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Abstract:
Estimating two-step selection models, we find that more democratic governments are more likely to conclude preferential trade agreements (PTAs) and to agree to stricter investment provisions related to pre-establishment national treatment and investor-state dispute settlement in PTAs. This is surprising when considering the potentially high costs of litigation.

Keywords: preferential trade agreements (PTA), investor-state dispute settlement, national treatment, democracy.

JEL classification: F53

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Introduction

Political scientists have argued that democratic policymakers improve their chances for re-election by credibly committing themselves to international trade liberalization. According to Mansfield et al. (2008), democracies conclude international agreements on trade liberalization in line with the preferences of median voters since such agreements promote economic growth. In contrast, more autocratic governments are more reluctant to conclude preferential trade agreements (PTAs) that may reduce their discretion of granting favors to specific interest groups. The general implication appears to be that democratic governments cooperate internationally because they face stronger incentives to pursue efficient economic policies.

However, little is known about the impact of regime type on the depth or strictness of investment agreements. The content of agreements matters: some agreements provide for stringent obligations and deep liberalization commitments, while others are largely hortatory and do not 'bite'. Researchers are only starting to move away from the analysis of investment agreements as 'black boxes', and the impact of democracy has not featured prominently. In that context, we look at whether and why democracies conclude increasingly strict agreements on international investment. On the one hand, investment agreements, notably the large number of bilateral investment treaties (BITs), could be regarded as just another attempt to improve the chances for re-election through efficient economic policies. The median voter might favor luring foreign direct investment (FDI) in this way very much alike to promoting trade through international agreements. It fits into this line of reasoning that some studies find a positive correlation between democracy and the probability of concluding BITs (e.g., Elkins et al. 2006). On the other hand, the recent wave of BIT-related litigation plus the controversial debate on "asymmetrical rights for private economic agents" (Simmons 2014: 12) in the context of currently negotiated agreements

such as TTIP suggest that the median voter is skeptical about investment-related provisions in international agreements. Moreover, the positive effects of such provisions on FDI inflows are open to debate.[1] Democratic governments should then be less inclined than more autocratic governments to enter into internationally binding agreements containing strict investment provisions.

The question of whether democratic governments agree to strict investment provisions in international agreements, even though benefits can no longer be taken for granted and the costs of litigation are potentially high, has received scant attention in the empirical literature so far.[2] We aim at closing this gap by assessing the relation between democracy and the strictness of two key investment provisions, namely investor-state dispute settlement (ISDS) and pre-establishment national treatment (NT). We focus on the large number of PTAs containing investment provisions. As the ongoing controversy on TTIP attests, it is mainly investment provisions in PTAs that are politically relevant, compared to the generally more limited scope of BITs which rarely reach the political domain.

Approach and data

As shown in Figure 1, the number of country pairs with PTAs containing investment provisions with regard to NT and ISDS has increased considerably since the 1980s. Closer inspection reveals that only 42 percent of all country pairs with PTAs concluded during our period of observation, 1980-2013, and notified to the WTO did not include any pre-establishment NT or ISDS provision (NT and ISDS = 0). In addition to coding PTAs without either NT or ISDS as '0',

[1] See Neumayer et al. (2016) for an overview of the relevant literature.
[2] Neumayer et al. (2016) provide an exception, but they focus on BITs and do not cover the recent past when voter perceptions appear to have changed remarkably.

we differentiate between NT and ISDS provisions of increasing strength on a '1' to '3' scale. NT provisions are coded as '1' if the obligation of non-discrimination between foreign and domestic investors at the establishment phase applies only to services sectors specified in a positive-list approach. Negative-list modalities with broader coverage are coded as '2' if they do not provide details on non-conforming measures; and as '3' if all reservations for non-conforming measures are specifically listed. As for ISDS, the scale ranges from promissory notes (coded as '1'), over partial pre-consent ('2') to comprehensive pre-consent ('3').[3] Almost 21 percent of all 4901 country pairs with PTAs in our analysis agreed on the strictest form of both types of provisions (NT and ISDS coded 3). About one third concluded weaker provisions, with NT or ISDS coded 1 or 2.[4]

We assess the effect of democracy on (stricter) NT or ISDS provisions by pursuing a Heckman-selection ordered probit two-step approach. In the first step, we address the selection of countries into any type of PTAs, i.e., independently of whether or not a PTA covers investment provisions of varying strictness:

$$(1) \qquad PTA_{ij} = \mathrm{F}(Dem_i, Veto_i, Trade_{ij}, FDIin_i, FDIout_i, GDP_i, Dist_{ij}, DumGrav_i),$$

with the dependent PTA dummy variable =1 for years during which a PTA was in force between countries *i* and *j*.[5] Democracy (*Dem*) is measured on a scale from '1' (highest degree of autocracy) to 21 (highest degree of democracy), according to the widely used Polity IV dataset. *Veto* represents the potential degree of veto power, obtained from Henizs' database.[6] *Trade*

[3] For details of coding and more specific definitions, see Neumayer et al. (2016).
[4] In contrast, it is relatively rare that PTA include the strictest form of one type of investment provisions and only weaker provisions, or none at all of the other type.
[5] Note that each pair of partner countries A and B enters twice, (i) with A indexed by *i* and B by *j*, and (ii) with B indexed by *i* and A by *j*. This procedure ensures that we obtain unbiased estimates for variables that are not defined pairwise (such as *Dem*, *Veto*, and *GDP*).
[6] http://mgmt5.wharton.upenn.edu/henisz/_vti_bin/shtml.dll/POLCON/ContactInfo.html (accessed July 2015). Specifically, we draw on the variable POLCON which ranges from '0' (no executive constraints) to '1'.

represents bilateral trade relations as reported in the UN Comtrade database. We control for country *i*'s economic weight as reflected in inward and outward FDI stocks and its GDP, obtained from UNCTAD and, respectively, the World Development Indicators. In addition to the geographical distance between the pair of countries (*Dist*), *DumGrav* represents the usual set of dummy variables typically included in gravity-type models and available from the CEPII database, i.e., common border, language, religion and history of country pair *ij*,[7] as well as landlocked location and GATT/WTO membership of country *i*. The selection equation (1) is estimated in alternative ways, (i) annually or (ii) pooled (with time dummies) throughout the period 1980-2013.

In the second step, we estimate ordered probit models including the inverse Mills ratio derived from the selection equation (1). *Dist* and *Veto* represent our exclusion variables. In other words, we posit that *Dist* and *Veto* have a say on whether country pairs conclude any type of PTA, while these variables tend to be statistically insignificant as determinants of the strictness of NT and ISDS previsions. Thus, we estimate

$$(2) \qquad Strict_{ij} = \mathrm{F}(Dem_i, Trade_{ij}, FDIin_i, FDIout_i, GDP_i, DumGrav_i, Mills),$$

with *Strict* representing the strictness of either NT or ISDS provisions in a PTA concluded by country pair *ij*, both ranging from 0 (no provision) to 3 (strong provision). To reduce endogeneity concerns in equations (1) and (2), we lag time dependent right hand side variables by one year. Further, we account for time fixed effects and cluster by country pairs.

[7] We capture the common history of the country pair *ij* with a dummy variable equal to 1 if the countries belonged to the same country in the past.

Results

For the sake of brevity, we do not show detailed results for the selection equation (1).[8] It should be noted, however, that both variants of estimating equation (1), annually and pooled, largely resemble previous findings on the determinants of PTA formation. In particular, the significantly positive coefficients on *Dem* corroborate earlier findings that more democratic countries are more likely to conclude PTAs. The likelihood also increases with higher bilateral trade and higher (inward and outward) FDI stocks. The negative effect of country *i*'s GDP may be attributed to the correlation of GDP with the trade and FDI-related variables. All the same, the dependence on international trade is typically stronger for smaller countries which may therefore be more inclined to conclude PTAs. Most importantly in the present context, our exclusion variables prove to be statistically significant in our regressions on the selection of country pairs into PTAs of any type. *Dist* enters significantly negative at the one percent level in all (annual and pooled) estimations, indicating that geographical distance reduces the likelihood that a country pair concludes a PTA.[9] Most of the coefficients on *Veto* are also statistically significant, though it may be surprising that the sign switches from negative in the 1980s and 1990s to positive in the more recent past.[10]

Tables 1 and 2 present the results for the ordered probit models according to equation (2) with *Strict* relating to NT provisions and, respectively, ISDS provisions. Each table shows four second-stage estimations: Columns (1) and (2) are based on annual estimations of the selection equation, while columns (3) and (4) are based on the pooled estimation of the selection equation.

[8] Detailed results are available from the authors on request.
[9] At the same time, close neighbors with a common border are less likely to conclude a PTA. The evidence on other gravity-type dummy variables is plausible. For instance, a common religion and GATT/WTO membership are associated with a higher probability of a PTA.
[10] Positive coefficients on *Veto* since 2000 are in conflict with the hypothesis that a large number of veto players render the conclusion of PTAs less likely.

In columns (1) and (3) the exclusion variables are dropped, while they are included in columns (2) and (4) to reveal the suitability of *Dist* and *Veto* as exclusion variables.

As can be seen in Table 1, *Dist* and *Veto* are valid exclusion variables when focusing on NT to account for the strictness of investment provisions in PTAs. While the inverse Mills ratio proves to be statistically significant in all four estimations, *Dist* and *Veto* are insignificant at conventional levels when considered also in the second stage and added to equation (2). *Trade* typically enters significantly positive (with the exception of column 4), suggesting that country pairs with more intensive bilateral trade relations are more likely to agree to stricter NT provisions in a PTA. Likewise, the gravity-type dummy variables prove to be significant. However, it is only a common religion that increases the likelihood of stricter NT provisions. The results on the FDI and GDP variables capturing country *i*'s economic weight are similar to those in the selection equation, except that *FDIout* loses its significance (and switches sign).

Turning to *Dem* as our variable of principal interest, we find strongly significant evidence that more democratic countries are more likely to conclude PTAs with stricter NT provisions. The size of the coefficient is similarly large, independent of whether the selection equation is estimated with annual or pooled data.

To assess the impact of democracy on the probability of NT provisions, we calculate the margins for each step of the Polity2 scale with all other explanatory variables set at their mean.[11] Figure 2 summarizes our findings, based on the regression results in column (1) of Table 1.[12] Specifically, if a country moves half way on the scale from most autocratic to most democratic,[13] the

[11] We calculated the margins with Stata 13. The mean values of the variables are shown in the summary table in Appendix A.
[12] The margins proof to be very similar when using the regression results in column (3) of Table 1. Detailed results are available on request.
[13] This corresponds to a shift from 1 (most autocratic) to 11 (moderate) on the Polity2 scale.

probability to sign an agreement including NT provisions increases by 16.8 percentage points to 20.8 percent. The effect is even stronger when a country moves further from moderate to most democratic: the probability to sign an agreement with NT provisions then increases by 34.3 percentage points. The most democratic countries are 34.8 percent more likely to sign the strictest form of NT provisions.

The regression results in Table 2 are somewhat weaker. In particular, the validity of *Dist* as one of our exclusion variables is affected when focusing on ISDS, instead of NT, to account for the strictness of PTAs. Furthermore, the evidence on the FDI and GDP variables capturing country *i*'s economic weight weakens compared to Table 1. In contrast, previous findings for *Trade* as well as the gravity-type dummy variables carry over to Table 2 with just minor exceptions (e.g., for the dummy on GATT/ WTO membership).

Most importantly, however, the effect of *Dem* on the strictness of ISDS provisions is similarly strong as the effect on the strictness of NT provisions. As before, *Dem* enters significantly positive at the one percent level; and the size of the coefficient is just slightly reduced when comparing the results in columns (1) of Tables 1 and 2. To assess the impact of democracy on the probability of ISDS provisions, we portray the margins for each step of the Polity2 scale in Figure 3 (with all other explanatory variables set at their mean).[14] If a country moves half way on the scale from most autocratic to most democratic, the probability to sign an agreement including ISDS provisions increases by 10.3 percentage points.[15] The probability to sign an agreement with ISDS provisions even increases by 25.6 percentage points when a country moves from moderate

[14] The evidence in Figure 3 is based on the regression results in column (1) of Table 2. The margins prove to be very similar when using the regression results in column (3) of Table 2. Detailed results are available on request.
[15] Note that this increase is almost exclusively due to particularly strict ISDS provisions. The flat and largely overlapping curves in Figure 3 reveal that few PTAs include ISDS provisions of strictness 1 and 2.

to most democratic. Democratic countries with the highest Polity2 score sign ISDS agreements with almost 40 percent likelihood.

Summary

We find that more democratic governments are more likely to conclude PTAs and to agree to stricter investment provisions related to pre-establishment national treatment and investor-state dispute settlement in PTAs. On the one hand, our results attest to the difficulty that less democratic countries face in accepting to limit their discretion to grant favors to specific interest groups. At the same time, the motives of democratic governments to agree to strict investment provisions clearly deserve further scrutiny – considering that investment provisions do not necessarily induce higher FDI inflows, whereas they potentially result in considerably reduced national sovereignty and costly litigation. Specifically, myopia and bounded rationality à la Poulsen and Aisbett (2013) may help explain our finding that democracies conclude particularly strict ISDS provisions. It remains to be seen whether the recent wave of litigation and costly verdicts against states will limit, or even revert, the trend toward stricter ISDS provisions in PTAs.

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Figure 1 – Number of country pairs with PTAs, with and without NT and ISDS provisions, 1980-2013

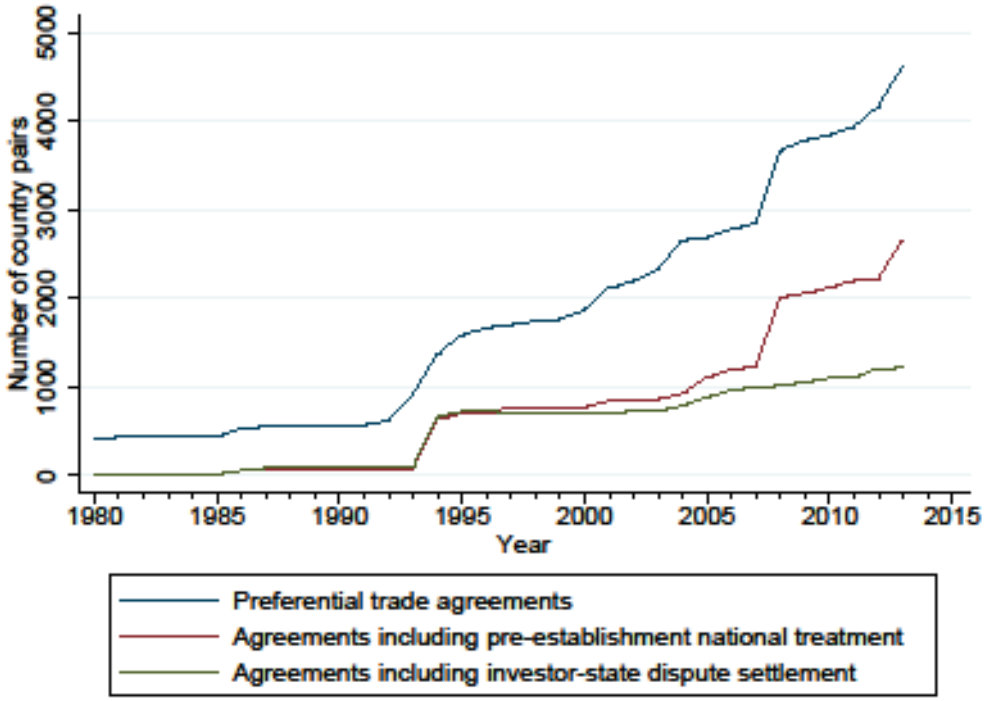
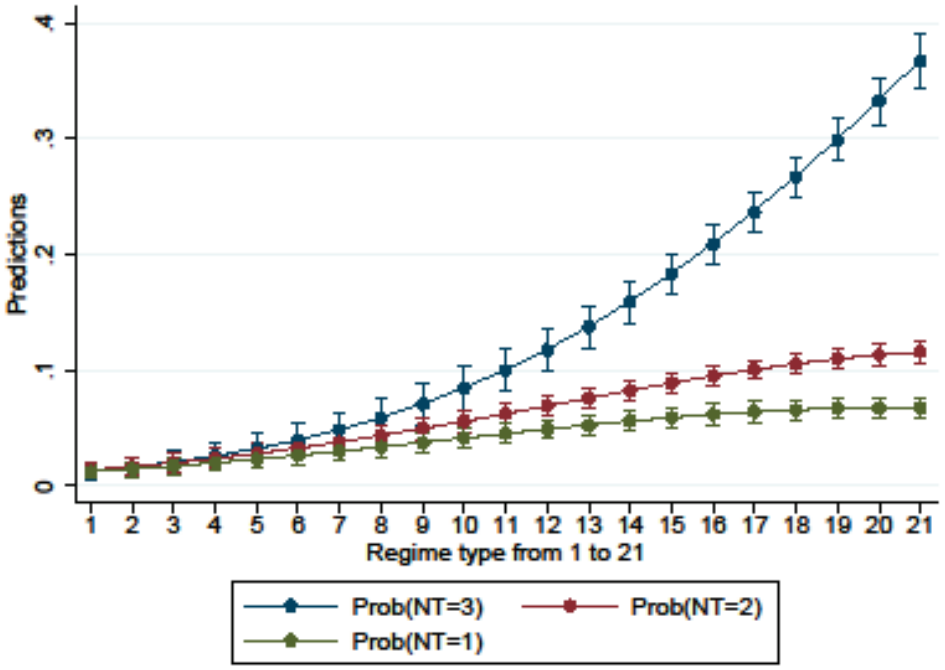
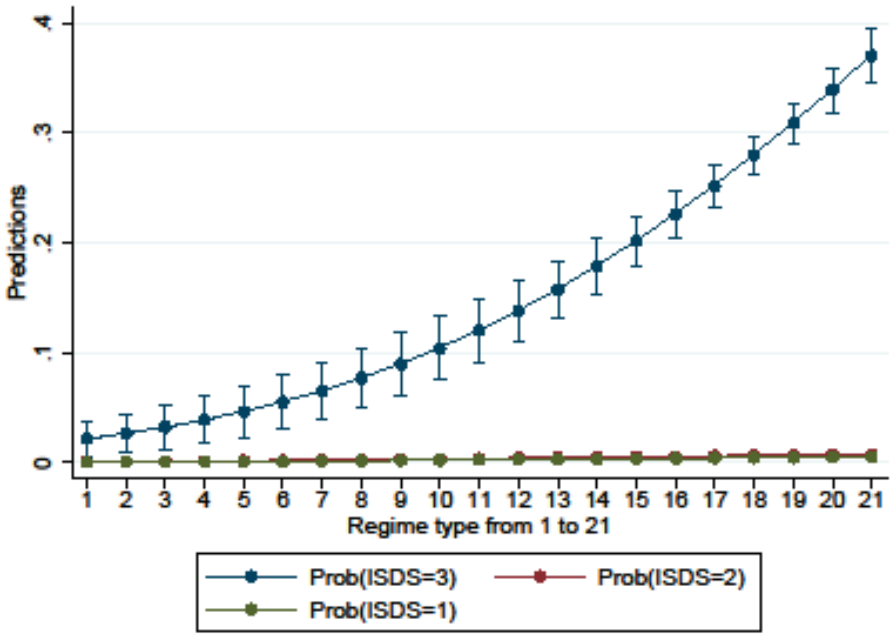


Figure 2 – Impact of democracy on the probability of NT provisions, margins for each step of the Polity2 scale



Note: The adjusted predictions of the probability of NT provisions with 95 percent confidence intervals calculated for each step of the Polity2 scale, all other variables at their mean values, are based on the ordered probit results shown in column (1) of Table 1.

Figure 3 – Impact of democracy on the probability of ISDS provisions, margins for each step of the Polity2 scale



Note: The adjusted predictions of the probability of ISDS provisions with 95 percent confidence intervals calculated for each step of the Polity2 scale, all other variables at their mean values, are based on the ordered probit results shown in column (1) of Table 2.

Table 1 – Ordered probit results: The effect of democracy on the strictness of pre-establishment NT

Variables	(1)	(2)	(3)	(4)
Trade	0.0387***	0.0335***	0.0374***	0.0268
	(0.0102)	(0.0117)	(0.0110)	(0.0202)
DumGrav:				
landlocked	-0.230***	-0.230***	-0.232***	-0.236***
	(0.0680)	(0.0681)	(0.0682)	(0.0687)
common border	-0.655***	-0.620***	-0.646***	-0.595***
	(0.0967)	(0.105)	(0.0966)	(0.121)
common religion	0.870***	0.857***	0.875***	0.858***
	(0.0533)	(0.0565)	(0.0532)	(0.0602)
common history	-0.571***	-0.575***	-0.553***	-0.555***
	(0.139)	(0.139)	(0.138)	(0.139)
GATT/WTO member	-0.178**	-0.187**	-0.181**	-0.197**
	(0.0863)	(0.0877)	(0.0865)	(0.0911)
GDP	-0.0812**	-0.0696**	-0.0880***	-0.0727*
	(0.0332)	(0.0352)	(0.0331)	(0.0395)
FDIin	0.0955***	0.0851***	0.104***	0.0941***
	(0.0281)	(0.0310)	(0.0280)	(0.0319)
FDIout	-0.00988	-0.0105	-0.0105	-0.0117
	(0.00805)	(0.00809)	(0.00807)	(0.00823)
Dem	0.0942***	0.0905***	0.0953***	0.0907***
	(0.00660)	(0.00700)	(0.00661)	(0.00758)
Dist		0.0622		0.0880
		(0.0708)		(0.126)
Veto		0.0731		0.0792
		(0.140)		(0.143)
Mills	-0.246***	-0.344***	-0.225***	-0.369*
	(0.0513)	(0.116)	(0.0498)	(0.210)
Cutoff value 1	2.238***	2.544***	2.282***	2.719***
	(0.299)	(0.430)	(0.298)	(0.668)
Cutoff value 2	2.409***	2.715***	2.452***	2.889***
	(0.299)	(0.430)	(0.297)	(0.667)
Cutoff value 3	2.706***	3.012***	2.749***	3.186***
	(0.299)	(0.430)	(0.298)	(0.666)
Observations	44,329	44,329	44,329	44,329
Pseudo R^2	0.184	0.184	0.183	0.183

Notes: Robust standard errors clustered by country pairs in parentheses; *** p<0.01; ** p<0.05; * p<0.1. Time fixed effects are included. The cutoff values reflect the latent variable switch between the ordered categories of the strictness of NT, i.e. Prob(NT=0)=Prob($X\beta + \varepsilon <$ cut 1), Prob(NT=1)=Prob(cut 1 $< X\beta + \varepsilon <$ cut 2), Prob(NT=2)=Prob(cut 2 $< X\beta + \varepsilon <$ cut 3) and Prob(NT=3)=Prob(cut 3 $< X\beta + \varepsilon$). The mills ratio in column (1) and (2) is obtained from an annual selection model while the mills ratio in column (3) and (4) is obtained from a pooled selection equation, including time fixed effects. The selection variables are *Dist* and *Veto*. The shown Pseudo R^2 is the McFadden pseudo R^2.

Table 2 – Ordered probit results: The effect of democracy on the strictness of ISDS

Variables	(1)	(2)	(3)	(4)
Trade	0.0755***	0.106***	0.0519***	0.0160
	(0.0122)	(0.0149)	(0.0131)	(0.0218)
DumGrav:				
landlocked	-0.305***	-0.307***	-0.336***	-0.347***
	(0.0732)	(0.0738)	(0.0743)	(0.0750)
common border	-0.790***	-0.985***	-0.806***	-0.630***
	(0.100)	(0.117)	(0.101)	(0.126)
common religion	0.624***	0.693***	0.610***	0.545***
	(0.0577)	(0.0620)	(0.0578)	(0.0645)
common history	-0.836***	-0.835***	-0.861***	-0.863***
	(0.150)	(0.152)	(0.150)	(0.151)
GATT/WTO member	0.0724	0.130	0.0411	-0.0308
	(0.0803)	(0.0801)	(0.0811)	(0.0881)
GDP	-0.0632	-0.118***	-0.0473	-0.00160
	(0.0392)	(0.0422)	(0.0396)	(0.0447)
FDIin	0.00642	0.0526	0.0129	-0.0183
	(0.0316)	(0.0352)	(0.0318)	(0.0354)
FDIout	-0.0167*	-0.0147*	-0.0188**	-0.0211**
	(0.00864)	(0.00863)	(0.00876)	(0.00898)
Dem	0.0842***	0.0950***	0.0801***	0.0723***
	(0.00871)	(0.00906)	(0.00890)	(0.00971)
Dist		-0.331***		0.306**
		(0.0858)		(0.139)
Veto		0.0395		-0.157
		(0.163)		(0.162)
Mills	-0.619***	-0.0797	-0.754***	-1.283***
	(0.0609)	(0.139)	(0.0610)	(0.241)
Cutoff value 1	1.417***	-0.189	1.280***	2.739***
	(0.323)	(0.502)	(0.324)	(0.722)
Cutoff value 2	1.430***	-0.176	1.293***	2.752***
	(0.323)	(0.502)	(0.324)	(0.723)
Cutoff value 3	1.449***	-0.156	1.313***	2.772***
	(0.323)	(0.502)	(0.324)	(0.722)
Observations	44,329	44,329	44,329	44,329
Pseudo R^2	0.242	0.245	0.252	0.254

Notes: Robust standard errors clustered by country pairs in parentheses; *** p<0.01; ** p<0.05; * p<0.1. Time fixed effects are included. The cutoff values reflect the latent variable switch between the ordered categories of the strictness of ISDS, i.e. Prob(ISDS=0)=Prob($X\beta + \varepsilon <$ cut 1), Prob(ISDS=1)=Prob(cut 1 $< X\beta + \varepsilon <$ cut 2), Prob(ISDS=2)=Prob(cut 2 $< X\beta + \varepsilon <$ cut 3) and Prob(ISDS=3)=Prob(cut 3 $< X\beta + \varepsilon$). The mills ratio in column (1) and (2) is obtained from an annual selection model while the mills ratio in column (3) and (4) is obtained from a pooled selection equation, including time fixed effects. The selection variables are *Dist* and *Veto*. The shown Pseudo R^2 is the McFadden pseudo R^2.

Appendix A – Summary statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Trade	44329	11.2637	3.3562	0.0020	19.7024
DumGrav:					
landlocked	44329	0.1798	0.3840	0	1
common border	44329	0.1276	0.3336	0	1
common religion	44329	0.6584	0.4742	0	1
common history	44329	0.0654	0.2471	0	1
GATT/WTO member	44329	0.9044	0.2940	0	1
GDP	44329	18.3435	1.9580	12.3914	22.2817
FDIin	44329	16.9420	2.2692	0	21.0019
FDIout	44329	14.8738	4.8596	0	21.3156
Dem	44329	17.8757	5.2029	1	21
Dist	44329	7.4979	0.9118	4.1046	9.8564
Veto	44329	0.3887	0.1772	0	0.720

Notes: *Trade, GDP, FDIin, FDIout* and *Dist* are in logs.