On-line Appendix for "What Do Trade Negotiators Negotiate About? Empirical Evidence from the World Trade Organization"

Kyle Bagwell Robert W. Staiger

Final Version: March 2010

1 Data Description not included in Printed Version

The following Data Appendix presents a detailed description of the data sources and data cleaning procedures for "What Do Trade Negotiators Negotiate About? Empirical Evidence from the World Trade Organization." See the printed version of that paper for notational definitions.

Data Appendix

Import Values

All import data is originally from the PC-TAS database (available at http://www.intracen.org/trade-support/trade-analysis-system-on-pc/), a subset of the UN-Comtrade database. The PC-TAS database contains bilateral trade flows for 6-digit HS products over the period 1995-1999. The units of trade value are thousands of nominal US$. Bilateral trade flows are included in the database if the value of trade over the period 1995-1999 exceeds $50,000.

Three steps are taken to clean the bilateral trade dataset. First, known data reporting errors are corrected by hand. Second, a "primary" data cleaning algorithm, in the spirit of Robert C. Feenstra et al. (2005), is utilized to compare importer and exporter reported trade values. Finally, trade with regional partners is redistributed among countries within each region.

Individual problems

In the first step, known data errors occurring during the period 1995-1999, as identified in Feenstra et al. (2005), are corrected by hand. Problems are corrected only if they appeared in the PC-TAS data (Feenstra et. al. uses a different level of data refinement). The following paragraph identifies these corrections.

For Australian imports of television receivers (HS6 852810), imports from unspecified partners are redistributed to the UK, Japan, and Singapore for 1995 and 1996, and only Singapore

for 1997-1999. This redistribution is weighted by total exports from these sources. For Australian imports of paper products (HS6 480252, 480253), imports from unspecified partners are redistributed to Indonesia and Korea. Again, this redistribution is based on export data. For Austrian imports of petroleum gases (HS6 271121), imports from unspecified partners are reallocated to Russia. For Israeli imports of diamonds (HS4 7102), imports from unspecified partners are reallocated to South Africa. Finally, for French imports of fissile material (HS6 284410), imports from unspecified partners are reallocated to existing import sources based on the difference between reported exports and reported imports. Any remaining imports are allocated to Niger.

Primary Data Cleaning

Ideally, a recorded bilateral trade (between two countries for a given six-digit product in a given year) should be recorded by both importers and exporters. Often, this is not the case. In fact, this is a non-trivial problem in using UN-Comtrade and its derivative datasets. Importers and exporters often report different values for a given trade, and sometimes fail to report each other as trading partners. Thus, to construct a precise account of all bilateral trade flows (and the aggregate values derived thereof), both importer and exporter reported trade must be utilized to ensure that all trading partners are identified, and that within identified trading partners, the value of trade is accurate.

The process we utilize is similar to Feenstra et al. (2005), and is based on the assumption that importers are more likely to accurately report trade values.[1] However, if importers do not report a given bilateral trade, then exporter reported trade values are recorded. Precisely, for each six-digit product in each year, we utilize the following algorithm as the primary method to record a "cleaned" value of trade.

1. Compile a list of all importers, including those reported by exporters.
2. For each importer, if there is an importer reported trade value, record this as the true trade value.
3. If there is no importer reported value (or if the importer systematically does not report trade values for the given year), record the exporter recorded value.

After this step, we have a single value for each bilateral trade in each year for every product. Notably, for all bilateral trades over the period 1995-1999, exporter reported values are used in at least one year for 33% of all observations.

Redistributing regional trade

Importers occasionally report trade with regional partners, but not countries within each region. We have chosen to redistribute these import values among the known trading partners within each region.

If a country reports importing a product from a regional partner, the value of trade to be redistributed is defined as the value of imports from this regional partner minus the value of

[1] This assumption is supported by the fact that, due to tariff collection and quota enforcement, importers have a larger incentive to record trade data correctly.

trade that is already accounted for using exporter reported values from this region. This method assumes that the reported trade value from regional partners already includes trade value that has been supplemented by exporter reported trade values (via the primary data cleaning algorithm described above). Thus, we only redistribute if the difference between regional imports and exporter supplemented trade is positive.

If there is a positive value of trade to redistribute, the following decision rules completes the redistribution process:

1. For a given product-year-importer observation, if the total importer reported value of trade is greater than the total exporter reported value of trade, then we redistribute according to the distribution of reported imports for countries within each region.

2. For a given product, year, importer observation, if the total importer reported value of trade is less than the total exporter reported value of trade, then we redistribute according to the distribution of positive values of (reported exports – reported imports) for countries within each region.

Tariff Data

Most ad-valorem tariff values are obtained from the TRAINS database (available to academic institutions at http://wits.worldbank.org/). Conveniently, the TRAINS database contains data on most-favored nation (MFN) applied tariffs (the unbound measure of trade protection) and the final WTO tariff bindings (the bound measure of trade protection). For the most part, we use the data as-is. Unbound tariffs (for each product) are defined as the mean value of MFN tariffs over the country-specific periods identified in Table 1. The bound tariff is the final WTO negotiated tariff binding.

The only departure from the TRAINS database is in the case of products with tariff-quotas. For any product with a tariff-quota as a final bound "tariff", the bound tariff takes the value of the within-quota tariff binding. There are 45 of these instances for China, 39 for Panama, 4 for Lithuania, and 1 for Macedonia. Tariff quota information is obtained from WTO accession documents.[2]

World Price Data

To construct an estimate of the world price, we utilize aggregate trade value and quantity data from UN-Comtrade (the data is freely downloadable from http://unstats.un.org/unsd/comtrade/). The units of trade data are nominal US dollars, and the units of quantity data are kilograms for roughly 80% of the trade flows in our sample. We use the trade flows whose quantity data is measured in kilograms to construct our measures of world prices. The trade values are recorded CIF, which account for the cost of the good, insurance costs and freight costs. To construct the world price, for each two-digit HS product, the total value of trade over the period 1995-1999 is divided by the total quantity of trade over the same period. This is done for all two-digit HS

[2]These documents are available at http://www.wto.org/english/thewto_e/acc_e/acc_e.htm.

products. Thus, an implication of this calculation is that all six-digit products with the same two-digit industry face the same world price.

Trade Elasticities

As our measures of import demand (σ) and export supply (ω) elasticities we use the estimates provided by Christian Broda, Nuno Limao and David E. Weinstein (2008). They report 4-digit estimates for 15 non-WTO members; 5 of these countries overlap with our sample of 16 countries. Since their estimates contain some outliers we usually consider a semi-log specification. Following their approach, we instrument the elasticity faced by country c on good g with the average elasticity in that good in all the other countries. For example, in the estimations using the non-linear specification we make use of both elasticities. Thus, to instrument $\eta_{gc}^{BR} \equiv \frac{\sigma_{gc}}{\omega_{gc}} \frac{M_{gc}^{BR}}{p_{gc}^{BR}}$ we use $\frac{\overline{\sigma}_{g,-c}}{\overline{\omega}_{g,-c}} \frac{M_{gc}^{BR}}{p_{gc}^{BR}}$, where the bar means "average" and $-c$ refers to all countries except c. Likewise, in the estimations using the Herfindahl index, we instrument n as just described while to instrument $\Theta_{gc}^{BR} \equiv \mathcal{H}_{gc}^{BR} \cdot \ln(\frac{1}{\omega_{gc}})$ we use $\mathcal{H}_{gc}^{BR} \cdot \ln(\frac{1}{\overline{\omega}_{g,-c}})$.

References

Broda, Christian, Nuno Limao and David E. Weinstein. 2008. "Optimal Tariffs and Market Power: The Evidence." American Economic Review, 98(5): 2032-65.

Feenstra, Robert C., Robert E. Lipsey, Haiyan Deng, Alyson C. Ma and Hengyong Mo. 2005. "World Trade Flows: 1962-2000." NBER Working Paper No. 11040.

A Additional Results not included in Printed Version

The following tables present additional results not included in the printed version of "What Do Trade Negotiators Negotiate About? Empirical Evidence from the World Trade Organization." Referring to the Tables in the printed version (see the text of the printed version for all details), additional results for Table 3A are included in Tables 1a and 1b below, additional results for Table 4 are included in Tables 2a and 2b below, and additional results for Tables 5A-5C are included in Tables 3a-3d below.

Table 1a: Baseline Results - Full Sample, by Sector

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[V_{gc}^{BR}\right] + \epsilon_{gc}$						$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[m_{gc}^{BR}\right] + v_{gc}$					
		OLS			**Tobit**			**OLS**			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2	**Obs**	β_1	β_2	R^2	β_1	β_2
All	42,721	0.3702***	-0.0044***	0.804	0.3901***	-0.0065***	42,015	0.3682***	-0.0026***	0.802	0.3873***	-0.0028**
		(0.0174)	(0.0008)		(0.0051)	(0.0010)		(0.0178)	(0.0009)		(0.0052)	(0.0012)
HS0	2,037	0.3750***	-0.0733**	0.763	0.3925***	-0.0657	2,037	0.3760***	-0.0391**	0.763	0.3934***	-0.0395
		(0.0284)	(0.0338)		(0.0291)	(0.0443)		(0.0283)	(0.0180)		(0.0291)	(0.0332)
HS1	1,811	0.2226***	-0.0476***	0.783	0.2376***	-0.0487***	1,811	0.2234***	-0.1558***	0.783	0.2397***	-0.1643***
		(0.0311)	(0.0104)		(0.0218)	(0.0095)		(0.0308)	(0.0278)		(0.0218)	(0.0297)
HS2	4,417	0.6502***	-0.0001	0.651	0.6781***	-0.0053	4,377	0.6513***	-0.0273***	0.651	0.6787***	-0.0304*
		(0.0707)	(0.0015)		(0.0210)	(0.0051)		(0.0707)	(0.0095)		(0.0210)	(0.0175)
HS3	4,030	0.2679***	-0.0044***	0.868	0.2805***	-0.0047***	4,030	0.2680***	-0.0029***	0.868	0.2806***	-0.0029
		(0.0162)	(0.0008)		(0.0098)	(0.0015)		(0.0162)	(0.0011)		(0.0098)	(0.0027)
HS4	3,264	0.3285***	-0.0059***	0.919	0.3711***	-0.0061	3,264	0.3284***	-0.0102***	0.919	0.3709***	-0.0114
		(0.0142)	(0.0017)		(0.0147)	(0.0048)		(0.0142)	(0.0031)		(0.0147)	(0.0102)
HS5	4,271	0.3136***	-0.0055***	0.955	0.3163***	-0.0055***	4,271	0.3134***	-0.0167***	0.955	0.3162***	-0.0169***
		(0.0104)	(0.0015)		(0.0083)	(0.0020)		(0.0104)	(0.0045)		(0.0083)	(0.0064)
HS6	4,176	0.1342***	-0.0134***	0.974	0.1342***	-0.0134***	4,176	0.1336***	-0.0101	0.974	0.1335***	-0.0101***
		(0.0144)	(0.0044)		(0.0089)	(0.0041)		(0.0144)	(0.0065)		(0.0089)	(0.0026)
HS7	4,293	0.3705***	-0.0111***	0.906	0.3763***	-0.0088	4,061	0.3245***	-0.0020	0.903	0.3225***	0.0056
		(0.0185)	(0.0025)		(0.0153)	(0.0057)		(0.0205)	(0.0032)		(0.0172)	(0.0098)
HS8	10,956	0.4013***	-0.0044***	0.872	0.4144***	-0.0057***	10,955	0.4015***	-0.0159***	0.872	0.4145***	-0.0191***
		(0.0159)	(0.0006)		(0.0080)	(0.0008)		(0.0159)	(0.0026)		(0.0080)	(0.0029)
HS9	3,466	0.3715***	-0.0112*	0.886	0.4123***	-0.0113	3,033	0.3783***	-0.0928**	0.887	0.4184***	-0.1139***
		(0.0176)	(0.0063)		(0.0179)	(0.0082)		(0.0186)	(0.0381)		(0.0189)	(0.0263)

Notes: Standard errors are in parentheses (OLS are heteroskedasticity-robust). The labels *, ** and *** denote significance at the 10%, 5%, and 1% level, respectively. Industry fixed effects, α_G, are at the two-digit HS product level. Country fixed effects, α_c, included only for the full-sample and by-sector estimates. Fixed effect estimates available upon request. See main text for variable definitions.

Table 1b: Baseline Results - by Country

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[V_{gc}^{BR}\right] + \epsilon_{gc}$						$\tau_{gc}^{WTO} = \alpha_G + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[m_{gc}^{BR}\right] + v_{gc}$					
		OLS			**Tobit**			**OLS**			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2	**Obs**	β_1	β_2	R^2	β_1	β_2
Albania	2,172	0.2544***	-0.0085	0.870	0.3194***	-0.0183	2,168	0.2464***	-0.0116***	0.869	0.3101***	-0.0114**
		(0.0208)	(0.0512)		(0.0256)	(0.0690)		(0.0208)	(0.0044)		(0.0258)	(0.0051)
Armenia	1,213	0.2693***	0.0063	0.878	0.3066***	0.0058	1,189	0.2615***	0.0003	0.879	0.2979***	0.0003
		(0.0661)	(0.0666)		(0.0686)	(0.0789)		(0.0689)	(0.0010)		(0.0701)	(0.0072)
Cambodia	1,632	0.4979***	0.0453**	0.951	0.4985***	0.0450	1,609	0.5018***	0.0018	0.950	0.5024***	0.0018
		(0.0276)	(0.0186)		(0.0136)	(0.0304)		(0.0291)	(0.0011)		(0.0140)	(0.0040)
China	4,645	0.2584***	-0.0044***	0.862	0.2661***	-0.0073***	4,525	0.2355***	-0.0008	0.861	0.2407***	-0.0008
		(0.0214)	(0.0009)		(0.0079)	(0.0008)		(0.0216)	(0.0031)		(0.0080)	(0.0026)
Ecuador	3,601	0.5703***	-0.0607**	0.972	0.5703***	-0.0607***	3,542	0.5669***	-0.0007	0.972	0.5669***	-0.0007
		(0.0224)	(0.0244)		(0.0182)	(0.0146)		(0.0229)	(0.0009)		(0.0184)	(0.0016)
Estonia	3,645	0.2124**	-0.0900***	0.870	0.2456*	-0.1123***	3,589	0.1124	-0.0068	0.868	0.1210	-0.0068*
		(0.1060)	(0.0289)		(0.1409)	(0.0195)		(0.1136)	(0.0044)		(0.1404)	(0.0037)
Georgia	1,388	-0.2285**	0.0457	0.901	-0.4986***	0.0441	1,369	-0.2284**	-0.0056	0.899	-0.5004***	-0.0056
		(0.0974)	(0.0280)		(0.1598)	(0.0436)		(0.0973)	(0.0063)		(0.1609)	(0.0052)
Jordan	3,333	0.6317***	-0.0546**	0.931	0.6504***	-0.0719***	3,283	0.6313***	-0.0007	0.931	0.6487***	-0.0006
		(0.0310)	(0.0273)		(0.0096)	(0.0214)		(0.0315)	(0.0007)		(0.0096)	(0.0024)
Kyrgyzstan	1,575	-	-0.0790	0.904	-	-0.0909*	1,558	-	0.0001	0.903	-	0.0001
		-	(0.0666)		-	(0.0506)		-	(0.0012)		-	(0.0039)
Latvia	3,253	0.1246***	-0.0616***	0.856	0.1286***	-0.1263***	3,201	0.1211***	-0.0188***	0.855	0.1251***	-0.0187***
		(0.0385)	(0.0184)		(0.0241)	(0.0487)		(0.0386)	(0.0067)		(0.0242)	(0.0048)
Lithuania	3,515	0.4990***	-0.0051	0.850	0.5179***	-0.0060	3,463	0.4988***	-0.0008	0.850	0.5176***	-0.0008
		(0.0445)	(0.0115)		(0.0223)	(0.0110)		(0.0445)	(0.0010)		(0.0223)	(0.0034)
Macedonia	2,643	0.4616***	-0.0188	0.859	0.6044***	-0.0183	2,613	0.4620***	-0.0027	0.858	0.6055***	-0.0031
		(0.0174)	(0.0602)		(0.0159)	(0.0544)		(0.0175)	(0.0016)		(0.0160)	(0.0028)
Moldova	1,872	0.4161***	0.0009	0.926	0.4755***	0.0243	1,848	0.4304***	0.0004	0.927	0.4920***	0.0002
		(0.0329)	(0.0031)		(0.0252)	(0.1509)		(0.0336)	(0.0019)		(0.0254)	(0.0034)
Nepal	1,517	0.3516***	-0.3998**	0.941	0.3527***	-0.4073***	1,494	0.3494***	0.0032	0.940	0.3504***	0.0032
		(0.0391)	(0.1810)		(0.0183)	(0.1150)		(0.0395)	(0.0024)		(0.0185)	(0.0080)
Oman	2,824	-0.4555	-0.0248**	0.765	-0.4662**	-0.0258	2,760	-0.4700	-0.0039	0.762	-0.4811**	-0.0039
		(0.5301)	(0.0124)		(0.2351)	(0.0174)		(0.5507)	(0.0040)		(0.2424)	(0.0084)
Panama	3,691	0.1277***	-0.0031***	0.925	0.1300***	-0.0032**	3,615	0.1250***	-0.0048*	0.925	0.1273***	-0.0048
		(0.0179)	(0.0010)		(0.0132)	(0.0012)		(0.0183)	(0.0028)		(0.0134)	(0.0041)

Notes:	See Table 1a.

Table 2a: Extended Results using Import Values

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_2 [V_{gc}^{BR}] + \beta_3 [O_{gc}^{BR}] + \epsilon_{gc}$							
		OLS				Tobit		
Sample	Obs	β_1	β_2	β_3	R^2	β_1	β_2	β_3
All	42,721	0.3705***	-0.0058***	0.0114**	0.804	0.3902***	-0.0073***	0.0079
		(0.0174)	(0.0015)	(0.0046)		(0.0051)	(0.0011)	(0.0059)
HS0	2,037	0.3738***	-0.1281***	0.1512**	0.763	0.3913***	-0.1195**	0.1483
		(0.0284)	(0.0495)	(0.0630)		(0.0291)	(0.0593)	(0.1088)
HS1	1,811	0.2223***	-0.0439***	-0.2083*	0.783	0.2373***	-0.0443***	-0.2506
		(0.0311)	(0.0104)	(0.1127)		(0.0218)	(0.0100)	(0.1830)
HS2	4,417	0.6504***	0.0031	-0.0102	0.651	0.6781***	-0.0041	-0.0039
		(0.0707)	(0.0070)	(0.0183)		(0.0210)	(0.0089)	(0.0241)
HS3	4,030	0.2679***	-0.0037***	-0.0025	0.868	0.2804***	-0.0039	-0.0030
		(0.0162)	(0.0013)	(0.0036)		(0.0098)	(0.0024)	(0.0069)
HS4	3,264	0.3285***	-0.0062**	0.0012	0.919	0.371***	-0.0048	-0.0055
		(0.0142)	(0.0030)	(0.0087)		(0.0147)	(0.0083)	(0.0278)
HS5	4,271	0.3134***	-0.0079***	0.0084	0.955	0.3162***	-0.0076**	0.0074
		(0.0104)	(0.0022)	(0.0070)		(0.0083)	(0.0039)	(0.0114)
HS6	4,176	0.1342***	-0.0152	0.0058	0.974	0.1341***	-0.0152**	0.0058
		(0.0144)	(0.0093)	(0.0206)		(0.0089)	(0.0068)	(0.0175)
HS7	4,293	0.3703***	-0.0173***	0.0190***	0.906	0.3761***	-0.0160*	0.02200
		(0.0185)	(0.0042)	(0.0069)		(0.0153)	(0.0089)	(0.0209)
HS8	10,956	0.4014***	-0.0046***	0.0029	0.872	0.4138***	-0.0049***	-0.0235*
		(0.0159)	(0.0007)	(0.0085)		(0.0080)	(0.0009)	(0.0128)
HS9	3,466	0.3709***	-0.0321***	0.2074***	0.887	0.4114***	-0.0395***	0.2656***
		(0.0176)	(0.0083)	(0.0449)		(0.0178)	(0.0136)	(0.0996)
Albania	2,187	0.2544***	-0.0185	0.6477	0.871	0.3193***	-0.0251	0.4582
		(0.0208)	(0.0550)	(0.6738)		(0.0254)	(0.0722)	(1.4982)
Armenia	1,213	0.2701***	0.0325	-0.0810	0.878	0.3075***	0.0378	-0.0961
		(0.0661)	(0.0888)	(0.1091)		(0.0686)	(0.0982)	(0.1754)
Cambodia	1,632	0.4978***	0.0449**	-2.4031**	0.951	0.4983***	0.0446	-2.3953
		(0.0276)	(0.0186)	(1.2068)		(0.0136)	(0.0304)	(5.8303)
China	4,646	0.2595***	-0.0064***	0.0108**	0.862	0.267***	-0.0090***	0.0102**
		(0.0212)	(0.0014)	(0.0043)		(0.0079)	(0.0011)	(0.0045)
Ecuador	3,601	0.57***	-0.0626**	0.0417	0.972	0.57***	-0.0626***	0.0417
		(0.0223)	(0.0281)	(0.2121)		(0.0182)	(0.0161)	(0.1491)
Estonia	3,645	0.2449**	-0.1543***	0.1613***	0.870	0.3106**	-0.2288***	0.2660***
		(0.1043)	(0.0339)	(0.0617)		(0.1414)	(0.0337)	(0.0605)
Georgia	1,388	-0.2285**	0.0455	0.0026	0.901	-0.4986***	0.0431	0.0114
		(0.0974)	(0.0304)	(0.0488)		(0.1598)	(0.0456)	(0.1516)
Jordan	3,333	0.6312***	-0.1142***	0.1128***	0.931	0.6499***	-0.1661***	0.1646***
		(0.0310)	(0.0261)	(0.0270)		(0.0095)	(0.0340)	(0.0454)
Kyrgyzstan	1,575	-	-0.6273***	0.6686***	0.906	-	-0.7916***	0.8343***
		-	(0.1382)	(0.1458)		-	(0.1545)	(0.1706)
Latvia	3,253	0.1243***	-0.2290***	0.2680***	0.857	0.1281***	-0.3668***	0.3913***
		(0.0383)	(0.0737)	(0.0963)		(0.0240)	(0.0852)	(0.1174)
Lithuania	3,515	0.5004***	-0.0680**	0.0776***	0.850	0.5197***	-0.0931***	0.1034***
		(0.0444)	(0.0286)	(0.0294)		(0.0223)	(0.0301)	(0.0332)
Macedonia	2,643	0.4617***	-0.0272	0.2825	0.859	0.6044***	-0.0266	0.3435
		(0.0174)	(0.0575)	(0.4633)		(0.0159)	(0.0564)	(0.6144)
Moldova	1,872	0.4164***	0.0343	-0.0351	0.926	0.4753***	0.0417	-0.1408
		(0.0329)	(0.0843)	(0.0857)		(0.0252)	(0.1674)	(0.5872)
Nepal	1,517	0.3537***	-0.6204***	1.8017**	0.941	0.3548***	-0.6343***	1.8511**
		(0.0391)	(0.2107)	(0.8526)		(0.0183)	(0.1518)	(0.8096)
Oman	2,824	-0.4571	-0.0213*	-0.2186*	0.765	-0.4677**	-0.0225	-0.2101
		(0.5303)	(0.0113)	(0.1251)		(0.2351)	(0.0178)	(0.2459)
Panama	3,691	0.128***	-0.0019	-0.1304	0.925	0.1303***	-0.0019	-0.1326***
		(0.0179)	(0.0012)	(0.0821)		(0.0132)	(0.0013)	(0.0478)
Notes:	See Table 1a.							

Table 2b: Extended Results using Import Quantity/World Price

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \beta_1 \tau_{gc}^{BR} + \beta_2 [m_{gc}^{BR}] + \beta_3 [o_{gc}^{BR}] + \epsilon_{gc}$							
		OLS				**Tobit**		
Sample	**Obs**	β_1	β_2	β_3	R^2	β_1	β_2	β_3
All	42,015	0.3682***	-0.0026**	0.0000	0.802	0.3873***	-0.0028*	0.0001
		(0.0178)	(0.0013)	(0.0008)		(0.0052)	(0.0015)	(0.0012)
HS0	2,037	0.376***	-0.0330**	-0.0111	0.763	0.3934***	-0.0332	-0.0116
		(0.0283)	(0.0163)	(0.0112)		(0.0291)	(0.0358)	(0.0241)
HS1	1,811	0.2242***	-0.1494***	-0.0276**	0.783	0.2416***	-0.1542**	-0.0478
		(0.0308)	(0.0256)	(0.0119)		(0.0218)	(0.0303)	(0.0301)
HS2	4,377	0.6516***	-0.0206	-0.0073	0.651	0.679***	-0.0232	-0.0080
		(0.0707)	(0.0128)	(0.0062)		(0.0210)	(0.0229)	(0.0163)
HS3	4,030	0.268***	-0.0022**	-0.0009	0.868	0.2806***	-0.0023	-0.0008
		(0.0162)	(0.0010)	(0.0008)		(0.0098)	(0.0035)	(0.0030)
HS4	3,264	0.3284***	-0.0106***	0.0005	0.919	0.371***	-0.0133	0.0021
		(0.0142)	(0.0035)	(0.0026)		(0.0147)	(0.0135)	(0.0099)
HS5	4,271	0.3134***	-0.0165*	-0.0003	0.955	0.3162***	-0.0162	-0.0008
		(0.0104)	(0.0093)	(0.0085)		(0.0083)	(0.0125)	(0.0118)
HS6	4,176	0.1343***	0.0074	-0.0153	0.974	0.1342***	0.0074	-0.0153**
		(0.0144)	(0.0178)	(0.0168)		(0.0089)	(0.0077)	(0.0063)
HS7	4,061	0.3244***	0.0028	-0.0039	0.903	0.3223***	0.0155	-0.00810
		(0.0205)	(0.0050)	(0.0025)		(0.0172)	(0.0172)	(0.0116)
HS8	10,955	0.4014***	-0.0157***	-0.0005	0.872	0.4141***	-0.0162***	-0.0109**
		(0.0160)	(0.0027)	(0.0046)		(0.0080)	(0.0032)	(0.0054)
HS9	3,033	0.3782***	-0.1095**	0.0127	0.887	0.4184***	-0.1336***	0.0153
		(0.0186)	(0.0493)	(0.0260)		(0.0189)	(0.0351)	(0.0181)
Albania	2,168	0.2464***	-0.0116**	-0.0027*	0.870	0.3101***	-0.0113**	-0.0026
		(0.0208)	(0.0046)	(0.0015)		(0.0257)	(0.0051)	(0.0025)
Armenia	1,189	0.2655***	-0.0008***	0.0031***	0.879	0.3026***	-0.0009	0.0035
		(0.0699)	(0.0002)	(0.0008)		(0.0706)	(0.0076)	(0.0066)
Cambodia	1,609	0.5017***	0.0018	-0.0012**	0.950	0.5023***	0.0018	-0.0012
		(0.0291)	(0.0011)	(0.0006)		(0.0140)	(0.0040)	(0.0036)
China	4,525	0.2357***	0.0047	-0.0062*	0.861	0.2409***	0.0048	-0.0063*
		(0.0217)	(0.0049)	(0.0035)		(0.0080)	(0.0042)	(0.0038)
Ecuador	3,542	0.5668***	-0.0015**	0.0033	0.972	0.5668***	-0.0015	0.0033
		(0.0229)	(0.0007)	(0.0026)		(0.0184)	(0.0019)	(0.0040)
Estonia	3,589	0.1124	-0.0077	0.0018	0.868	0.1210	-0.0078*	0.0022
		(0.1136)	(0.0053)	(0.0052)		(0.1404)	(0.0043)	(0.0047)
Georgia	1,369	-0.2284**	-0.0043	-0.0036	0.899	-0.5003***	-0.0043	-0.0036
		(0.0974)	(0.0071)	(0.0056)		(0.1608)	(0.0055)	(0.0050)
Jordan	3,283	0.6312***	-0.0063	0.0063	0.931	0.6487***	-0.0061	0.0062
		(0.0315)	(0.0110)	(0.0122)		(0.0096)	(0.0117)	(0.0130)
Kyrgyzstan	1,558	-	0.0025*	-0.0054*	0.903	-	0.0025	-0.0054
		-	(0.0015)	(0.0031)		-	(0.0049)	(0.0068)
Latvia	3,201	0.1218***	-0.0158***	-0.0066	0.855	0.1258***	-0.0158***	-0.0064
		(0.0386)	(0.0055)	(0.0057)		(0.0242)	(0.0055)	(0.0060)
Lithuania	3,463	0.499***	-0.0027*	0.0036	0.850	0.5178***	-0.0027	0.0037
		(0.0445)	(0.0016)	(0.0027)		(0.0223)	(0.0046)	(0.0059)
Macedonia	2,613	0.4622***	-0.0003	-0.0047	0.858	0.6057***	-0.0001	-0.0062
		(0.0175)	(0.0037)	(0.0077)		(0.0160)	(0.0050)	(0.0083)
Moldova	1,848	0.4304***	0.0004	0.0001	0.927	0.492***	0.0002	0.0000
		(0.0336)	(0.0019)	(0.0013)		(0.0254)	(0.0034)	(0.0028)
Nepal	1,494	0.3494***	0.0032	0.0008	0.940	0.3504***	0.0032	0.0008
		(0.0396)	(0.0024)	(0.0011)		(0.0185)	(0.0080)	(0.0062)
Oman	2,760	-0.4700	-0.0106***	0.0062***	0.762	-0.4811**	-0.0106	0.0062
		(0.5508)	(0.0010)	(0.0005)		(0.2424)	(0.0123)	(0.0083)
Panama	3,615	0.1251***	0.0012	-0.0098**	0.925	0.1274***	0.0012	-0.0098
		(0.0183)	(0.0038)	(0.0049)		(0.0134)	(0.0064)	(0.0080)
Notes:	See Table 1a.							

Table 3a: Sensitivity Analysis - Full Sample, by Sector

Eqn:		$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_2 [\ln(V_{gc}^{BR})] + \epsilon_{gc}$					$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_2 [V_{gc}^{BR}] + \epsilon_{gc}$, *Normal China*				
		OLS			**Tobit**		**OLS**			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2	β_1	β_2	R^2	β_1	β_2
All	42,721	0.3676***	-0.3509***	0.805	0.3871***	-0.3784***	0.3703***	-0.0051***	0.804	0.3900***	-0.0069***
		(0.0174)	(0.0258)		(0.0051)	(0.0259)	(0.0174)	(0.0012)		(0.0051)	(0.0011)
HS0	2,037	0.3685***	-0.5320***	0.764	0.3861***	-0.5160***	0.3725***	-0.1580**	0.763	0.3899***	-0.1540**
		(0.0288)	(0.1642)		(0.0291)	(0.1618)	(0.0285)	(0.0730)		(0.0291)	(0.0668)
HS1	1,811	0.1925***	-0.7096***	0.782	0.207***	-0.7723***	0.2237***	-0.0614***	0.783	0.2391***	-0.0633***
		(0.0282)	(0.1475)		(0.0207)	(0.1566)	(0.0310)	(0.0120)		(0.0218)	(0.0117)
HS2	4,417	0.6492***	-0.1978	0.651	0.6775***	-0.2336*	0.6502***	-0.0001	0.651	0.6781***	-0.0057
		(0.0708)	(0.1336)		(0.0210)	(0.1251)	(0.0707)	(0.0023)		(0.0210)	(0.0060)
HS3	4,030	0.2679***	-0.1578***	0.868	0.2806***	-0.1868***	0.2678***	-0.0043***	0.868	0.2805***	-0.0043*
		(0.0161)	(0.0365)		(0.0098)	(0.0400)	(0.0162)	(0.0016)		(0.0098)	(0.0024)
HS4	3,264	0.326***	-0.3259***	0.919	0.3679***	-0.3523***	0.3281***	-0.0119***	0.919	0.3702***	-0.0199*
		(0.0141)	(0.0542)		(0.0146)	(0.0672)	(0.0142)	(0.0047)		(0.0147)	(0.0107)
HS5	4,271	0.3135***	-0.0671*	0.955	0.3162***	-0.0662*	0.3122***	-0.0221***	0.955	0.3149***	-0.0222***
		(0.0104)	(0.0387)		(0.0083)	(0.0345)	(0.0104)	(0.0036)		(0.0083)	(0.0068)
HS6	4,176	0.1319***	-0.1288***	0.974	0.1319***	-0.1287***	0.1324***	-0.0938	0.974	0.1324***	-0.0938***
		(0.0144)	(0.0366)		(0.0089)	(0.0337)	(0.0143)	(0.0595)		(0.0089)	(0.0174)
HS7	4,293	0.3676***	-0.3479***	0.907	0.3728***	-0.3828***	0.3701***	-0.0230***	0.906	0.3759***	-0.0215**
		(0.0184)	(0.0492)		(0.0152)	(0.0642)	(0.0185)	(0.0055)		(0.0153)	(0.0092)
HS8	10,956	0.4004***	-0.5607***	0.875	0.4132***	-0.6075***	0.4018***	-0.0050***	0.872	0.4147***	-0.0058***
		(0.0155)	(0.0373)		(0.0079)	(0.0368)	(0.0160)	(0.0009)		(0.0080)	(0.0009)
HS9	3,466	0.3608***	-0.8325***	0.891	0.3984***	-1.0172***	0.3701***	-0.0299*	0.886	0.4108***	-0.0295**
		(0.0171)	(0.0709)		(0.0175)	(0.0833)	(0.0176)	(0.0176)		(0.0179)	(0.0128)

Eqn:		$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1 \tau_{gc}^{BR} + \beta_1 [V_{gc}^{BR}] + \epsilon_{gc}$, *No China*				
		OLS			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2
All	38,075	0.4201***	-0.0052***	0.808	0.4471***	-0.0056***
		(0.0194)	(0.0017)		(0.0058)	(0.0014)
HS0	1,754	0.386***	-0.4607***	0.760	0.4033***	-0.4595***
		(0.0331)	(0.1165)		(0.0342)	(0.1311)
HS1	1,600	0.3452***	-0.1478***	0.792	0.3557***	-0.1898***
		(0.0385)	(0.0358)		(0.0296)	(0.0599)
HS2	3,718	0.7237***	0.0356	0.662	0.7567***	0.0350*
		(0.0681)	(0.0378)		(0.0235)	(0.0197)
HS3	3,654	0.2577***	-0.0144	0.867	0.2721***	-0.0166
		(0.0158)	(0.0113)		(0.0105)	(0.0216)
HS4	2,917	0.3352***	-0.2713***	0.921	0.3768***	-0.2949***
		(0.0159)	(0.0655)		(0.0167)	(0.0592)
HS5	3,778	0.3313***	-0.0912*	0.956	0.3351***	-0.0974***
		(0.0125)	(0.0533)		(0.0096)	(0.0295)
HS6	3,750	0.1124***	-0.0779	0.975	0.1124***	-0.0779***
		(0.0157)	(0.0605)		(0.0094)	(0.0187)
HS7	3,838	0.3171***	-0.0931**	0.908	0.3221***	-0.1017***
		(0.0201)	(0.0369)		(0.0178)	(0.0337)
HS8	9,972	0.4067***	-0.0057***	0.875	0.4217***	-0.0059***
		(0.0181)	(0.0015)		(0.0091)	(0.0010)
HS9	3,094	0.3551***	-0.7004***	0.895	0.3994***	-0.8203***
		(0.0183)	(0.1218)		(0.0184)	(0.0865)

Notes:
See Table 1a.

Table 3b - Sensitivity Analysis, by Country

Eqn:	$\tau_{gc}^{WTO} = \alpha_G + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[\ln(V_{gc}^{BR})\right] + \epsilon_{gc}$					
		OLS			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2
Albania	2,172	0.254***	0.0237	0.870	0.3196***	-0.0051
		(0.0208)	(0.0598)		(0.0256)	(0.0760)
Armenia	1,213	0.2687***	-0.0842	0.878	0.3061***	-0.1130
		(0.0662)	(0.1004)		(0.0686)	(0.1265)
Cambodia	1,632	0.496***	-0.1532	0.951	0.4965***	-0.1569*
		(0.0273)	(0.1005)		(0.0136)	(0.0815)
China	4,645	0.2575***	-0.5166***	0.866	0.2642***	-0.5454***
		(0.0207)	(0.0427)		(0.0077)	(0.0364)
Ecuador	3,601	0.5643***	-0.2206***	0.972	0.5643***	-0.2206***
		(0.0226)	(0.0473)		(0.0182)	(0.0424)
Estonia	3,645	0.1408***	-0.2763***	0.870	0.1587	-0.3679***
		(0.1045)	(0.0497)		(0.1392)	(0.0553)
Georgia	1,388	-0.2306**	-0.0494	0.901	-0.5032***	-0.0865
		(0.0973)	(0.0630)		(0.1599)	(0.0793)
Jordan	3,333	0.6316***	-0.2853***	0.931	0.6507***	-0.3369***
		(0.0311)	(0.0661)		(0.0095)	(0.0663)
Kyrgyzstan	1,575	-	-0.1333**	0.905	-	-0.1715**
		-	(0.0530)		-	(0.0631)
Latvia	3,253	0.1258***	-0.3753***	0.857	0.13***	-0.4279***
		(0.0382)	(0.0809)		(0.0240)	(0.0894)
Lithuania	3,515	0.5043***	-0.2736***	0.851	0.5243***	-0.3348***
		(0.0441)	(0.0584)		(0.0223)	(0.0661)
Macedonia	2,643	0.4619***	-0.1677***	0.859	0.604***	-0.2152***
		(0.0174)	(0.0606)		(0.0158)	(0.0767)
Moldova	1,872	0.4163***	0.0060	0.926	0.4752***	-0.0001
		(0.0330)	(0.0418)		(0.0251)	(0.0520)
Nepal	1,517	0.3571***	-0.7666***	0.942	0.3582***	-0.7764***
		(0.0383)	(0.1545)		(0.0182)	(0.1363)
Oman	2,824	-0.4799	-0.3222**	0.765	-0.4908	-0.3273***
		(0.5321)	(0.1304)		(0.2350)	(0.1121)
Panama	3,691	0.1265***	-1.2464***	0.930	0.1289***	-1.2735***
		(0.0179)	(0.0792)		(0.0127)	(0.0729)

Eqn:	$\tau_{gc}^{WTO} = \alpha_G + \beta_1 \tau_{gc}^{BR} + \beta_2 \left[V_{gc}^{BR}\right] + \epsilon_{gc}$, *Normal China*					
		OLS			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2
China-*Normal*	4,646	0.2589***	-0.0055***	0.862	0.2669***	-0.0102***
		(0.0215)	(0.0015)		(0.0079)	(0.0012)

Notes:	See Table 1a.

Table 3c: NTB Measures - Full Sample, by Sector

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1(\tau_{gc}^{BR} + NTB_{gc}) + \beta_2 \left[V_{gc}^{BR}\right] + \epsilon_{gc}$						$\tau_{gc}^{WTO} = \alpha_G + \alpha_c + \beta_1(\tau_{gc}^{BR} + NTB_{gc}) + \beta_2 \left[m_{gc}^{BR}\right] + v_{gc}$					
		OLS			**Tobit**			**OLS**			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2	**Obs**	β_1	β_2	R^2	β_1	β_2
All	25,302	0.0459***	-0.0037***	0.684	0.0474***	-0.0070***	24,863	0.0449***	-0.0028	0.683	0.0462***	-0.0030*
		(0.0040)	(0.0008)		(0.0023)	(0.0015)		(0.0040)	(0.0020)		(0.0023)	(0.0018)
HS0	1,339	0.0091	-0.0858**	0.703	0.0098	-0.0800	1,339	0.0091	-0.0343	0.702	0.0098	-0.0355
		(0.0143)	(0.0378)		(0.0113)	(0.0493)		(0.0143)	(0.0245)		(0.0114)	(0.0478)
HS1	1,081	0.0278**	-0.0186***	0.728	0.0298***	-0.0178*	1,081	0.0272**	-0.0930***	0.728	0.0296***	-0.0971**
		(0.0115)	(0.0052)		(0.0111)	(0.0104)		(0.0112)	(0.0250)		(0.0109)	(0.0471)
HS2	2,765	0.0768**	-0.0014	0.479	0.0732***	-0.0088	2,739	0.0775**	-0.0327	0.479	0.0738***	-0.0371
		(0.0319)	(0.0012)		(0.0131)	(0.0074)		(0.0319)	(0.0214)		(0.0132)	(0.0290)
HS3	2,312	0.0059**	-0.0049***	0.859	0.0052**	-0.0053***	2,312	0.006**	-0.0115***	0.859	0.0053**	-0.0122***
		(0.0028)	(0.0010)		(0.0025)	(0.0011)		(0.0028)	(0.0033)		(0.0025)	(0.0033)
HS4	1,956	0.03***	-0.0095***	0.844	0.0276***	-0.0102**	1,956	0.0295***	-0.0376***	0.844	0.027***	-0.0445***
		(0.0070)	(0.0024)		(0.0059)	(0.0050)		(0.0069)	(0.0067)		(0.0059)	(0.0171)
HS5	2,604	0.0461***	-0.0062***	0.902	0.0461***	-0.0062***	2,604	0.0462***	-0.0324***	0.902	0.0462***	-0.0327***
		(0.0069)	(0.0017)		(0.0036)	(0.0021)		(0.0069)	(0.0071)		(0.0036)	(0.0107)
HS6	2,472	0.0051*	-0.0105***	0.971	0.0051**	-0.0105***	2,472	0.005*	-0.0064**	0.971	0.005**	-0.0064**
		(0.0029)	(0.0035)		(0.0025)	(0.0037)		(0.0029)	(0.0025)		(0.0025)	(0.0028)
HS7	2,480	0.0321***	-0.0156***	0.812	0.0383***	-0.0135**	2,340	0.0204***	0.0117	0.822	0.0249***	0.0308*
		(0.0073)	(0.0036)		(0.0066)	(0.0064)		(0.0064)	(0.0078)		(0.0064)	(0.0169)
HS8	6,281	0.0447***	-0.0042***	0.747	0.0459***	-0.0071***	6,281	0.0448***	-0.0222***	0.747	0.046***	-0.0359***
		(0.0049)	(0.0010)		(0.0034)	(0.0015)		(0.0049)	(0.0082)		(0.0034)	(0.0080)
HS9	2,012	0.0172**	-0.0117**	0.788	0.015*	-0.0131	1,739	0.0132	-0.1060**	0.784	0.0099	-0.1360***
		(0.0083)	(0.0054)		(0.0079)	(0.0093)		(0.0081)	(0.0507)		(0.0080)	(0.0431)
Notes:	See Table 1a.											

Table 3d: NTB Measures - by Country

Equation:	$\tau_{gc}^{WTO} = \alpha_G + \beta_1(\tau_{gc}^{BR} + NTB_{gc}) + \beta_2 \left[V_{gc}^{BR}\right] + \epsilon_{gc}$						$\tau_{gc}^{WTO} = \alpha_G + \beta_1(\tau_{gc}^{BR} + NTB_{gc}) + \beta_2 \left[m_{gc}^{BR}\right] + v_{gc}$					
		OLS			**Tobit**			**OLS**			**Tobit**	
Sample	**Obs**	β_1	β_2	R^2	β_1	β_2	**Obs**	β_1	β_2	R^2	β_1	β_2
Albania	2,187	0.0666***	-0.0152	0.863	0.1222***	-0.022	2,168	0.064***	-0.0120***	0.863	0.1178***	-0.0116**
		(0.0219)	(0.0593)		(0.0153)	(0.0705)		(0.0212)	(0.0044)		(0.0153)	(0.0052)
China	4,645	0.0302***	-0.0042***	0.831	0.0314***	-0.0068***	4,524	0.0265***	-0.0007	0.835	0.027***	-0.0008
		(0.0041)	(0.0008)		(0.0028)	(0.0009)		(0.0040)	(0.0027)		(0.0028)	(0.0028)
Estonia	3,613	-0.0028	-0.0856***	0.869	-0.0037	-0.1068***	3,557	-0.0034	-0.0069	0.868	-0.0052	-0.0069*
		(0.0066)	(0.0271)		(0.0131)	(0.0193)		(0.0058)	(0.0044)		(0.0133)	(0.0038)
Jordan	3,332	0.0448***	-0.0920***	0.837	0.0456***	-0.1105***	3,282	0.0444***	-0.0046***	0.838	0.0451***	-0.0047
		(0.0057)	(0.0345)		(0.0040)	(0.0329)		(0.0057)	(0.0009)		(0.0040)	(0.0038)
Latvia	3,253	0.0206**	-0.0614***	0.855	0.0225***	-0.1330***	3,201	0.0215**	-0.0202***	0.855	0.0231***	-0.0202***
		(0.0088)	(0.0193)		(0.0057)	(0.0500)		(0.0088)	(0.0065)		(0.0057)	(0.0048)
Lithuania	3,514	0.0298***	-0.0039	0.822	0.0322***	-0.0047	3,462	0.0301***	-0.0025**	0.821	0.0324***	-0.0026
		(0.0051)	(0.0107)		(0.0052)	(0.0120)		(0.0051)	(0.0012)		(0.0052)	(0.0037)
Moldova	1,871	0.0010	-0.0026	0.911	-0.0013	-0.1694	1,847	0.0003	0.0016	0.911	-0.0024	0.0016
		(0.0041)	(0.0041)		(0.0060)	(0.1658)		(0.0042)	(0.0012)		(0.0060)	(0.0037)
Oman	2,824	-0.0479**	-0.0241**	0.766	-0.0497***	-0.0250	2,760	-0.0480**	-0.0038	0.764	-0.0498***	-0.0038
		(0.0191)	(0.0123)		(0.0113)	(0.0173)		(0.0191)	(0.0027)		(0.0114)	(0.0084)
Notes:	See Table 1a.											