# **Appendix**

## **Descriptive Statistics**

Table 1: Descriptive statistics of the variables. Sources: (1) World Trade Organization, the Tuck Trade Agreements Database, and the McGill Faculty of Law Preferential Trade Agreements Database; (2) World Bank - Quality of Institutions Dataset (Kaufman, 2006) - (3) Energy Information Administration - International Energy Annual (Shackman, 2005) and IMF dataset (2005); (4) CEPII dataset (2005); (5) COW dataset; (6) Freedom House Dataset (2006); (7) WTO website; (8) Horn and Mavroidis dataset (2006); (9) Economic Freedom Word index (2007); (10) Compiled by the author.

Variable	Mean	Std. Dev.	Number of Obs.	Source
PTA Dummy	0.08	0.27	2146	(1)
PTA Flexibility 1	0.36	0.14	175	(10)
PTA Flexibility 2	0.46	0.13	175	(10)
Corruption	2.13	0.65	2146	(2)
Rule of Law	2.12	0.68	2146	(2)
Govern. Effect.	2.14	0.65	2146	(2)
Trade	11.90	3.60	2146	(4)
GDP Growth	2.77	7.36	2146	(3)
$\operatorname{GDPpc}$	2.53	4.02	2146	(3)
$\operatorname{GDP}$	2.33	1.53	2146	(3)
Democracy	4.26	2.04	2146	(6)
Alliance	0.05	0.21	2146	(5)
GATT/WTO	0.60	0.49	2146	(7)
French Colony	0.17	0.38	2146	(4)
Other-Than-French Colony	0.55	0.50	2146	(4)
Distance	8.56	0.64	2146	(4)
US PTA	0.02	0.12	2146	(10)
Spatial PTA	0.01	0.008	2146	(1) (4) (10)

### PTA Flexibility I: Operationalization

The number of provisions,  $P_i$ , in treaties is given by the number of their articles (including annexes). Thus, unlike Franchino (2004), numbered paragraphs, subparagraphs, and indents are not counted. There are two main reasons for this decision. First, this action eliminates several discretionary decisions, since distinguishing a part of an article is more difficult in the case of a PTA than it is in the case of a piece of EU legislation. Second, as the table below shows, there is a good variation in the number of articles across PTAs. The definition of a discretionary provision,  $D_i$ , is any provision that gives to the trade partner of the EU the authority to temporarily suspend compliance with a specific PTA article. Note: if in the same article two different sentences contain a discretionary provision, they are counted twice in the index  $D_i$ . Examples of flexibility include:

- Exceptional macroeconomical or financial circumstances
- Exceptional measures of limited duration
- Serious difficulties that produces social problems
- Serious balance of payment difficulties
- Serious internal circumstances affecting "law and order"
- Serious international tension
- Safeguard measures for infant industries

For each country i, the Flexibility Index 1 (FI1),  $FI1_i$ , is given by the following ratio:

$$FI1_i = \frac{D_i}{P_i} \tag{1}$$

Table 2 provides more details for each PTA signed by the EU with an LDC.

Table 2: List of PTAs between the EU and LDCs included in the analysis and Flexibility Index.

Country	No. Discret. Provis.	No. Art.	Annexes	FI1
Bulgaria	34	125	Yes	0.27
Chile	33	206	No	0.16
Croatia	39	52	No	0.56
Czech Republic	34	124	Yes	0.27
Estonia	30	50	No	0.60
Hungary	40	124	Yes	0.32
Israel	32	85	Yes	0.38
Jordan	34	159	No	0.21
Latvia	28	51	No	0.55
Lebanon	21	42	No	0.50
Lithuania	29	52	No	0.56
Macedonia	34	128	No	0.27
Mexico	31	50	No	0.62
Morocco	39	156	Yes	0.25
Poland	34	122	No	0.28
Romania	35	126	No	0.28
Slovakia	33	124	No	0.27
Slovenia	32	51	No	0.63
Tunisia	42	156	Yes	0.27
Turkey	18	65	No	0.28
South Africa	31	109	No	0.28

## PTA Flexibility II: Operationalization

The Flexibility Index 2 (FI2),  $FI2_i$ , is given by the following:

$$FI2_i = \frac{SC_i + ADP_i}{9} \tag{2}$$

Table 3: List of PTAs between the EU and LDCs included in the analysis and Safeguard Clauses. Note: \* financial sector; \*\* steel industry; † agricultural sector; ‡ IPR

Country	Social	Economic	Single Product	Infant Indust.	Specific Sect.
Algeria	yes	yes	yes	yes	no
Bulgaria	yes	yes	no	no	no
Chile	no	no	yes	no	yes*
Croatia	no	yes	yes	no	no
Czech Republic	yes	yes	yes	no	no
Egypt	no	yes	no	no	no
Estonia	yes	yes	yes	no	no
Hungary	yes	yes	yes	no	yes**
Israel	no	yes	yes	no	$yes\dagger$
Jordan	yes	yes	yes	yes	no
Latvia	yes	yes	yes	no	no
Lebanon	yes	no	yes	no	no
Lithuania	yes	yes	yes	no	no
Macedonia	yes	yes	no	no	no
Mexico	no	yes	yes	no	yes‡
Morocco	no	yes	yes	yes	no
Poland	yes	yes	yes	no	no
Romania	yes	yes	yes	no	no
Slovakia	yes	yes	yes	no	no
Slovenia	yes	yes	yes	no	no
Tunisia	yes	yes	no	yes	no
Turkey	no	yes	no	yes	no
South Africa	yes	no	no	no	no

Where SC is safeguard clauses, ADP is anti-dumping provisions, and 9 is given by

Table 4: List of PTAs between the EU and LDCs included in the analysis and Antidumping, Countervailing, and Subsidies Provisions. Note: \* art. 36.2; \*\* art. 36.2; † art. 37.2; † art. 28.3b

Country	AD - General	AD - Specific	Countervailing	Subsidies
Algeria	yes	no	no	no
Bulgaria	yes	no	no	no
Chile	yes	no	yes	yes
Croatia	yes	no	no	yes
Czech Republic	yes	no	no	no
Egypt	no	no	no	no
Estonia	yes	yes*	no	no
Hungary	yes	no	no	no
Israel	yes	no	no	no
Jordan	yes	no	no	no
Latvia	yes	yes**	no	no
Lebanon	yes	no	yes	no
Lithuania	yes	yes†	no	no
Macedonia	yes	no	no	no
Mexico	yes	no	yes	yes
Morocco	yes	no	no	no
Poland	yes	no	no	no
Romania	yes	no	no	no
Slovakia	yes	no	no	no
Slovenia	yes	yes‡	no	no
Tunisia	yes	no	no	no
Turkey	yes	no	no	yes
South Africa	yes	no	yes	yes

the maximum value of sum between SC and ADP. Regarding the safeguard clauses, the index SC is the result of the following characteristics, *i.e.* if the provision is included, the value of the index augment by 1 and 0 otherwise:

- Do safeguard clauses cover serious *social* difficulties?
- Do safeguard clauses cover serious *economic* difficulties?

Table 5: List of PTAs between the EU and LDCs included in the analysis and Flexibility Index 2.

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Country	SC	ADP	FI2
Algeria	4	1	0.6
Bulgaria	2	1	0.3
Chile	2	3	0.6
Croatia	2	2	0.4
Czech Republic	3	1	0.4
Egypt	1	0	0.1
Estonia	3	2	0.6
Hungary	4	1	0.6
Israel	3	1	0.4
Jordan	4	1	0.6
Latvia	3	2	0.6
Lebanon	2	2	0.4
Lithuania	3	2	0.6
Macedonia	2	1	0.3
Mexico	3	3	0.7
Morocco	3	1	0.4
Poland	3	1	0.4
Romania	3	1	0.4
Slovakia	3	1	0.4
Slovenia	3	2	0.5
Tunisia	3	1	0.4
Turkey	2	2	0.4
South Africa	1	3	0.4

- Do safeguard clauses cover serious difficulties related to specific product?
- Do safeguard clauses cover serious difficulties related to *infant industries*?
- Do safeguard clauses cover serious difficulties related to *specific sectors*?

Regarding anti-dumping provisions, the index ACP is the result of the following characteristics, *i.e.* if the provision is included, the value of the index increases by 1 and 0 otherwise:

- Do general provisions allow retaliation in the case of dumping?
- Do specific provisions allow retaliation in the case of dumping?
- Do provisions allow the use of countervailing duties?
- Do provisions allow retaliation in the case of subsidies?

Table 3, Table 4, and Table 5 above summarize the results of the manual coding.

#### Robustness Checks

To check the robustness of the empirical results, a series of changes to the base models were made. First, and most importantly, the theoretical nexus between transparency and PTA formation may be hampered by endogeneity and, as a result, so may the relationship between transparency and flexibility. Specifically, since EU conditionality implies the implementation of good-governance policies, it may be expected that LDCs' transparency increases as a result of these virtuous reforms suggested by the EU.

Following Baier and Bergstrand (2004), I delete the time-dimensional information and run a pure cross-section of both selection equation and outcome equation. To ensure predetermined values, I use the earliest data on time-varying variables available, namely from 1990. Moreover, I use a different operationalization of transparency. Following the suggestion of Rosendorff and Vreeland (2008), I use missing data on standard economic and social indicators as indicators of transparency. Namely, I evaluate 54 data series from the World Development Indicators such as balance of payments, government finance, social indicators and trade.<sup>2</sup> My resulting transparency indicator shows the share of series for which there is data available in a given country in 1990, i.e. the higher the value, the more transparent the country.<sup>3</sup> Due to a low number of observations, the Heckman model does not converge in the cross-section analysis. Thus, I estimate the outcome equation using a Tobit model and the selection equation using a probit regression. Table 6, Table 7, and Table 8 show that both hypotheses hold also in the case of a cross-section analysis, i.e. Transparency and Corruption are statistically significant in both models and have a positive sign. 4 Moreover the impact of transparency and corruption on the formation and design of PTAs is remarkable. For instance, moving from the minimal value to the maximum value and holding the other variables at their average value, the probability of forming a PTA increases by respectively 74 (37, 96) per cent and 62 (20, 93) per cent.

Second, I estimate the models using a direct dyads dataset. Third, I include 

1 A cross-section analysis also ensures that results are not spurious. The possibility of correlated errors is not trivial in this case since both the likelihood of forming a PTA and the level of

transparency increase over time.

<sup>&</sup>lt;sup>2</sup>The WDI is available at http://worldbank.org/data.

<sup>&</sup>lt;sup>3</sup>The average values of this variable is 0.63 and its standard deviation is 0.16.

<sup>&</sup>lt;sup>4</sup>Results do not change if I use Rule of Law or Government Effectiveness instead of corruption.

Table 6: The formation of preferential trade agreements, Probit Model. Standard errors are in parentheses. \*\* significant at 1 per cent, \* significant at 5 per cent, † significant at 10 per cent.

Covariates	Model 7	Model 8
Transparency	9.47** (2.80)	-
Corruption	-	1.28**(0.41)
$\operatorname{GDP}$	0.33*(0.14)	0.41**(0.16)
$\operatorname{GDPpc}$	-0.04 (0.11)	-0.06 (0.04)
Alliance	0.19(0.53)	0.31(0.83)
Democracy	-0.07(0.10)	-0.10 (0.09)
Trade	-0.002(0.04)	0.04(0.06)
Distance	-1.93* (0.31)	-1.91** (0.28)
Costant	7.93**(2.74)	10.90**(2.28)
Number of Observations	138	138
Pseudo $R^2$	0.70	0.60

Table 7: Flexibility and Transparency, Tobit Model - PTA Flexibility 1. Standard errors are in parentheses. \*\* significant at 1 per cent, \* significant at 5 per cent, † significant at 10 per cent.

Covariates	Model 9	Model 10
Transparency	2.01** (0.50)	-
Corruption	-	0.26**(0.08)
Colony	-0.39** (0.11)	-0.30** (0.11)
GDP Growth	-0.01* (0.005)	-0.008 (0.005)
Trade	0.01(0.01)	0.01 (0.01)
US PTA	0.61**(0.12)	0.84**(0.15)
Democracy	-0.01 (0.03)	-0.03 (0.03)
$\operatorname{GDP}$	0.05 (0.03)	0.10*(0.04)
Constant	-1.67** (0.41)	-0.97** (0.34)
$\sigma$	0.34**(0.06)	0.41**(0.05)
Number of Observations	138	138
Uncens. Obs.	24	24
Pseudo $R^2$	0.46	0.31

Table 8: Flexibility and Transparency, Tobit Model - PTA Flexibility 2. Standard errors are in parentheses. \*\* significant at 1 per cent, \* significant at 5 per cent, † significant at 10 per cent.

Covariates	Model 11	Model 12
Transparency	3.40** (0.67)	=
Corruption	-	0.42**(0.10)
Colony	-0.42** (0.14)	-0.35*(0.14)
GDP Growth	-0.01* (0.006)	-0.01† (0.007)
Trade	0.03*(0.01)	0.01 (0.02)
US PTA	0.66**(0.16)	1.04**(0.19)
Democracy	-0.03(0.03)	$-0.07 \dagger (0.03)$
$\operatorname{GDP}$	0.04(0.04)	0.12*(0.05)
Constant	-2.81** (0.59)	-1.43** (0.46)
$\sigma$	0.41**(0.07)	0.51**(0.07)
Number of Observations	138	138
Uncens. Obs.	24	24
Pseudo $R^2$	0.50	0.33

year dummies and other control variables that were not included in the main model to account for common external shocks, such as financial crises. Fourth, I drop the variables that are not statistically significant in the main model. Finally, I include some additional control variables that may affect the likelihood of forming a preferential arrangement.  $GDPpc_{i,t-1}$  measures the minimal value in terms of GDP per capita of the LDC i year t-1. This variable is a proxy for the level of development of the selected country that is supposed to have a positive impact on the probability of signing a PTA. Potential EU Candidate<sub>i</sub> scores 1 if an LDC i is an EU potential candidate; 0 otherwise. Potential EU candidates, e.g. former communist countries, often sign a bilateral trade agreement before joining the EU a few years later. Trade Dispute<sub>ij,t-1</sub> scores 1 if the EU and an LDC was involved

in a GATT/WTO trade dispute with each other at time t-1 and is 0 otherwise. In the case of trade dispute, the probability of joining the same trade bloc is likely to decrease.  $Landlocked_i$  scores 1 if that LDC i is landlocked; 0 otherwise.  $Island_i$  scores 1 if that LDC i is an island; 0 otherwise. The last two variables control for the fact that states without access to the sea and islands are more likely to form a PTA to overcome their geographical disadvantages. Finally, I included  $Trade\ Openness_{i,t-1}$  ( $\frac{trade}{GDP}$ ) for each LDC i at time t-1. The rationale is that LDCs, which are open economically, face low adjustment costs from a PTA association with the EU.<sup>5</sup> For all these cases, the results are roughly comparable to those presented above and are available upon request.

<sup>&</sup>lt;sup>5</sup>This variable shows low correlation with transparency indicators.