

Web Appendix

Appendix I: Additional Descriptive Statistics

The main dataset contains 255 treaties opened for ratification between 1950 and 2000.

Table 1 shows the baseline hazard of ratification, which is the conditional probability of ratification given that a certain country has not yet ratified the treaty, for different years a treaty is open for ratification. We can deduce that – assuming the same baseline hazard for every treaty – the baseline ratification hazard is .018 in the year the treaty is opened for ratification, .023 in the first and the second year after ratification, etc. We can see that the baseline hazard gradually declines over time.

Insert Table 1 about here

Figure 1 visualizes the baseline hazard displayed in Table 1.

Insert Figure 1 about here

Of the 255 Treaties in the main sample,

- 132 have been ratified by France
- 132 by Germany
- 126 by the UK
- 127 by Spain

- 82 by Russia
- 74 by the US
- 58 by Brazil
- 50 by China
- 49 by India

by the end of our period of analysis. The mean number of treaties a country has ratified by the end of the period of analysis is 35. The mean number of treaties ratified per country and year is 0.21.

The mean number of countries that have ratified a treaty

- after 1 year is 3
- after 2 years it is 8
- after 3 years 12
- after 4 years 15
- after 5 years 17
- by the end of the period of analysis: 30.

Regarding the emergence of new treaties within the period of analysis, 35 additional treaties emerged between 1960 and 1969, 52 in the following decade, 66 from 1980 to 1989, and 84 from 1990 to 2000.

Illustrations of Treaty Ratification Trajectories

The following figures show the ratification trajectories for eleven of the twenty-two treaties analyzed by Roberts *et al.*¹. To illustrate the time dynamics of treaty ratification we have graphed the (cumulated) number of ratifications over time.

Insert Figures 2-12 about here

¹ Timmons J. Roberts, Bradley C. Parks and Alexis A. Vásquez, 'Who Ratifies Environmental Treaties and Why? Institutionalism, Structuralism and Participation by 192 Nations in 22 Treaties', *Global Environmental Politics*, 4 (2004), 22-64

Appendix II: Correlation Coefficients

Table 2 shows the correlation coefficients for all our independent variables.

Insert Table 2 about here

Appendix III: Robustness Checks

1. Alternative measures for the independent variables

The effect of IO membership is independent of whether we define the IO variable as full, associated, or observer membership. For the results shown in the main paper, the most comprehensive IO membership definition was used. The results for the more narrow definitions of the IO variable are shown in columns 2 and 3 in Table 3. Using these IO membership definitions does not induce any substantive change to the variables.

Insert Table 3 about here

Similarly, the results are robust to using Vanhanen's democracy index² instead of the Polity IV index (column 1 in Table 3) and population instead of GDP (column 4, in Table 3). A central argument in our theory relating trade intensity to treaty ratification suggests that most environmental treaties act similar to a tax on exportables. Hence, one could argue that it would be more appropriate to proxy trade intensity with exports divided by GDP instead of both exports and imports divided by GDP. As can be seen in column 5, Table 3 the results are robust to using exports instead of trade intensity.

² Tatu Vanhanen, 'A new dataset for measuring democracy, 1810-1998', *Journal of Peace Research*, 37 (2000), 251-65.

2. *Alternative estimation methods*

To assess whether our results are sensitive to the estimation method, we also estimated the models using cubic splines and time dummies, as proposed by Beck et al.³ to control for temporal dependence. The results, which are shown in columns 1 and 2 in Table 4, are very similar to those obtained when using t , t^2 and t^3 . The major difference to the main specification is that ratification behaviour of the income-related peer group turns out to be positive and significant when using cubic splines (column 1, Table 4) whereas the positive coefficient of democracy loses its statistical significance. The results using time dummies as displayed in column 2 in Table 4⁴ are identical with those obtained by our baseline model except for the coefficient of democracy, which does no longer reach statistical significance. Hence these additional results suggest we can be rather confident that our main results are robust to the approach to deal with time dependence.

The particular structure of our dataset implies that the events of interest, namely ratifications of global environmental agreements, are rare events. As noted in Table 2 of the article, only 0.88 per cent of the observations in our dataset are coded as 1. To

³ Nathaniel Beck, Jonathan N. Katz and Richard Tucker, 'Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable', *American Journal of Political Science*, 42 (1998), 1260-88.

⁴ The actual results for the 52 time dummies are not shown in column 2, Table 4 for lack of space.

assess whether this influences our results we also use the rare events logit estimator proposed by Tomz *et al.*⁵⁶ Since the results do not change when controlling for rare events (column 3, Table 4) we decided to use the standard logit approach for the principal model.

Insert Table 4 about here

3. Additional control variables and estimation procedures

We have also evaluated whether the inclusion of further control variables changes the results. In column 5 in Table 4 we include a dummy variable that indicates the period after the 1972 UN Conference on the Human Environment that took place in Stockholm. This conference is a widely acknowledged milestone in the field of global environmental co-operation, whereupon the importance of environmental issues at the international level should have increased. However, in contrast to our expectations, the likelihood of treaty ratification is smaller in the post-Stockholm period although the coefficient is not statistically significant. If we also include a dummy variable characterizing the period after the UN Conference on Environment and Development in Rio de Janeiro in 1992, another milestone in global environmental cooperation (column 6, Table 4), we again see that the coefficient is

⁵ Michael Tomz, Gary King, and Langche Zeng, 'RELOGIT: Rare Events Logistic Regression', *Version 1.1. Cambridge, MA: Harvard University, October 1*, <http://gking.harvard.edu/>, (1999).

⁶ See also Gary King and Langche Zeng, 'Logistic Regression in Rare Events Data,' *Department of Government, Harvard University*, <http://GKing.Harvard.Edu>, (1999); Gary King and Langche Zeng, 'Estimating Absolute, Relative, and Attributable Risks in Case-Control Studies', *Department of Government, Harvard University*, <http://GKing.Harvard.Edu>, (1999).

negative and this time it reaches statistical significance. When both dummies are included in the statistical model, as shown in column 7 in Table 4, both effects are negative but only the coefficient for the Rio conference is statistically significant. This seems to suggest that the likelihood for treaty ratification is lower in the period after the UN Conference on Environment and Development.

Our principal dataset includes all multilateral environmental treaties that were identified as such by CIESIN and Mitchell.⁷ Hence our definition of what is to be considered a multilateral environmental treaty follows from the coding decisions of these two sources. We then decided to exclude treaties that, although having an environmental component, were designed for entirely different purposes. One example is the “Constitution of the UN Educational Scientific and Cultural Organization”. That is, the dataset on which the principal models are based includes the merged (and restructured) data from the two sources mentioned, but was purged from agreements of marginal environmental relevance before we ran the regressions. The dataset for the principal models thus includes 255 of the around 450 multilateral environmental agreements in the original dataset. Table 7 shows all treaties included in the principal dataset.

All of the 255 agreements are de jure open to all countries on Earth. But de facto there are still some agreements in our dataset that appear more relevant to particular

⁷ CIESIN, ‘Environmental Treaties and Resource Indicators (ENTRI)’, *available at: <http://sedac.ciesin.columbia.edu/entri/>, date accessed: 13 December 2006*, (2006), Ronald B. Mitchell, ‘International Environmental Agreements Database Project’, *Version 2007.1, available at: <http://iea.uoregon.edu/>, date accessed: 18 March 2008*, (2002-2008).

countries or regions. We have sought to control for such effects by using region dummies that capture geographic or climatic characteristics that may make a treaty particularly relevant for the countries in the given region. Because the sample boundaries are obviously not very firm, we have carried out two additional robustness checks that focus on sample composition. First, we have implemented the models for a sub-sample that includes only those treaties that have no obvious regional focus. This sub-sample contains 113 instead of 255 treaties and excludes treaties such as for example the “Cooperation Agreement for the Protection of the Coasts and Waters of the North-East Atlantic against Pollution”. The treaties included in this reduced sample are listed in Table 8. Table 5, column 1 shows that the results do not differ much from those obtained for the principal models. Second, we reduced the original sample to the 22 treaties that Roberts et al.⁸ included in their analysis (shown in Table 9). Except for trade intensity and two of the control variables – stringency of domestic environmental quality and GDP per capita – which become insignificant, all of our main results survive (column 2, Table 5).

Insert Table 5 about here

Since all treaty-country pairs in which the given country has not yet ratified the treaty by the year 2000 (the year our dataset ends) are included in the dataset, our data is right-censored. Although Beck et al.⁹ note that right-censored data ‘[...] are

⁸ Roberts *et al.*, ‘Who Ratifies Environmental Treaties and Why? Institutionalism, Structuralism and Participation by 192 Nations in 22 Treaties’.

⁹ Beck *et al.*, ‘Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable’, p. 1272.

not a problem for grouped duration logit analysis' we implemented our principal models for a sub-sample that excludes all treaties that entered the original dataset after 1994. The idea is that all countries in the sub-sample have had at least six years to ratify a particular treaty¹⁰; this should reduce the potential problem of right-censoring very much. The results, which are shown (column 3, Table 5), are almost identical to the results presented for the principal models.

We revisited the results for the trade variable to examine whether they might be disproportionately influenced by those countries that trade heavily or only very little. Column 4 in Table 5 reports results for a sub-sample that excludes those 5 per cent of the countries in our full sample that trade the least, whereas the results reported in column 5 are based on a sub-sample that excludes those 5 per cent that trade the most. The results from our principal models survive very well. The only exception is democracy, which turns statistically insignificant in the model excluding those 5 per cent that trade the most.

As mentioned at the beginning of the section on the statistical method, combining all multilateral environmental treaties into one dataset necessarily introduces some unit heterogeneity. To control for this heterogeneity between the different treaties and thus to show the robustness of our results we have taken several steps. First, by including regional dummies we control for the fact that countries that are situated in a common region with specific geographic and climate characteristics might be more likely to ratify the same specific set of treaties. Thus, for example, countries from the

¹⁰ The decision to leave out all treaties that were been created during the last six years of our dataset is somewhat arbitrary. However, the results do not change if we leave out the treaties for the last five or seven years. The importance of this robustness check is simply to show that right-censoring is not a problem in our analysis.

Middle East may be more willing to participate in treaties dealing with desertification. Second, by reducing our dataset to a subset including only 22 of the most important multilateral environmental treaties, as proposed by Roberts et al.¹¹, we can demonstrate that our results hold even if we consider only very specific and very similar treaties. Finally, we estimated our baseline model using a conditional logit model with treaty fixed-effects. The results in column 1, Table 6 show that with the exception of one variable all of our main results persist. Only the number of countries in a particular country's income group that have already ratified this treaty is now negative and statistically significant. Consequently, one can infer from these results that our most important results hold true even if we control for the unit heterogeneity introduced by combining different environmental treaties in one dataset. It would of course be desirable to include variables measuring the degree of institutionalization and legalization of a specific treaty in order to model treaty heterogeneity directly. However, this would be connected with a huge data collection effort and is therefore intended to be our next major research project.

Insert Table 6 about here

In addition to the aforementioned robustness checks we have evaluated the results of our analysis using a complementary log-log model, which is the equivalent to a proportional hazards model when 'the survival times are interval censored'.¹² As can

¹¹ Roberts *et al.*, 'Who Ratifies Environmental Treaties and Why? Institutionalism, Structuralism and Participation by 192 Nations in 22 Treaties'.

¹² Sophia Rabe-Hesketh and Anders Skrondal, *Multilevel and Longitudinal Modeling using Stata* (Texas: Stata Press, 2008), p. 354.

be seen in column 2 in Table 6 the results are robust to this change of econometric approach.

Appendix IV: Illustration of Effect Sizes

Figures 13 to 19 illustrate the effect sizes of the independent variables on the likelihood of treaty ratification.

Insert Figures 13-19 about here

Table 1: Ratification hazards:

Years open for ratification	baseline hazard
0	.02
1	.02
2	.02
3	.02
4	.01
5	.01
6	.01
7	.01
8	.01
9	.01
10	.01
11	.01
12	.01
13	.01
14	.01
15	.01
16	.00
17	.00
18	.01
19	.00
20	.00
21	.00
22	.00
23	.00
24	.00
25	.00
26	.00
27	.00
28	.00
29	.00
30	.00
31	.00
32	.00
33	.00
34	.00
35	.00
36	.00
37	.00
38	.00
39	.00
40	.00
41	.00
42	.00

Table 2: Correlation Coefficients

GDP	age of treaty	% region	% income	# of countries	ln SO2 per capita	ln GDP per capita ²	ln GDP per capita	IO membership	Political rights	Civil liberties	Polity	trade intensity
0.04	0.07	0.09	0.10	-0.00	0.04	0.52	0.51	0.30	0.28	0.31	0.22	1.00
0.35	0.04	0.11	0.03	-0.03	0.21	0.42	0.42	0.44	0.90	0.84	1.00	Polity
0.34	0.00	0.05	0.05	-0.06	0.20	0.56	0.56	0.46	0.92	1.00		Civil liberties
0.37	0.01	0.05	0.05	-0.06	0.22	0.53	0.53	0.44	1.00			Political rights
0.54	0.06	0.10	0.05	-0.06	0.39	0.39	0.38	1.00				IO membership
0.57	-0.01	0.11	0.16	-0.06	0.43	1.00	1.00					ln GDP per capita
0.57	-0.01	0.11	0.17	-0.07	0.43	1.00						ln GDP per capita ²
0.83	-0.02	0.03	0.08	-0.05	1.00							ln SO2 per capita
-0.06	0.25	0.64	0.74	1.00								# of countries
0.11	0.15	0.64	1.00									% income
0.05	0.12	1.00										% region
0.00	1.00											age of treaty

Table 3: Principal Model, Using Alternative Measures and Additional Indicators

	(1)	(2)	(3)	(4)	(5)
	Democracy (Vanhanen)	Full IO membership	Full and asso- ciate IO membership	Population	Exports
IO membership (full, assoc., obs.)	0.01* (0.00)	-	-	0.01*** (0.00)	0.01** (0.00)
IO membership (full)	-	0.01*** (0.00)	-	-	-
IO membership (full and associate)	-	-	0.01*** (0.00)	-	-
ln trade intensity	-0.11** (0.05)	-0.12** (0.05)	-0.13** (0.05)	-0.12** (0.05)	-
# of other coun-tries that ratified	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
% of same income group that ratified	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
% of countries in region that ratified	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
Democracy (Polity)	-	0.01* (0.01)	0.01* (0.01)	0.01* (0.01)	0.01* (0.01)
Democracy (Vanhanen)	0.01*** (0.00)	-	-	-	-
ln GDP p.c.	0.98* (0.56)	0.93 (0.62)	0.95 (0.62)	0.86 (0.63)	0.95 (0.62)
ln GDP p.c.^2	-0.05 (0.03)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)
ln SO ₂ p.c.	0.06** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.09*** (0.03)
ln GDP	0.01 (0.07)	-0.07 (0.07)	-0.08 (0.07)	-	-0.06 (0.07)
Population	-	-	-	-0.07 (0.07)	-
Africa	-0.31** (0.14)	-0.51*** (0.15)	-0.51*** (0.15)	-0.51*** (0.15)	-0.53*** (0.15)
North America	-0.48*** (0.16)	-0.54*** (0.17)	-0.54*** (0.16)	-0.55*** (0.16)	-0.54*** (0.15)
Latin America	-0.37*** (0.11)	-0.55*** (0.13)	-0.55*** (0.13)	-0.54*** (0.12)	-0.55*** (0.13)
East Asia	-0.43*** (0.13)	-0.46*** (0.14)	-0.46*** (0.14)	-0.46*** (0.14)	-0.48*** (0.14)
West Asia	-0.60*** (0.15)	-0.71*** (0.16)	-0.71*** (0.16)	-0.71*** (0.16)	-0.73*** (0.16)
ln (exports/GDP)	-	-	-	-	-0.10* (0.05)
t	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)
t ²	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
t ³	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Constant	-11.09*** (2.65)	-9.39*** (2.99)	-9.46*** (2.98)	-9.90*** (2.84)	-9.27*** (2.99)
Observations	614,679	574,196	574,196	574,196	574,196

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 4: Robustness Checks of Principal Model: methods and additional controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Splines	Time dummies	Rare events logit	Major power	Stockholm	Rio	Stockholm + Rio
IO Membership	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
ln trade intensity	-0.14*** (0.05)	-0.13** (0.05)	-0.12** (0.05)	-0.12** (0.05)	-0.11* (0.06)	-0.08 (0.05)	-0.08 (0.06)
# of other countries that ratified	0.01*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.03*** (0.00)
% of same income group that ratified	0.02*** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
% of countries in region that ratified	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
Democracy (Polity)	0.00 (0.01)	0.01 (0.01)	0.01* (0.01)	0.01* (0.01)	0.01* (0.01)	0.01** (0.01)	0.01** (0.01)
IO Membership	0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
ln GDP p.c.	0.88 (0.56)	0.92 (0.61)	0.93 (0.62)	0.97 (0.62)	0.95 (0.61)	1.12* (0.61)	1.12* (0.60)
ln GDP p.c.^2	-0.04 (0.03)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.04 (0.04)	-0.05 (0.04)	-0.05 (0.04)
ln SO ₂ p.c.	0.09*** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.08** (0.03)	0.07** (0.03)
ln GDP	-0.10* (0.06)	-0.07 (0.07)	-0.07 (0.07)	-0.08 (0.07)	-0.07 (0.07)	-0.06 (0.07)	-0.06 (0.07)
Major power	-	-	-	0.07 (0.13)	-	-	-
After Stockholm	-	-	-	-	-0.07 (0.10)	-	-0.04 (0.09)
After Rio	-	-	-	-	-	-0.26*** (0.07)	-0.26*** (0.06)
Spline 1	0.02*** (0.00)	-	-	-	-	-	-
Spline 2	-0.02*** (0.00)	-	-	-	-	-	-
Spline 3	0.00*** (0.00)	-	-	-	-	-	-
Africa	-0.34** (0.15)	-0.51*** (0.15)	-0.51*** (0.15)	-0.50*** (0.15)	-0.50*** (0.15)	-0.51*** (0.15)	-0.50*** (0.15)
North America	-0.43*** (0.16)	-0.54*** (0.16)	-0.54*** (0.16)	-0.57*** (0.17)	-0.54*** (0.16)	-0.50*** (0.14)	-0.50*** (0.14)
Latin America	-0.31*** (0.11)	-0.54*** (0.12)	-0.54*** (0.12)	-0.54*** (0.13)	-0.54*** (0.13)	-0.55*** (0.13)	-0.55*** (0.13)
East Asia	-0.12 (0.12)	-0.46*** (0.14)	-0.46*** (0.14)	-0.46*** (0.14)	-0.46*** (0.14)	-0.44*** (0.14)	-0.44*** (0.14)
West Asia	-0.50*** (0.15)	-0.71*** (0.16)	-0.71*** (0.16)	-0.71*** (0.16)	-0.71*** (0.16)	-0.66*** (0.16)	-0.65*** (0.16)
t	-	-	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)	-0.33*** (0.02)
t ²	-	-	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
t ³	-	-	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Constant	-9.55*** (2.58)	-9.65*** (2.96)	-9.38*** (2.97)	-9.45*** (2.96)	-9.31*** (2.98)	-9.61*** (2.95)	-9.56*** (2.96)
Observations	574,196	571,659	574,196	574,196	574,196	574,196	574,196

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 5: Robustness Checks of Principal Model

	(1) Excluding regional treaties	(2) Roberts	(3) Truncation	(4) Excluding small traders	(5) Excluding big traders
IO membership	0.01*** (0.00)	0.03*** (0.00)	0.01** (0.00)	0.01** (0.00)	0.01** (0.00)
ln trade intensity	-0.09* (0.06)	-0.06 (0.07)	-0.14** (0.05)	-0.17*** (0.06)	-0.12** (0.06)
# of other coun- tries that ratified	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
% of same income group that ratified	-0.00 (0.00)	-0.01 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
% of countries in region that ratified	0.02*** (0.00)	0.02*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
Democracy (Polity)	0.02*** (0.01)	0.02** (0.01)	0.01* (0.01)	0.01* (0.01)	0.01 (0.01)
ln GDP p.c.	0.64 (0.63)	1.08 (0.75)	0.89 (0.63)	0.80 (0.63)	0.66 (0.64)
ln GDP p.c. ^2	-0.02 (0.04)	-0.07 (0.05)	-0.04 (0.04)	-0.03 (0.04)	-0.02 (0.04)
ln SO ₂ p.c.	0.08** (0.03)	0.03 (0.05)	0.11*** (0.04)	0.10*** (0.03)	0.11*** (0.04)
ln GDP	-0.04 (0.07)	-0.07 (0.08)	-0.07 (0.07)	-0.07 (0.07)	-0.08 (0.07)
Africa	-0.46*** (0.16)	-0.38** (0.17)	-0.53*** (0.15)	-0.53*** (0.15)	-0.53*** (0.15)
North America	-0.74*** (0.24)	-0.45* (0.26)	-0.56*** (0.12)	-0.58*** (0.16)	-0.58*** (0.15)
Latin America	-0.47*** (0.13)	-0.36** (0.16)	-0.54*** (0.13)	-0.58*** (0.13)	-0.54*** (0.13)
East Asia	-0.32** (0.14)	-0.05 (0.18)	-0.49*** (0.15)	-0.51*** (0.15)	-0.49*** (0.15)
West Asia	-0.55*** (0.16)	-0.22 (0.19)	-0.82*** (0.15)	-0.80*** (0.16)	-0.77*** (0.16)
t	-0.27*** (0.02)	-0.22*** (0.02)	-0.32*** (0.02)	-0.31*** (0.02)	-0.31*** (0.02)
t ²	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
t ³	-0.00*** (0.00)	-0.00* (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Constant	-8.17*** (2.92)	-7.74** (3.68)	-9.62*** (3.09)	-9.67*** (3.06)	-8.27*** (3.14)
Observations	240,993	45,599	721,904	718,953	716,151

Note: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 6: Robustness Checks of Principal Model

	(1)	(2)
	Conditional Logit	Complementary Log-Log exp(b)
IO membership	0.02*** (0.00)	1.01*** (0.00)
ln trade intensity	-0.05** (0.02)	0.88** (0.05)
# of other countries that ratified	0.01*** (0.00)	1.02*** (0.00)
% of same income group that ratified	-0.01*** (0.00)	1.00 (0.00)
% of countries in region that ratified	0.03*** (0.00)	1.03*** (0.00)
Democracy (Polity)	0.01*** (0.00)	1.01* (0.01)
ln GDP p.c.	0.97*** (0.25)	2.22 (0.61)
ln GDP p.c. ^2	-0.04*** (0.02)	0.97 (0.04)
ln SO ₂ p.c.	0.06*** (0.01)	1.09*** (0.03)
ln GDP	-0.04* (0.02)	-0.93 (0.07)
Africa	-0.50*** (0.05)	0.62*** (0.14)
North America	-0.49*** (0.10)	0.58*** (0.17)
Latin America	-0.57*** (0.05)	0.60*** (0.12)
East Asia	-0.42*** (0.06)	0.65*** (0.14)
West Asia	-0.60*** (0.06)	0.52*** (0.15)
t	-0.11*** (0.00)	
Observations	555,766	571,659

Note: Standard errors in parentheses,
*** p<0.01, ** p<0.05, * p<0.1

Table 7: List of all treaties included in the principal dataset

Treatyname
Protocol Amending The International Convention For The High Seas Fisheries Of The North Pacific Ocean
Protocol Of Amendment To The Convention On The Inter-American Institute Of Agricultural Sciences
Protocol To The Agreement Concerning Measures For Protection Of The Stocks Of Deep-Sea Prawns (<i>Pandalus borealis</i>), European Lobsters (<i>Homarus vulgaris</i>), Norway Lobsters (<i>Nephrops norvegicus</i>) And Crabs (<i>Cancer pagurus</i>)
Agreement Concerning Cooperation In The Quarantine Of Plants And Their Protection Against Pests And Diseases
Convention On The African Migratory Locust Organization
Amendments To The Agreement For The Establishment Of A General Fisheries Commission For The Mediterranean
European Fisheries Convention
Additional Protocol I To The Treaty For The Prohibition Of Nuclear Weapons In Latin America
Additional Protocol II To The Treaty For The Prohibition Of Nuclear Weapons In Latin America
Convention On The Conservation Of The Living Resources Of The Southeast Atlantic
International Convention On Civil Liability For Oil Pollution Damage
International Convention On The Establishment Of An International Fund For Compensation For Oil Pollution Damage
Convention For The Prevention Of Marine Pollution By Dumping From Ships And Aircraft
Convention On The Prevention Of Marine Pollution From Land-Based Sources
Protocol To The International Convention On Civil Liability For Oil Pollution Damage
Amendments To The Convention On The Protection Of The Marine Environment Of The Baltic Sea Area (Paragraph B Of Regulation 4 In Annex IV)
Amendments To The Convention On The Protection Of The Marine Environment Of The Baltic Sea Area (Regulation 5 In Annex IV)
Agreement On Regional Cooperation In Combating Pollution Of The Southeast Pacific By Oil And Other Harmful Substances In Cases Of Emergency
Amendments To The Convention On The Protection Of The Marine Environment Of The Baltic Sea Area (Annex I)
Amendment To The Treaty For The Prohibition Of Nuclear Weapons In Latin America
Amendments To The International Convention On Standards Of Training, Certification And Watchkeeping For Seafarers - Gmdss
Western Indian Ocean Tuna Organization Convention
Protocol Of Amendment To The European Convention For The Protection Of Animals Kept For Farming Purposes
Agreement Establishing The Inter-American Institute For Global Change Research
Amendment To The Convention On The Control Of Transboundary Movements Of Hazardous Wastes And Their Disposal
Protocol To The United Nations Framework Convention On Climate Change
Protocol Of Amendment To The European Convention For The Protection Of Vertebrate Animals Used For Experimental And Other Scientific Purposes
Protocol On Heavy Metals To The Convention On Long-Range Transboundary Air Pollution
Protocol On Persistent Organic Pollutants To The Convention On Long-Range Transboundary Air Pollution
Convention On The Prior Informed Consent Procedure For Certain Hazardous Chemicals And Pesticides In International Trade
Agreement For The Establishment Of The Regional Commission For Fisheries
Protocol On Liability And Compensation For Damage Resulting From Transboundary Movements Of Hazardous Wastes And Their Disposal
Cartagena Protocol On Biosafety To The Convention On Biological Diversity
Convention on the Conservation and Management of the Highly Migratory Fish Stocks of the Western and Central Pacific Ocean
Agreement For The Establishment Of A Commission For Controlling The Desert Locust In The Western Region

Convention for the Conservation of Antarctic Seals
 International Convention for the Protection of Birds
 Convention concerning Fishing in the Black Sea
 Agreement on the Protection of the Salmon in the Baltic Sea
 Agreed Measures for the Conservation of Antarctic Fauna and Flora
 Convention for the Establishment of an Inter-American Tropical Tuna Commission
 International Convention for the Conservation of Atlantic Tunas
 Protocol Concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency
 Protocol relating to the International Convention for the Safety of Life at Sea (SOLAS Prot.)
 International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties
 International Convention for the Prevention of Pollution from Ships as modified by the Protocol of 1978
 International Convention for the Prevention of Pollution from Ships (MARPOL)
 International Convention for the Safety of Life at Sea (SOLAS)
 Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil
 Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material
 Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Near East
 Agreement For The Establishment Of A Commission For Controlling The Desert Locust In Southwest Asia
 Agreement for the Establishment of a Commission for Controlling the Desert Locust in North-West Africa
 Constitution of the European Commission for the Control of Foot -and- Mouth Disease
 Agreement for the Establishment of a General Fisheries Commission for the Mediterranean
 International Plant Protection Convention
 Protocol amending the Agreement on the Protection of the Salmon in the Baltic Sea
 Convention on the Conservation of Antarctic Marine Living Resources
 International Convention for the Prevention of Pollution of the Sea by Oil 1962 and 1969
 Plant Protection Agreement for the Asia and Pacific Region
 Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques
 Convention on Fishing and Conservation of the Living Resources of the High Seas
 Convention on the High Seas
 Optional Protocol of Signature concerning the Compulsory Settlement of Disputes [Arising Out Of The United Nations Conference On The Law Of The Sea]
 Convention on the Continental Shelf
 European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
 Protocol amending the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
 Convention on the Protection of the Marine Environment of the Baltic Sea Area
 Nordic Mutual Emergency Assistance Agreement in connection with Radiation Accidents
 Optional Protocol concerning the Compulsory Settlement of Disputes
 Convention on Civil Liability for Nuclear Damage
 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Moon and other Celestial Bodies
 Treaty on the Non-Proliferation of Nuclear Weapons
 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the
 Treaty Banning Nuclear Weapon Tests in the Atmosphere Outer Space and under Water
 Convention on the Prohibition of the Development Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destru
 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
 North-East Atlantic Fisheries Convention
 Convention on Third Party Liability in the Field of Nuclear Energy
 Convention on the Establishment of a Security Control in the Field of Nuclear Energy
 Additional Protocol to the Convention on Third Party Liability in the Field of Nuclear Energy

Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment due to Air Pollution

Convention concerning Protection against Hazards of Poisoning arising from Benzene (ILO No.136)

Convention concerning the Protection of Workers against Ionising Radiations (ILO No. 115)

European Agreement on the Restriction of the Use of certain Detergents in Washing and Cleaning Products

European Convention on the Protection of the Archaeological Heritage

The Antarctic Treaty

European Convention for the Protection of Animals during International Transport

Additional Protocol to the European Convention for the Protection of Animals during International Transport

Protocol to the International Convention for the Regulation of Whaling

Convention on the Conservation of European Wildlife and Natural Habitats

Agreement Concerning Measures For Protection Of The Stocks Of Deep-Sea Prawns (*Pandalus borealis*), European Lobsters (*Homarus vulgaris*), Norway Lobsters (*Nephrops norvegicus*) And Crabs (*Cancer pagurus*)

Protocol to the Convention for the International Council for the Exploration of the Sea

Convention on International Trade in Endangered Species of Wild Fauna and Flora

Protocol to the Convention for the International Council for the Exploration of the Sea

Convention on International Trade in Endangered Species of Wild Fauna and Flora

Protocol to the Convention for the International Council for the Exploration of the Sea

Convention on International Trade in Endangered Species of Wild Fauna and Flora

Revised Convention for the Establishment of a European Organisation for Nuclear Research

Convention on Long-Range Transboundary Air Pollution

Convention concerning the Protection of the World Cultural and Natural Heritage

Convention on Wetlands of International Importance especially as Waterfowl Habitat

Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and the Belts

Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries (NAFO)

Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution

Protocol concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency

Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft

Convention for the Protection of the Mediterranean Sea against Pollution

Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources

Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region

Protocol concerning Co-operation in combating Pollution in cases of Emergency

Protocol amending the International Convention Relating to the Limitation of the Liability of Owners of Sea-going Ships

Protocol to the International Convention on the Establishment of an International Fund of Compensation for Oil Pollution Damage

Treaty for the Prohibition of Nuclear Weapons in Latin America

Agreement on an International Energy Program

Amendments to the International Convention for the Prevention of Pollution of the Sea by Oil concerning Tank Arrangements and Limitation of Tank Si

Agreement for the Establishment of a Commission for Controlling the Desert Locust in North-West Africa

Convention Supplementary to the Paris Convention of 29th July 1960 on Third Party Liability in the Field of Nuclear Energy as amended in 1964 and 1

Convention on the Liability of Operators of Nuclear Ships

International Convention relating to the Limitation of the Liability of Owners of Sea-going Ships

International Convention on Standards of Training Certification and Watchkeeping for Seafarers

Convention for the Conservation of Salmon in the North Atlantic Ocean

South Pacific Forum Fisheries Agency Convention

Amendments to the Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter

Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific

Agreement on Regional Co-operation in Combating Pollution of the South-East Pacific by Hydrocarbons or other Harmful Substances in cases of Emergen

Regional Convention for the Conservation of the Red Sea and of the Gulf of Aden Environment

Protocol concerning Mediterranean Specially Protected Areas

United Nations Convention on the Law of the Sea

Amendments to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter concerning Settlement of Disputes

Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat

Protocol amending the European Agreement on the Restriction of the Use of certain Detergents in Washing and Cleaning Products

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region

Protocol concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region

Amendments to the Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and the Belts

Protocol for the Protection of South-East Pacific against Pollution from Land-Based Sources

Supplementary Protocol to the Agreement on Regional Co-operation in Combating Pollution of the South-East Pacific by Hydrocarbons or other Harmful

International Tropical Timber Agreement

Protocol to Amend the Convention on Third Party Liability in the Field of Nuclear Energy of 29th July 1960 amended by the Additional Protocol of 28

Protocol to Amend the Convention of 31st January 1963 Supplementary to the Paris Convention of 29th July 1960 on third Party Liability in the Field

Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and other Harmful Substances

Additional Protocol to the Convention of 31 January 1963 Supplementary to the Paris Convention of 29 July 1960 on Third Party Liability in the Fiel

Agreement governing the Activities of States on the Moon and other Celestial Bodies

Protocol amending the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft

ASEAN Agreement on the Conservation of Nature and Natural Resources

Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region

Convention for the Protection of the Marine and Coastal Environment of the Eastern African Region

Protocol concerning Co-operation in Combating Marine Pollution in cases of Emergency in the Eastern African Region

Protocol to the Convention on Long-range Transboundary Air Pollution on Long-Term Financing of Co-operative Programme for Monitoring and Evaluation

Convention for the Protection of the Ozone Layer

Eastern Pacific Ocean Tuna Fishing Agreement

Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at

Convention on Conditions for Registration of Ships

Protocol Relating to Modification of the International Convention for the Conservation of Atlantic Tunas

Convention on Early Notification of a Nuclear Accident

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency

Protocol amending the Convention for the prevention of marine pollution from land-based sources

Convention establishing a Permanent Inter-State Drought Control Committee for the Sahel

Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Convention)

Protocol for the Prevention of Pollution of the South Pacific Region by Dumping

Protocol concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region

Protocol on Substances that Deplete the Ozone Layer
 South Pacific Fisheries Treaty
 International Convention for the Prevention of Pollution from Ships Hazardous substances carried in packaged form
 International Convention for the Prevention of Pollution from Ships (MARPOL) - Annex IV (Optional): Sewage
 International Convention for the Prevention of Pollution from Ships (MARPOL) - Annex V (Optional) = Garbage
 Protocol Additional to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts (Protocol I)
 Protocol Additional to the Geneva Conventions relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II)
 Protocol to the Convention on Long-Range Transboundary Air Pollution concerning the Control of Emissions of Nitrogen Oxides or their Transboundary
 Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
 Protocol relating to the International Convention for the Safety of Life at Sea (SOLAS PROT 1988)
 Joint Protocol relating to the application of the Vienna Convention and the Paris Convention Agreement on transboundary cooperation with a view to preventing or limiting harmful effects for human beings property or the environment in the e
 International Convention on Salvage
 Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art.XI)
 Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wi
 European Convention for the Protection of Pet Animals
 European Convention for the Protection of Vertebrate Animals used for Experimental and other Scientific Purposes
 Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific
 Protocol for the Protection of the South-East Pacific against Radioactive Pollution
 Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South-East Pacific
 Amendments to Annexes I and II to the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft
 Protocol amending the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft
 Cooperation Agreement for the Protection of the coasts and waters of the North-East Atlantic against Pollution
 Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art.XXI)
 Amendments to Articles 6 and 7 of the Convention on Wetlands of International Importance especially as Waterfowl Habitat
 Agreement on the Conservation of Seals in the Wadden Sea
 Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
 Convention establishing a marine scientific organization for the North Pacific Region (PICES)
 Convention on the Ban of the Import of Hazardous Wastes into Africa and on the Control of their Transboundary Movements within Africa
 Convention on Environmental Impact Assessment in a Transboundary Context
 International Convention on Oil Pollution Preparedness Response and Co-operation
 Agreement for the Establishment of the Network of Aquaculture Centres in Asia and the Pacific
 Protocol to the Antarctic Treaty on Environmental Protection
 International Plant Protection Convention (1979 Revised Text)
 Agreement on the Organisation for Indian Ocean Marine Affairs (IOMAC)
 Convention on the Protection of the Alps (Alpine Convention)
 Convention on fisheries cooperation among African States bordering the Atlantic Ocean
 Protocol concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf
 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution concerning the Control of Emissions of Volatile Organic Compounds or thei

Protocol I to the Convention for the the Prohibition of Fishing with Long Driftnets in the South Pacific
 Protocol II to the Convention for the the Prohibition of Fishing with Long Driftnets in the South Pacific
 Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
 Convention on the Protection and Use of Transboundary Watercourses and International Lakes
 Convention on Transboundary Effects of Industrial Accidents
 United Nations Framework Convention on Climate Change
 Convention on Biological Diversity
 Convention on the Protection of the Black Sea against Pollution
 Convention for the Protection of the Marine Environment of the North-East Atlantic
 Convention on the Protection of the Marine Environment of the Baltic Sea Area
 Agreement on the Conservation of Bats in Europe
 Convention on the Prohibition of the Development Production and their Destruction
 Convention for the Conservation of Anadromous Stocks
 Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
 Regional Agreement on the transboundary movement of hazardous wastes
 Agreement establishing the South Pacific Regional Environment Programme
 Convention concerning Safety in the Use of Asbestos
 North American Agreement on Environmental Cooperation
 Protocol to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
 Protocol to amend the International Convention on Civil Liability for Oil Pollution Damage
 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas
 Protocol to the Convention on Long-Range Transboundary Air Pollution on further Reduction of Sulphur Emissions
 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982
 Agreement on Co-operative Enforcement Operations directed at Illegal Trade in Wild Fauna and Flora
 United Nations Convention To Combat Desertification In Those Countries Experiencing Serious Drought And/ Or Desertification, Particularly In Africa
 Convention on Nuclear Safety
 Protocol for the protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the Energy Charter Treaty
 Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean
 Agreement on the Conservation of African-Eurasian Migratory Waterbirds
 Energy Charter Protocol on Energy Efficiency and related Environmental Aspects
 Agreement for the Establishment of the Indian Ocean Tuna Commission
 Agreement for the Establishment of the Near East Plant Protection Organization
 Protocol to amend Paragraph 2 of Article X of the International Convention for the Conservation of Atlantic Tunas
 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Manageme
 Convention to ban the Importation into Forum Island Countries of Hazardous Wastes and Radioactive Wastes and to control the Transboundary Movement
 Agreement on the Conservation of Cetaceans of the Black Sea
 Treaty on the Southeast Asia Nuclear Weapon - Free Zone
 Convention on the Law of the Non-Navigational Uses of International Watercourses
 Inter-American Convention for the Protection and Conservation of Sea Turtles
 Convention for the Conservation of Southern Bluefin Tuna
 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
 Protocol to amend the Vienna Convention on Civil Liability for Nuclear Damage
 Convention on Supplementary Compensation for Nuclear Damage
 Convention on the Prohibition of the Use Production and Transfer of Anti-Personnel Mines and on their Destruction
 Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive

Waste Management
The African Nuclear-Weapon-Free Zone Treaty
Convention on Access to Information Public Participation in Decision-Making and Access to
Justice in Environmental Matters
Comprehensive Nuclear Test - Ban Treaty
Statutes of the International Centre for Genetic Engineering and Biotechnology
International Plant Protection Convention (1997 Revised Text)
Amendments to the Convention for the Protection of the Mediterranean Sea against Pollution
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer

Table 8: List of reduced sample

Treatyname
Agreement Concerning Cooperation In The Quarantine Of Plants And Their Protection Against Pests And Diseases
International Convention On Civil Liability For Oil Pollution Damage
International Convention On The Establishment Of An International Fund For Compensation For Oil Pollution Damage
Convention For The Prevention Of Marine Pollution By Dumping From Ships And Aircraft
Convention On The Prevention Of Marine Pollution From Land-Based Sources
Protocol To The International Convention On Civil Liability For Oil Pollution Damage
Amendment To The Convention On The Control Of Transboundary Movements Of Hazardous Wastes And Their Disposal
Protocol To The United Nations Framework Convention On Climate Change
Convention On The Prior Informed Consent Procedure For Certain Hazardous Chemicals And Pesticides In International Trade
Protocol On Liability And Compensation For Damage Resulting From Transboundary Movements Of Hazardous Wastes And Their Disposal
Cartagena Protocol On Biosafety To The Convention On Biological Diversity
Convention On Persistent Organic Pollutants
International Treaty On Plant Genetic Resources For Food And Agriculture
International Convention for the Protection of Birds
Protocol Concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency
Protocol relating to the International Convention for the Safety of Life at Sea (SOLAS Prot.)
International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties
International Convention for the Prevention of Pollution from Ships (MARPOL)
International Convention for the Safety of Life at Sea (SOLAS)
Protocol relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil
Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material
International Plant Protection Convention
Convention on the Conservation of Antarctic Marine Living Resources
International Convention for the Prevention of Pollution of the Sea by Oil 1962 and 1969
Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques
Convention on Fishing and Conservation of the Living Resources of the High Seas
Convention on the High Seas
Optional Protocol of Signature concerning the Compulsory Settlement of Disputes [Arising Out Of The United Nations Conference On The Law Of The Sea]
Convention on the Continental Shelf
Convention on Civil Liability for Nuclear Damage
Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Moon and other Celestial Bodies
Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the
Treaty Banning Nuclear Weapon Tests in the Atmosphere Outer Space and under Water
Convention on the Prohibition of the Development Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destru
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
Fisheries Convention
Convention on Third Party Liability in the Field of Nuclear Energy
Convention on the Establishment of a Security Control in the Field of Nuclear Energy
Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment due to Air Pollution
Convention concerning Protection against Hazards of Poisoning arising from Benzene (ILO No.136)
Convention concerning the Protection of Workers against Ionising Radiations (ILO No. 115)
The Antarctic Treaty

Agreement concerning Measures for the Protection of the Stocks of Deep Sea Prawns (*Pandalus Borealis*) Lobsters (*Homarus Vulgaris*) (*Nephrops Norvegi*)
 Convention on International Trade in Endangered Species of Wild Fauna and Flora
 Convention on the Conservation of Migratory Species of Wild Animals
 Convention for the International Council for the Exploration of the Sea
 Convention concerning the Protection of the World Cultural and Natural Heritage
 Convention on Wetlands of International Importance especially as Waterfowl Habitat
 Protocol concerning Co-operation in combating Pollution in cases of Emergency
 Agreement on an International Energy Program
 Convention Supplementary to the Paris Convention of 29th July 1960 on Third Party Liability in the Field of Nuclear Energy as amended in 1964 and 1
 Convention on the Liability of Operators of Nuclear Ships
 International Convention relating to the Limitation of the Liability of Owners of Sea-going Ships
 International Convention on Standards of Training Certification and Watchkeeping for Seafarers
 United Nations Convention on the Law of the Sea
 Amendments to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter concerning Settlement of Disputes
 Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat
 International Tropical Timber Agreement
 Agreement governing the Activities of States on the Moon and other Celestial Bodies
 Protocol amending the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft
 Convention for the Protection of the Ozone Layer
 Convention on Conditions for Registration of Ships
 Convention on Early Notification of a Nuclear Accident
 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
 Protocol amending the Convention for the prevention of marine pollution from land-based sources
 Protocol on Substances that Deplete the Ozone Layer
 International Convention for the Prevention of Pollution from Ships Hazardous substances carried in packaged form
 International Convention for the Prevention of Pollution from Ships (MARPOL) - Annex IV (Optional): Sewage
 International Convention for the Prevention of Pollution from Ships (MARPOL) - Annex V (Optional) = Garbage
 Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
 Protocol relating to the International Convention for the Safety of Life at Sea (SOLAS PROT 1988)
 Agreement on transboundary cooperation with a view to preventing or limiting harmful effects for human beings property or the environment in the e
 International Convention on Salvage
 Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wi
 Protocol amending the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft
 Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art.XXI)
 Amendments to Articles 6 and 7 of the Convention on Wetlands of International Importance especially as Waterfowl Habitat
 Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
 Convention on Environmental Impact Assessment in a Transboundary Context
 International Convention on Oil Pollution Preparedness Response and Co-operation
 Protocol to the Antarctic Treaty on Environmental Protection
 International Plant Protection Convention (1979 Revised Text)
 Protocol concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf
 Convention on the Protection and Use of Transboundary Watercourses and International Lakes
 Convention on Transboundary Effects of Industrial Accidents

United Nations Framework Convention on Climate Change
Convention on Biological Diversity
Convention on the Prohibition of the Development Production and their Destruction
Convention for the Conservation of Anadromous Stocks
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
Regional Agreement on the transboundary movement of hazardous wastes
Convention concerning Safety in the Use of Asbestos
Protocol to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
Protocol to amend the International Convention on Civil Liability for Oil Pollution Damage
Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas
Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982
Agreement on Co-operative Enforcement Operations directed at Illegal Trade in Wild Fauna and Flora
International Convention to Combat Desertification in those Countries Experiencing Serious Drought and or Desertification
Convention on Nuclear Safety
Energy Charter Protocol on Energy Efficiency and related Environmental Aspects
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Managememe
Convention to ban the Importation into Forum Island Countries of Hazardous Wastes and Radioactive Wastes and to control the Transboundary Movement
Convention on the Law of the Non-Navigational Uses of International Watercourses
Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
Protocol to amend the Vienna Convention on Civil Liability for Nuclear Damage
Convention on Supplementary Compensation for Nuclear Damage
Convention on the Prohibition of the Use Production and Transfer of Anti-Personnel Mines and on their Destruction
Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
Convention on Access to Information Public Participation in Decision-Making and Access to Justice in Environmental Matters
Comprehensive Nuclear Test - Ban Treaty
Statutes of the International Centre for Genetic Engineering and Biotechnology
International Plant Protection Convention (1997 Revised Text)
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer

Table 9: List of treaties that Roberts *et al.*¹³ included in their analysis

Treatyname
International Convention On Civil Liability For Oil Pollution Damage
Convention On The Prevention Of Marine Pollution From Land-Based Sources
International Convention for the Regulation of Whaling
International Convention for the Prevention of Pollution of the Sea by Oil 1962 and 1969
Convention on Fishing and Conservation of the Living Resources of the High Seas
Convention on the High Seas
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
Convention on International Trade in Endangered Species of Wild Fauna and Flora
Convention on the Conservation of Migratory Species of Wild Animals
Convention on Long-Range Transboundary Air Pollution
Convention concerning the Protection of the World Cultural and Natural Heritage
Convention on Wetlands of International Importance especially as Waterfowl Habitat
Convention for the Protection of the Mediterranean Sea against Pollution
United Nations Convention on the Law of the Sea
Convention for the Protection of the Ozone Layer
Protocol on Substances that Deplete the Ozone Layer
Convention on Environmental Impact Assessment in a Transboundary Context
International Convention on Oil Pollution Preparedness Response and Co-operation
Convention on Transboundary Effects of Industrial Accidents
United Nations Framework Convention on Climate Change
Convention on Biological Diversity
International Convention to Combat Desertification in those Countries Experiencing Serious Drought and or Desertification

¹³ Roberts *et al.*, 'Who Ratifies Environmental Treaties and Why? Institutionalism, Structuralism and

Participation by 192 Nations in 22 Treaties'.

Figure 1: Baseline Hazard

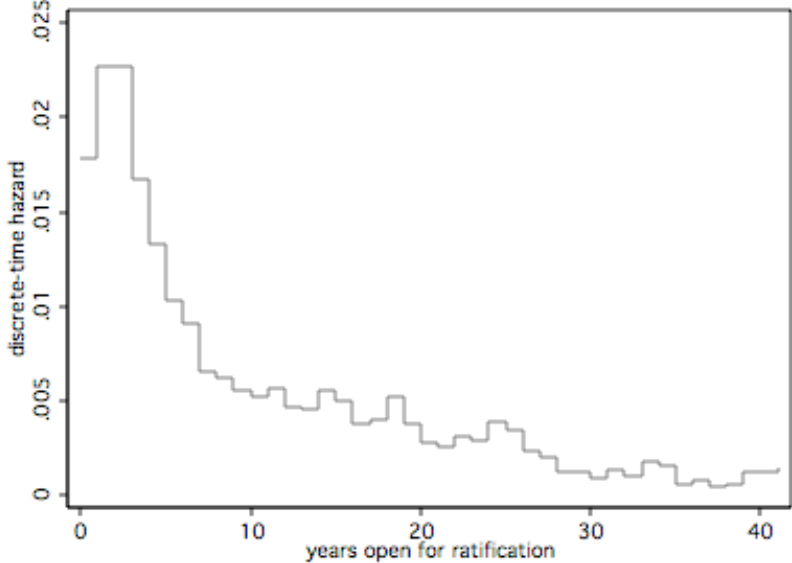


Figure 2:

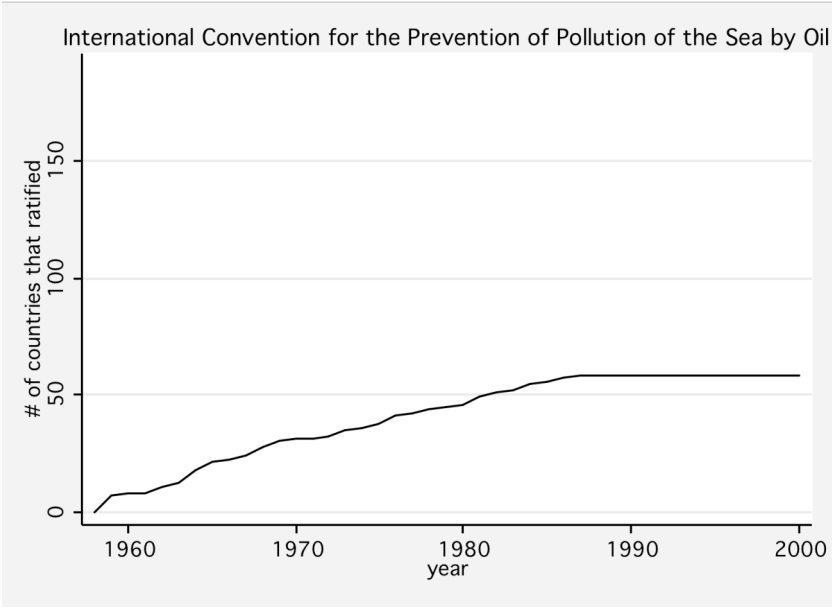


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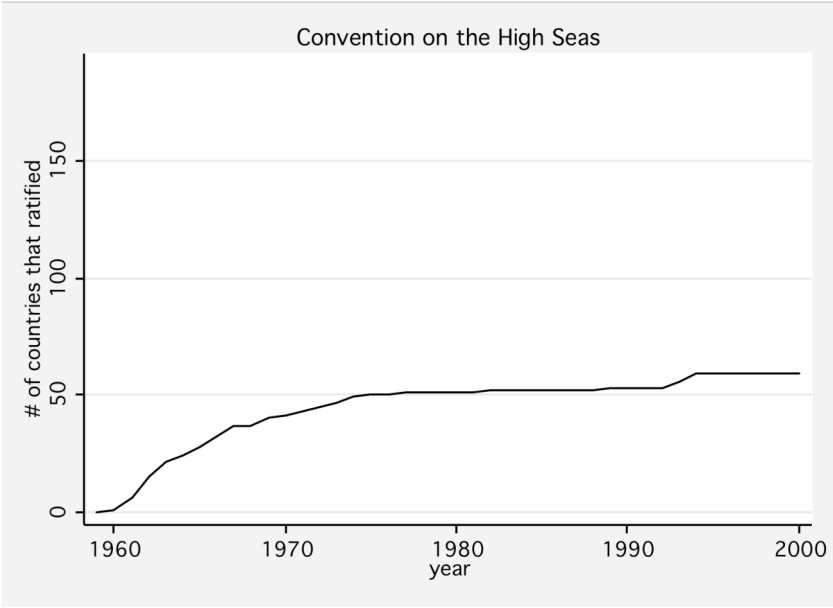


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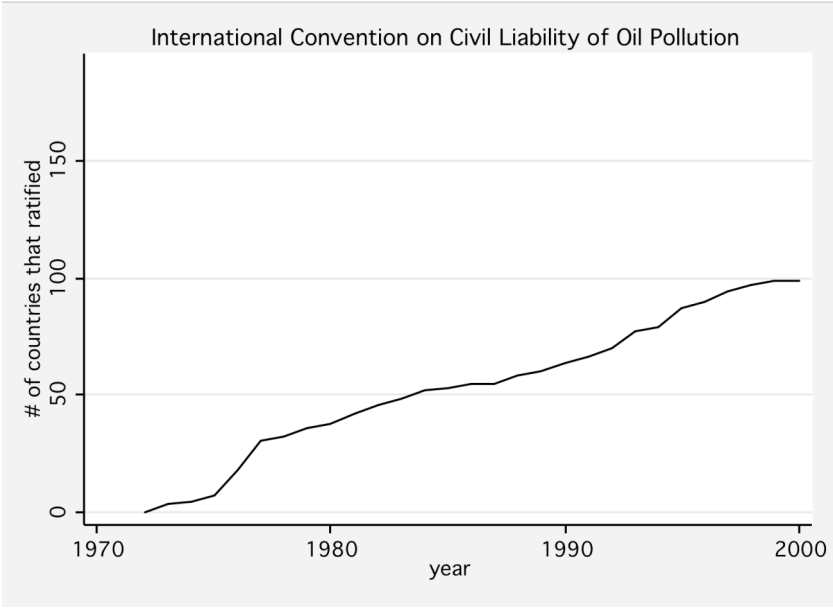


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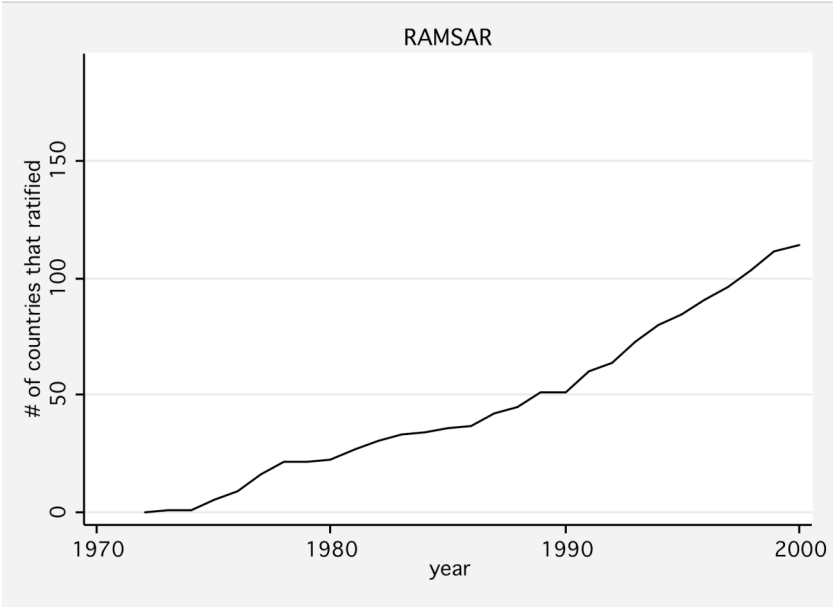


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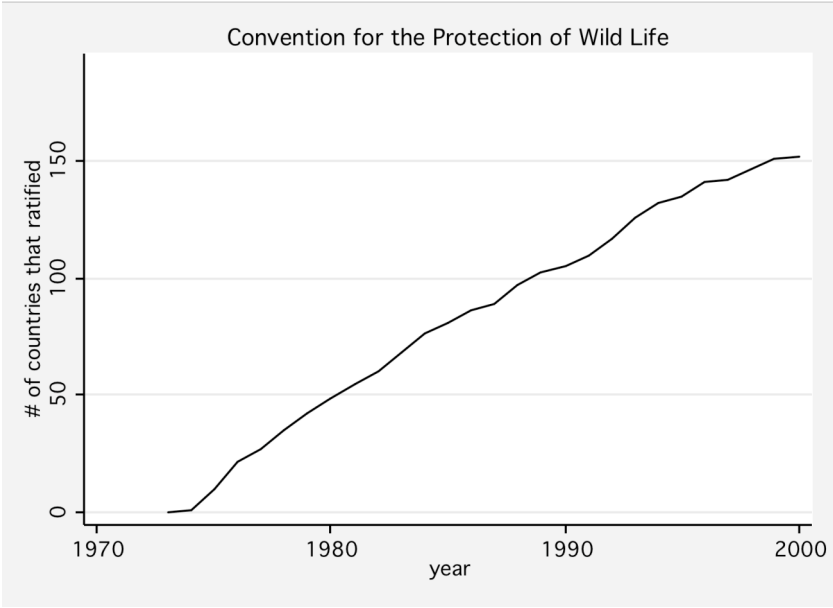


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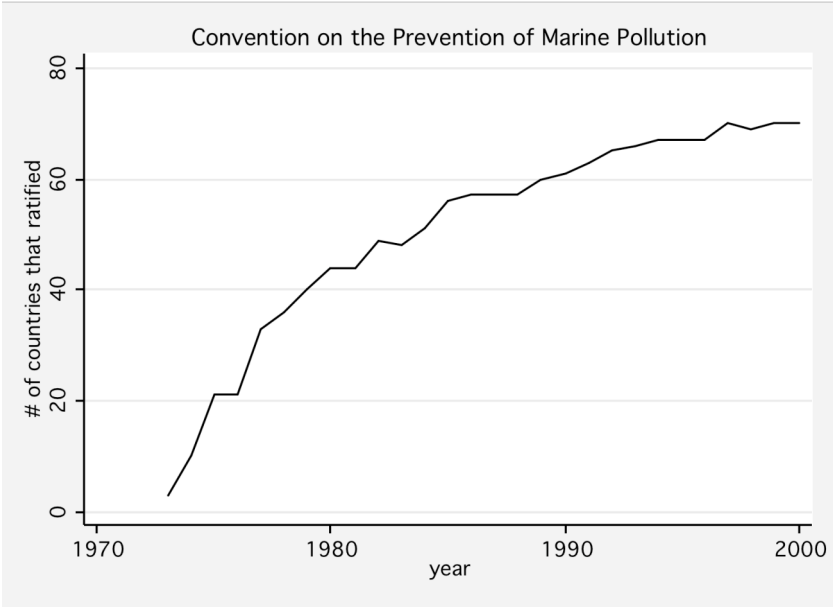


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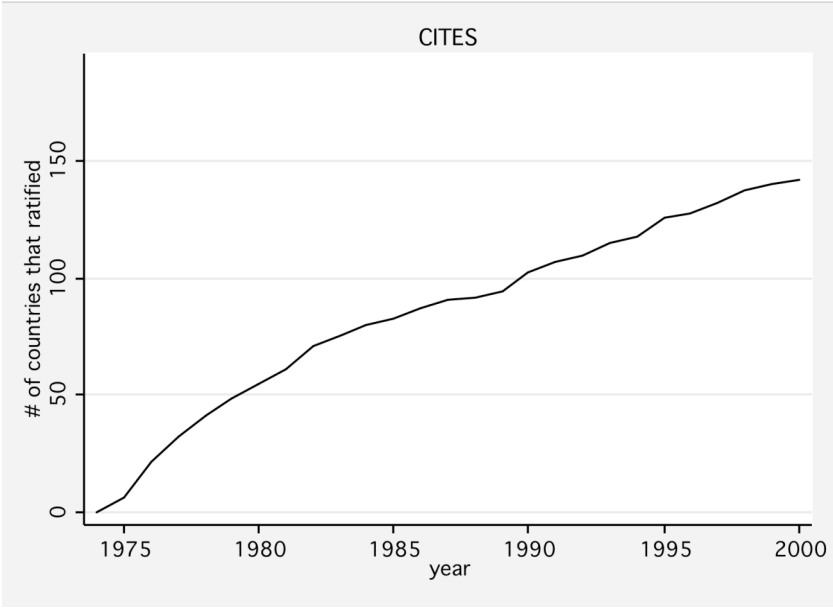


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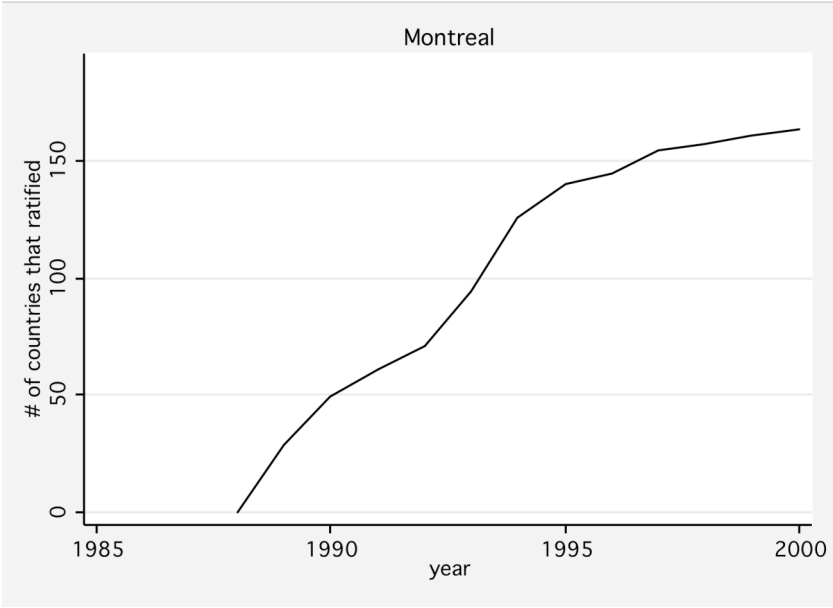


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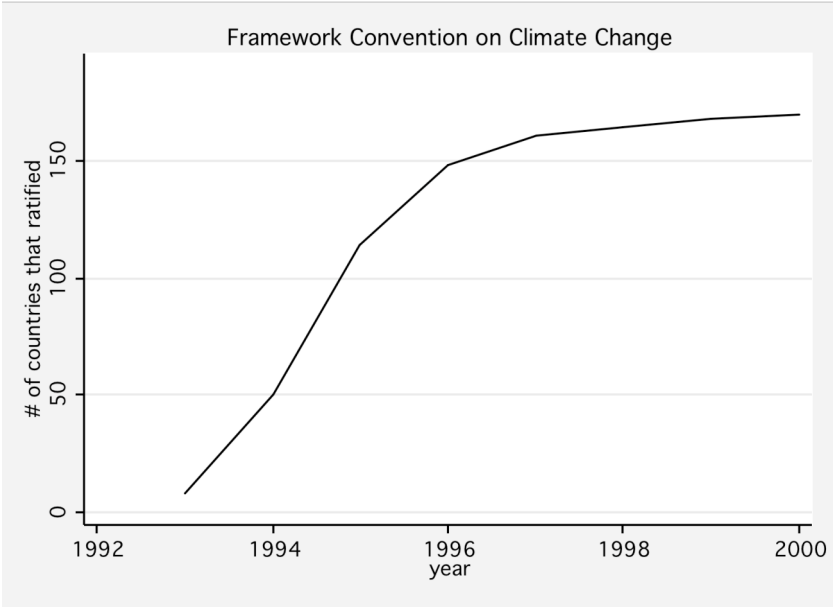


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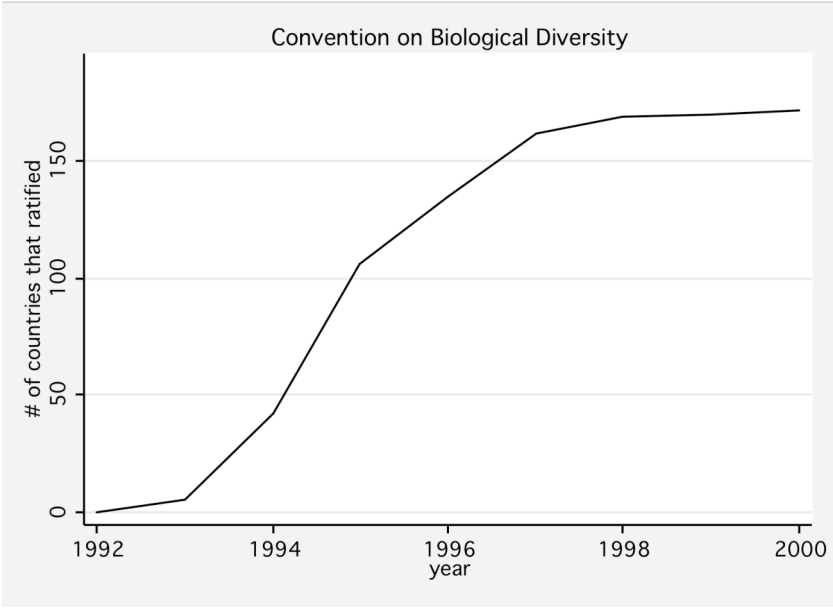


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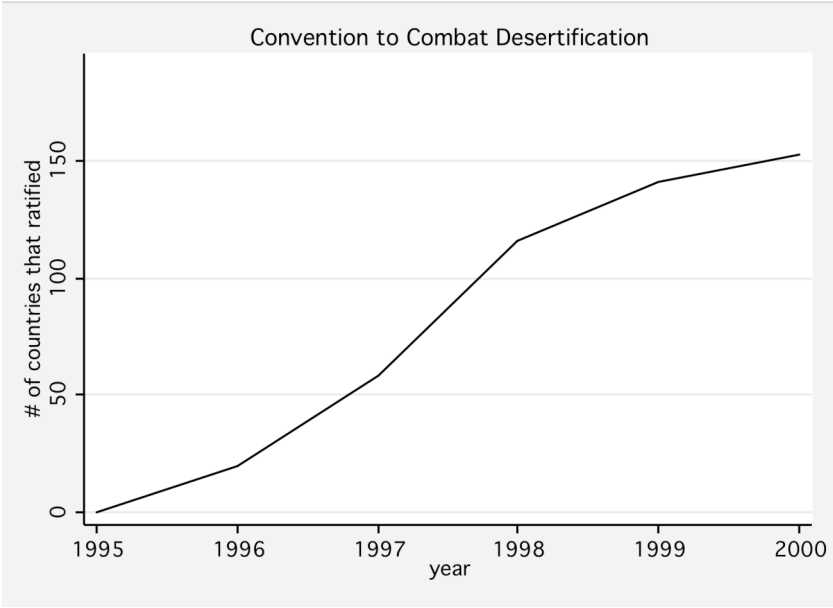


Figure 13: Effect of GDP p.c. on the likelihood of treaty ratification

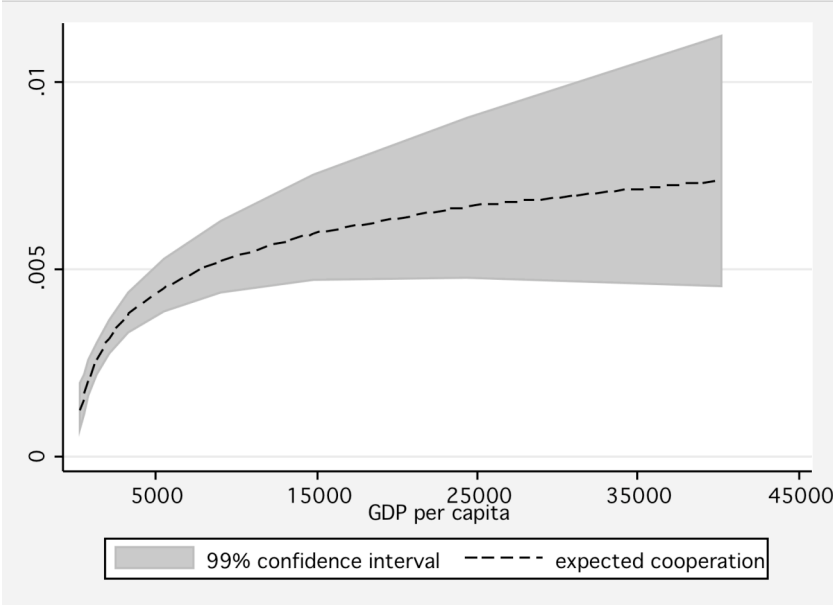


Figure 14: Effect of IO membership on the likelihood of treaty ratification

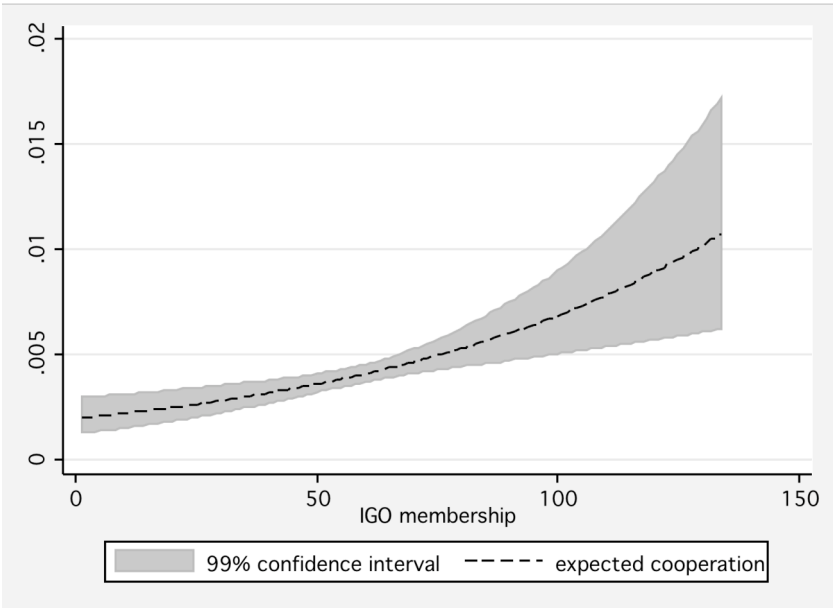


Figure 15: Effect of log of trade intensity on the likelihood of treaty ratification

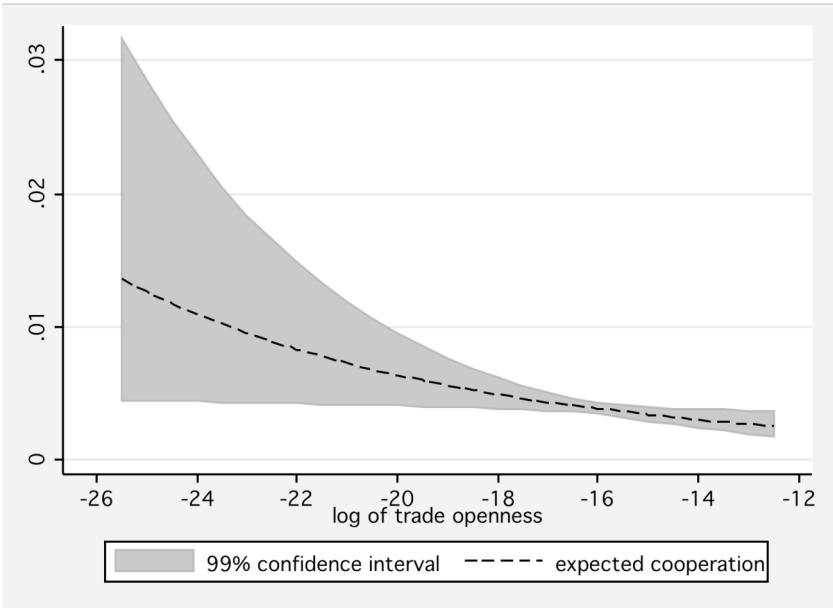


Figure 16: Effect of number of other countries that have ratified on the likelihood of treaty ratification

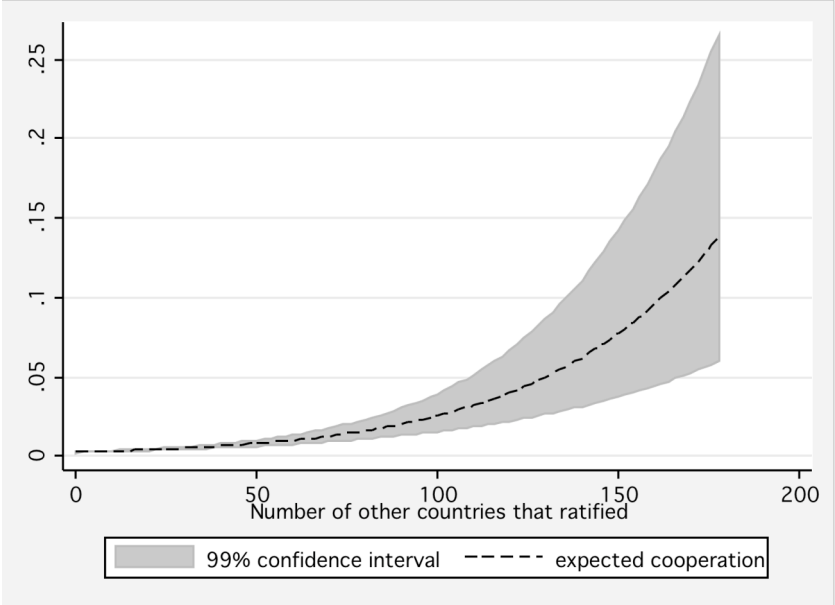


Figure 17: Effect of democracy on the likelihood of treaty ratification

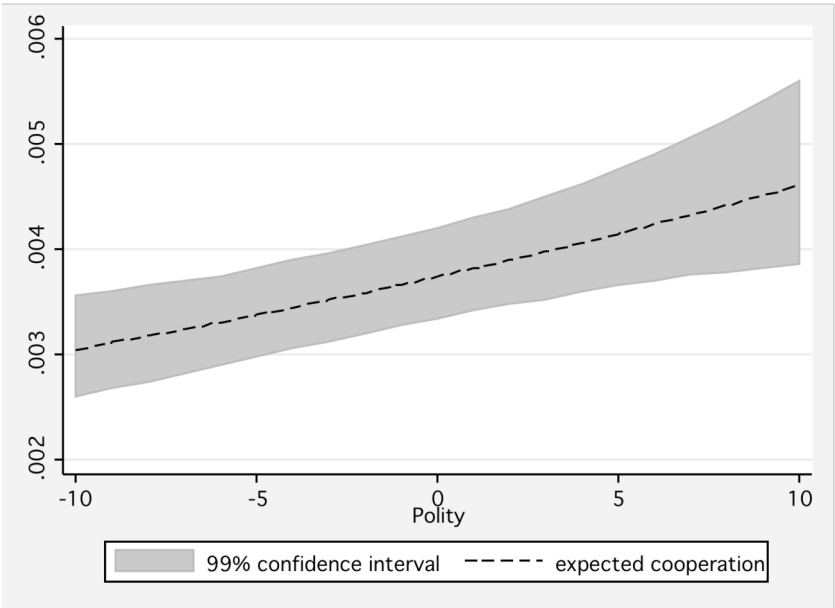


Figure 18: Effect of percent of countries in the same income group on the likelihood of treaty ratification

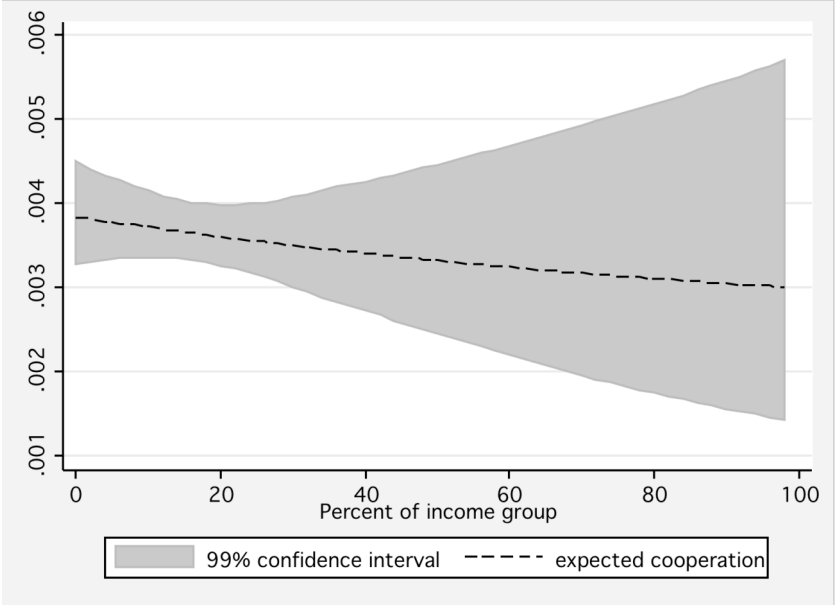


Figure 19: Effect of percent of countries in the same region on the likelihood of treaty ratification

