Multilateral Determinants of Regionalism Revisited

Katerina Gradeva
Goethe University Frankfurt

Dany Jaimovich*
Goethe University Frankfurt

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Abstract

One of the first and most influential explanations for the wave of regionalism in the last decades is the idea that some features of the multilateral trading system create incentives for countries to join preferential trade agreements (PTAs). Until recently, only few empirical studies have explored this hypothesis. We aim to fill this gap by presenting new evidence about the multilateral correlates of regionalism. Unlike previous work, our results provide little support for the relevance of variables such as the number of GATT/WTO members, ongoing trade negotiation rounds, and trade disputes as predictors of PTA formation.

Keywords: Free Trade Agreements, World Trade Organization, Regionalism.

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*Department of Applied Econometrics and International Economic Policy, Goethe University. RuW Postbox 46, Grüneburgplatz 1, D-60323 Frankfurt am Main. E-mail: jaimovich@econ.uni-frankfurt.de

1 Introduction

Preferential trade agreements (PTAs) are being signed at a rapid pace in the last two decades. Why is bilateralism and regionalism spreading so rapidly? A wide range of hypotheses has been developed to address this question: idiosyncratic events as the breakup of the Soviet regime and financial crises (e.g. Lester and Bryan, 2009; Harvie, Kimura, and Lee, 2006), institutional developments such as the spread of democracy and the search for geopolitical stability (e.g. Mansfield, Milner, and Rosendorff, 2002; Martin, Mayer, and Thoenig, 2010), and a domino or contagion effect generated by spillovers of PTAs to third countries not involved in the agreement (e.g. Baldwin, 1993; Baldwin and Jaimovich, 2012). Another line of argument, which can be considered as one of the first and most influential explanations, is the idea that events at the multilateral trade system, first institutionalized by the General Agreement on Tariffs and Trade (GATT) and currently by the World Trade Organization (WTO), affect countries' decisions at the bilateral and regional level.

Some authors have dubbed the impact of multilateralism on regionalism as *slow multilateralism*, given one of the main arguments is that PTAs are signed as a reaction to the slow progress of multilateral trade negotiations (MTNs). This idea can be tracked back at least to Krugman (1991). Countries may increase their bargaining position in MTNs by signing PTAs (Bhagwati and Panagariya, 1996), and also create an insurance in case of failure in MTNs negotiations (Fernandez and Portes, 1998). Ethier (1998) and Freund (2000) provide a different view. In their models, multilateral and regional trade liberalization are complements, and the success of MTNs creates further incentives for PTAs. Therefore, PTAs should be more prone to be signed after the end of an MTN.

Other developments of the multilateral trade system can affect PTA formation. For instance, with the access of new countries to the GATT/WTO the position of old members is deteriorated, particularly in the case of small countries (McCalman, 2002). The GATT/WTO commercial disputes settlement mechanism might generate spillovers that incentivize regionalism. A country entering a dispute can improve its leverage by signing PTAs that increase its market power. A new dispute increases also the incentives of PTA formation for third parties not involved in it, given the threat of an outcome that might reduce access to disputants' market (Bagwell and Staiger, 2004).

Even though this topic has been widely analyzed in theoretical works, and is often mentioned in policy debates, few empirical studies have actually provided evidence for the multilateral determinants of regionalism (Freund and Ornelas, 2010, Section 4). One of the exceptions is the work by Mansfield and Reinhardt (2003, M&R henceforth).[1] In their influential study,[2] M&R use an unbalanced panel of 138 countries (all of them members of the GATT/WTO) in the 1948-1998 period, to show that variables capturing the development of the multilateral trading system are statistically significant predictors of PTA formation. In particular, they show that the probability of signing a PTA between two countries is positively related to: (i) the number of GATT/WTO members in $t-1$;

[1]Fugazza and Robert-Nicoud (2010) is the other relevant empirical contribution. They show that reductions in the US multilateral tariffs at the Uruguay GATT Round have effects on the level of the US preferential tariffs in FTAs signed afterwards.

[2]189 citations in Google Scholar in September 2012.

(ii) a variable that takes value 1 if a MTN round is underway in year t; (iii) a variable that takes value 1 if one of the countries in the dyad initiated a GATT/WTO dispute with a third party in $t-1$; and (iv) a variable that is equal to value 1 if one of the countries in the dyad lost a GATT/WTO dispute with a third party in $t-3$.

Many important events have occurred in the international trading system in the recent years. The WTO has sharply increased its number of members, including the entry of China in 2001; a new MTN round was launched in 2001; more than two hundred new trade disputes were initiated in the period 1999-2007; and many new PTAs have been signed, including European Community/European Union (EC/EU) enlargements to East European countries. In light of these changes, the goal of the present study is to revisit the question of whether events at the multilateral level are relevant determinants of regionalism. We will closely follow the empirical specification used by M&R. Their setup will serve as the starting point of our analysis and we will frequently compare our findings to the results of their study. In our specifications we actually find little evidence supporting the main hypothesis. When the period of analysis is expanded, and in particular when only recent years are considered, variables capturing events at multilateral level are not good predictors of PTA formation. This is also the case when we further change the specification by restricting the definition of a PTA, by considering the EC/EU as one nation, and by including dyad-level and year-level fixed effects. Therefore, our findings differ in important dimensions to those of M&R.

The structure of the rest of the paper is straightforward. Next section describes the updated data that we use and Section 3 presents the new empirical specifications and the results. A final section briefly concludes.

2 Data description

2.1 Preferential trade agreements

Our data on PTAs come from the Hufbauer and Schott (2009) database, which covers 570 bilateral PTAs from 1948 to 2007. These data is more comprehensive than those used in previous studies, since include also trade agreements which were not officially notified to the WTO.[3] In our empirical analysis, two different definitions of the dependent variable are used in order to distinguish the deepness of the different types of PTAs. The first dependent variable (ALL PTAs) includes all types of PTAs: preferential or partial scope agreements, consultative frameworks for future negotiations, free trade agreements (FTAs) and customs unions (CUs). The second dependent variable (FTA+CU) covers only agreements which are signed as a FTA or a CU. We consider in this way fewer PTAs under the second definition since many of the agreements, especially between the EC/EU and the African, Caribbean and Pacific (ACP) countries, have entered into force as preferential or partial scope agreements. We will only consider dyads in which both countries are contemporaneous members of the GATT/WTO.

Figure 1 shows the number of country-pairs (dyads) per year that signed a new PTA between 1948 and 2007. The number of dyads involved in a new PTA varies significantly

[3]For more detailed information on the database see also Baldwin and Jaimovich (2012).

over the time period. Obviously, some years present outlier cases when a PTA covering many countries was signed. An example is the first Yaoundé Convention between the EC-6 and 18 African and Malagache countries, which was signed in 1964. In 1975 the first Lomé Convention between the EC-9 and all ACP countries entered into force as well as the Economic Community of West African States (ECOWAS). The first Eastern European Enlargement took place in 2004 when 10 countries joined the EC/EU and adopted all bilateral trade agreements signed by the EC/EU, which explains the high number of country pairs signing new PTAs in that year. Comparing Figure 1 and Figure 2 shows the difference in our two dependent variables and the fact that many of the signed agreements were preferential or partial scope agreements, in particular before the late 1990s.

In Figure 3 we show the percentage of dyads covered by a PTA under the different definitions and also for the M&R original PTA data. There is a clear upward trend. In the late 1940s, when the GATT was introduced, almost none of the member states participated in a PTA whereas this share reaches around 35% in 2007. Similar to Figure 1, one can notice the substantial increase in the portion of dyads covered when the broader definition of PTA is taken. Considering only FTAs and CUs offers a quite different picture. The upward trend remains, although much smoother, and going up to around 10% of the GATT/WTO member pairs in 2007.

Until the mid-1970s, Figure 3 shows that the density of our ALL PTA variable (percentage of dyads coverered by a PTA) is almost identical to the density of the PTA data used by M&R. Nevertheless, in 1977 the density of M&R PTA variable drops sharply, decreasing to the level of the density of our FTA+CU, and afterwards both variables continue evolving in parallel. This effect is created by the way in which the trade relationship between the ACP countries and the EC/EU is included in the data.[4] It seems that in M&R's Pdata the Yaoundé Conventions I and II (from 1964 to 1975) are included, but the following Lomé Conventions (that started in 1975) are not taken into account.[5] In our data, all EC/EU-ACP agreements are included in the broader definition of PTA (ALL PTA) but not in the more restricted specification (FTA+CU).

2.2 Features at the multilateral trading system

Following previous literature, we attempt to capture features at the multilateral trading system with the following variables:

- $WTOMEMBERS$: the number of contracting parties to GATT/WTO in $t-1$;

[4]EC collaboration with ACP countries dates back to the Treaty of Rome in 1957, which offered the foundation for the introduction of the European Development Funds aimed at providing technical and development aid to the Overseas Countries and Territories. The Yaoundé Conventions I and II entered into force in 1964 and 1969 respectively and created a framework for trade cooperation and financial aid granted by the EC to 18 African and Malagache countries (mostly ex-colonies). With the signing of the Georgetown Agreement the ACP group of countries was instituted and negotiated the first Lomé Convention in 1975, which included non-reciprocal trade preferences for ACP exports to the EC. The Lomé Conventions II-IV followed, evolving into the Cotonou Agreement in 2000 and finally resulting in the Economic Partnership Agreements in 2008.

[5]Until the introduction of the Economic Partnership Agreements the PTAs were non-reciprocal and discriminatory, which made them non-conform with the GATT/WTO rules. A special waiver was passed in order to allow temporarily for a preferential access to the EC market.

- $MTNROUND$: takes value 1 if a formal multilateral trade negotiation occurred in t, 0 otherwise;

- $DISPUTE^{3rd}$: equals 1 if either i or j participated as a complainant or defendant in a new GATT/WTO dispute with a third party in $t-1$;

- $LOSS^{3rd}$: equals 1 if either i or j lost a GATT/WTO dispute with a third party in $t-3$.[6]

The data for $WTOMEMBERS$ and $MTNROUND$ come directly from the WTO statistics. Figure 4 displays these two variables jointly with new PTA formation. It can be seen that the number of GATT/WTO members has increased throughout the whole time period but not necessarily in co-movement with PTA formation. Regarding the MTN round variable, the biggest peaks in PTA formation were rather at the beginning of the MTN rounds before the mid 1980s. With respect to the Uruguay round there was a small wave of PTA formation just in the beginning and two bigger waves of new PTAs entering into force towards the end and immediately after the round. During the Doha round, which started in 2001, there was a peak of new PTAs, which relates mainly to the EC/EU enlargement in 2004.

In the case of $DISPUTE^{3rd}$ and $LOSS^{3rd}$, we have updated the GATT/WTO disputes data using as sources data from Reinhardt (2001), WTO (2012b) and WTO (2012a). The measure of *losing* a trade dispute was initially introduced by Hudec (1993) and assesses whether the defendant made none, partial, or full concessions to the request of the complainant country in a GATT/WTO trade dispute. Following M&R we define that the defendant country has lost a dispute in the case it makes any concessions and the complainant country loses in the case of failure to induce its primary objectives (full concessions). In addition to these two variables, we include in the empirical specifications a variable indicating whether the two countries in the pair, i and j, had a dispute in $t-1$.[7]

Figure 5 displays the trend in the number of dyads involved in a new dispute over the time period 1948 to 2007. With the exception of some disputes in the late 1950s there was almost no complaint filed to the GATT/WTO until the end of the 1970s. After 1980 there was a slight upward trend in the number of country pairs engaged in a trade dispute although no obvious relationship seems to exist between the number of new disputes and the number of new PTAs, at least on the basis of the descriptive statistics. Since the three variables related to trade disputes vary mainly after 1980, we will include in our empirical analysis one specification only with data for the sub-period 1980 to 2007.

In the upper panel of Table 1 we compare our data for the main explanatory variables with the data used by M&R.[8]. It can be observed that our key data are very similar to those of M&R for the time period 1950 to 1993. In the lower panel of Table 1 we describe

[6]This variable is lagged in three years given this is the average time a dispute lasts.

[7]In their original specification, M&R exclude third parties in FTAs with the other state in the dyad for variables $DISPUTE^{3rd}$ and $LOSS^{3rd}$. We do not follow this exception, but the main results are not affected by the change in specification.

[8]We use the same time period of M&R (1950-1993) and have exactly the same number of observations as in their *Model 1*, which includes bilateral trade and military alliance, variables that reduce the number of total observations for the presence of many missing values.

our data for the period that is covered in our main specifications (1960-2007). It is possible to observe the increase in the number of GATT/WTO members as well as in the dyads involved in a trade dispute with a third party or with the other country in the pair.

2.3 Other explanatory variables

We include the same set of control variables used by M&R and therefore have updated the data for these variables. The additional variables used in the empirical analysis are: bilateral trade between country i and country j; total GDP, GDP *per capita* and GDP growth of country i and j; country pair characteristics such as distance, colonial relationship and military alliance; country characteristics such as former communist history and index for state's regime type; trade partner PTA coverage, PTA density and year.

The data on the gravity variables (distance, GDP, GDP *per capita* and colonial history) come from the CEPII database. The variable democracy measures the nature of the state regime on a scale from +10 (full democracy) to -10 (full autocracy) and is taken from the POLITY IV project. The data on alliance is provided by the Correlates of War Project (COW) Alliances Dataset v3.03 and indicates whether the country pair was involved in any kind of a military alliance.[9] In order to have the maximum possible non-missing observations on bilateral trade we combine data from several sources. The main source is the UN COMTRADE database. When available, we fill in the missing observations by using the COW Trade Dataset, Version 3.0.[10] GDP, GDP *per capita* and bilateral trade data are deflated into 2005 US Dollars.

Trade partner PTA coverage and PTA density are generated based on the respective dependent variable. Trade partner PTA coverage contains the proportion of country i's top 10 trade partners (exclusive of j) that had a PTA with j in $t-1$. PTA density is defined as the share of GATT/WTO dyads that had a PTA in $t-1$, excluding the dyads where either country i or country j is a member. In each of the regressions we include also the squared term of the respective density variable in order to control for a possible quadratic relationship between the PTA density and the probability of new PTA formation.[11]

3 Empirical strategy and main results

3.1 Empirical specification

We will closely follow the empirical specification used by M&R, namely:

[9] Gibler (2009).

[10] Barbieri and Keshk (2012)

[11] As in M&R, we have demeaned the PTA density variable to avoid multicollinearity with its squared value. In addition, we use the detrended PTA density, given potential multicollinearity with other explanatory variables.

$$PTA_{ij,t} = P(switch) = G(\beta_0 + \beta_1 WTOMEMBERS_{t-1} + \beta_2 MTNROUND_{t-1} + \beta_3 DISPUTE^{3rd}_{ij,t-1} + \beta_4 LOSS^{3rd}_{ij,t-1} + \beta_5 DISPUTE_{ij,t-1} + \beta_6 X_{ij,t} + \beta_7 Z_{i,t} + \beta_8 T_t), \tag{1}$$

where the probability to switch status from non-PTA into PTA is determined by the logistic cumulative distribution function G(.) of a linear vector of explanatory variables. $PTA_{ij,t}$ includes only dyads that did not have a PTA in $t-1$. Therefore, a country pair stays in the panel until a PTA is signed; after that it is dropped.[12] We estimate the model considering directed-dyad information, and therefore including each country-pair-year observation twice in the sample, one for each country as i. Accordingly, standard errors are clustered at the dyad level to correct for the non-independence of observations.[13]

As described above, we will consider two types of dependent variables. One that includes all kinds of preferential trade agreements (ALL PTA) and a more demanding definition of agreement that only includes effectively implemented reciprocal free trade agreements and custom unions (FTA+CU). The main explanatory variables are related to features of the multilateral trading system: $WTOMEMBERS$, $MTNROUND$, $DISPUTE^{3rd}$, and $LOSS^{3rd}$.

The model is completed with a series of controls at the dyad-level ($X_{ij,t}$), country-level ($Z_{i,t}$) and period-level (T_t) as described in Section 2.3. Given data for bilateral trade is not available for many dyads, the sample is dramatically reduced when the variable is included (and zeros are not inputed to missing values), We will therefore show estimations both with and without trade as independent variable.

We also include a natural cubic spline function of the number of years i and j have been without a PTA, as a way to account for duration dependence in the data, following the recommendation provided by Beck, Katz, and Tucker (1998), replaced in some specifications for year fixed effects.

3.2 Baseline results

We will first explore whether our new data yield different results than those obtained by M&R. In order to do that, in Table 2 we display the results of estimating Equation 1 in the same sample of countries and a similar period of M&R.[14] In columns 1 and 2 the dependent variable is the same used by M&R, including only PTAs notified to the WTO. The difference between both columns is the inclusion of regressors that limit the sample size, namely bilateral trade and military alliance. In the specifications of columns 3 and 4 the dependent variable is ALL PTA and in columns 5 and 6 is FTA+CU. The most

[12] Observations in which the PTA expires and is not renewed are included again in the data. This is the case for only few agreements in our data.

[13] M&R additionally estimate an undirected-dyad model in which country-level data are entered in the same row for i and j, randomly picking country-i. They show that the main results are unchanged in that specification. This is also the case in our estimations, and we will not report undirected-dyad estimations. These results are available upon request.

[14] Given data availability, our sample starts in 1960. Even though, we still have more observations than M&R due to the fact that our data have less missing values.

important results relate to the first four rows, the coefficients associated to the main explanatory variables ($WTOMEMBERS$, $MTNROUND$, $DISPUTE^{3rd}$ and $LOSS^{3rd}$). We find that, in all the specifications, these coefficients are positive and statistically different from zero at the usual levels of significance. This is in line with the findings of M&R, and will constitute our baseline specification.[15] In terms of the control variables, the results are similar to those of M&R, with the exceptions of bilateral trade, which switches sign depending on the specification, and GDP growth that is always positive and significant, while in M&R it is either negative or statistically not significant.

3.3 Results for the extended sample

In the last section we have shown that multilateral determinants are significant covariates of PTA formation in the sample of the original M&R study, independent of the PTA definition and the source of the data. As can be seen in Figure 5, most of the PTAs and trade disputes have taken place in the last three decades, thus it is important to study whether the effects of multilateral events in that period are still relevant. In Table 3 we display the results for the coefficients associated with the main variables in Equation 1 when the period 1960-2007 (columns 1 and 2) and the sub-period 1980-2007 (columns 3 and 4) are considered.

The upper panel of Table 3 shows the results for the broader definition of PTA. For the full period, the only result that changes is related to $WTOMEMBERS$ that now has a negative coefficient, significant when bilateral trade is not included as a control (column 2). When the subsample starting in 1980 is considered, results change pronouncedly. In this case, $MTNROUND$ becomes negative and statistically significant, while $LOSS^{3rd}$ is not significant at any level. On the other hand, $WTOMEMBERS$ becomes positive and statistically different from zero again.

Taking the more restrictive definition of PTAs as either FTAs or CUs (lower panel of Table 3) also has implications for the results. While in the sample for the full period and including trade as a control there are no changes with respect to the baseline results (column 1), in the other specifications both dispute variables ($LOSS^{3rd}$ and $DISPUTE^{3rd}$) are not distinguishable from zero anymore. In the period 1980-2007, $MTNROUND$ has again negative coefficients and now $WTOMEMBERS$ turns to be statistically not significant.

In the next section we provide some evidence regarding the reasons for the changes in the results in the sample that considers recent years.

3.4 Results with different specifications

Why are the main results not robust to the chosen period and PTA definition? A potential explanation is that the correlation between PTA and multilateral factors can be

[15] In the Appendix Table A.1 we show the results when the original M&R data is used. The first three columns of Table A.1 are the same as Table 2, Models 1, 2, and 3 of M&R. In the other columns we show that using our dependent variables, *ALL PTAs* and *FTA+CU*, does not change the main results.

spurious, and therefore the results are sensitive to the inclusion of control variables and sample changes. Spurious correlation can be related to problems in variable specification. In particular, the data for PTA and trade disputes are potentially sensitive to the way in which dyads including countries members of the EC/EU are considered in the data.[16] As can be seen in Figure 6, for most of the sample period, around half of the dyads in PTA involve EC/EU members, and most of dyads with new trade disputes involve the EC/EU countries, particularly after 1980. Given EC/EU is a single customs union with a single trade policy and tariffs, trade disputes do not involve individual EC/EU members separately (with a few exceptions in the early years of the sample) but all its contemporary members. The same is the case with PTAs. Both when a new EC/EU member is admitted and when a non-member signs a PTA with the EC/EU, the concessions are given to all members. Hence, each new PTA signed by EC/EU implies a large jump in non-zero values for the dependent variable and any new trade dispute initiated and dispute loss by EC/EU will also exponentially increase the number of non-zeros for these explanatory variables.[17]

In order to explore whether the results are driven by the multiplicity of dyads affected by EC/EU events, we change the data specification by including EC/EU as a single nation.[18] In Figure 7 is possible to see that when EC/EU is considered as one entity its only involved in around 10% of the dyads with new PTAs, and that in recent years new PTAs involving EC/EU are only a small proportion of total. In terms of the trade disputes, even when EC/EU is considered as one nation its share is still significant.[19]

In Table 4 the results of re-estimating Equation 1 when EC/EU is collapsed to be one nation are shown. Changes in the results are pronounced, particularly for the case of the trade dispute variables. Now in all specifications, for different periods and definitions of the dependent variable, both $DISPUTE^{3rd}$ and $LOSS^{3rd}$ are negative and statistically significant in many cases. Therefore, it is likely that the baseline results are spuriously driven by the effect of agreements signed by the EC/EU. For the other main explanatory variables, changes are less pronounced. $WTOMEMBERS$ becomes now also statistically not different from zero in the period 1960-1998 for all PTAs. $MTNROUND$ is not significant at usual levels of confidence in the period 1960-2007 for FTAs and CUs and becomes positive and significant for all PTAs in the period 1980-2007.

[16] In the original M&R study, this fact is acknowledged by adding a robustness check in which dyads involving the original EC members are dropped from the sample. In their case, this change did not have implications for the main results.

[17] The case of the large jump in non-zeros in the dependent variable related to EC/EU agreements is very clear from Figure 3, where it can be seen an apparent structural change in PTAs dyad coverage in year 1977 in the original M&R data, where almost half of the dyads with PTAs are lost. This relates to a single event, the end of the Yaoundé Convention between 18 African nations and the EC/EU.

[18] This is a similar approach as the one followed by Egger and Larch (2008) to estimate determinants of PTAs.

[19] In order to aggregate the EC/EU to one nation, the simple sum is taken for GDP and bilateral trade and the weighted average by GDP for GDP *per capita*, GDP growth, distance and democracy. Disputes that have been filed only against certain EC/EU member countries are assigned to all contemporary EC/EU members (only before 1963). The dummy variables for existence of military alliance and post-communist regime have been dropped since there are significant differences across the EC/EU members. For $WTOMEMBERS$, we still include each EC/EU country individually in the total number, given that, even though EC/EU is a member, they are still members in their own right.

Another puzzling result of the last section is that considering only the period 1980-2007, the coefficient of $MTNROUND$ is negatively correlated with PTA formation (Table 3, columns 3 and 4). In order to further explore this fact, Table 5 displays the results of splitting the $MTNROUND$ variable in separate dummy variables for each round. The different specifications take either the full 1948-2007 period, without including controls (except for the time trend), or are limited to 1960-2007, but including control variables. Also, results include either EC/EU countries individually or as one nation. The results are in line with those of Table 3: all rounds held before 1980 (when not dropped because no PTAs were registered in a particular year) are positive and statistically significant. This is not the case for MTN rounds established afterwards. The years of the Uruguay Round are not statistically significantly different from zero in most specifications. The dummy for the Doha Round is negative and significant when all PTAs are included in the dependent variable, and either significant and positive or non significant for only FTAs and CUs. This result provides some evidence, at least regarding the most recent MTN rounds, for theories predicting that PTAs will be more likely to be signed in years after the end of the rounds and complement the results of Fugazza and Robert-Nicoud (2010) with respect to the Uruguay Round.

3.5 Controlling for unobserved heterogeneity

In the previous specifications, the only attempt to control for dyad-level unobserved heterogeneity has been the inclusion of time invariant control variables like geographical distance and colonial relationship. In this sub-section we will expand the previous results using econometric specifications that allow the inclusion of fixed effects in which both observable and unobservable dyadic time-invariant characteristics are controlled for.

Estimating a panel data model with a limited dependent variable raises the problem of incidental parameters. The inconsistency in the estimation of fixed effects can be transmitted to inconsistency in the estimation of parameters. One possible solution is the use of the conditional likelihood function proposed by Chamberlain (1980), *conditional logit*, which provides unbiased estimates of the parameters only for the sub-sample of dyads that switch PTA status during the observed period.[20] Another alternative is the use of linear probability models (LPM), implementing an OLS estimation of the binary dependent variable. Even though this is problematic because predicted values can be outside the unit interval, the LPM is a less restrictive specification that easily allows the inclusion of dyad and year fixed effects.

The upper panel of Table 6 uses the original data from M&R in specifications that control for unobserved heterogeneity. Columns 1 to 3 show the results of the estimation of a conditional logit for the subsample of switchers. It can be seen that the main results hold, with the exception of $DISPUTE^{3rd}$, that is only statistically significant when trade is not included as a control and dispute lost, which is not significant in column 1. In columns 4 to 6 it is shown that the main original M&R results, in terms of sign and significance, hold when a LPM with dyad-level fixed effects is applied in the estimation. Nevertheless, when year fixed effects are added to the LPM model (columns 7 to 9), which

[20] Given the potential problems of applying splined time in the conditional logit estimator, we will rely instead on the cubic polynomial approximation proposed by Carter and Signorino (2011).

control for both idiosyncratic year characteristics and time duration, the coefficient for $WTOMEMBERS$ switches sign and $DISPUTE^{3rd}$ is not significant anymore. In addition, $MTNROUND$ is not significant when trade is used as a control.

The conditional logit estimates for the new data, in the sample for the period 1960-2007, are shown in columns 1 and 2 of the lower panel of Table 6 for the broad definition of PTA as dependent variable. The only result that holds with respect to the baseline is the one for $DISPUTE^{3rd}$, while the other main explanatory variables become statistically not different from zero or switch sign, as in the case of $WTOMEMBERS$. The differences are even bigger when only FTAs and CUs are used (column 3), given none of the multilateral variables are significant at usual levels. When LPM estimation is implemented (columns 4 to 6), the baseline results are obtained again. This is not the case with the LPM model including year fixed effects (columns 7 to 9), where $WTOMEMBERS$ and $MTNROUND$ switch signs depending on the specification.

4 Conclusions

Are events at the multilateral trading system important determinants of regionalism and bilateralism? Even though this idea has been influential in the policy debate and various theoretical pieces have provided insights to the issue, few rigorous empirical analyses exist. In the present study we aim to fill this gap by analyzing recent data on PTA formation and features of the multilateral system including number of members, MTN rounds and trade disputes.

According to our results multilateral determinants are not necessarily good predictors of PTA formation. When recent years are considered and the PTA definition is limited to effectively implemented FTAs and CUs, multilateral variables are not statistically significant. When the specifications are changed by taking the EC/EU as one single nation and by including dyad-level and year-level fixed effects, we still find that the coefficients associated to the multilateral variables are, in most of the cases, either statistically indistinguishable from zero or have the opposite sign as expected.

The findings of the present study differ substantially to those obtained in previous work, and especially to the contribution of M&R. This is not surprising given the fact that we use new data, including recent years in which many changes have occurred in the international trading system such as the enlargements of the EC/EU and new MTNs rounds. For instance, our analysis shows that the years of MTN rounds before 1980 are positively correlated with PTA formation but this is not the case for the most recent rounds.

Our findings do not imply that multilateral developments are not relevant for regionalism. Further evidence is required using different techniques and data. In particular, the issue of endogeneity needs to be addressed. As shown by several theoretical pieces and some empirical studies, regionalism is also likely to influence multilateralism, and therefore results may be biased given reverse causality.[21] The analysis at the cross-country

[21] Baldwin (2008) and Freund and Ornelas (2010) provide recent reviews of theories that show the

or *macro* level can be improved with the use of modern time-series analysis techniques to shed light on this issue. Moreover, the use of detailed micro-level data, with very disaggregated data at the product-level, is a very promising way to find identification strategies for exploring the interactions between multilateralism and regionalism, as in the case of the recent study by Fugazza and Robert-Nicoud (2010). All these points constitute avenues for future research in this relevant topic for the international trading system.

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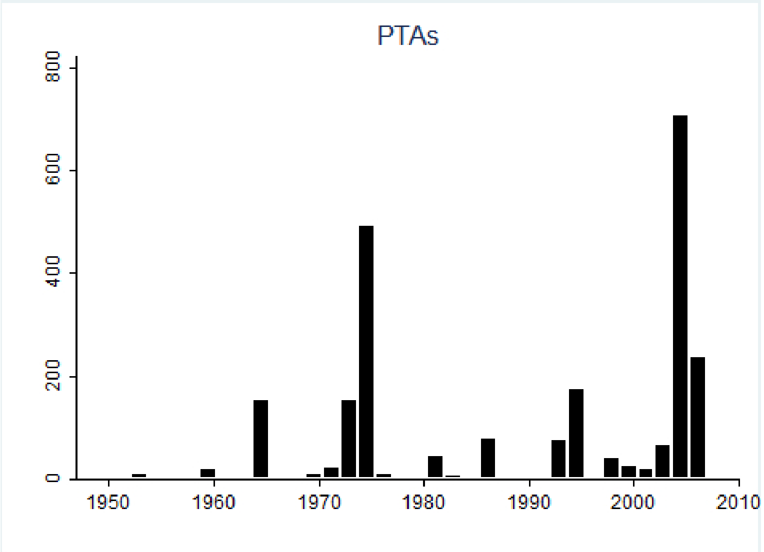
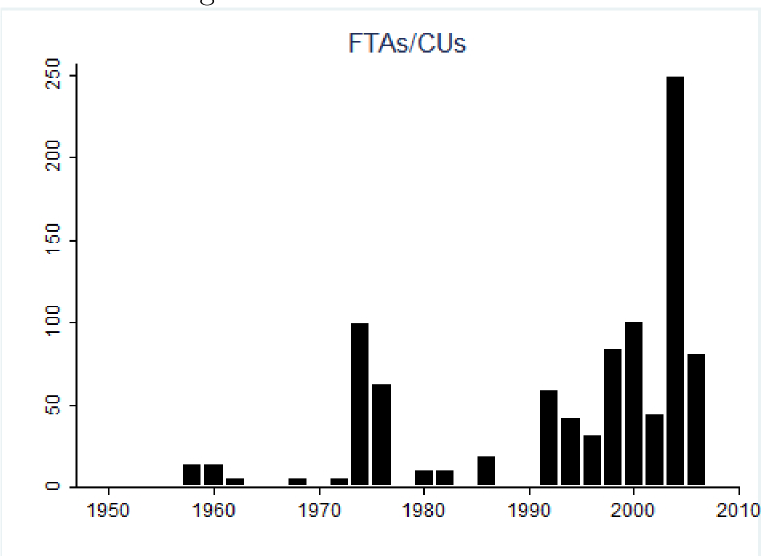
Figure 1: New PTAs.



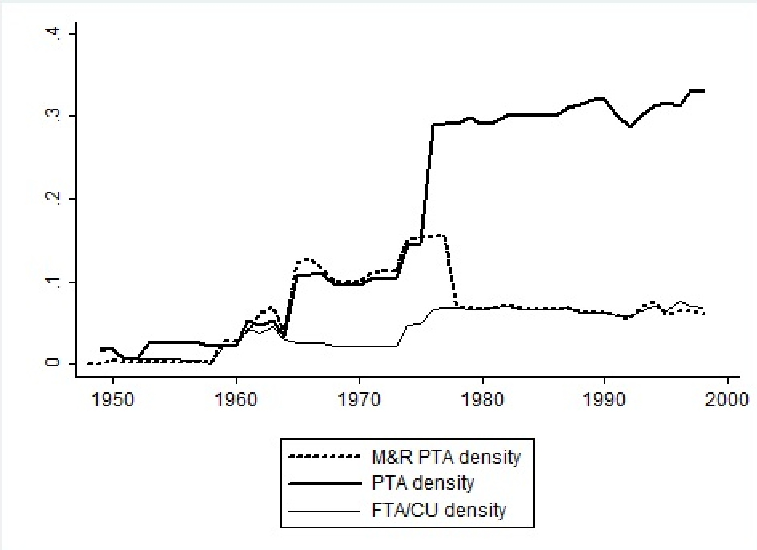
Number of dyads that sign a new PTA in each year. PTA is considered as all trade agreements registered in our data (ALL PTA)

Figure 2: New FTAs and CUs.



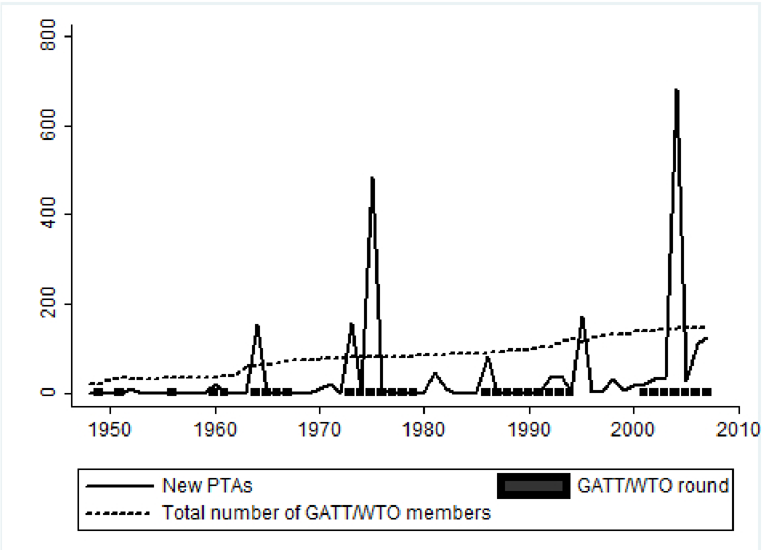
Number of dyads that sign a new FTA or CU in each year.

Figure 3: PTA density for different definitions.



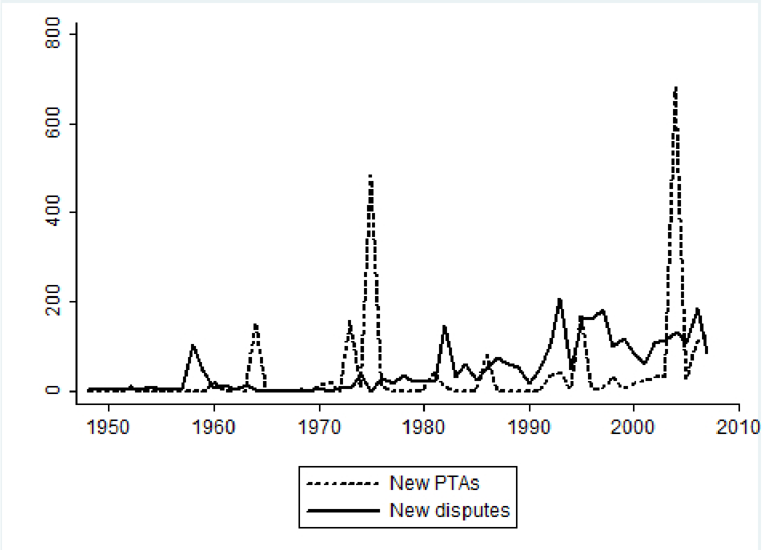
PTA density is the percentage of dyads covered by a PTA in each year. M&R density shows the PTA density for the M&R data, PTA density for PTA ALL and and FTA/CU density for the sample including only FTAs and CUs.

Figure 4: GATT/WTO members, MTN round and new PTAs.



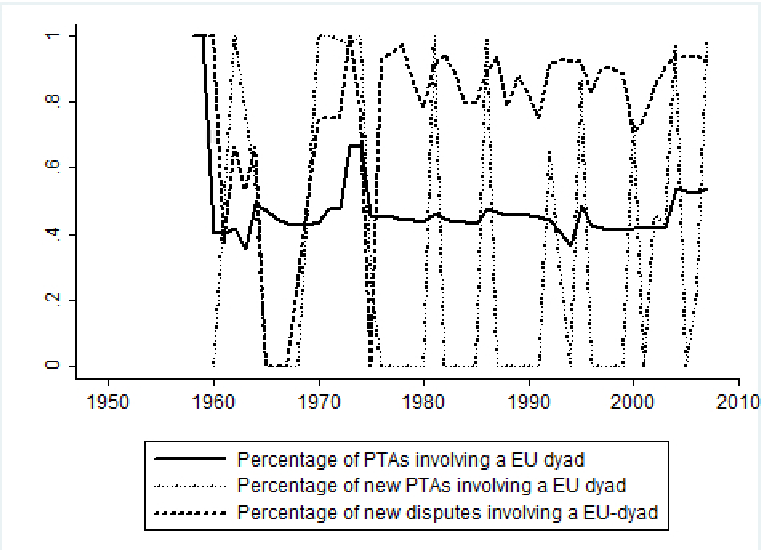
Number of dyads that sign a new PTA and total number of GATT/WTO member countries per year, indicating in which years a MTN round took place.

Figure 5: New disputes and new PTAs.



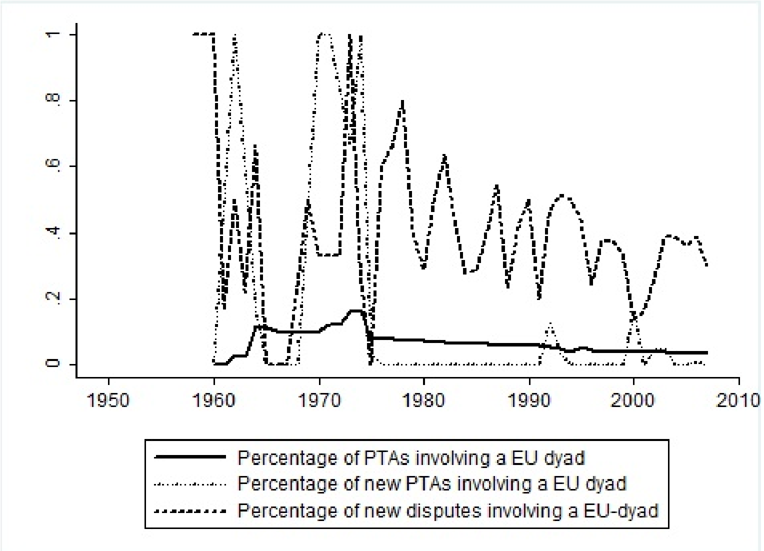
Number of dyads involved in a new dispute and number of dyads signing a new PTA per year.

Figure 6: Percentage of dyads involving a EC/EU member.



Percentage of dyads involving a EC/EU member over the total, when each country is considered separately.

Figure 7: Percentage of dyads involving the EC/EU considered as one nation.



Percentage of the dyads involving a EC/EU member over the total, when the individual members have been aggregated to be only one entity.

Table 1: Descriptive statistics.

	Time Period 1950-1993								
	Mean		S.d.		Min		Max		N
	M&R	New	M&R	New	M&R	New	M&R	New	
GATT/WTO members, t-1	85.255	85.257	14.823	14.815	23.000	24.000	105.000	105.000	149,308
Detrended number of members, t-1	-2.104	-3.557	7.070	8.385	-10.574	-13.647	12.446	13.173	149,308
MTN round, t	0.652	0.631	0.476	0.483	0.000	0.000	1.000	1.000	149,308
New dispute with third party, t-1	0.381	0.358	0.486	0.479	0.000	0.000	1.000	1.000	149,308
Dispute loss with third party, t-3	0.302	0.221	0.459	0.415	0.000	0.000	1.000	1.000	149,308
New dispute between i and j, t-1	0.016	0.014	0.124	0.116	0.000	0.000	1.000	1.000	149,308

	Time Period 1960-2007				
	Mean	S.d.	Min	Max	N
GATT/WTO members, t-1	110.529	27.865	40	147	234,351
Detrended number of members, t-1	1.182	7.564	-13.647	13.173	234,351
MTN round, t	0.624	0.484	0	1	234,351
New dispute with third party, t-1	0.429	0.495	0	1	234,351
Dispute loss with third party, t-3	0.275	0.447	0	1	234,351
New dispute between i and j, t-1	0.021	0.142	0	1	234,351

The upper panel shows descriptive statistics for the variables related to features of the multilateral trading system. The data from the study of M&R is compared to our data (“New”).

The lower panel presents the descriptive statistics of our data for the full sample in the time covered in the main empirical specifications.

N is the number of observations and s.d. the standard deviation.

Table 2: Determinants of PTA formation. Original M&R sample with the new data.

	(1)	(2)	(3)	(4)	(5)	(6)
	M&R PTA data		ALL PTA		FTA+CU	
WTOMEMBERS	0.183***	0.191***	0.084***	0.085***	0.097***	0.100***
	(0.014)	(0.015)	(0.008)	(0.008)	(0.015)	(0.014)
MTNROUND	1.811***	2.005***	1.034***	1.293***	1.509***	1.451***
	(0.173)	(0.179)	(0.090)	(0.082)	(0.213)	(0.197)
$LOSS^{3rd}$	0.562***	0.525***	0.869***	0.831***	0.286**	0.410***
	(0.152)	(0.151)	(0.087)	(0.079)	(0.132)	(0.134)
$DISPUTE^{3rd}$	1.004***	0.938***	0.579***	0.377***	0.384***	0.531***
	(0.143)	(0.135)	(0.075)	(0.067)	(0.122)	(0.123)
New dispute, t-1	-1.309*	-1.167	-2.221***	-2.171***	-1.137*	-0.48
	(0.722)	(0.832)	(0.725)	(0.719)	(0.673)	(0.688)
Alliance, t-1	0.582***		0.228*		0.912***	
	(0.153)		(0.120)		(0.141)	
Distance	-1.110***	-1.197***	-0.963***	-1.000***	-1.596***	-1.843***
	(0.062)	(0.054)	(0.049)	(0.042)	(0.073)	(0.064)
Democracy, t-1	0.031***	0.031***	0.019***	0.015***	0.031***	0.034***
	(0.006)	(0.006)	(0.004)	(0.003)	(0.009)	(0.009)
Trade, t-1	-0.043**		-0.047***		0.117***	
	(0.019)		(0.013)		(0.022)	
GDP, t-1	-0.084***	-0.105***	-0.174***	-0.219***	-0.138***	-0.043
	(0.022)	(0.023)	(0.016)	(0.015)	(0.026)	(0.030)
GDP per cap, t-1	0.212***	0.202***	0.067***	0.086***	0.334***	0.313***
	(0.037)	(0.034)	(0.024)	(0.021)	(0.046)	(0.047)
Growth, t-1	0.732***	0.787***	0.430***	0.488***	0.989***	0.913***
	(0.083)	(0.079)	(0.103)	(0.090)	(0.112)	(0.108)
PTA Density, t-1	-24.793***	-29.187***	-14.878***	-21.194***	-46.678***	-48.874***
	(2.453)	(2.346)	(1.067)	(1.153)	(6.092)	(6.028)
PTA Density^2, t-1	-385.463***	-356.693***	138.148***	57.219***	2661.503***	2246.425***
	(74.713)	(71.661)	(17.749)	(15.507)	(505.560)	(481.740)
Trade Partner PTA coverage, t-1	2.735***	2.634***	2.247***	1.827***	1.878***	1.838***
	(0.159)	(0.149)	(0.112)	(0.095)	(0.185)	(0.183)
Year	-0.479***	-0.485***	-0.123***	-0.120***	-0.107***	-0.114***
	(0.026)	(0.027)	(0.015)	(0.014)	(0.024)	(0.024)
Observations	186,057	254,946	152,319	203,921	190,546	260,594
Pseudo R^2	0.360	0.362	0.228	0.237	0.362	0.365
Period	1960-1998					

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors in parentheses; Standard errors clustered at the dyad level. Six duration dependence splines omitted from table.
Data for main explanatory variables and controls come from our dataset. The dependent variable in columns 1 and 2 is the original PTAs data from M&R, in columns 3 and 4 the PTA variable from our dataset, and in columns 5 and 6 the FTA+CU from our dataset.

Table 3: Determinants of PTA formation. Extended sample.

	(1)	(2)	(3)	(4)
		ALL PTA		
$WTOMEMBERS$	-0.008	-0.019***	0.026**	0.025**
	(0.006)	(0.005)	(0.011)	(0.011)
$MTNROUND$	0.597***	0.880***	-0.346***	-0.482***
	(0.073)	(0.072)	(0.092)	(0.098)
$LOSS^{3rd}$	0.293***	0.285***	-0.101	-0.043
	(0.064)	(0.060)	(0.077)	(0.072)
$DISPUTE^{3rd}$	0.357***	0.266***	0.144**	0.202***
	(0.053)	(0.049)	(0.067)	(0.063)
Observations	234,351	311,419	178,106	231,257
Pseudo R^2	0.208	0.214	0.234	0.258
Period	1960-2007		1980-2007	
Trade as control	YES	NO	YES	NO
		FTA+CU		
$WTOMEMBERS$	0.052***	0.052***	0.011	0.008
	(0.006)	(0.006)	(0.013)	(0.013)
$MTNROUND$	0.662***	0.754***	-0.223**	-0.178
	(0.095)	(0.101)	(0.108)	(0.113)
$LOSS^{3rd}$	0.188**	0.062	0.004	-0.170*
	(0.089)	(0.089)	(0.099)	(0.100)
$DISPUTE^{3rd}$	0.325***	0.132	0.143	-0.122
	(0.085)	(0.084)	(0.095)	(0.095)
Observations	404,248	297,918	312,707	233,654
Pseudo R^2	0.280	0.272	0.270	0.271
Period	1960-2007		1980-2007	
Trade as control	YES	NO	YES	NO

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors, clustered at the dyad level, in parentheses. Six duration dependence splines and all the control variables displayed in Tables 1 and 2 are included in the regressions but omitted from the table.

Table 4: Determinants of PTA formation. EC/EU as one nation.

	(1)	(2)	(3)	(4)	(5)	(6)
			ALL PTAs			
$WTOMEMBERS$	-0.043***	0.002	-0.074***	-0.024**	0.054***	0.063***
	(0.014)	(0.014)	(0.011)	(0.010)	(0.016)	(0.016)
$MTNROUND$	0.301**	0.513***	0.217*	0.296**	0.454***	0.309**
	(0.131)	(0.144)	(0.127)	(0.124)	(0.147)	(0.153)
$LOSS^{3rd}$	-0.386	-0.153	-0.121	-0.181	-0.143	-0.305*
	(0.256)	(0.214)	(0.142)	(0.136)	(0.169)	(0.162)
$DISPUTE^{3rd}$	-1.692***	-1.125***	-0.804***	-0.574***	-0.171	-0.442***
	(0.211)	(0.187)	(0.123)	(0.116)	(0.152)	(0.148)
Observations	197,166	138,290	298,861	209,824	223,082	160,000
Pseudo R^2	0.354	0.267	0.246	0.174	0.165	0.166
Period	1960-1998		1960-2007		1980-2007	
Trade as control	NO	YES	NO	YES	NO	YES
			FTA+CU			
$WTOMEMBERS$	0.073***	0.076***	0.057***	0.062***	0.011	0.021
	(0.015)	(0.015)	(0.010)	(0.010)	(0.016)	(0.017)
$MTNROUND$	0.894***	0.740***	0.192	0.194	-0.354***	-0.287**
	(0.247)	(0.253)	(0.118)	(0.125)	(0.135)	(0.143)
$LOSS^{3rd}$	-0.604***	-0.699***	-0.705***	-0.776***	-0.740***	-0.823***
	(0.234)	(0.218)	(0.173)	(0.157)	(0.195)	(0.174)
$DISPUTE^{3rd}$	-1.154***	-1.298***	-0.474***	-0.715***	-0.378**	-0.682***
	(0.260)	(0.231)	(0.155)	(0.143)	(0.161)	(0.154)
Observations	236,198	156,287	362,328	239,584	279,415	186,078
Pseudo R^2	0.219	0.212	0.153	0.157	0.151	0.163
Period	1960-1998		1960-2007		1980-2007	
Trade as control	NO	YES	NO	YES	NO	YES

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors, clustered at the dyad level, in parentheses. Six duration dependence splines and all the control variables displayed in Tables 1 and 2 are included in the regressions but omitted from the table.
EU is collapsed to be one country.

Table 5: MTNs rounds.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ALL PTAs				FTA+CU			
Torquay Round	-	-	-	-	-	-	-	-
Geneva Round	-	-	-	-	-	-	-	-
Dillion Round	0.892***	2.436***	-	-	3.120***	4.882***	-	-
	(0.261)	(0.444)			(0.459)	(0.608)		
Kennedy Round	1.743***	2.794***	2.038***	3.142***	-	-	-	-
	(0.152)	(0.346)	(0.165)	(0.346)				
Tokyo Round	2.267***	0.761***	1.675***	0.909***	1.973***	1.616***	2.850***	1.540***
	(0.118)	(0.232)	(0.126)	(0.217)	(0.188)	(0.337)	(0.298)	(0.345)
Uruguay Round	-0.114	0.502***	0.017	0.364*	-0.682***	0.082	0.061	0.215
	(0.094)	(0.185)	(0.112)	(0.206)	(0.177)	(0.219)	(0.196)	(0.244)
Doha Round	-0.570***	-2.922***	-0.880***	-1.850***	1.017***	-0.19	0.347**	-0.339
	(0.093)	(0.239)	(0.109)	(0.235)	(0.161)	(0.179)	(0.156)	(0.208)
$WTOMEMBERS$	-0.050***	-0.026*	-0.035***	-0.008	-0.029***	0.044***	0.009	0.053***
	(0.007)	(0.013)	(0.009)	(0.015)	(0.011)	(0.014)	(0.012)	(0.015)
$LOSS^{3rd}$	0.242***	0.440***	0.211***	-0.280*	0.166**	0.182	0.006	-0.755***
	(0.057)	(0.104)	(0.063)	(0.146)	(0.083)	(0.124)	(0.089)	(0.158)
$DISPUTE^{3rd}$	0.219***	-0.529***	0.286***	-0.737***	0.276***	0.216**	0.061	-0.771***
	(0.048)	(0.093)	(0.053)	(0.127)	(0.083)	(0.105)	(0.084)	(0.150)
Observations	363,592	316,575	234,351	209,159	448,537	364,405	287,320	230,418
Pseudo R^2	0.182	0.224	0.225	0.195	0.122	0.085	0.284	0.159
Period	1948-2007	1948-2007	1960-2007	1960-2007	1948-2007	1948-2007	1960-2007	1960-2007
EC/EU as one nation	NO	YES	NO	YES	NO	YES	NO	YES
Controls	NO	NO	YES	YES	NO	NO	YES	YES

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors, clustered at the dyad level, in parentheses. Columns with NO controls include only New dispute between i and j, time trend and the six duration dependence splines as additional variables. Columns with YES controls include all variables displayed in Tables 1 and 2, except for bilateral trade.

Table 6: Including Fixed effects.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ORIGINAL M&R DATA								
	Conditional logit			LPM			LPM with year FE		
$WTOMEMBERS$	0.303***	0.224***		0.002***	0.001***		-0.004***	-0.001	
	(0.027)	(0.017)		(0.000)	(0.000)		(0.001)	(0.001)	
Detrended $WTOMEMBERS$			0.290***			0.002***			-0.004***
			(0.026)			(0.000)			(0.001)
$MTNROUND$	2.220***	1.926***	2.096***	0.010***	0.008***	0.009***	0.039**	0.004	0.040**
	(0.230)	(0.194)	(0.231)	(0.001)	(0.001)	(0.001)	(0.017)	(0.004)	(0.017)
$LOSS^{3rd}$	0.239	0.424***	0.457***	0.007***	0.005***	0.008***	0.010***	0.007***	0.010***
	(0.158)	(0.129)	(0.167)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$DISPUTE^{3rd}$	0.174	0.320**	0.280	0.004***	0.001**	0.004***	0.001	0.000	0.001
	(0.198)	(0.162)	(0.185)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Observations	13,666	19,790	13,666	149,308	266,089	149,308	149,308	266,089	149,308
R^2				0.040	0.015	0.043	0.071	0.042	0.074
Pseudo R^2	0.615	0.518	0.653						
Period	1950-93	1948-98	1950-93	1950-93	1948-98	1950-93	1950-93	1948-98	1950-93
Trade as control	YES	NO	YES	YES	NO	YES	YES	NO	YES
	NEW DATA (1960-2007)								
	Conditional logit			LPM			LPM with year FE		
	PTA	PTA	FTA+CU	PTA	PTA	FTA+CU	PTA	PTA	FTA+CU
$WTOMEMBERS$	-0.145***	-0.142***	0.036	0.000	0.000	0.000***	0.001***	0.000	-0.001***
	(0.019)	(0.021)	(0.064)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
$MTNROUND$	-0.141	-0.216	-0.204	0.008***	0.010***	0.003***	-0.019*	-0.010	0.012***
	(0.297)	(0.303)	(0.243)	(0.001)	(0.001)	(0.000)	(0.011)	(0.008)	(0.002)
$LOSS^{3rd}$	-0.045	-0.086	-0.175	0.010***	0.009***	0.003***	0.009***	0.008***	0.002***
	(0.165)	(0.171)	(0.184)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
$DISPUTE^{3rd}$	0.355***	0.333**	0.160	0.012***	0.010***	0.003***	0.011***	0.007***	0.002***
	(0.136)	(0.136)	(0.144)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)
Observations	47,750	61,784	27,353	234,541	311,612	404,441	234,541	311,612	404,441
R^2				0.025	0.023	0.006	0.065	0.079	0.014
Pseudo R^2	0.938	0.949	0.842						
Trade as control	YES	NO	NO	YES	NO	NO	YES	NO	NO

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors, clustered at the dyad level, in parentheses. All the control variables displayed in Tables 1 and 2 are included in the regressions but omitted from the table.

Table A.1: Determinants of PTA formation. Original M&R results with the new dependent variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		M&R PTA			ALL PTA			FTA+CU	
WTOMEMBERS	0.251***	0.155***		0.081***	0.040***		0.026*	0.017	
	(0.030)	(0.012)		(0.006)	(0.006)		(0.016)	(0.012)	
Detrended *WTOMEMBERS*			0.235***			0.045***			0.041**
			(0.024)			(0.006)			(0.016)
MTNROUND	1.848***	1.899***	1.730***	1.070***	1.460***	1.429***	1.178***	0.415**	1.100***
	(0.154)	(0.155)	(0.159)	(0.081)	(0.117)	(0.118)	(0.216)	(0.168)	(0.219)
$DISPUTE^{3rd}$	0.527***	0.627***	0.587***	0.822***	0.957***	0.994***	0.536***	0.265**	0.527***
	(0.133)	(0.118)	(0.133)	(0.057)	(0.074)	(0.074)	(0.151)	(0.124)	(0.152)
$LOSS^{3rd}$	1.183***	1.072***	1.270***	1.736***	1.631***	1.647***	0.971***	0.618***	0.971***
	(0.115)	(0.102)	(0.114)	(0.059)	(0.071)	(0.072)	(0.129)	(0.123)	(0.130)
New dispute, t-1	-0.933	-0.921	-0.809	-1.935***	-1.456***	-1.397***	0.298	0.322	0.388
	(0.644)	(0.619)	(0.640)	(0.521)	(0.522)	(0.524)	(0.672)	(0.594)	(0.671)
Alliance, t-1	0.270**		0.453***	0.482***		0.528***	0.849***		0.964***
	(0.116)		(0.117)	(0.099)		(0.100)	(0.189)		(0.186)
Distance	-0.627***	-0.665***	-0.545***	-0.370***	-0.406***	-0.385***	-1.330***	-1.250***	-1.257***
	(0.027)	(0.026)	(0.027)	(0.018)	(0.024)	(0.025)	(0.064)	(0.052)	(0.064)
Democracy, t-1	0.065***	0.047***	0.059***	0.009***	0.009**	0.008**	0.076***	0.066***	0.072***
	(0.006)	(0.005)	(0.005)	(0.003)	(0.004)	(0.004)	(0.011)	(0.009)	(0.011)
Trade, t-1	14.304***		16.826***	-85.26		-98.426	-1.46		-1.239
	(3.129)		(3.459)	(73.591)		(78.201)	(4.537)		(4.421)
GDP, t-1	-0.273***	-0.133**	-0.311***	-0.690***	-0.462***	-0.465***	-0.400***	-0.215***	-0.397***
	(0.059)	(0.054)	(0.061)	(0.083)	(0.057)	(0.056)	(0.117)	(0.069)	(0.115)
GDP per cap, t-1	0.010**	0.016***	0.018***	-0.016***	-0.028***	-0.023***	0.009*	0.019***	0.010*
	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.006)	(0.005)	(0.005)
Growth, t-1	-0.022***		0.006	0.006		0.011*	0.01		0.028***
	(0.008)		(0.008)	(0.006)		(0.006)	(0.009)		(0.008)
PTA Density, t-1	-37.658***	-23.367***	-32.651***	-17.560***	-19.615***	-16.829***	-42.187***	-64.952***	-36.420***
	(3.971)	(2.633)	(3.263)	(1.133)	(1.041)	(1.076)	(6.594)	(6.622)	(6.975)
PTA Density^2, t-1	-364.907***	-690.029***	-455.137***	99.906***	18.82	101.444***	2637.357***	2846.429***	2329.146***
	(83.598)	(69.939)	(82.617)	(20.949)	(18.654)	(20.577)	(624.293)	(487.499)	(628.033)
Trade partner PTA coverage, t-1	3.040***	2.771***	3.073***	1.706***	1.662***	1.792***	2.190***	1.921***	2.217***
	(0.135)	(0.128)	(0.142)	(0.104)	(0.126)	(0.126)	(0.250)	(0.187)	(0.249)
Former colonial relationship, t-1			1.511***			1.135***			0.137
			(0.197)			(0.191)			(0.530)
Postcommunist, t-1			2.772***			0.766***			1.183***
			(0.209)			(0.149)			(0.221)
Year	-0.503***	-0.395***	-0.040**	-0.104***	-0.030***	0.045***	-0.023	0.010	0.022*
	(0.042)	(0.025)	(0.018)	(0.012)	(0.011)	(0.005)	(0.026)	(0.021)	(0.012)
Observations	149,308	258,863	149,308	209658	124955	124955	147477	255368	147477
Pseudo R^2	0.39	0.36	0.414	0.261	0.292	0.296	0.413	0.364	0.419
Period	1950-93	1948-98	1950-93	1960-98	1960-98	1960-98	1960-98	1960-98	1960-98

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Standard errors in parentheses; Standard errors clustered at the dyad level. Six duration dependence splines omitted from table.
Data for main explanatory variables and controls come from the original dataset of M&R. The dependent variable in columns 1 to 3 is the original PTAs data from M&R, in columns 4 to 6 the PTA variable from our dataset, and in columns 7 to 9 the FTA+CU from our dataset.