Weak Governments and Trade Agreements

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the impact on trade flows of credibility-motivated TAs, i.e., are agreements signed for credibility reasons more or less trade-creating? Theoretically one could expect both results. On the one hand credibility may increase (and the long run misallocation reduced) only in the presence of sufficiently trade-creating TAs, and therefore this will be the type of agreements that governments willing to increase their credibility will sign. On the other-hand, too much trade creation may limit the extent to which governments can extract rents from lobbies in the lobbying game as in Limao and Tovar (2009) or Maggi and Rodriguez-Clare (2007), where tariff bounds are preferred by governments to exact tariff commitments.

Results suggest that credibility considerations are an important determinant of preferential TAs. Credibility-driven TAs tend to be signed by governments with low bargaining power vis-a-vis domestic lobbies, and there is a u-shaped relationship between a government's sensitivity to domestic lobbies and the probability of signing a TA. This u-shaped relationship is particularly present when governments sign TAs with larger countries, which can be partly explained by the necessity to have self-enforcing TA agreements in the presence of time-inconsistency. We also find that credibility-motivated TAs tend to lead to more trade creation.

The rest of this article is organized as follows. Section 2 provides a theoretical framework to examine credibility motives for TAs and their impact on trade flows. Section 3 describes the econometric strategy and section 4 discusses the empirical results. Section 5 provides some concluding remarks.

2 Credibility-Driven Trade Agreements

In this section we review the empirical predictions in Maggi and Rodriguez-Clare (1988) regarding the determinants of credibility-motivated TAs.

Assume a 2-sector 2-factor small open economy that cannot influence world prices. On the demand side, assume for simplicity that utility is linear and additive in the numeraire good so as to eliminate any income or substitution effects for the manufacturing good on which we will be focusing. On the supply side, assume that the numeraire sector produces using

capital and land which are both in xed supply (and both normalized to 1) using a constant returns to scale technology. The returns to capital in the numeraire sector are subject to diminishing returns, which implies that the marginal productivity of capital in the numeraire sector increases with the amount of capital allocated to the manufacturing sector (s_k^m). The manufacturing sector produces using capital only with a one-to-one technology. Thus, the marginal productivity of capital in the numeraire sector is given by the domestic price of the manufactured good.

Capital is sector-speci c in the short-run, but not in the long-run. We assume that only owners of capital in the manufacturing sector get politically organized to lobby the government for trade protection.[4] They o er the government political contributions in exchange for higher levels of protection. They have mass zero and therefore their share of domestic consumption or lump-sum redistributed tari revenue is zero. Their objective function is simply given by the returns to capital in the manufacturing sector net of the contributions (per unit of capital, c) they o er the government: $L = (p \quad c)s_k^m$.

The government's objective function is a weighted sum of social welfare and lobby contributions where social welfare enters with a weight equal to a, i.e., $V = (1 \quad a)C + aW$. Thus, the larger is a the less sensitive is the government to lobbies' contributions and the more it cares about social welfare when making trade policy decisions.

The timing of the game is as follows. In the rst stage, depending on expected returns to capital in the two sectors, owners of capital decide in which sector to invest. In the second stage the government and the manufacturing lobby engage in Nash-bargaining over trade policy, in which government bargaining power is given by and lobby bargaining power by 1 .

than under free trade, and this will create a production distortion for which the government

a very high weight on social welfare, an increase in a will make commitment through a TA less valuable and therefore less likely. The intuition is simple: if the government already cares a lot (exclusively) about social welfare, then there is no need to use TAs as a commitment device.

Second, we evaluate G_a at $a = 0$, to obtain $G_a > 0$ at least for low values of . To see this note that if $a = 0$ the right-hand-side in (1) becomes: $(W^* \quad W) + C \quad @C=@a$. The rst two terms are positive, and the last term is negative as contributions will increase with a. However, the increase in contributions will be su ciently small if the bargaining weight of the government in the lobbying game is su ciently small. Indeed, the increase in contributions will be su ciently small if is small. This implies that $G_a > 0$ when the government puts a very low weight on social welfare and it has a relatively low bargaining weight an increase in a will make commitment through a TA more valuable and therefore more likely. Thus putting these two results on G_a together we have that when is small there is an inverted u-shaped relationship between a and the gains from using a TA as a commitment device.

First prediction: Trade agreements are more likely to be used as a commitment device in countries with intermediate values of a when governments are weak.

EXPLORE NON-LINEARITIES WHEN GOVERNMENTS ARE STRONG....

We have assumed so far that TAs are perfectly enforceable, but they may not be so. Governments may be tempted to deviate from their commitments in a previously signed TA if the short-run political gains o ered by lobbies outweigh the gains associated with respecting the agreement. In other words, for the TA to be enforceable there need to be high costs of

is the size of the partner's market relative to the home market.

Second prediction: Trade agreements are more likely to be used as commitment devices when countries sign agreements with relatively large partners. This increases the enforceability of the agreement: TAs with large counterparts o er substantial market access gains and therefore reduce the incentives to deviate from what was originally agreed.

EXPAND USING CLASSIC SELF-ENFORCEMENT SETUP...

We nally turn to the impact of credibility-driven TAs on trade ows: are they likely to lead to more or less trade creation? Or put otherwise, are countries seeking to use TAs as

are forgone. Thus, it seems that whether credibility-driven TAs are more or less trade creating is an empirical question.

3 Empirical framework

We proceed in two steps. We first estimate the first two predictions of the previous section regarding the determinants of credibility- driven TAs and build a measure of credibility motives behind the signing of each agreement. In the second step we test the third prediction and whether the impact of TAs on imports varies depending on importance of credibility motives.

3.1 Testing the credibility motivation

at time *t*, and 1 is a measure of this government's relative weakness in the bargaining game with lobbies at time *t*. Below we describe how these two determinants of credibility-driven TAs are measured. Note that *a* enters in a quadratic form and is interacted with 1 as suggested by the rst prediction; moreover, *a* (a^2) and 1 are interacted with RS which captures the relative size of *j*'s market with respect to *i*'s market (following the second prediction). MS is the market size of country *j* at time *t* as in Meyer (2003),[5] DMS is the absolute value of the di erence in market size between countries *i* and *j* at time *t*

where t_{its} is the MFN tari in country i at time t in sector s, y is domestic production, m are imports, and $"$ is the absolute value of the import demand elasticity. The country and time-varying parameter a_{it} can be estimated using the cross-sector variation of equation (3). Many of the right-hand-side variables su er from endogeneity bias of measurement error (elasticities are estimates provided in Kee, Nicita and Olarreaga (2009)). One solution is to rewrite (3) as

$$\frac{t_{its}}{1 + t_{its}} \frac{"_{is} m_{its}}{y_{its}} = \frac{1 \quad a_{it}}{a_{it}} = \quad _{it} \tag{4}$$

We use a stochastic version of this equation to estimate $_{it} = (1 \quad a_{it})/a_{it}$: we calculate the LHS of equation (4) and regress it on country-pair dummies. Using this estimate we then retrieve a which varies by country and year; it is given by $a_{it} = 1/(1 + _{it})$.Our estimates of a vary between 0 and 1, and re ect the importance a government attributes to aggregate welfare relative to the contributions it receives from domestic groups. The higher is a, the higher is the government's welfare mindedness.

The estimates of a are displayed in Table A1 of the Appendix. The lowest a's belong to Ethiopia, Bolivia, Bangladesh, Sri Lanka and Cameroon. In general, richer countries and large middle-income countries have higher a, such as Singapore, Japan and Italy. Countries with lower a are also among the most corrupt: the Spearman rank correlation between our estimates of a and the 2005 Corruption Perception Index from Transparency International is 0.52.

Equation (4) shows that the estimates of a not only depend on the level of tari s, but also on the import-penetration ratio (m/y) and import demand elasticities, their covariance with tari s and with each other. As Gawande et al (2009) note the incidence of tari s in industries with high import demand elasticities reveals the willingness of governments to trade aggregate welfare for contributions (low a). The incidence of tari s in industries with high import-penetration ratios reveals the same, since distorting prices in those sectors creates large deadweight losses. As such, it is not surprising that the correlation between the estimates of a and average tari is relatively low (-0.32).

Table 1 indicates how our estimates of a_{it} correlate with di erent measures of corruption

such as the Corruption Perception Index, the number of parking violations by diplomats (from Fisman and Miguel, 2007), the corruption Index of the World Bank Governance Indicators database (Kau man, Kraay and Mastruzzi, 2009), and average tari s and GDP per capita. All coe cients have the expected signs: corrupt countries are associated with lower a, as well as countries with higher average tari s. Richer countries have higher a.

3.1.2 Measuring government's bargaining weight

In order to estimate the government's bargaining weight , de ne the contribution that the lobby o ers the government in the second-stage of the game to obtain a certain level of protection. Under Nash bargaining the contribution is a weighted sum of the welfare loss incurred by the government and the lobby's willingness to pay for protection:

$$C = (1 \quad) \left[\frac{a}{1 \quad a} (W^* \quad W) \right] + \quad [(p \quad p^*) y] \tag{5}$$

The rst term in square brackets is the value of the welfare loss associated with a given level of protection for the government relative to a dollar of contribution, and the second term is the value for the lobby of obtaining a given level of protection. If the government's bargaining weight is close to 1, then the government will get all the rents away from the lobbies. On the other hand if the government is weak (= 0), then it will only be left indi erent with respect to its level of welfare under free-trade.

Taking the derivative of (5) with respect to tari s, recalling that the level of production is xed in this second stage by assumption, and then using the rst order condition of the government's maximization problem[8] we obtain:[9]

$$\frac{\quad}{2} = \qquad \text{where} \qquad = \frac{a}{1 \quad a} \frac{t}{1+t} \frac{m}{y} \tag{6}$$

We then estimate using a stochastic version of (6) for each country and year. Table

[8] If the government's FOC is satis ed then $@C=@t = a=(1 \quad a) \quad dW=dt$, where $dW=dt = \quad "mt=(1+t)$.

[9] The welfare loss is linearly approximated by the Harberger triangle, i.e., $W^* \quad W = 1=2 \quad m \quad t = 1=2 \quad m \quad " \quad t=(1+t)$.

A2 of the Appendix presents the average estimates of 1 (government's weakness/lobby's

country-pair group. As such, the underlying model has a di erent intercept for each group.

To di erentiate between credibility and market-access driven TAs, we calculate the predicted probability of a positive outcome considering only explanatory variables associated with the credibility argument (the triple interactions of a , (1) and the relative size of country j with respect to i), which we call P^c henceforth:

$$P^c_{ijt} = \frac{\exp^{\mathbf{x}^{\mathbf{c}\prime}}}{\sum_l \exp^{\mathbf{x}^{\mathbf{c}\prime}}} \tag{8}$$

We will then be able to estimate the average probability that a country signs a credibility agreements depending on the type of agreement (South-South, South-North, North-North and North-South).

3.2 Do credibility-driven TAs a ect trade di erently?

To disentangle whether there is heterogeneity in the way credibility-motivated trade agreements a ect imports we turn to the workhorse of the trade literature: the gravity equation. In order to control for the same variables as in the most recent work on the impact of TAs on bilateral trade ows, we introduce country-pair speci c xed e ects. This controls for bilateral distance, colonial linkages, a common border or any other geographical or time-invariant institutional determinant of bilateral ows (see Carrere, 2006 or Baier and Bergstrand, 2007 or 2009).

We also use alternative gravity speci cations. In a second speci cation we use time*exporter speci c e ects, and year xed e ect to control for general equilibrium e ects such as those a ecting trade ows through exporter-country price indices (see Baier and Bergstrand, 2007 or Egger et al., 2009).[10] We also estimate a more traditional gravity speci cation controlling for distance, common language and remoteness as in Carrere (2006). Finally, we calculate the importer and exporter price indices/multilateral resistance terms a la Anderson e van Wincoop (2003) and include it in the estimated gravity equations. More formally, the following

[10] Note that time*importer e ects are not included since our variable of interest - P^c_{ijt} , interacted with the RTA dummy - depends on importer's characteristics.

speci cations were estimated:

$$\ln(m_{ijt}) = {}_0 + {}_1 TA_{ijt} + {}_2 TA_{ijt} \quad P^c_{ijt} + {}_3 P^c_{ijt} + {}_4 \ln GDP_{it} + {}_5 \ln GDP_{jt} + {}_{ij} + {}_t + u_{ijt} \tag{9}$$

$$\ln(m_{ijt}) = {}_0 + {}_1 TA_{ijt} + {}_2 TA_{ijt} \quad P^c_{ijt} + {}_3 P^c_{ijt} + {}_{ij} + {}_4 \ln GDP_{it} + {}_{jt} + u_{ijt} \tag{10}$$

$$\ln(m_{ijt}) = {}_0 + {}_1 TA_{ijt} + {}_2 TA_{ijt} \quad P^c_{ijt} + {}_3 P^c_{ijt} + {}_4 \ln GDP_{it} + {}_5 \ln GDP_{jt} + {}_6 \text{Common Language} + {}_7 \text{Log Inverse Distance} + {}_8 \text{Remoteness} + u_{ijt} \tag{11}$$

$$\ln(m_{ijt}) = {}_0 + {}_1 TA_{ijt} + {}_2 TA_{ijt} \quad P^c_{ijt} + {}_3 P^c_{ijt} + {}_4 \ln GDP_{it} + {}_5 \ln GDP_{jt} + {}_{ij} + {}_6 P_{it} + {}_7 P_{jt} + u_{ijt} \tag{12}$$

$$\tag{13}$$

where the s are parameters to be estimated, m_{ijt} are country *i's* imports from country *j* at time *t*, TA_{ijt} is a dummy indicating whether countries *i* and *j* have a trade agreement at time t, $_{ij}$ are country-pair dummies, $_t$ are time dummies, $_{jt}$ are exporter-year speci c e ects, P_{it} is the price index in the importer country *i*, P_{jt} is the price index in the exporter country *j*, and u_{ijt} is an error term.

The sign of $_2$ determines whether credibility-driven trade agreements are more or less trade-creating. If $_2 > 0$ then credibility-driven trade agreements are more trade-creating, and if $_2 < 0$, then credibility-driven trade agreements are less trade-creating.

An important problem with the estimation of (9) or (10) that is emphasized in the work of Baier and Bergstrand (2007 and 2009) and Egger et al. (2009) are the ones of omitted variable and selection bias. Indeed, there may be many unobserved characteristics that are correlated with the decision to form a TA and this will lead to omitted variable bias in our estimates. Moreover, the decision to form a TA may depend on the outcome based on unobserved characteristics for the econometrician but known by governments signing these trade agreements. In this case we will also have selection bias. To correct for this we could use Heckman's (1997) procedure for the estimation of treatment e ects which are subject to selection and omitted variable bias. We do not follow this method since the selection and

main equation contain the same variables. Indeed, when there is no exclusion restriction in the selection model OLS tends to perform better than the Heckman selection model.

We estimate those specifications using OLS and Poisson pseudo-maximum likelihood (PPML) where the later take the presence of zeros in the bilateral trade data into account, following the recent empirical literature on the estimation of gravity models (Santos Silva and Tenreyro, 2006).

To address the issue of endogeneity of the RTA variable, we use the three-step estimator in Baier and Bergstrand (2007). In the first stage we estimate the predicted probabilities using the estimates reported in Table 3 . In the second stage we run a linear regression of the TA variable on a constant, the predicted probabilities, and all the variables used in the TA and gravity regressions. The third stage involves the estimation of the gravity equation substituting the predicted values from the second-stage regression for TA. According to Wooldridge (2002) this three stage IV estimator is consistent and asymptotically efficient.

4 Results

Table 3 presents the results of the effect of credibility motivations on the formation of TAs between two countries. More specifically, we test the two predictions from the extended Maggi-Rodriguez Clare model of section 2.

The first prediction - trade agreements are more likely to be used as a commitment device in countries with intermediate values of *a* when governments are weak - are confirmed by our estimates of $_3$ and $_4$, which are both statistically significant. The second prediction is also confirmed: the signs of the coefficients for the interactions RS_{ijt} (1 $_{it}$) a_{it} and RS_{ijt} (1 $_{it}$) a_{it}^2 confirm the expected inverted u-shaped relationship between a government's sensitivity to its domestic lobby and the probability of signing a TA. Thus, a trade agreement is more likely to be used as a commitment device when countries sign agreements with relatively larger partners.

In column 3 of Table 3 we correct our estimates of *a* and *sigma* for the fact that themselves

have been estimated. Indeed, they are a_{it} and $_{it}$ are *generated regressor*. To minimize the measurement error bias in the estimation of equation 2, we apply the error correction suggested by Fuller (1987) and Gawande (1997). Given that a_{it} is estimated with a measurement error equal to u_{it} and standard error $_{uit}$; the corrected a_{it} (or $\widetilde{a_{it}}$) is then:[11]

$$\widetilde{a_{it}} = \bar{a} + \frac{\overline{{}^{2}_{a}} \quad {}^{2}_{u}}{{}^{2}_{uit}}(a_{it} \quad \bar{a}) \tag{14}$$

where $\bar{a}$ and $^{2}_{a}$ are the sample mean and variance of a, respectively. It can readily be seen from the formula that a_{it} is measured without error ($\widetilde{a_{it}}=a_{it}$) whenever the variance of the

interaction TA*P^c), suggesting no particular effect of credibility-driven TAs on trade flows between the pair of countries. Nevertheless, once we account for the presence of zeros in the trade matrix and estimate the gravity equation with Poisson ML in Table 7, we find that credibility-drive TAs are trade creating.

4.1 To do list

calculate the multilateral resistance terms Pi and Pj (van Wincoop's)

Mayer type estimates to control for multilateral resistance

3SLS estimates

test of essential heterogeneity and Local Instrumental Variable estimates to control for the potential endogeneity of P^c_{ijt}

5 Concluding remarks

We provided empirical evidence regarding the importance of credibility considerations when signing TAs based on the theoretical predictions of Maggi and Rodriguez-Clare (1998). Results suggest that credibility-driven TAs tend to be signed by governments with low bargaining power vis-a-vis domestic lobbies, and that there is a u-shape relationship between government's sensitivity to domestic lobby and the probability of signing a TA. We also found that credibility motivated TAs tend to lead to more trade creation. Credibility considerations tend to be a stronger determinant of TA when these are signed by developing countries regardless of whether the partner is a develop or a developing country (as long as the partner is relatively larger).

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Data Appendix

We use the Preferential Trade Agreements Database from the Peterson Institute for Interna-

Table 2: Government's bargaining weight

	(I)	(II)	(III)	(IV)	(V)
Finite Term	0.123				0.109
	(0.198)				(0.209)
Her ndahl Government		0.261**			0.271**
		(0.105)			(0.113)
Margin of Opposition			0.0309		-0.0986
			(0.154)		(0.168)
Log of GDP per capita				0.196	0.284
				(0.217)	(0.279)
Constant	0.0262	-0.277	0.103	-1.956	-1.575
	(0.255)	(0.283)	(0.260)	(2.162)	(1.440)
Observations	260	260	281	287	251
R-squared	0.296	0.317	0.292	0.296	0.319

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

OLS regressions include country and year xed e ects

Table 5: Summary Statistics of P^c by type of agreement

North-North TAs							
obs	mean	sd	max	min	p25	p50	p75
2264	.1422	.3448	1	0	0	0	2.09e-14
South-South TAs							
obs	mean	sd	max	min	p25	p50	p75
9592	.2328	.4211	1	0	0	0	.0021
North-South TAs							
obs	mean	sd	max	min	p25	p50	p75
6236	.1622	.3658	.9856	.0	0	0	3.76e-32
South-North TAs							
obs	mean	sd	max	min	p25	p50	p75
1905	.2382	.4118	1	0	0	0	.0174
All agreements							
obs	mean	sd	max	min	p25	p50	p75
19997	.2011	.3978	1	0	0	0	1.78e-10

Table 6: The impact of credibility-driven TAs on imports

	(I)	(II)	(III)	(IV)
Log of Imports				
Log of GDP (*i*)	1.247***	1.245***	1.279***	0.861***
	(0.125)	(0.125)	(0.125)	(0.0219)
Log of GDP (*j*)	1.1999***	1.2018***		1.2173***
	(0.191)	(0.118)		(0.016)
TA	0.309***	0.307***	0.284***	0.303***
	(0.0822)	(0.0826)	(0.0880)	(0.0705)
P^c		-0.00638	-0.0270	-0.0391
		(0.0251)	(0.0270)	(0.0255)
TA*P^c		0.0124	0.0281	0.0644
		(0.0642)	(0.0658)	(0.0620)
Common Language				0.670***
				(0.0913)
Log Inverse of Distance				1.194***
				(0.0557)
Remoteness				-0.00716
				(0.0133)
Constant	-51.88***	-51.89***	-24.01***	-32.88***
	(4.233)	(4.235)	(3.168)	(0.828)

Table 7: The impact of credibility-driven TAs on imports (Poisson estimates)

	(I)	(II)	(III)
Imports			
Log of GDP (i)	1.175***	1.130***	1.120***
	(0.000173)	(0.000177)	(0.000179)
Log of GDP (j)	1.095***	1.126***	1.111***
	(0.000138)	(0.000140)	(0.0001429)
TA	0.226***	0.218***	0.2136***
	(0.000163)	(0.000164)	(0.0001643)
P^c		-0.0472***	-0.0498***
		(3.72e-05)	(0.0000379)
TA*P^c		0.0433***	04603***
		(5.17e-05)	(0.0000522)
Common Language			0.2919***
			(0.0928991)
Log Inverse of Distance			1.292***
			(0.0579)
Remoteness			-0.0776**
			(0.0128525)
Constant			-33.57**
			(0.4989)
Observations	18716	18716	16026
Number of country-pairs	3256	3256	3030

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Poisson ML regressions in columns I and II have country-pair and year fixed effects.

Poisson ML regression in column III has year fixed effects.

Appendix

Table A1: Estimates of Government's welfare mindedness *a*

Country	*a*	St.Dev	Dev.from overall mean
Singapore	.9917	.	.1304
Japan	.9878	.0017	.1265
Italy	.9819	.0051	.1206
Brazil	.9799	.0044	.1186
Romania	.9785	.	.1173
Spain	.9750	.0028	.1138
South Korea	.9741	.0051	.1128
USA	.9737	.0021	.1125
Turkey	.9721	.0032	.1108
Taiwan	.97	.0049	.1087
Germany	.9676	.0072	.1063
France	.9674	.0048	.1061
United Kingdom	.9664	.0026	.1052
Argentina	.9634	.0049	.1022
China	.9617	.0132	.1004
Finland	.9581	.0011	.0969
Australia	.953	.0056	.0917
Poland	.9503	.0087	.0891
Colombia	.9454	.016	.0841
Denmark	.9415	.0057	.0803
South Africa	.9307	.0443	.0695
Latvia	.9304	.0094	.0692
Hungary	.9284	.0288	.0672
Greece	.9184	.0125	.0572
Nepal	.9146	.	.0534
Malaysia	.9087	.0231	.0474
Chile	.9047	.0047	.0435
India	.9010	.0302	.0398
Sweden	.9008	.	.0396
Venezuela	.8994	.0627	.0381
Ireland	.8949	.0043	.0337
Peru	.8845	.	.0232
Uruguay	.8833	.0507	.0220
Guatemala	.8817	.0173	.0204
Philippines	.8755	.0105	.0142
Norway	.8750	.0198	.0137
Indonesia	.8750	.0430	.0137
Netherlands	.8733	.0107	.0121
Costa Rica	.8423	.0428	-.0189
Egypt	.8077	.0267	-.0536
Kenya	.7875	.0477	-.0737
Ecuador	.7640	.044	-.0972
Mexico	.7572	.0588	-.1041
Malawi	.7437	.0092	-.1176
Morocco	.723	.0897	-.1383
Thailand	.723	.0950	-.1383
Trinidad - Tobago	.7056	.0120	-.1557
Cameroon	.6985	.09	-.1627
Sri Lanka	.6200	.0332	-.2413
Bangladesh	.4731	.	-.3882
Bolivia	.3863	.1053	-.4749
Ethiopia	.2137	.	-.6476

Table A2: Estimates of Government's bargaining weakness (1)

Country	(1 −)	St.Dev	Dev. from overall mean
Bangladesh	0	.	-.8621
Trinidad Tobago	.4785	.6768	-.3835
Venezuela	.562	.59	-.3
India	.5804	1.195	-.2816
Thailand	.6686	.1784	-.1934
Denmark	.7119	.6498	-.1502
Malawi	.7166	.5559	-.1455
South Korea	.7404	.4157	-.1217
Morocco	.7453	.1593	-.1168
Poland	.749	.5957	-.1131
Nepal	.764	.	-.0981
Brazil	.7877	.2353	-.0744
Philippines	.8238	.5618	-.0383
Hungary	.8320	.1762	-.03
Malaysia	.8333	.5964	-.0287
Ecuador	.8333	.3844	-.0287
Uruguay	.8408	.3234	-.0213
Romania	.8522	.	-.0099
Indonesia	.8581	.4336	-.004
Mexico	.8647	.2658	.0026
Ireland	.8732	.0575	.0111

Table A3: Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
RTA	0.121	0.326	0	1	69161
FTA	0.065	0.247	0	1	69161
Government's welfare mindedness *a*	0.89	0.128	0.214	0.994	290
a after ME correction	.95	.642	-.342	12.44	290
Government's bargaining weakness (1 −)	0.878	0.237	0	1	290
(1 −) after ME correction	0.881	0.233	0	1	290
Market size of partner (MS_j), in US 000	29127.933	159366.781	263.446	2262526.25	68961
Relative size (j=i)(RS)	-0.701	2.288	-8.517	8.227	68961
Abs. value of size di erence (DMS)	9.011	2.066	-1.527	14.631	68961
UN A nity Index (AI)	0.693	0.229	-0.468	1	46343
Imports	294982.671	2792603.118	0	231032976.557	177786
Log of Imports	8.271	3.864	-6.908	19.258	106300
Log of GDP(i)	25.505	1.701	20.855	29.915	69161
Log of GDP(j)	23.855	2.192	18.921	29.915	69161