA and currency union membership data are taken from De Sousa (2012).[5] A remoteness measure was computed analogue to those commonly used in the literature.[6] WTO membership data was collected from the WTO website.

Sturgeon and Memedovic (2010) emphasize the importance of intermediate goods to understanding global value chains. They develop a novel classification scheme, classifying product lines for different sectors into those primarily including final or intermediate goods.[7] This is helpful for us to analyze how ITA membership effects differ between countries in different positions in value chains – upstream (exporting intermediates) and downstream (importing intermediates/exporting final goods). The authors provide such a classification for electronics goods on HS2007 basis, which we use to split our sample to investigate how the ITA effects may operate through GVCs.[8] When converted to HS1996 using the UNSD conversion tables, we find this classification to cover 47 of our 106 ITA product lines.[9]

ITA products can be classified in 7 broad product categories, as outlined in World Trade Organization (WTO) (2012). We resort to these to reduce the dimensionality of our dataset in our robustness check for zero trade flows which use non-linear Poisson estimation. The categories are the following (with number of 6-digit HS1996 lines included in parentheses): Computers (14), Instruments and apparatus (17), Parts and accessories (32), Semiconductor

[2]We use the conversion table for conversion of HS2007 and HS2002 to HS1996. If there are multiple HS2007 or HS2002 lines corresponding to a HS1996 line in our list, we take a simple average across thes HS2007 or HS2002 lines to obtain the tariff for the HS1996 line.

[3]Furthermore we had to take into account that the EU is presented as a single country in TRAINS. Thus we appended the dataset to include all its members in various years to achieve cons istent coverage of active signatories throughout the sample period.

[4]Non-time variant variables such as distance are controlled for by importer-exporter(-product) fixed effects in all our specifications.

[5]De Sousa (2012) data only cover currency union relationships up to 2009. To extend the data, we added Estonia joining the Euro in 2011. As we are not aware of any other countries joining or exiting a currency union after 2009 and before 2013, we assume that no further changes in currency union membership occurred after this time. Like the Glick and Rose (2002) currency union definition, ours is also transitive, i.e. if country-pairs x–y, and x–z are in currency unions, then y–z is a currency union.Therefore with both El Salvador and Ecuador having adopted the U.S. Dollar, they would both be considered to be in a currency union with the United States as well as each other.

[6]Our remoteness measure is computed for importers and exporters using the standard formula, weighting bilateral distances by trading partner shares in world GDP (see e.g. UNCTAD and WTO, 2012). To obtain a single remoteness measures for any bilateral pair in the interest of parsimony, importer and exporter remoteness are then multiplied before taking the natural logarithm.

[7]Their classification could has become part of the fourth revision of the BEC classification, which distinguishes between customized intermediate goods (typically relating to trade within global value chains) and other intermediate goods.

[8]These data on HS2007 basis were kindly provided to us by the authors. Sturgeon and Memedovic (2010) include analogs on SITC and ISIC basis.

[9]When the ICT (machinery) control sector is added 102 of 202 (165 of 995) lines are covered by the classification.

manufacturing equipment (10), Semiconductors (15), Data-storage media and software (9) and Telecommunications equipment (9). Computers, semiconductors, and parts and accessories are the most traded products, making up around 80 percent of ITA product trade flows.

In many of our regressions, we use control sectors help us assess how ITA trade has performed relative to that of comparable goods post ITA accession. We use two of such control sectors: other information and communications technology (ICT) goods, not covered by the ITA, and machinery goods.

For ICT goods, the OECD provides a definition which covers a total of 193 product lines in the 6-digit HS1996 classification.[10] Of these 193 lines, 77 are also covered by the ITA under our definition of 106 lines. Thus non-ITA ICT goods – the control sector – comprise 116 lines and add another 3.70 million observations to the dataset.[11] Meanwhile, 29 lines are covered by the ITA that are not considered ICT goods by the OECD.[12]

Finally, we also construct a broad machinery control sector. We select HS sections 84, 85, 87, and 90. These comprise electrical and non-electrical machinery, road vehicles and optical/photographic/precision instruments and were chosen because these sectors also tend to be quite integrated in GVCs. This broad machinery sector comprises all ITA and ICT tariff lines.[13]. Its inclusion brings our dataset to a total of 28.36 million observations.

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[10]This coverage results when we combine the Organisation for Economic Co-operation and Development (2003) and the updated Organisation for Economic Co-operation and Development (2011) definitions to achieve a broad definition of ICT goods across time.

[11]In addition, product lines that are covered by the ITA for instance only in 2007-12 are considered control sector lines during 1996-2006, if covered by the OECD ICT definition.

[12]These 29 lines cover manifold products, mainly printing machinery, electric typewriters and optical photocopiers; laser discs and magnetic tapes; electric and power capacitators; equipment for measuri ng liquid or gas; and parts of accessories of aforementioned products.

[13]To be exact, two ITA tariff lines (HS 381800: Chemical element/compound wafers doped for electronics; HS 950410: Video games used with the TV receiver) are not covered by the four HS sections, but remain in the dataset throughout.

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