Seal the Deal?

Domestic Politics and Institutional Design in Preferential Trade Negotiations

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Abstract

Preferential trade agreements (PTAs) have proliferated at a rapid pace globally since the early 1990s, with countries negotiating ever more ambitious provisions outside the scope of the World Trade Organization (WTO). In this article, we derive a number of testable hypotheses on the determinants of the duration of PTA negotiations relating to the bargaining positions taken by individual countries, variation in domestic political pressures, as well as the scope of provisions enshrined in an envisaged trade agreement. The different hypotheses are tested using novel data on 198 preferential trade negotiations in the post-1990 period. In our two-stage survival models, we find that countries are more likely to select themselves into PTA negotiations with partner states with whom they share a set of previously negotiated provisions. Accounting for this selectivity, we further observe that democratic governments are faster in concluding preferential trade negotiations, but that this relationship is moderated by the scope of commitments in a planned PTA. Services, investment, intellectual property rights and standards prove to be particularly thorny agenda items for democratic leaders in trade negotiations.

Keywords: *International negotiations, international organizations, institutional design*

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Recently, there has been a growing interest in international negotiations both in academia and among the broader public. In July 2015, public attention peaked when the Vienna negotiations over the Joint Comprehensive Plan of Action regulating Iran's nuclear program entered into a final stage. Similar degrees of salience were reached in late 2016, when national delegations convened in Paris to finalize the terms of the post-Kyoto climate regime. Bargaining processes over economic agreements, such as the envisaged Transatlantic Trade and Investment Partnership (TTIP) between the United States and the European Union, have equally come under public scrutiny.

While negotiations for international agreements are widely discussed, little is known about the drivers of the bargaining processes themselves. Why are some agreements concluded faster than others? Which agenda items are low-hanging fruits and which items constitute sticking points in negotiations? How do governments mediate the demands addressed to them at the international and domestic bargaining tables? To shed analytical light on these and related questions, scholars have moved away from case studies of select historic agreements to larger-n empirical assessments of bargaining processes. The duration of international negotiations has been treated as a key dependent variable in this regard. Different factors have been posited to yield observable implications in the time national delegations require to finalize a treaty text. *Inter alia*, negotiation duration has been found to be determined by the involvement of international and nongovernmental organizations (Simonelli 2011), transactions costs linked to the size of the bargaining group (Moser and Rose 2012), implementation concerns (Baccini 2014), flexibility provisions (Bearce et al. 2015), and the depth of commitments (Mölders 2015).

Negotiations in international trade constitute a particularly relevant case in point: They can take place in different institutional venues (multilateral and regional) and contribute to an ever denser network of trade regulation. On the institutional level, in addition to the overarching multilateral architecture of the World Trade Organization (WTO), preferential trade agreements (PTAs) have proliferated at a rapid pace globally since the early 1990s. The unprecedented intensity of this "new wave of regionalism" (Mansfield and Milner 1999) has been associated with the sustained deadlock in multilateral trade talks at the WTO (Hoekman 2014). This argument is embedded within the broader idea that stalled trade negotiations are not only costly in economic terms for exporters and voters-as-consumers, but also because they might lead to a loss of trust among countries in the ability to arrive at an agreement in a given international institution (Fearon 1998; Simonelli 2011, 148). The new regionalism in trade has given rise to a dense network of international trade regulation: Every WTO member is now part of at least one PTA. Furthermore, there is substantial variation in institutional design among existing PTAs. Some agreements feature only shallow provisions,

while others extend well beyond market access for goods into the issue areas of services, investment, intellectual property rights, standards, public procurement, competition policy, and human as well as labor rights (Dür et al. 2014). This variation is likely to be associated with different bargaining dynamics.

In this article, we provide new theoretical and empirical building blocks for the debate on preferential trade negotiations. Informed by existing bargaining models and political economy approaches to international cooperation, we formulate three hypotheses on the duration of PTA negotiations. A first aspect of bargaining processes which has been highlighted is the idea that negotiations do not occur in a "vacuum" (Odell and Tingley 2013, 154), but rather evolve around initial bargaining positions based on which countries exchange offers and counter-offers. The distance between these bargaining positions can be regarded as a determinant of how long it takes countries to converge on a final agreement text. In addition, this convergence process can be driven by domestic political factors: Democratic leaders have been shown to be more likely to sign PTAs for credible commitment purposes compared to their autocratic counterparts (Mansfield et al. 2002; Mansfield and Milner 2015b; Mansfield and Milner 2015a). In a similar vein, they may strive for expedited trade negotiations to quickly signal their liberal-mindedness to voters (Mölders 2015, 5). The propensity to make concessions in the negotiation stage, however, may also depend on the agenda items on the bargaining table: Certain PTAs depart little if anything from previously contracted obligations, while other agreements venture deeply into new issue areas, triggering potentially different dynamics in the domestic political arena.

We test the different hypotheses in an empirical analysis of 198 trade negotiations in the post-1990 period. Based on existing information on PTA design (Dür et al. 2014; Lechner 2016), we create novel measures for the design templates with which countries enter into bargaining processes. Based on these initial bargaining positions, we additionally obtain issue-area specific indicators for how ambitious a new trade agreement is for its members. The results from our survival models provide mixed support for the different theoretical expectations: First, differences in initial bargaining positions do not matter for PTA negotiation duration, but for whether national delegations convene at the bargaining table in the first place. Second, taking this selectivity into account, democracies are faster in negotiating PTAs than autocracies. Third, this relationship is moderated by the relative scope of a planned treaty. More specifically, if a PTA requires countries to make upward commitments on 19 percent or more of their established agreement templates, democratic leaders become reluctant to tie their hands. After unpacking our variable for the relative scope of commitments, we further find that services, investment, intellectual property rights and standards constitute particularly thorny agenda items for democratic leaders in trade negotiations.

With our study we make three main contributions: First, we depart from prior research on the nexus between institutional design and trade negotiations (Bearce et al. 2015; Mölders 2015) by factoring in the negotiation history and agreement templates of prospective PTA partners. Second, we complement existing studies at the country-level which have examined how responsive democratic leaders are to public requests in timing economic reforms (Frye and Mansfield 2004). Since market opening is nowadays negotiated at a dyadic or even higher level of cooperation, the dynamics underpinning bargaining processes in international trade help us to assess how democratic leaders address demands at the domestic and international bargaining tables (Putnam 1988). Third and finally, our results question the dichotomy between multilateral and preferential trade negotiations. In this context, our findings demonstrate that bargaining delay can also occur at the regional level if countries move beyond existing WTO commitments in depth and breadth. This result can have meaningful implications for research well beyond international trade. We will elaborate on these points in the conclusion.

The Duration of Preferential Trade Negotiations

Negotiations can be defined as "a process in which explicit proposals are put forward ostensibly for the purpose of reaching agreement on an exchange or the realization of common interest where conflicting interests are present." (Iklé 1976, 3-4) Building on this definition, Fearon (1998) has presented a model on the dynamics of international negotiation processes. The model rests upon two pillars: First, countries enter into negotiations with a view of how the agreement should ideally look like. Second, throughout the bargaining process, national delegations are more or less prone to make concessions depending on their opportunity costs and long-term cooperation prospects. Building on this structure of initial bargaining positions and different propensities to make concessions, Fearon derives general statements about the risk of protracted negotiations in a given area of cooperation.

Which factors may be relevant for the duration of trade negotiations in particular? Regarding initial bargaining positions, Crump (2007, 128) makes the argument that negotiators tend to work with accepted formulas or templates tailored to individual issue areas. For instance, in the PTA negotiations between Singapore and Australia, the former country insisted on a positive list approach to services trade liberalization, while the latter argued for a negative list approach. After protracted negotiations, Singapore eventually gave in to Australian demands. Moreover, there is empirical evidence that template provisions are heavily influenced by the agreements already concluded by prospective PTA partners. By means of illustration, the United States has strategically leveraged the provisions in its existing PTAs

to set a precedent for the terms in new treaties (Feinberg 2003, 1028). Since preferential trade negotiations involve conflicting preferences over the template to select, what is the relationship between differences in the proposed templates and negotiation duration?

Substantive differences in the initial positions on the "optimal" institutional design can be viewed as implying high transaction costs in the bargaining process. In new institutional economics, transaction costs have been defined as the "costs of exchange" (Coase 1998, 73), which can hinder efficient market integration. In trade negotiations, countries bargain based on specific templates. In this context, one could conjecture that the more different countries' templates, the longer it will take them to converge on a common denominator based on an exchange of offers and counter-offers. In situations of high transaction costs, there are two scenarios: Either countries refrain from creating a potential institution or they will engage in protracted discussions about which models to use for trade negotiations and how to split the gains and costs emanating from trade liberalization (Keohane 1988, 387). If states opt for the latter option, more time has to be invested to reach an agreement. As a result, the negotiation process is prolonged.

The example of the trade negotiations between the European Union and South Africa further elucidates this mechanism: In 1994, the two parties entered their trade negotiations with a large discrepancy in terms of institutional design propositions. Whereas the European Union pushed for an extension of market access in a strict reciprocal way, South Africa emphasized the economic development dimension of trade and pushed for a more unidirectional and non-reciprocal form of liberalization as enshrined in its prior agreements (Bilal and Laporte 2004). It took the two trading blocs over four years to converge on a final legally binding text in 1999 (Baccini and Urpelainen 2014, 201). In light of this qualitative evidence, we formulate our first hypothesis:

Hypothesis 1: *The more different the design templates of the prospective PTA partners, the longer the negotiation spell for trade liberalization.*

As pointed out by Fearon (1998), the convergence process towards a common position can additionally be influenced by the partner states' outside options. Outside options are captured in the concept of the best alternative to a negotiated agreement (BATNA), understood as the value of the best course of action chosen if negotiations end in a stalemate (Raiffa 1982). One political factor potentially influencing the BATNA in trade negotiations is a country's regime type. The relationship between regime type and international cooperation has been a recurring topic in the literature on the liberal vocation of democracies. Mansfield et al. (2002) argue that leaders in democratic countries regularly face challenges

in elections and are routinely scrutinized in parliament. These forms of electoral challenges and parliamentary control are posited to draw the democratic government's attention to the preferences of voters-as-consumers (Bueno de Mesquita et al. 2003). In trade policy, voter welfare is said to be increased by visibly lowering tariffs at home and/or securing stable market access abroad through reciprocal trade agreements (Bueno de Mesquita et al. 2003). The visibility to voters of both policy choices is key, since governments need to make their signals for a commitment to free trade credible. Empirical research has provided a certain support for these theoretical conjectures: Democracies have been found to be characterized by lower tariffs than more autocratic regimes (Milner and Kubota 2005). Similarly, democracies have exhibited a greater likelihood of concluding PTAs than non-democratic regimes (Manger and Pickup 2014; for a general discussion of results see Milner and Mukherjee 2009). In his study of the bargaining processes for 107 PTAs, Mölders (2015) further observes that democracies are not only more eager to subscribe to international trade agreements, but also to conclude trade negotiations in an expedited manner.

Going back to the analytical framework by Fearon (1998), this finding could be explained by the idea that domestic political pressures affect individual government's incentives to conclude trade negotiations. The possibility for electoral challenges results in a weakening of the democratic leaders' BATNA. A weaker BATNA introduces quasi-deadlines in bargaining for democratic leaders (Watkins 1998): They attempt to secure agreements within more or less narrowly defined time frames, at the end of which their risk of losing office increases dramatically. In bargaining experiments, the introduction of formal deadlines has been found to speed up the convergence process towards a common position (Roth 1995). We conjecture that in the context of real-world trade negotiations, the possibility to challenge a leader in competitive elections mimics the effect of formal deadlines. *Ceteris paribus*, the more democratic the countries at the bargaining table, the weaker the collective BATNA, and the greater the urge to finalize PTA negotiations. Our second hypothesis therefore reads as follows:

Hypothesis 2: *The more democratic the prospective PTA partners, the shorter the negotiation spell for trade liberalization.*

However, not all PTAs are designed in the same manner. Depending on the provisions under discussion for a specific agreement, democratic leaders might regard the planned treaty as more or less utile for credible commitment purposes. Whereas some PTAs imply little if any modification in institutional design, other treaties contain ambitious provisions which depart significantly from previously signed agreements. The relative scope of a PTA may, in turn, interact with domestic political considerations to affect the speed with which

commitments to market opening are made. In their study of economic reforms adopted by post-communist countries in the 1990s, Frye and Mansfield (2004) find that more democratic countries are indeed more prone to implement liberal trade policies. However, they also observe that the unprecedented level of ambition behind certain reforms (for example the dissolution of state monopolies on foreign trade) rendered post-Soviet leaders reluctant to move to the implementation stage in the face of looming elections. The authors explain this finding with the idea that in the short term voters face uncertainty about the effects of trade liberalization, and that the government responds to this uncertainty by strategically timing economic reforms. The implication from their analysis is that market opening is not always met with unequivocal support in the domestic political arena. The relationship between the complexity of reforms and voter support, in turn, influences the eagerness with which democratic leaders commit to economic liberalization.

In the 21st century world of trade regulation, market opening is primarily negotiated internationally based on the principle of reciprocity. PTAs can contain a plethora of trade- and trade-related provisions with the potential to penetrate the domestic realm: Modern-day agreements cover issue areas as diverse as services, investment, intellectual property rights, standards, public procurement, competition policy, and human rights as well as environmental protection issues (Dür et al. 2014). Making strides into new areas of trade regulation can trigger resistance in the domestic political arena for the following reason: During negotiations over an ambitious trade agreement, voters may face difficulties in anticipating the direction and magnitude of the economic and political ramifications of the planned PTA. This uncertainty can relate to the effects of trade liberalization on market shares and employment, as well as legal uncertainty over the degree to which the government ties its hands by signing a PTA (Zahrnt 2007, 376-377) These concerns can be expected to be most pronounced if democratic countries negotiate a PTA which departs significantly from the design of their already existing agreements. In this regard, we define the relative scope of a PTA as the upward commitments it requires member states to make relative to their established templates. Previously concluded agreements are indicative of the domestic reforms a country has already undertaken. The more ambitious a new PTA, the higher the odds that voters have to cope with uncertainty over the precise consequences of the agreement.

At this point, one might object that even if ambitious trade agreements trigger an adverse reaction among certain groups of voters, the median voter would still be unequivocally in favor of free trade. As a result, democratic leaders could leverage also these agreements as credible commitment devices. If anything, they would score even more political points by inking an ambitious PTA because of the sizable welfare gains stemming from such an agreement. To address this objection, a brief discussion of the existing survey evidence on citizens' trade

policy preferences is in place. Scholars regularly refer to data from the Pew Research Centre on Global Attitudes & Trends to argue that the median voter is generally in favor of free trade and liberal trade policies adopted by the government. From this evidence researchers derive the idea that leaders under pressure to meet the demands from a broad domestic constituency – i.e. leaders in democratic regimes – have a clear-cut incentive to negotiate PTAs (Mansfield and Milner 2015a). However, more recent studies by the Pew Research Centre introduce nuances into this account: While citizens worldwide still view free trade and low tariffs favorably, the new issues on the liberalization agenda are met with skepticism. For instance, when asked about the on-going TTIP talks, citizens in Germany and the United States exhibit strong reservations concerning investment and standards. 56 percent of citizens in the United States believe that granting European companies the unconditional right to buy domestic companies would mostly hurt their economy, while only 31 percent are of the opposite view. The contrast is even more pronounced in Germany, where 73 percent are opposed to American companies on German soil, and only 19 percent are in favor of foreign takeovers. On standards, citizens from both sides of the Atlantic think that the standards adopted by their government ensure a higher quality than the foreign versions: This pattern holds across the board, be it with respect to auto, food or environmental safety standards (Pew Research Centre 2014).

What is the implication of this evidence for the process of PTA negotiations? We argue that since trade policy preferences are multidimensional, democratic leaders cannot neglect citizens' concerns when negotiating trade agreements with an ambitious scope. Sealing such a PTA quickly would not produce the expected electoral benefits through a credible commitment to free trade, but opposition from voters suffering from uncertainty about the PTA provisions. How, then, can a democratic government respond to the demands in the domestic political arena? We argue that it will not readily commit to an overhaul of the country's PTA template in a dramatic manner, but rather seek one of the following two options:

i) Flexibility: The government is willing to subscribe to far-reaching PTA provisions, provided that there is flexibility in issue areas with wide-ranging provisions. Flexibility instruments offer a certain relief to import-competing industries during the process of trade liberalization. In addition, transitional flexibility provisions provide scope for citizens to learn about the effects of a PTA in different states of the world (Koremenos 2001). Importantly for our analysis and in line with previous research, we assume that the details of flexibility provisions are negotiated among PTA partners after the scope of provisions from a trade deal have already been agreed (Baccini et al. 2015, 3). We further conjecture that negotiations over flexibility are time-consuming. In this regard, the negotiations between the US, Canada

and Mexico over the North American Free Trade Agreement (NAFTA) in the early 1990s are illustrative: Even though the three countries were generally committed to a high level of liberalization, stand-offs on certain agenda items determined the fate of the bargaining process even in the final hours. Canada insisted on a provision which grants it flexibility in screening foreign investment above a certain threshold. Experts have noted that this demand expressed the country's wariness to open up to foreign investment without any room for manoeuvre in regulating the expected increase in capital inflows. Investment constituted a thorny issue in the negotiations between Canada and the United States until the final days of the free talks (Cameron and Tomlin 2002, 112-113).

ii) Policy space carve-outs: An alternative scenario is that for certain detailed provisions of the agreement democratic leaders are not willing to make commitments due to policy space and distributional considerations. Even if the governments seeks a comprehensive agreement in terms of the number and depth of issue areas covered, they may be wary of giving up all the policy space in those issue areas. The safeguarding of policy space, in turn, would respond to a larger demand from society to provide certain public goods (for example high public health standards or a clean environment). The following example illustrates how policy space concerns can drive PTA negotiations: In late 2015, twelve Pacific-Rim countries concluded the Trans-Pacific Partnership Agreement (TPP). In the TPP negotiations, provisions on the protection of intellectual property rights constituted a sticking point even in the final bargaining hours. Even though there was a strong commitment among all countries to move beyond existing WTO obligations, a majority persistently refused to grant the United States extensive periods of exclusivity for biological test data. Long periods of exclusivity preclude producers of generic medicines from obtaining regulatory approval without going through clinical trials themselves and curb governments' policy autonomy (Shadlen 2005, 767). The United States faced a particularly staunch opposition from Australia and New Zealand (Chan October 4, 2015). The position of these two democracies was guided by the overarching goal to maintain policy space within the area of public health. The topic of test data exclusivity had already caused a delay in the bargaining process for the US-Australia trade agreement (Crump 2007, 132). In a similar vein, during the TPP negotiations Australia's Minister for Trade and Investment was quoted affirming:

> As I have made clear repeatedly, the government will not support outcomes that would increase the prices of medicines for Australians or adversely affect our health system more generally; end of story. (...) Nor would we accept outcomes that undermine our ability to regulate or legislate in the public interest in areas such as health.
> (Australian Department of Foreign Affairs and Trade 2015)

The examples above may hint at more general dynamics in international trade negotiations. If the relative scope of a new PTA is substantial, there will be a domestic demand for in-built flexibilities and a safeguarding of policy space in sensitive issue areas. This demand will travel to the international bargaining table, where it leads to a prolongation of the negotiation spell. From this reasoning we derive our third hypothesis:

Hypothesis 3: *The catalyzing effect of democracy on PTA negotiation duration weakens as the relative scope of a planned trade agreement increases.*

Empirical Analysis

Data and Operationalization

For the empirical analysis of our three hypotheses we rely on an original dataset covering 198 PTA negotiations in the post-1990 period.

The dependent variable *Negotiation duration* is operationalized as the time which elapses between the start of trade negotiations and the official signature date of a PTA. More precisely, we measure the number of days between the two events. To retrieve this information, we followed a two-step approach: First, we applied web scraping to collect data on PTA negotiation duration from government and regional organization websites. In a second step, we reverted to the softwares Factiva and LexisNexis to systematically screen newspaper articles and other media contributions (for example transcripts from news channels) for information on preferential trade negotiations after 1990. We have decided to limit our empirical scope to PTAs concluded in the post-1990 period because digitized information on trade agreements pre-1990 is scarce. In Factiva and LexisNexis, we used codes to search for news articles in four languages: English, Spanish, German, and French. If we found media contributions indicating different dates for the same event, we opted for the earliest announcement. Our approach for identifying negotiation start and signature dates is aligned with the empirical strategy by Mölders (2015, 9). In addition, we excluded internal European Union agreements (for example the Amsterdam Treaty of 1996) due to the peculiarities of intra-EU decision-making processes (Weinberg 2016).

In total we have been able to identify 242 data points on negotiation duration.[1] Figure 1 shows substantive variation in the dependent variable: For example, whereas Australia and Korea negotiated nearly 14 years (5072 days) until they signed their joint agreement, India and Sri Lanka concluded their bargaining process within 26 days only. The median duration

of PTA negotiations is just above 645 days.

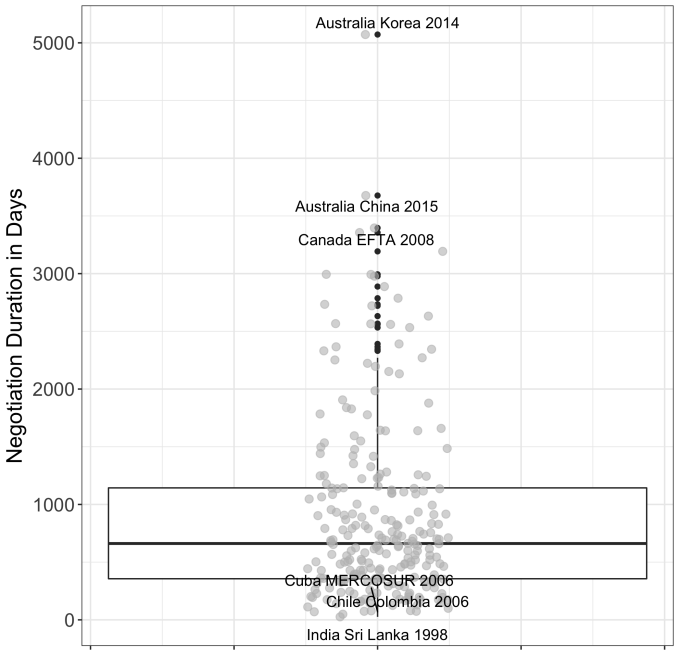

Figure 1: Negotiation duration in days

In light of the dependent variable's nature and to avoid data multiplication, the unit of analysis is at the PTA-level. Consequently, measures on the right-hand side of the regression model will be aggregated to the undirected dyadic (or for plurilateral agreements to an even higher) level. Except indicated otherwise, we follow Baccini et al. (2015) by taking the mean across PTA members.

Turning to our first main independent variable, we measure *Difference in design templates* as the difference in the proposed templates of the prospective PTA member states. To measure each country's design template, we proceed in the following manner: We rely on two datasets on PTA design by Dür et al. (2014, Design of Trade Agreements database) and Lechner (2016). The datasets contain information on PTA design in seven issue areas: services, investment, intellectual property rights, public procurement, standards, competition policy, and non-trade issues (economic, social, civil and political rights, environmental protection, and security issues). The two datasets provide us with 152 variables[2] for each trade agreement covered. Each of the 152 variables is coded in a binary (0 or 1) fashion, with a coding of 1 implying a deeper commitment. We assume that if a country has included a liberalization provision in at least one previous PTA, the cost of doing so again are lower than if the provision has never been included before. Moreover, prospective PTA partners will take note of the commitments already made by the reference country and use them as a

benchmark for evaluating concessions in the bargaining phase (Crump 2007). Consequently, the template of country$_i$ at point in time t consists of the maximum commitments it has made until t. If a country is not yet a member in any PTA, we construct a fictional design template, where we set each design aspect to 0 and subsequently calculate the relative scope. The underlying assumption here is that a country has to adjust in every design aspect for its very first PTA.[3] In case a new PTA is more shallow than a country's template on any specific provision, we assume zero scope widening. To derive our measure for transaction costs, we compute the distance in design templates between prospective PTA partners at the start of negotiations. For this purpose, we calculate the Cohen kappa index of distance (Cohen 1968) between the bargaining parties' design templates. The resulting variable ranges from 0 to 1, with 0 indicating completely congruent templates and 1 indicating completely dissimilar templates. Figure 2 shows the distribution of this variable.

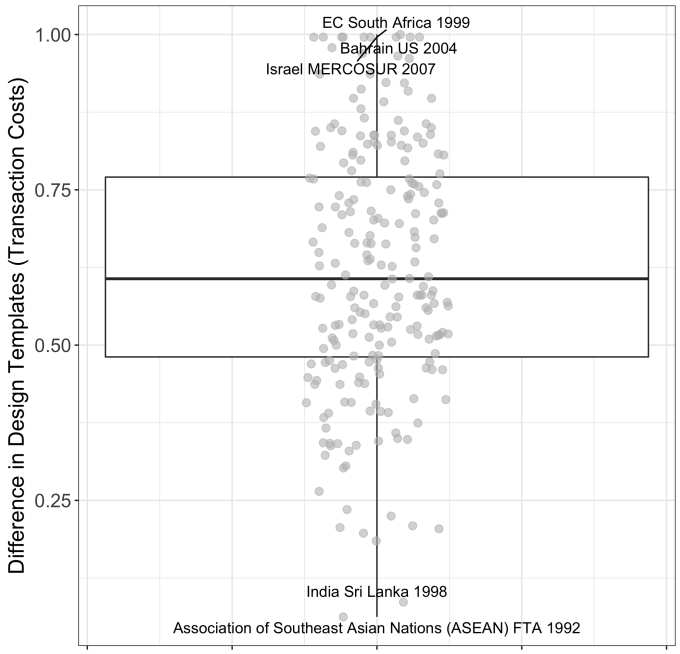

Figure 2: Difference in design templates

Next, we include a measure for *Regime type* based on the Polity2 score developed by Marshall et al. (2016). The Polity2 score reflects the competitiveness of political participation, constraints on chief executives, as well as the openness and competitiveness of executive recruitment in a country of interest. It therefore allows us to proxy for the degree of electoral challenges in a given country. Whereas a low score means that the electorate has no possibility to punish or reward the government for its trade policy, a high score indicates strong feedback from the public. Given its high validity, this measure has been used repeatedly in empirical

contributions on the relationship between regime type and trade policy (Mansfield et al. 2002; Milner and Kubota 2005; Manger and Pickup 2014). In order to ease interpretation, we have recoded the index to run from 0 to 20.

Our third regressor *Relative scope* reflects the degree to which a new PTA requires countries to make upward adjustments to their existing laws and regulations, with ramifications for the domestic society at large. Critical for our analysis, we make the assumption that a country's existing PTA track record tells us about its laws and regulations in force. To create this variable, we rely on the country-year-specific PTA design templates calculated for the first independent variable. We then subtract these design templates from the design of any new PTA concluded by a given country. The subtraction is performed on every single variable: For instance, if a new trade agreement features a liberalization clause in the education services sector, we compare this to the maximum education services commitments in past PTAs concluded by the prospective agreement partners. If the education services clause is novel, the difference would be 1 (1 – 0 = 1). If it matches earlier commitments, a value of 0 is obtained (1 – 1 = 0). To define a cutoff point for comparison, we take the negotiation start date of the new PTA as the reference. Subsequently, we create our variable for the relative scope in four steps: First, we sum the differences across the 152 variables for each PTA partner. Second, we divide these sums by the number of variables covered in the respective dimension, to avoid an overemphasis on issue areas with more extensive coding. Third, we calculate the average across these seven standardized values. Fourth and finally, we average these means across the PTA partners. Accordingly, a value of 0.5 for the variable *Relative scope* means that a planned trade agreement on average requires countries to make upward adjustments on 50 percent of all design aspects of their existing PTA templates.

Figure 3 plots the distribution of the relative scope variable. Three PTAs stand out as particularly ambitious scope-wise: NAFTA (concluded in 1992), Australia-Korea (2014), as well as Mexico-Nicaragua (1997). NAFTA is often portrayed as the first PTA with truly novel and deep provisions. More recent PTAs have also implied a relatively wide scope for individual countries: The Australia-Korea treaty features ambitious provisions implying upward commitments on as much as 80 percent of the template clauses in the issue areas of investment, procurement, and standards.

Figure 4 shows the relationship between negotiation duration and relative scope for groups of autocratic and democratic PTA partners, respectively. For this purpose, and in line with existing research (Poast and Urpelainen 2013), the threshold for distinguishing between the two groups is set at an average Polity2 score of 16 (≥ 16 for democracies). The scatter plots indicate that while relative scope and negotiation duration correlate positively for democracies, a greater scope does not go along with longer negotiation duration when

autocrats sit at the bargaining table.

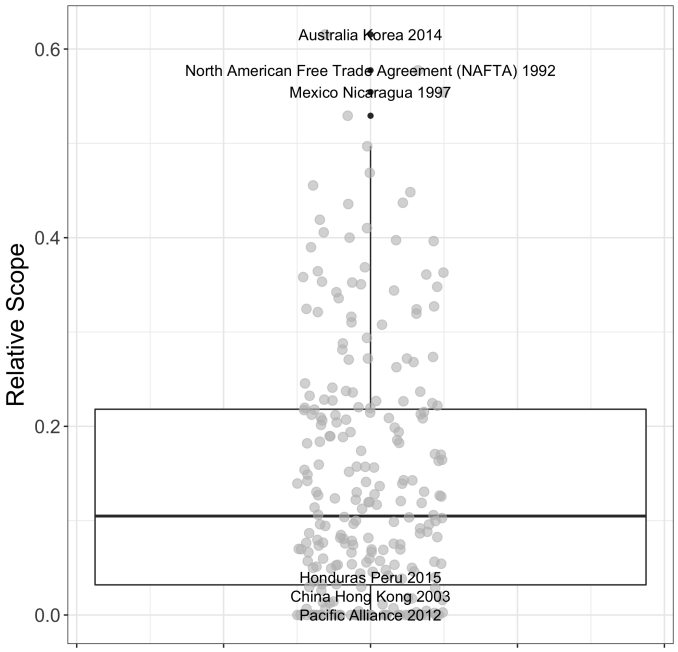

Figure 3: Relative scope

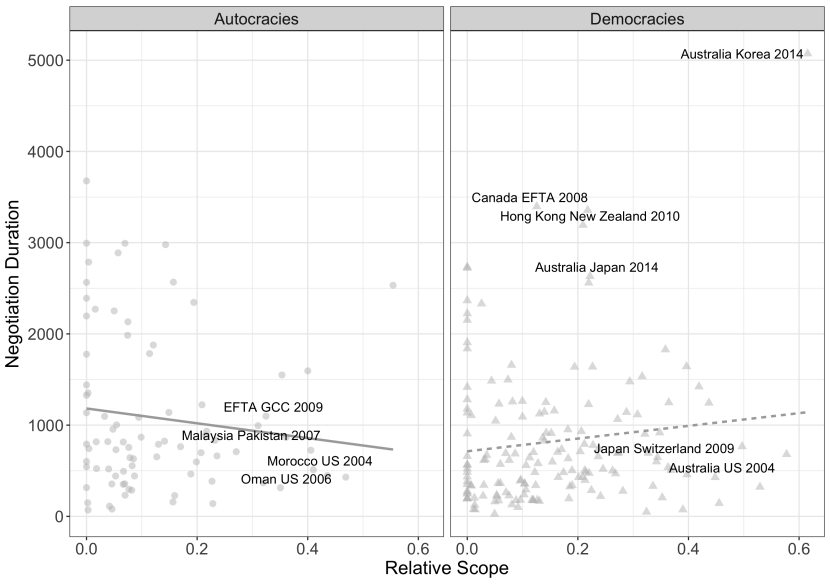

Figure 4: Relative scope and negotiation duration for autocracies and democracies

Beyond our main explanatory variables, we integrate a set of control variables in our regressions in order to account for potentially confounding factors.

First, in addition to the PTA track record of the bargaining parties, we include three design features of the jointly negotiated agreement: Enforcement, flexibility, and the number of member states. As regards the first design dimension, we rely on the variable *Enforcement* created by Allee and Elsig (2015) as a 0-9 ordinal index for the strength of PTA dispute settlement provisions. If a planned agreement exhibits a high degree of enforcement, countries might be more circumspect in negotiations given the sovereignty costs at stake. Second, we include two indices for PTA flexibility provisions by Baccini et al. (2015): The first variable reflects whether countries are allowed to resort to *Escape flexibility* tools (for example anti-dumping duties) under a PTA, while the second measures the strings attached to the use of these tools (*Rigidity on flexibility*). These covariates allow us to bring new empirical evidence into the debate on the impact of different flexibility and rigidity provisions on negotiation duration (Bearce et al. 2015; Rosendorff and Milner 2001). Finally, we control for the number of *Member states* in a planned PTA. Both Moser and Rose (2012) and Mölders (2015) find that it becomes more difficult to conclude trade negotiations once the number of national delegations sitting at the negotiation table increases.

We also add a variable for power asymmetries among negotiation partners. Power asymmetries are proxied by a dummy labeled *Power*, which indicates the presence of an agreement between a major economic market – namely Australia, Canada, EFTA, the EU, Japan, New Zealand and the United States – and any weaker country or countries. One could reasonably conjecture that weak states are eager to quickly secure preferential access to the vast markets of more powerful partners (Manger and Shadlen 2014). Next, we account for domestic institutional constraints in the form of *Veto players* (Henisz 2000): Veto players have a final say regarding the ratification of a trade agreement, yet may also impact the bargaining process of forward-looking governments (Mölders 2015). As a further political variable, we include a measure for the quality of the *Rule of law* among PTA partners (Kaufmann et al. 2016): Baccini (2014) finds that dyads in which at least one country is characterized by poor domestic institutions experience negotiation delay due to persistent uncertainty over the implementation of the agreement.

On the economic side, we add the log-transformed *GDP* level of the countries at the negotiation table. The expectation is that the incentives to conclude trade negotiations rise with the market size of the involved parties. In addition, the variable *Trade/GDP ratio* proxies for the economic importance of opening up markets abroad for the PTA members based on their individual trade/GDP ratios (imports and exports).

Regarding negotiation capacity, we include a dummy for whether all PTA partner countries are members of the GATT/WTO (*WTO membership*): Membership in the multilateral trade club can be seen as a proxy for familiarity with the rules of the world trading system

and could hence speed up trade negotiations. The same logic applies to the variable *PTA activity*, which reflects the average number of prior agreements concluded by the new partners. The dummy *First PTA*, in turn, scores 1 if within the bargaining group at least one country signs its very first trade agreement and could thereby slow down the bargaining process. To round up our model, we include controls for geographic distance, common language and temporal fixed effects based on the negotiation start year.

Table 1 displays the descriptive statistics for the variables used in the empirical analysis:

Table 1: Descriptive statistics

Variable	Mean	Std. Dev.	Min.	Max.
Regressand:				
Negotiation duration	911.5	804.832	26	5072
Main Regressors:				
Difference in design templates	0.622	0.203	0.063	1
Regime type	15.838	4.436	1.167	20
Relative Scope	0.143	0.136	0	0.615
Controls:				
Enforcement	6.317	1.085	4	9
Escape flexibility	4.225	1.234	0	5
Rigidity on flexibility	3.417	1.478	0	6
Member states	6.574	9.218	2	91
Power	0.467	0.5	0	1
Veto players	0.335	0.133	0	0.609
Rule of law	0.444	0.636	-0.97	1.754
GDP level	25.420	2.239	20.343	33.013
Trade/GDP ratio	86.304	45.939	23.927	305.942
WTO membership	0.893	0.31	0	1
PTA activity	11.194	5.2	0	28
First PTA	0.168	0.375	0	1
Geographic distance	5791.16	4961.068	111.093	19711.859
Common language	0.26	0.44	0	1

Model Choice

Since the duration of PTA negotiations is characterized as time data, we estimate survival models. In our context, "survival" refers to not concluding trade negotiations. When estimating survival models, one can choose between a range of parametric and semi-parametric model specifications. Formal tests show that the ph-assumption, which must be met for the workhorse semi-parametric Cox model, is violated for a number of covariates. From the range

of available parametric models the Weibull model performs best.[4] To facilitate the output interpretation, we follow Mölders (2015) in estimating a Weibull model in accelerated failure time (AFT) form: Positive signs imply a prolonging, negative signs an accelerating effect on PTA negotiations.

One concern in our estimation is about a selection effect underpinning PTA negotiations. There are strong theoretical reasons to believe that the start of bargaining processes is non-random. Over and above factors with the potential to determine the on-set of trade negotiations (for example *Geographic distance*), it might be that countries select themselves into bargaining processes based on their existing PTA templates. One could hypothesize that two trading partners with similar templates are more likely to find a common denominator in negotiations and hence exhibit higher odds of starting PTA negotiations in the first place Keohane (1988, 387). To tackle the resulting risk of selection bias, we estimate a duration model with selectivity (Boehmke et al. 2006). In the first stage we endogenize the decision to start negotiations. We do so by creating dyad-year observations for which we do not observe PTA negotiations or existing agreement ties. Subsequently, we compare these observations without treatment to our sample of countries involved in trade negotiations. To meet the exclusion restriction in the first stage, we add variables commonly discussed in the literature on PTA determinants.[5] In the second stage, we analyze the duration of bargaining processes, taking into account the selectivity of our observations.

Results

The baseline findings are displayed in 2, where the first column summarizes the results for the first stage (selection into PTA negotiations), and the second column shows the findings for the second stage (duration of PTA negotiations).

We observe that the start of PTA negotiations is significantly influenced by transaction costs. Consistent with our expectations, we find that countries with more similar design templates are more likely to embark on PTA negotiations. In line with previous research, it can further be observed that countries with good institutions are more prone to select themselves into PTA negotiations. Interestingly, the coefficient for the variable *Polity2 score* is positively signed as expected, but statistically insignificant. Additional regressions show that the variable *Rule of law* takes away the statistical significance of *Polity2 score*, confirming the omitted variable dynamics detected by Baccini (2014).

Moving on to the discussion of our main regressors in the second stage, we observe that accounting for the selectivity behind PTA negotiations, transaction costs do not appear to matter for the duration of the bargaining process itself. The coefficient on *Transaction*

costs is positively signed, yet fails to meet conventional levels of statistical significance. Our second and third hypotheses, to the contrary, are confirmed by the second stage results: The variable *Regime type* exerts a statistically significant and negative effect on negotiation duration. Moreover, we find that the interaction term between democracy and the relative scope is positively signed and statistically significant. This implies that the catalyzing effect of democracy on negotiation duration weakens as a trade agreement becomes more ambitious in relative scope. Since the empirical output is little informative on the levels at which regime type and the relative scope matter for negotiation duration, we performed marginal effects calculations. For this purpose, all the other covariates in the model were set at their mean (continuous variables) or mode (categorical variables).

Figure 5 indicates that if a trade agreement requires countries to make upward adjustments on 19 percent or more of their established PTA templates, the catalyzing effect of the Polity2 level on PTA negotiations vanishes. Put differently, the cost threshold leading to protracted negotiations lies at 19 percent. Approximately 35 percent of the trade agreements in our dataset fall beyond this threshold. It is equally important to note that up to this level, democracy expedites trade negotiations in a substantial manner. For instance, if a trade agreement widens the relative scope by 10 percent, a group with a Polity2 score of 10 is predicted to negotiate 985 days. A group with a Polity2 score of 16 is predicted to take nearly 200 days less to ink the same trade deal (789 days). We will go further into detail with respect to these results below.

In addition to the confirmation of our main hypotheses, we highlight two interesting corollary findings. First, the design variable *Escape flexibility* exerts a negative and statistically significant effect on negotiation duration, while *Rigidity on flexibility* has the opposite effect. These results suggest that flexibility provisions help to prevent a "war of attrition" in international bargaining (Rosendorff and Milner 2001), rather than leading to protracted negotiations due to stabilized long-term prospects for cooperation (Bearce et al. 2015). Second, and perhaps surprisingly, we observe that even though they have a higher likelihood of selecting themselves into PTA negotiations, WTO members take more time to effectively negotiate a trade agreement than non-members. One tentative explanation could lie in the need for these countries to ensure consistency between their obligations as defined in Geneva and the corresponding PTA provisions.

Table 2: Baseline results

Variables	**Start of PTA Negotiations (First Stage)**	**Negotiation Duration (Second Stage)**
Difference in design templates	-0.471***	0.161
	(0.0759)	(0.247)
Regime type	0.00382	-0.0583***
	(0.00409)	(0.0224)
Relative Scope		-2.652
		(1.691)
Regime type * Relative Scope		0.177*
		(0.104)
Enforcement		-0.0425
		(0.0572)
Escape flexibility		-0.113**
		(0.0511)
Rigidity on flexibility		0.173***
		(0.0448)
Member states		0.0219***
		(0.00766)
Power	0.384***	-0.196*
	(0.0487)	(0.119)
Veto players	-0.0584	-0.855*
	(0.124)	(0.481)
Rule of law	0.185***	0.308***
	(0.0312)	(0.102)
GDP	0.0302***	0.0606**
	(0.00498)	(0.0301)
Trade/GDP ratio	0.00136***	-0.00283***
	(0.000333)	(0.00104)
WTO membership	0.189***	0.685***
	(0.0523)	(0.204)
PTA activity	0.0685***	-0.00718
	(0.00526)	(0.00962)
First PTA		0.497***
		(0.186)
Geographic distance	-2.70e-05***	-2.66e-05**
	(2.87e-06)	(1.07e-05)
Common language	-0.0326	-0.106
	(0.0432)	(0.131)
Year	-0.0191***	-0.0382***
	(0.00341)	(0.0118)
Contiguity	0.509***	
	(0.105)	
Colonial past	0.251	
	(0.167)	
Diffusion	0.00183	
	(0.00189)	
Constant	35.10***	82.56***
	(6.816)	(23.49)
Observations	184'668	198

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

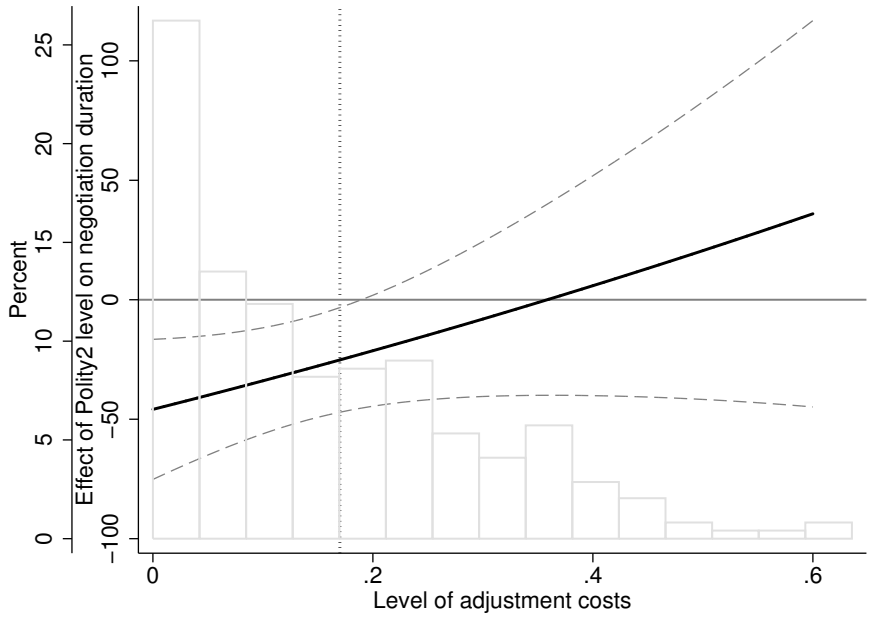

Figure 5: Effect of democracy on negotiation duration conditional on the relative scope of commitments (90% confidence intervals)

All in all, the results from our baseline analysis confirm two of our three central hypotheses: More democratic countries negotiate PTAs faster than their less democratic counterparts, but only up to a certain threshold of ambition in agreement design.

Robustness Checks

In addition to our baseline model, we perform a set of sensitivity checks to examine whether our results are robust to alternative specifications:[6]

First, we re-run our survival model with alternative variables for regime type. In a simple step and in line with previous research (Poast and Urpelainen 2013), we dichtomize our Polity2 measure so that country groupings with an average score of 16 or more receive a 1, while PTA partners below this level receive a 0. Alternatively, we measure regime type based on the Unified Democracy Scores, which are composite indices for regime type based on ten extant scales (Pemstein et al. 2010). The results remain unchanged.

Second, we alternate our metric for the relative scope in PTA design in two ways. First, we take a simple arithmetic mean of each design element over already concluded trade agreements to get a measure for countries' average trade liberalization commitments up to a given point in time. Second, we try to tackle the concern that the degree to which ambitious PTA provisions matter in the domestic political arena is influenced by the economic size of

the trading partner: Agreeing to wide-ranging provisions in a PTA with a small economy may be fundamentally different from doing the same in a treaty with a large economy due to different levels of (prospective) import penetration. For this purpose, in our construction of templates, we consider only those PTAs as constitutive of the template where the largest partner country exhibits a similar economic size to the largest current bargaining partner. We do so by dividing our sample into three equal, percentile-based categories for economic size. Subsequently, we match past and current PTA partners. The results again confirm our main hypotheses.

In a third set of tests, we use two variables as substitute and more trade-related measures for the degree of ambition in a PTA. First, we rely on a variable for average dyadic trade flows between PTA partners and interact it with regime type. The intuition is that high trade flows could result in a situation where larger segments of domestic society have to deal with the ramifications of a proposed trade agreement than under circumstances of negligible trade levels. Second, we use the average Grubel-Lloyed index as a measure for the level of intra-industry trade (IIT) between the prospective agreement partners (Grubel and Lloyd 1971). Defenders of the New Trade Theory have argued that IIT is less adjustment-cost-intensive than inter-industry trade due to monopolistically competitive market structures (Balassa 1966). In line with our theoretical expectations, we find that as the level of trade flows among PTA partners increases, the expediting effect of democracy on negotiation duration vanishes. Somewhat counter-intuitively, we observe the same result with the Grubel-Lloyed index, indicating longer PTA negotiations in the presence of high levels of IIT. While we can only speculate about the root causes of this result, two explanations are conceivable: First, it has been argued that while IIT is less adjustment-cost-intensive than inter-industry trade, lobbying under the former is more pronounced and hence protectionism more likely because individual firms have greater incentives to engage in private action (Gilligan 1997). Second, IIT has been shown to correlate positively with deep integration commitments in trade agreements, making it difficult to disentangle the effects of trade flow structures and PTA design on negotiation duration (Kim 2015).

Fourth, we estimate a more extensive model featuring two additional political variables. First, we include a regressor for government partisanship. It could turn out that countries governed by left-wing leaders approach negotiations with greater care than right-wing governments. To measure governing party positions, we apply the "vanilla method" by Gabel and Huber (2000) to manifesto data. Second, we account for agricultural trade liberalization as a potential sticking point on the agenda. Opening up agricultural markets has proven to be difficult given the strength of well-organized and protection-seeking farmers. In this context, we rely on information on WTO coalitions provided by the multilateral trade organization

to examine whether in PTA negotiations there is at least one member from the Cairns group (offensive interests on agriculture, such as Chile) and one country from the G-10 (defensive interests, such as Switzerland). The results remain unchanged.

Fifth and finally, we estimate a shared frailty model, with the frailty specified at the PTA level. The shared frailty model accounts for unobserved heterogeneity underpinning bargaining groups' propensity to finalize negotiations. Our baseline findings are again corroborated.

Overall, the robustness checks confirm our baseline findings. In light of this consistent empirical pattern, which agenda items are particularly thorny in trade negotiations?

Discussion: Sticking Points in PTA Negotiations

The variable *Relative Scope* is a measure for the average relative scope of a planned PTA in seven issue areas: services, investments, intellectual property rights (IPR), competition policy, public procurement, standards, and non-trade issues (NTIs). To examine which issue areas are particularly sticky in PTA negotiations, we estimate seven separate models. For this purpose, we unpack the scope variable to identify for each PTA how ambitious the provisions are in a given area. The resulting descriptive statistics are displayed in Table 3:

Table 3: Relative scope of provisions per issue area

Variable	Mean	Std. Dev.	Min.	Max.
Relative scope services	0.094	0.143	0	0.857
Relative scope investment	0.162	0.243	0	0.909
Relative scope IPR	0.155	0.207	0	0.778
Relative scope standards	0.1	0.206	0	1
Relative scope competition	0.131	0.148	0	0.7
Relative scope procurement	0.301	0.32	0	1
Relative scope NTIs	0.073	0.088	0	0.42

Separate estimations are preferred over a global model with seven regressors due to the risk of multicollinearity between the issue-area-specific scope variables, a concern for which the variance inflation factors lend further support. However, in order to control for issue linkage and the general level of ambition in a trade agreement, we include the overall scope variable in the estimation. The corresponding marginsplots are displayed in Figure 6.[7]

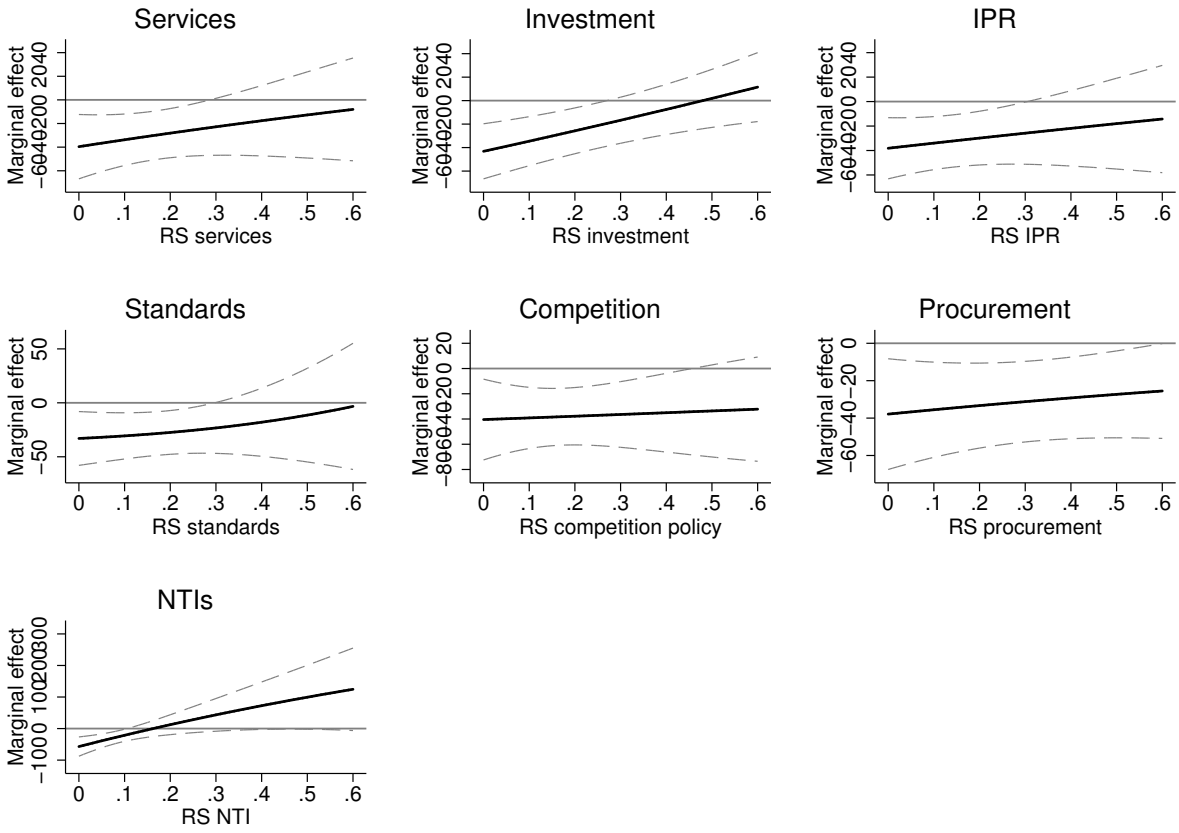

Figure 6: Effect of democracy on negotiation duration conditional on the relative scope of commitments per issue area (90% confidence intervals)

In the marginsplots, it can be seen that the relative scope of provisions in all issue areas influences PTA negotiation duration in line with our third hypothesis. Democratic leaders are particularly sensitive to ambitious commitments in the following four issue areas: services, investment, intellectual property rights, and standards. The result on standards could suggest that for democratic governments non-tariff barriers to trade are a sensitive topic because they either allow them to provide certain public goods to voters (for example food safety) or sustained protection to import-competing industries (Kono 2006). Similarly, investment appears to be a thorny agenda item for democrats in trade negotiations. In this context, the example of the TTIP negotiations is illustrative: The European Union and the United States are still debating over whether to include and how to design investor-state dispute settlement in their agreement. As made apparent by the recently leaked draft proposals, provisions on trademarks, copyrights and patents are also highly sensitive for both sides at the transatlantic bargaining table (New 2016).

Based on our empirical evidence, we can confirm that the lessons learned from the prominently discussed TTIP negotiations fit into a broader picture. Since especially investment, standards, and intellectual property rights are part of a widespread debate, there might be a link between the degree to which a respective issue mobilizes domestically and the pace of negotiations internationally.[8]

Conclusions and Future Research

This article examines the duration of preferential trade negotiations. Our empirical analysis is based on an original dataset covering 198 PTA negotiations and novel measures for the scope of new treaties relative to existing agreements. We observe three robust patterns regarding the drivers of bargaining processes for trade liberalization: First, differences in initial positions do not matter for the duration of trade talks, but for whether national delegations convene at the bargaining table in the first place. Second, democracies are faster in negotiating PTAs than autocracies. Third, this pattern holds only up to a certain threshold in ambition understood as the relative scope of a PTA. More specifically, if a trade deal requires countries to make upward commitments on 19 percent or more of their corresponding established PTA templates, democratic leaders become reluctant to tie their hands. Our detailed results further show that services, investment, intellectual property rights and standards constitute particularly thorny agenda items for democratic leaders in trade negotiations.

Our analysis contributes to the empirical literature on trade agreement design (Baccini et al. 2015; Dür et al. 2014). Instead of treating all PTAs in an undifferentiated manner, scholars are increasingly cognizant of differences across agreements in terms of the breadth of issues covered and the depth of commitments enshrined therein. We hypothesize that this variation in institutional design can *inter alia* translate into different bargaining dynamics at the international level, depending on countries' level of ambition relative to previously signed agreements. Moreover, our results introduce nuances into the portrayal of democratic leaders leveraging international trade agreements for purposes of inward-oriented credible commitment (Mansfield et al. 2002). We argue that since not all PTAs are designed in the same way, democratic leaders may be more or less prone to seek expedited trade negotiations.

With this article, we also make a case for embedding PTA bargaining processes, and international negotiations more generally, in a broader context of cooperation. Negotiations do not occur in a "vacuum" (Odell 2000, 154). Rather, national delegations convene at the bargaining table with a track record of previously signed agreements, which will inform their initial bargaining positions and concession management throughout the process (Crump

2007). Recently, scholars have started undertaking efforts to develop measures for individual countries' bargaining positions (for an example in international investment see Allee and Lugg 2016). Further research in this regard could improve our understanding of how deals are sealed at the international level and provide an empirical complement to existing formal models of bargaining processes and strategies.

Against the background of the widely discussed mega-regional projects TPP and TTIP, our analysis has implications for the policy-making world: Rather than finding that trade negotiations are completely under the radar of domestic politics and unconditionally pursued by democratic leaders, we observe that certain design features can lead to protracted negotiations at the international level. The democrats' greater responsiveness to public requests not only determines their will to sign PTAs, but also to design them in a particular fashion. The new issues on the 21st century trade agenda may hence still have a long way to go. Similar mechanisms could play out in negotiations over other international agreements, for instance bilateral investment treaties with comprehensive national treatment clauses or treaties aimed at the mutual recognition of standards. It will therefore be highly worthwhile to continue monitoring and analytically capturing the bargaining dynamics underpinning international cooperation.

Notes

[1]For a detailed list of the treaties see Appendix A.

[2]See Appendix B for a detailed list of the variables.

[3]Our results are robust to the exclusion of PTAs where at least one member states negotiates its first agreement.

[4]For further information on the model choice criteria see Appendix C.

[5]These variables are: contiguity, a shared colonial past as well as competitive pressures measured through the number of PTAs concluded at the global scale in a given year of interest (diffusion).

[6]Detailed output tables can be found in Appendix E.

[7]The corollary output tables can be found in Appendix D.

[8]Irrespective of these findings, the results for the relative scope of commitments in non-trade issues is puzzling: We observe that ambitious provisions lead to protracted negotiations among more democratic regimes. This finding, for which we have no explanation at the time of writing, could be explored in future research.

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Supporting Information for

Seal the Deal?
Domestic Politics and Institutional Design in Preferential Trade Negotiations

Contents

Appendix A: List of Treaties and Negotiation Duration

To retrieve information on the negotiation duration, we followed a two-step approach: First, we applied web scraping to collect data on PTA negotiation duration. Web scraping proved to be an effective tool to obtain data from official government and regional organization websites. In a second step, we reverted to the softwares Factiva and LexisNexis to systematically screen newspaper articles and other media contributions (e.g. transcripts from news channels) for information on preferential trade negotiations. We have decided to limit our empirical scope to PTAs concluded in the post-1990 period because digitized information on trade agreements pre-1990 is scarce. In Factiva and LexisNexis, we used codes to search for news articles in four languages: English, Spanish, German, and French. If we found media contributions indicating different dates for the same event, we adopted the strategy of Mölders (2015, p. 9) by opting for the earliest announcement. In instances where we obtained indications on the year and month of an event but not its day, we took the 15^{th} of the month as a reference.[9] PTAs below this level of information were dropped from the dataset.

Based on this approach, we have been able to collect information on the launch of negotiations for 256 PTAs and on signature dates for 457 agreements. For some PTAs negotiation start dates are available but they have not yet been concluded (right-censored data). For others, we have found signature dates but no information on the start of negotiations.

Table A-1: List of Treaties

Name	Year	negotiationduration
Agadir Agreement	2004	955
Albania Bosnia and Herzegovina	2003	287
Albania Bulgaria	2003	162
Albania Croatia	2002	74
Albania EC SAA	2006	1228
Albania EFTA	2009	219
Albania Kosovo	2003	173
Albania Macedonia	2002	158
Albania Romania	2003	129
Albania Serbia	2003	486
Algeria EC Euro-Med Association Agreement	2002	2132
Andean Countries MERCOSUR	2004	2331
Andorra EC	1990	336
Association of Caribbean States	1994	524
Association of Southeast Asian Nations (ASEAN) FTA	1992	112
Association of Southeast Asian Nations Australia New Zealand FTA (AANZFTA)	2009	1550
Association of Southeast Asian Nations China	2004	756
Association of Southeast Asian Nations India	2009	1985
Association of Southeast Asian Nations Japan	2008	1096
Association of Southeast Asian Nations Korea	2006	632
Association of Southeast Asian Nations Korea services	2007	1086

Table A-1: List of Treaties

Name	Year	negotiationduration
Australia Chile	2008	341
Australia China	2015	3677
Australia Japan	2014	2632
Australia Korea	2014	5072
Australia Malaysia	2012	2560
Australia Singapore	2003	725
Australia Thailand	2004	766
Australia US	2004	428
Bahrain US	2004	232
Belarus Kazakhstan Russia Vietnam	2015	792
Belize Guatemala	2006	581
Bhutan India	2006	743
Bosnia and Herzegovina Croatia	2000	643
Bosnia and Herzegovina EC SAA	2008	934
Bosnia and Herzogovina EFTA	2013	819
Brazil Mexico	2002	869
Brunei Japan	2007	356
Bulgaria EFTA	1993	195
Bulgaria Israel	2001	1047
Canada Chile	1996	339
Canada Colombia	2008	503
Canada Costa Rica	2001	167
Canada EC (CETA)	2014	2734
Canada EFTA	2008	3396
Canada Honduras	2013	1065
Canada Israel	1996	616
Canada Jordan	2009	494
Canada Korea	2014	3356
Canada Panama	2010	286
Canada Peru	2008	327
Caribbean Community (CARICOM) Costa Rica	2004	503
Caribbean Community (CARICOM) Cuba	2000	1784
Caribbean Community (CARICOM) Dominican Republic	1998	598
CARIFORUM EC EPA	2008	1643
Central America Chile	1999	458
Central America Dominican Republic	1998	74
Central America EC	2012	1828
Central America EFTA	2013	482
Central America Panama	2002	702
Central American Free Trade Agreement (CAFTA)	2004	506
Central American Free Trade Agreement (CAFTA) Dominican Republic	2004	206
Central European Free Trade Agreement (CEFTA)	2006	1353
Chile China	2005	297
Chile Colombia	2006	49
Chile EC	2002	952
Chile Ecuador	2008	1091
Chile EFTA	2003	903
Chile Hong Kong	2012	221
Chile India	2006	338
Chile Japan	2007	397

Table A-1: List of Treaties

Name	Year	negotiationduration
Chile Korea	2003	1244
Chile Malaysia	2010	1257
Chile MERCOSUR Protocol on Services	2009	624
Chile Panama	2006	383
Chile Thailand	2013	907
Chile Turkey	2009	615
Chile US	2003	912
Chile Vietnam	2011	1136
China Costa Rica	2010	442
China Hong Kong	2003	520
China Iceland	2013	2196
China Korea	2015	2994
China New Zealand	2008	1223
China Pakistan	2006	597
China Peru	2009	464
China Singapore	2008	790
China Switzerland	2013	890
Colombia Costa Rica	2013	351
Colombia EFTA	2008	536
Colombia Israel	2013	567
Colombia Korea	2013	1263
Colombia Mexico Venezuela	1994	544
Colombia Northern Triangle	2007	430
Colombia Panama	2013	1281
Colombia Peru EC	2012	1251
Colombia US	2006	918
Costa Rica Mexico	1994	369
Costa Rica Panama Protocol	2007	1906
Costa Rica Peru	2011	199
Costa Rica Singapore	2010	351
Cote d'Ivoire EC EPA	2008	2252
Cotonou Agreement	2000	600
Croatia EC	2001	359
Croatia EFTA	2001	238
Croatia Hungary	2001	1179
Croatia Turkey	2002	483
Cuba MERCOSUR	2006	70
D8 PTA	2006	815
EC Ecuador	2014	2721
EC Egypt Euro-Med Association Agreement	2001	2345
EC Estonia	1994	644
EC Estonia Europe Agreement	1995	179
EC Georgia	2014	486
EC Korea	2010	1248
EC Latvia	1994	78
EC Latvia Europe Agreement	1995	179
EC Lebanon Euro-Med Association Agreement	2002	2271
EC Lithuania	1994	125
EC Lithuania Europe Agreement	1995	179
EC Macedonia SAA	2001	398
EC Mexico	2000	500

Table A-1: List of Treaties

Name	Year	negotiationduration
EC Moldova	2014	1638
EC Montenegro SAA	2007	711
EC Morocco Euro-Med Association Agreement	1996	824
EC Serbia SAA	2008	932
EC South Africa	1999	1534
EC Ukraine	2014	2223
EC Vietnam	2016	1327
EFTA Egypt	2007	2978
EFTA Estonia	1995	175
EFTA GCC	2009	1098
EFTA Hong Kong	2011	519
EFTA Hungary	1993	916
EFTA Israel	1992	474
EFTA Jordan	2001	1003
EFTA Korea	2005	332
EFTA Latvia	1995	175
EFTA Lebanon	2004	443
EFTA Lithuania	1995	175
EFTA Macedonia	2000	363
EFTA Mexico	2000	144
EFTA Montenegro	2011	227
EFTA Peru	2010	1116
EFTA Poland	1992	740
EFTA Romania	1992	100
EFTA Serbia	2009	233
EFTA Singapore	2002	357
EFTA Slovenia	1995	687
EFTA Southern African Customs Union (SACU)	2006	1139
EFTA Tunisia	2004	2993
EFTA Ukraine	2010	429
Egypt Iraq	2001	601
Egypt MERCOSUR	2010	2391
Egypt Turkey	2005	2567
El Salvador Honduras Taiwan	2007	343
European Economic Area (EEA)	1992	861
Georgia Turkey	2007	293
Greater Arab Free Trade Agreement	1997	315
Guatemala Peru	2011	194
Guatemala Taiwan	2005	202
Gulf Cooperation Council (GCC)	2001	2787
Gulf Cooperation Council (GCC) Singapore	2008	698
Honduras Peru	2015	1659
Hong Kong New Zealand	2010	3193
Hungary Israel	1997	1125
Hungary Latvia	1999	572
Hungary Lithuania	1998	363
Hungary Turkey	1997	1485
India Japan	2011	1477
India Korea	2009	1233
India Malaysia	2011	1144
India MERCOSUR	2004	276

Table A-1: List of Treaties

Name	Year	negotiationduration
India Nepal	2009	1108
India Singapore	2005	764
India Sri Lanka	1998	26
Indonesia Japan	2007	780
Iran Pakistan	2004	80
Iraq Jordan	2002	1441
Israel Jordan	2004	2565
Israel MERCOSUR	2007	671
Israel Mexico	2000	705
Israel Panama	2015	563
Israel Poland	1997	1497
Israel Turkey	1996	560
Japan Malaysia	2005	700
Japan Mexico	2004	691
Japan Mongolia	2015	1136
Japan Peru	2011	792
Japan Philippines	2006	1422
Japan Singapore	2002	448
Japan Switzerland	2009	647
Japan Thailand	2007	1142
Japan Vietnam	2008	709
Jordan Singapore	2004	228
Jordan Turkey	2009	868
Jordan US	2000	140
Korea New Zealand	2015	2366
Korea Peru	2011	735
Korea Singapore	2005	555
Korea Turkey	2012	828
Korea US	2007	390
Korea Vietnam	2015	1777
Macedonia Kosovo	2005	258
Malaysia New Zealand	2009	1639
Malaysia Pakistan	2007	994
Malaysia Turkey	2014	1417
Mauritius Pakistan	2007	817
MERCOSUR	1991	262
MERCOSUR Mexico Auto Agreement	2002	224
MERCOSUR Southern African Customs Union (SACU)	2008	1839
Mexico Nicaragua	1997	2533
Mexico Northern Triangle	2000	1595
Mexico Panama	2014	247
Mexico Uruguay	2003	692
Montenegro Turkey	2008	469
Morocco Turkey	2004	1878
Morocco US	2004	511
New Zealand Singapore	2000	430
New Zealand Taiwan	2013	429
New Zealand Thailand	2005	278
Nicaragua Taiwan	2006	634
North American Free Trade Agreement (NAFTA)	1992	681
Oman US	2006	313

Table A-1: List of Treaties

Name	Year	negotiationduration
Pacific Alliance	2012	522
Pacific Island Countries Trade Agreement (PICTA)	2001	355
Pakistan Sri Lanka	2002	731
Panama Peru	2011	194
Panama Singapore	2006	653
Panama Taiwan	2003	322
Panama US	2007	1158
Peru Singapore	2008	834
Peru Thailand	2005	660
Peru US	2006	694
Serbia Turkey	2009	656
Singapore US	2003	866
South Asian Association for Regional Cooperation, Preferential Trading Arrangement (SAPTA)	1993	148
Southern Africa Customs Union (SACU)	2002	2888
Trans Pacific Strategic EPA	2005	663
Transpacific Partnership (TPP)	2015	2152
United States Vietnam	2000	385

Appendix B: List of PTA Design Variables

Table A-2: Variables to Calculate Relative Scope and Transaction Costs

Nr	Variable	Definition	Dimension	Nr-dimension
1	sergatsref	Does the agreement contain a reference to the General Agreement on Trade in Services (GATS)?	service	1
2	servicesmfn	Does the service chapter contain an MFN clause?	service	2
3	sernonestablishment	Does the service chapter grant the right of non-establishment (that is, does it allow the provision of services without local presence)?	service	3
4	sermovement	Does the service chapter allow the movement of natural persons in the provision of services?	service	4
5	servicecontinuous	Does the service chapter include a review provision?	service	5
6	sercommunication	Inclusion of telecommunication service sector	service	6
7	serconstruction	Inclusion of construction service sector	service	7
8	serdistribution	Inclusion of distribution service sector	service	8
9	sereducation	Inclusion of education service sector	service	9
10	serenvironmental	Inclusion of environmental service sector	service	10
11	serfinancial	Inclusion of financial service sector	service	11
12	serhealth	Inclusion of health service sector	service	12
13	sertourism	Inclusion of tourism service sector	service	13
14	sertransport	Inclusion of transport service sector	service	14
15	inv_trim	Does the agreement contain a reference to the Agreement on Trade Related Investment Measures?	investment	1
16	inv_pre_est_oper	Pre-establishment operation	investment	2
17	inv_est_oper	Establishment (i.e. greenfield)	investment	3
18	inv_post_est_oper	Post-establishment operation (i.e. free movement of capital and resale)	investment	4
19	inv_merger	Acquisition (i.e. merger)	investment	5
20	inv_mfn	Does the investment chapter contain an MFN clause?	investment	6
21	inv_nt	National Treatment	investment	7
22	inv_transf_pay	Transfers and Payments	investment	8
23	inv_ctry_dsm	Investor-state dispute settlement	investment	9
24	inv_ctry_ctry_dsm	State-state dispute settlement	investment	10
25	inv_mov_bus_per	Temporary Movement of Business or Natural People	investment	11
26	ipr_mfn	Does the IPR chapter contain an MFN clause?	IPR	1
27	ipr_rome	IPR-Rome Convention	IPR	2
28	ipr_paris	IPR-Paris Convention	IPR	3
29	ipr_bern	IPR-Conention Bern	IPR	4
30	ipr_copy_right	IPR-WIP copyright treaty	IPR	5

Table A-2: Variables to Calculate Relative Scope and Transaction Costs

Nr	Variable	Definition	Dimension	Nr-dimension
31	ipr_trips	Does the agreement contain a reference to the Agreement on Trade Related Intellectual Property Rights?	IPR	6
32	ipr_pharma	IPR-WIP Phonograms treaty	IPR	7
33	ipr_geo_indic	Are there references to geographical indications ?	IPR	8
34	ipr_enforc_prov	Are there specific provisions in relation to enforcement?	IPR	9
35	procprovi	Does the agreement contain substantive provisions on public procurement?	procurement	1
36	procnational	Does the agreement guarantee national treatment with respect to public procurement?	procurement	2
37	proctransparency	Does the chapter on public procurement include a transparency provision?	procurement	3
38	procWTO	Does the agreement contain a reference to the WTO/GATT procurement agreements?	procurement	4
39	COMP_CHAP	Does this agreement include a competition chapter?	competition	5
40	COMP_ART	Does this agreement include a competition article?	competition	6
41	COMP_NOT_DISTORT	Is there a provision on undertakings not to distort competition?	competition	7
42	COMP_INFO	Is there a provision on the exchange of information or notification?	competition	8
43	COMP_NAT_AUTHO	Is there a provision on the establishment of a national competition authority?	competition	9
44	COMP_COOR_AUTHO	Is there a provision on the coordination among national authorities?	competition	10
45	COMP_MONOPOLY	Is there a provision on monopolies and cartels?	competition	11
46	COMP_MERGER	Is there a provision on mergers and acquisitions?	competition	12
47	COMP_STE	Is there a provision on state trading enterprises?	competition	13
48	COMP_STATE_AID	Is there a provision on state aid?	competition	14
49	TBT	Does the agreement contain a TBT chapter or provision(s)?	standards	1
50	TBTWTO	Does the agreement contain a reference to the WTO Agreement on TBTs (the GATT Standards code)?	standards	2
51	TBTCoop	Does the agreement call for cooperation and information exchange on TBTs?	standards	3
52	TBTdistort	Does the agreement contain a requirement for standards to be least trade-distorting?	standards	4

Table A-2: Variables to Calculate Relative Scope and Transaction Costs

Nr	Variable	Definition	Dimension	Nr-dimension
53	TBTdispute	Does the agreement contain a dispute settlement provision for TBTs?	standards	5
54	TBTintstand	Does the agreement encourage the use of international standards?	standards	6
55	SPS	Does the agreement contain an SPS chapter or provision(s)?	standards	7
56	SPSWTO	Does the agreement contain a reference to the WTO SPS agreement?	standards	8
57	SPScoop	Does the agreement contain provisions calling for information exchange and technical cooperation on SPS measures?	standards	9
58	SPSharmon	Does the agreement contain provisions that stipulate the harmonization of SPS provisions?	standards	10
59	body_CPR	Body dealing with CPR	NTI	1
60	body_ESR	Body dealing with ESR	NTI	2
61	body_EP	Body dealing with EP	NTI	3
62	conditionality_pre_EP	Compliance with EP Clauses as precondition to trade	NTI	4
63	conditionality_post_EP	Sanctioning once EP Clauses are violated	NTI	5
64	EP_obl	General Obligation on EP	NTI	6
65	EP_main_Exept	Economic Clauses must not be complied with once compliance with EP clauses is endangerd	NTI	7
66	EP_obl_Measure	Concrete measures to improve EP	NTI	8
67	EP_obl_Promo	Clause on promoting EP	NTI	9
68	conditionality_pre_ESR	Compliance with ESR Clauses as precondition to trade	NTI	10
69	conditionality_post_ESR	Sanctioning once ESR Clauses are violated	NTI	11
70	ESR_obl	General Obligation on ESR	NTI	12
71	ESR_obl_Exept	Economic Clauses must not be complied with once compliance with ESR clauses is endangerd	NTI	13
72	ESR_obl_Measure	Concrete measures to improve ESR	NTI	14
73	ESR_obl_Promo	Clause on promoting ESR	NTI	15
74	conditionality_pre_CPR	Compliance with CPR Clauses as precondition to trade	NTI	16
75	conditionality_post_CPR	Sanctioning once CPR Clauses are violated	NTI	17
76	CPR_obl	General Obligation on CPR	NTI	18
77	CPR_obl_Exept	Economic Clauses must not be complied with once compliance with CPR clauses is endangerd	NTI	19
78	CPR_obl_Measure	Concrete measures to improve CPR	NTI	20
79	CPR_obl_Promo	Clause on promoting CPR	NTI	21
80	Delegation_EP_access_consult_IO	Consulting IOs for EP	NTI	22
81	Delegation_EP_access_consult_NGO	Consulting NGOs for EP	NTI	23
82	Delegation_EP_access_consult_business	Consulting Business for EP	NTI	24

Table A-2: Variables to Calculate Relative Scope and Transaction Costs

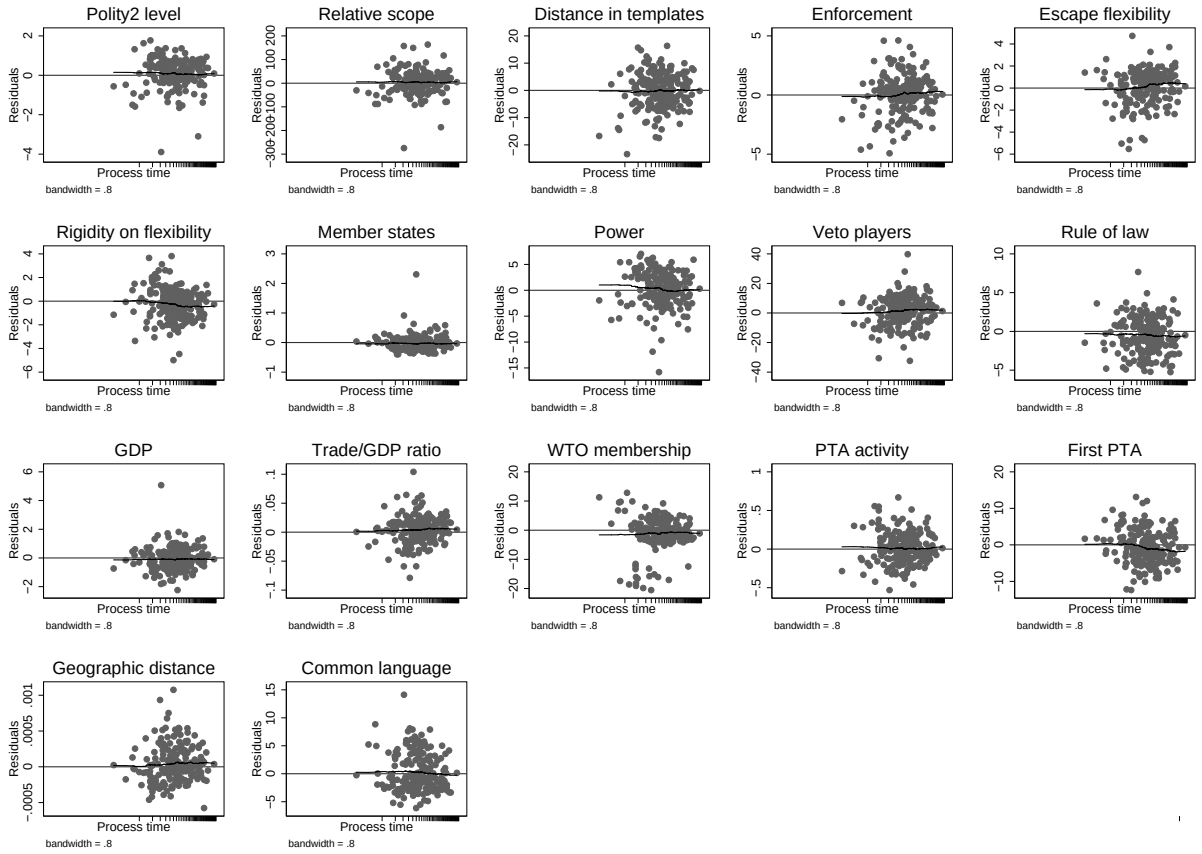
Nr	Variable	Definition	Dimension	Nr-dimension
83	Delegation_EP_access_consult_experts	Consulting Experts for EP	NTI	25
84	Delegation_EP_access_consult_public	Consulting Public for EP	NTI	26
85	Delegation_EP_access_consult_science	Consulting Science for EP	NTI	27
86	Delegation_EP_access_consult_union	Consulting Unions for EP	NTI	28
87	Delegation_EP_access_file_Individual	Individuals file Disputes on EP	NTI	29
88	Delegation_EP_access_file_State	Member States file Disputes on EP	NTI	30
89	Delegation_EP_dispute_resol_adhoc_panel	Disputes on EP are resoluted by adhoc panels	NTI	31
90	Delegation_EP_dispute_resol_conciliation	Disputes on EP are resoluted by conciliation and mediation	NTI	32
91	Delegation_EP_dispute_resol_state_veto	Disputes on EP are resoluted by Member States	NTI	33
92	Delegation_EP_implementation_domestic_norm_dom	Decisions on disputes on EP must be implemented domestically	NTI	34
93	Delegation_EP_implementation_international_decision	Decisions on disputes on EP are implemented by International bodies	NTI	35
94	assessment_EP_body	Monitoring EP by the international body that was established through the PTA	NTI	36
95	assessment_EP_state	Monitoring EP by Member States' Organs	NTI	37
96	Delegation_ESR_access_consult_IO	Consulting IOs for ESR	NTI	38
97	Delegation_ESR_access_consult_NGO	Consulting NGOs for ESR	NTI	39
98	Delegation_ESR_access_consult_business	Consulting Business for ESR	NTI	40
99	Delegation_ESR_access_consult_experts	Consulting Experts for ESR	NTI	41
100	Delegation_ESR_access_consult_public	Consulting Public for ESR	NTI	42
101	Delegation_ESR_access_consult_science	Consulting Unions for ESR	NTI	43
102	Delegation_ESR_access_consult_union	Consulting Science for ESR	NTI	44
103	Delegation_ESR_access_file_Individual	Individuals file Disputes on ESR	NTI	45
104	Delegation_ESR_access_file_State	Member States file Disputes on ESR	NTI	46
105	Delegation_ESR_dispute_resol_adhoc_panel	Disputes on ESR are resoluted by adhoc panels	NTI	47
106	Delegation_ESR_dispute_resol_conciliation	Disputes on ESR are resoluted by conciliation and mediation	NTI	48
107	Delegation_ESR_dispute_resol_state_veto	Disputes on ESR are resoluted by Member States	NTI	49
108	Delegation_ESR_implementation_domestic_norm_dom	Decisions on disputes on ESR must be implemented domestically	NTI	50
109	Delegation_ESR_implementation_international_decision	Decisions on disputes on ESR are implemented by International bodies	NTI	51
110	assessment_ESR_body	Monitoring ESR by the international body that was established through the PTA	NTI	52
111	assessment_ESR_state	Monitoring ESR by Member States' Organs	NTI	53
112	Delegation_CPR_access_consult_IO	Consulting IOs for CPR	NTI	54
113	Delegation_CPR_access_consult_NGO	Consulting NGOs for CPR	NTI	55
114	Delegation_CPR_access_consult_business	Consulting Business for CPR	NTI	56
115	Delegation_CPR_access_consult_public	Consulting Public for CPR	NTI	57
116	Delegation_CPR_access_consult_science	Consulting Science for CPR	NTI	58
117	Delegation_CPR_access_file_Individual	Individuals file Disputes on CPR	NTI	59

Table A-2: Variables to Calculate Relative Scope and Transaction Costs

Nr	Variable	Definition	Dimension	Nr-dimension
118	Delegation_CPR_access_file_State	Member States file Disputes on CPR	NTI	60
119	Delegation_CPR_dispute_resol_conciliation	Disputes on CPR are resoluted by ad-hoc panels	NTI	61
120	Delegation_CPR_dispute_resol_state_veto	Disputes on CPR are resoluted by conciliation and mediation	NTI	62
121	Delegation_CPR_implementation_international_decision	Disputes on CPR are resoluted by Member States	NTI	63
122	assessment_CPR_body	Monitoring CPR by the international body that was established through the PTA	NTI	64
123	assessment_CPR_state	Monitoring CPR by Member States' Organs	NTI	65
124	EP_specific1	One terms to define EP	NTI	66
125	EP_specific2	Two different terms to define EP	NTI	67
126	EP_specific3	Three different terms to define EP	NTI	68
127	EP_specific4	Four different terms to define EP	NTI	69
128	EP_specific5	Five different terms to define EP	NTI	70
129	EP_specific6	Six different terms to define EP	NTI	71
130	EP_specific7	Seven different terms to define EP	NTI	72
131	EP_specific8	Eight different terms to define EP	NTI	73
132	EP_specific9	Nine different terms to define EP	NTI	74
133	CPR_specific1	One terms to define CPR	NTI	75
134	CPR_specific2	Two different terms to define CPR	NTI	76
135	CPR_specific3	Three different terms to define CPR	NTI	77
136	CPR_specific4	Four different terms to define CPR	NTI	78
137	CPR_specific5	Five different terms to define CPR	NTI	79
138	CPR_specific6	Six different terms to define CPR	NTI	80
139	CPR_specific7	Seven different terms to define CPR	NTI	81
140	CPR_specific8	Eight different terms to define CPR	NTI	82
141	CPR_specific9	Nine different terms to define CPR	NTI	83
142	CPR_specific10	Ten different terms to define CPR	NTI	84
143	ESR_specific2	Two different terms to define ESR	NTI	85
144	ESR_specific3	Three different terms to define ESR	NTI	86
145	ESR_specific4	Four different terms to define ESR	NTI	87
146	ESR_specific5	Five different terms to define ESR	NTI	88
147	ESR_specific6	Six different terms to define ESR	NTI	89
148	ESR_specific7	Seven different terms to define ESR	NTI	90
149	ESR_specific8	Eight different terms to define ESR	NTI	91
150	ESR_specific9	Nine different terms to define ESR	NTI	92
151	ESR_specific10	Ten different terms to define ESR	NTI	93
152	ESR_specific11	Eleven different terms to define ESR	NTI	94

Appendix C: Model Choice

To estimate survival models, we can revert to a range of parametric and semi-parametric model specifications. Semi-parametric models, notably the Cox model, are particularly appealing because they do not rely on an explicit assumption about the distribution of the baseline hazard rate, i.e. the distribution of the risk of failing over the process time (Baccini 2014; Bearce et al. 2015; Cox 1972). However, for the Cox model to be suitable, the so-called proportional hazard (ph) assumption has to hold: The covariates in a model have to lead to proportional increases or decreases in the hazard rate across the baseline distribution. To determine whether the Cox model is suitable for our analysis, we plotted the Schoenfeld residuals (see below) and performed ph-tests for all covariates in our model. Both the visual findings as well as the formal ph tests confirm that the ph-assumption is violated for a number of independent variables. Subsequent tests with parametric model specifications show that the Weibull model performs best. Therefore, the Weibull model was selected for the estimation.[10]



Appendix D: Relative Scope per Issue Area

Table A-3: Relative Scope Split

	RS services	RS investment	RS standards	RS IPR	RS procurement	RS competition	RS NTIs
Difference in design templates	0.148	0.130	-0.0166	0.155	0.0895	0.206	0.169
	(0.251)	(0.248)	(0.274)	(0.254)	(0.260)	(0.267)	(0.247)
Polity2 score	-0.0469**	-0.0553***	-0.0446*	-0.0470**	-0.0417*	-0.0434**	-0.0681***
	(0.0200)	(0.0180)	(0.0233)	(0.0190)	(0.0214)	(0.0216)	(0.0224)
Relative scope	0.637	0.0659	-0.483	0.341	0.711	0.626	0.298
	(0.755)	(0.629)	(0.665)	(0.614)	(0.698)	(0.652)	(0.570)
RS services	-1.372						
	(1.330)						
Regime type * RS services	0.0574						
	(0.0748)						
RS investment		-2.117***					
		(0.670)					
Regime type * RS investment		0.132***					
		(0.0412)					
RS standards			-0.244				
			(1.395)				
Regime type * RS standards			0.0513				
			(0.0779)				
RS IPR				-1.107			
				(1.162)			
Regime type * RS IPR				0.0630			
				(0.0673)			
RS procurement					-0.427		
					(0.757)		
Regime type * RS procurement					0.0119		
					(0.0456)		
RS competition policy						-0.515	
						(1.543)	
Regime type * RS competition policy						-0.00107	
						(0.0878)	
RS NTI							-7.992***
							(3.034)

Regime type * RS NTI							0.453**
							(0.186)
Enforcement	-0.0369	-0.0415	-0.0379	-0.0362	-0.0366	-0.0420	-0.0315
	(0.0586)	(0.0525)	(0.0575)	(0.0573)	(0.0583)	(0.0568)	(0.0558)
Escape flexibility	-0.128***	-0.122***	-0.132**	-0.130***	-0.135***	-0.135***	-0.128***
	(0.0479)	(0.0465)	(0.0516)	(0.0484)	(0.0503)	(0.0497)	(0.0459)
Rigidity on flexibility	0.175***	0.195***	0.182***	0.184***	0.173***	0.180***	0.183***
	(0.0438)	(0.0435)	(0.0458)	(0.0457)	(0.0443)	(0.0435)	(0.0430)
Member states	0.0227***	0.0205***	0.0202***	0.0224***	0.0221***	0.0226***	0.0217***
	(0.00772)	(0.00760)	(0.00763)	(0.00779)	(0.00782)	(0.00771)	(0.00826)
Power	-0.179	-0.184	-0.136	-0.189	-0.187	-0.201*	-0.193
	(0.117)	(0.116)	(0.117)	(0.129)	(0.119)	(0.116)	(0.119)
Veto players	-0.837*	-0.866*	-0.853*	-0.821*	-0.801*	-0.769	-0.688
	(0.483)	(0.468)	(0.486)	(0.480)	(0.482)	(0.475)	(0.451)
Rule of law	0.328***	0.265**	0.332***	0.331***	0.351***	0.348***	0.319***
	(0.104)	(0.105)	(0.106)	(0.105)	(0.107)	(0.105)	(0.105)
GDP	0.0618**	0.0704**	0.0508*	0.0568*	0.0469	0.0571*	0.0606**
	(0.0308)	(0.0303)	(0.0308)	(0.0314)	(0.0315)	(0.0300)	(0.0296)
Trade/GDP ratio	-0.00307***	-0.00270***	-0.00321***	-0.00325***	-0.00329***	-0.00333***	-0.00342***
	(0.00102)	(0.000980)	(0.00101)	(0.00104)	(0.00108)	(0.00106)	(0.00104)
WTO membership	0.665***	0.622***	0.660***	0.656***	0.627***	0.657***	0.650***
	(0.204)	(0.195)	(0.208)	(0.206)	(0.211)	(0.210)	(0.196)
PTA activity	-0.00761	-0.0111	-0.00627	-0.00837	-0.00714	-0.0111	-0.0114
	(0.00959)	(0.00996)	(0.00981)	(0.00966)	(0.00977)	(0.00985)	(0.00974)
First PTA	0.497**	0.498***	0.370**	0.519***	0.556***	0.537***	0.471***
	(0.194)	(0.179)	(0.188)	(0.196)	(0.194)	(0.187)	(0.177)
Geographic distance	-2.64e-05**	-2.58e-05**	-2.37e-05**	-2.63e-05**	-2.57e-05**	-2.63e-05**	-2.28e-05**
	(1.10e-05)	(1.06e-05)	(1.07e-05)	(1.10e-05)	(1.10e-05)	(1.10e-05)	(1.04e-05)
Common language	-0.0997	-0.110	-0.0964	-0.112	-0.114	-0.115	-0.129
	(0.132)	(0.128)	(0.131)	(0.129)	(0.135)	(0.132)	(0.130)
Year	-0.0373***	-0.0396***	-0.0337***	-0.0372***	-0.0330***	-0.0344***	-0.0347***
	(0.0118)	(0.0115)	(0.0118)	(0.0121)	(0.0116)	(0.0115)	(0.0114)
Constant	80.56***	85.17***	73.78***	80.51***	72.40***	74.89***	75.75***
	(23.41)	(22.92)	(23.47)	(24.12)	(23.00)	(22.84)	(22.72)
Observations	198	198	198	198	198	198	198

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix E: Robustness Checks

Table A-4: Robustness Check I - Alternative Measures for Regime type

	Unified Democracy Scores (UDS)	Polity2 binary
	0.160	0.127
Difference in design templates		
	(0.244)	(0.263)
Relative scope	-0.377	-0.0966
	(0.838)	(0.668)
UDS	-0.461**	
	(0.181)	
Regime type * UDS	0.775	
	(0.804)	
Polity2 binary = 1		-0.335*
		(0.173)
Polity2 binary = 0 * Relative Scope		0
		(0)
Polity2 binary = 1 * Relative Scope		0.489
		(0.773)
Enforcement	-0.0390	-0.0195
	(0.0608)	(0.0591)
Escape flexibility	-0.0992**	-0.126***
	(0.0488)	(0.0486)
Rigidity on flexibility	0.162***	0.163***
	(0.0433)	(0.0453)
Member states	0.0211***	0.0220***
	(0.00733)	(0.00742)
Power	-0.102	-0.203*
	(0.113)	(0.119)
Veto players	-1.044**	-1.230***
	(0.468)	(0.449)
Rule of law	0.368***	0.295***
	(0.114)	(0.103)
GDP	0.0503	0.0554*
	(0.0321)	(0.0326)
Trade/GDP ratio	-0.00192*	-0.00235**
	(0.00105)	(0.00108)
WTO membership	0.660***	0.585***
	(0.205)	(0.212)
PTA activity	0.00595	0.000785
	(0.0105)	(0.0106)
First PTA	0.609***	0.556***
	(0.193)	(0.198)
Agriculture	0.448***	0.386***
	(0.142)	(0.146)
Geographic distance	-3.94e-05***	-3.58e-05***
	(1.07e-05)	(1.10e-05)
Common language	-0.157	-0.144
	(0.123)	(0.130)
Year	-0.0442***	-0.0400***
	(0.0114)	(0.0120)
Constant	94.12***	85.80***
	(22.76)	(23.93)
Observations	198	198

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

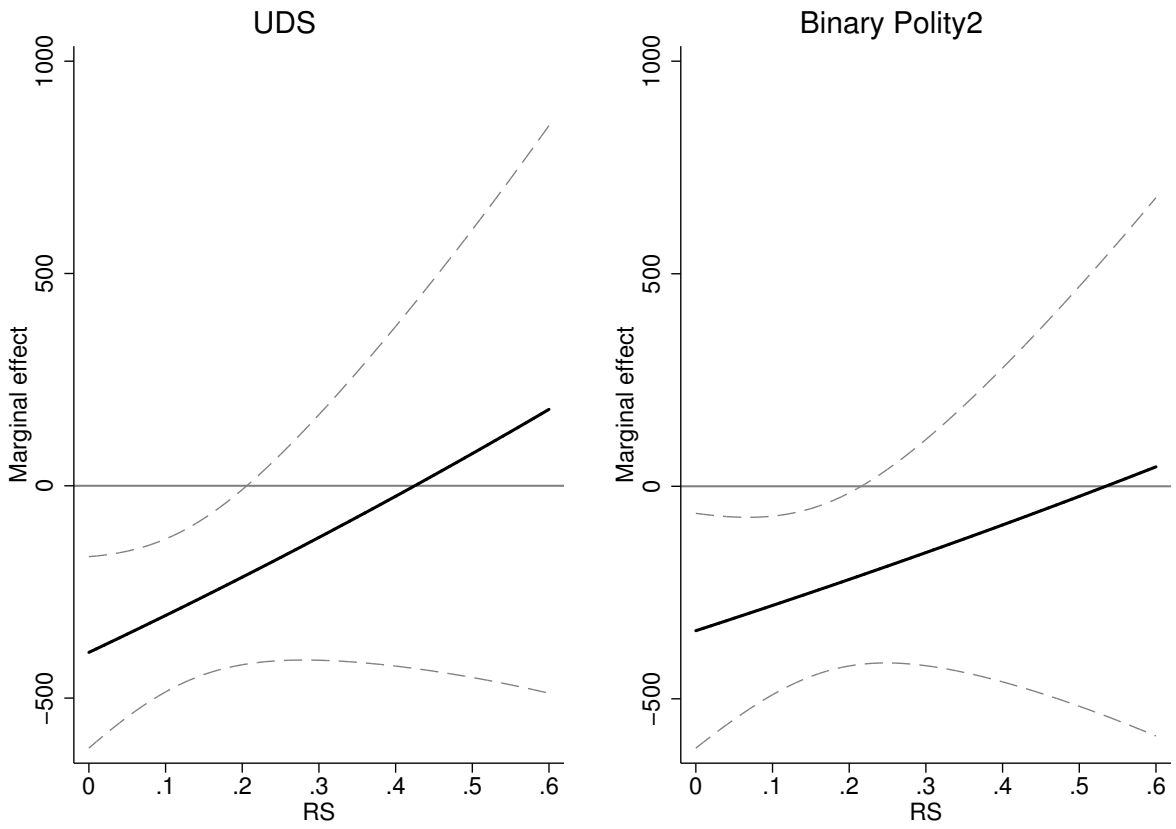


Figure A-1: Robustness Check I. Alternative measures for regime type

Explanatory Notes on Robustness Check II - Alternative Metric for Templates and Relative Scope:

- **Unweigthed Relative Scope:** We calculate the mean over all past provisions.
- **GDP-category templates:** In our construction of templates, we consider only those PTAs as constitutive of the template where the largest partner country exhibits a similar economic size to the largest current bargaining partner.

Table A-5: Robustness Check II Alternative Measure for the Relative Scope

	Relative scope mean (unweighted)	Templates (GDP-category)
Difference in design templates	0.341	
	(0.260)	
Difference in design templates		0.126
(same GDP category)		(0.194)
Polity2 score	-0.0631***	-0.0494**
	(0.0216)	(0.0218)
RS (unweighted)	-2.629**	
	(1.190)	
Regime type * RS (unweighted)	0.135**	
	(0.0680)	
RS (same GDP category)		-2.574**
		(1.066)
Regime type * RS (same GDP category)		0.126**
		(0.0584)
Enforcement	-0.0403	-0.0237
	(0.0544)	(0.0572)
Escape flexibility	-0.0921*	-0.0733
	(0.0485)	(0.0476)
Rigidity on flexibility	0.184***	0.177***
	(0.0467)	(0.0474)
Member states	0.0226***	0.0228***
	(0.00710)	(0.00711)
Power	-0.156	-0.0532
	(0.113)	(0.118)
Veto players	-0.840*	-1.354***
	(0.438)	(0.433)
Rule of law	0.222**	0.307***
	(0.0984)	(0.0950)
GDP	0.0698**	0.0558**
	(0.0313)	(0.0275)
Trade/GDP ratio	-0.00135	-0.00185
	(0.00113)	(0.00118)
WTO membership	0.694***	0.731***
	(0.186)	(0.178)
PTA activity	-0.00618	-0.00201
	(0.0100)	(0.00992)
First PTA	0.400*	0.313
	(0.226)	(0.256)
Agriculture	0.396**	0.353**
	(0.157)	(0.142)
Geographic distance	-3.09e-05***	-2.39e-05**
	(1.14e-05)	(1.14e-05)
Common language	-0.0634	0.0415
	(0.134)	(0.139)
Year	-0.0419***	-0.0422***
	(0.0112)	(0.0117)
Constant	89.59***	90.35***
	(22.32)	(23.36)
Observations	198	213

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

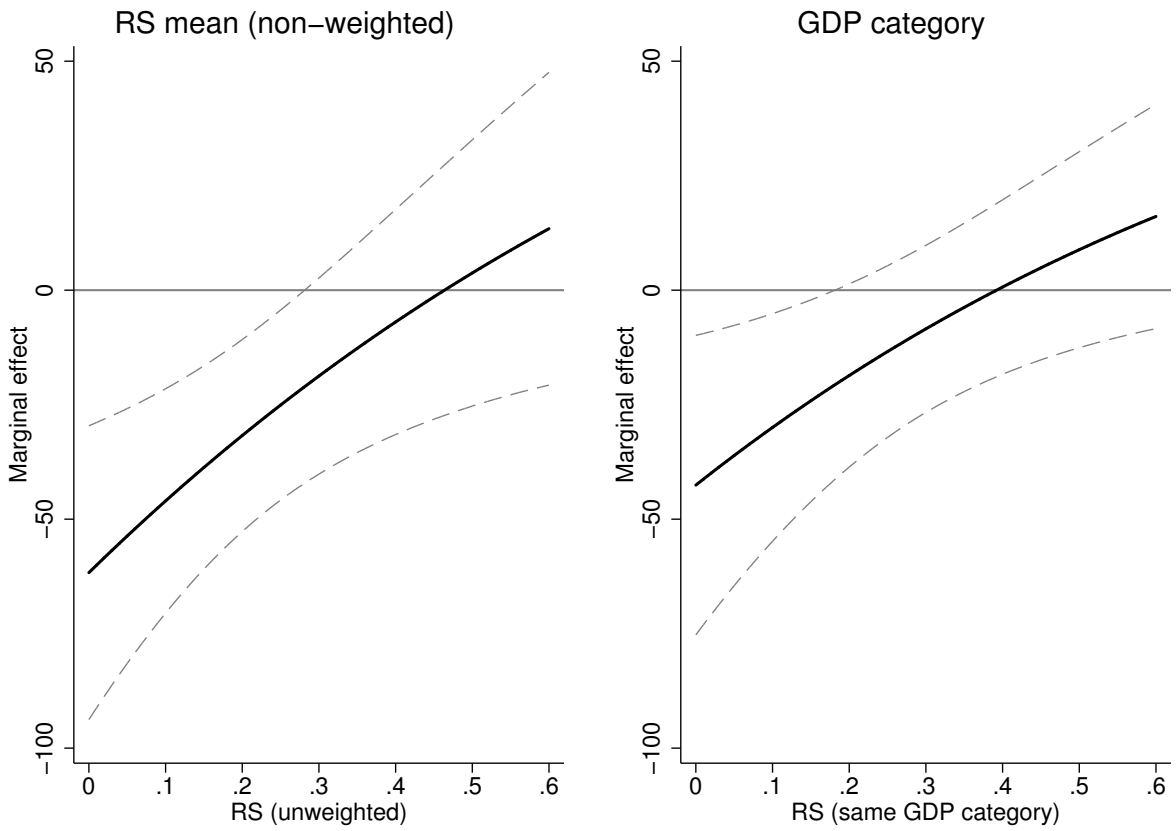


Figure A-2: Robustness Check II Alternative Measure for Relative Scope

Explanatory Notes: Robustness Check III - Trade-Related Measures for Relative Scope

We derived trade data from COMTRADE and the World Trade Flows Characterization database by the CEPII research center to derive trade data.

Table A-6: Robustness Check III - Trade-Related Measures for Relative Scope

	Grubel-Lloyed index	Trade (COW)
Difference in design templates	0.333	0.359
	(0.270)	(0.260)
Regime type	-0.0755***	-0.111**
	(0.0241)	(0.0550)
Grubel-Lloyed index	-1.571	
	(2.872)	
Regime type * Grubel-Lloyed index	0.173	
	(0.182)	
Trade flows (COW)		-0.0364
		(0.0627)
Regime type * Trade flows (COW)		0.00341
		(0.00343)
Enforcement	0.00935	0.0122
	(0.0666)	(0.0649)
Escape flexibility	-0.126*	-0.113*
	(0.0645)	(0.0611)
Rigidity on flexibility	0.201***	0.209***
	(0.0449)	(0.0453)
Member states	0.0235***	0.0216***
	(0.00801)	(0.00762)
Power	-0.186	-0.156
	(0.114)	(0.116)
Veto players	0.0362	-0.00733
	(0.605)	(0.597)
Rule of law	0.263**	0.280**
	(0.120)	(0.115)
GDP	0.0274	0.0259
	(0.0376)	(0.0397)
Trade/GDP ratio	-0.00310***	-0.00295**
	(0.00114)	(0.00119)
WTO membership	0.553**	0.583**
	(0.234)	(0.227)
PTA activity	-0.00900	-0.0137
	(0.0112)	(0.0106)
First PTA	0.379**	0.381**
	(0.193)	(0.179)
Agriculture	0.329**	0.334*
	(0.166)	(0.171)
Geographic distance	-1.87e-05	-1.90e-05
	(1.22e-05)	(1.20e-05)
Common language	-0.155	-0.0997
	(0.161)	(0.146)
Year	-0.0318**	-0.0400**
	(0.0133)	(0.0181)
Constant	70.31***	86.83**
	(26.69)	(36.23)
Observations	168	169

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

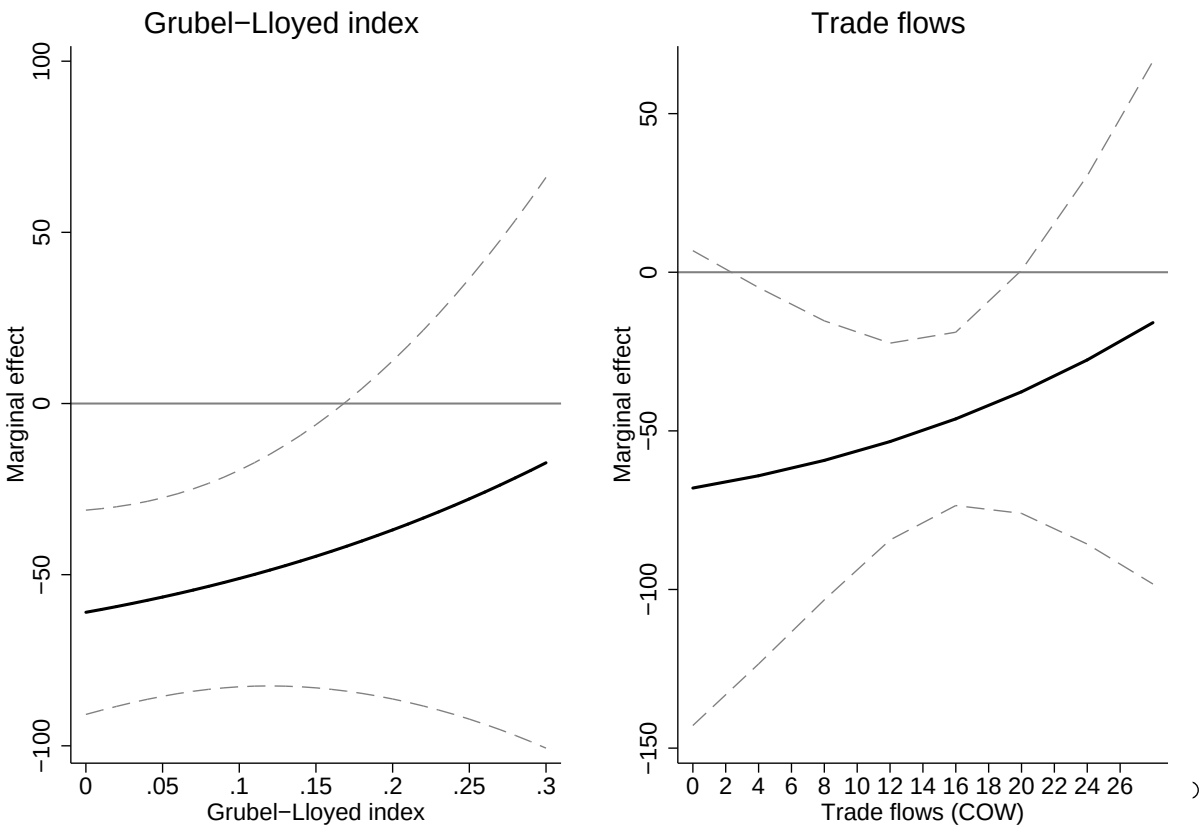


Figure A-3: Robustness Check III Trade-related Measures for Relative Scope

Explanatory Notes: Robustness Check IV - Additional Political Control Variables

The following two variables were additionally included in the model:

- **Left-right position of the government:** To account for governing party positions, we adopt the "vanilla method" suggested by (**Gabel.2000**) on manifesto data and take the negotiation start date as the reference (**Volkens.2014**).[11] Since we have a fairly short time span (1990-2015), we decided against the dynamic latent variable model suggested by **Konig.2013**

- **Agriculture:** This variable measures whether in PTA negotiations agricultural trade liberalisation is likely to be controversial. The opening up of agricultural markets at the multilateral level has proven to be difficult given the strength of well-organised and protection-seeking farmers in the domestic political arenas of many countries around the globe. In PTA negotiations, one could expect a protracted bargaining process if governments with offensive and defensive interests in agriculture seek to strike a trade deal. To examine this conjecture, we take data from the WTO on coalitions at the multilateral trade club and construct the binary variable *Agriculture*, which is coded 1 if in PTA negotiations there is at least one member from the Cairns group (offensive interests on agriculture, e.g. Chile) and one country from the G-10 (defensive interests, e.g. Switzerland).

Table A-7: Robustness Check IV - Additional Political Control Variables

	Expanded Model
Difference in design templates	-0.131
	(0.436)
Regime type	-0.153***
	(0.0433)
Relative scope	-8.715***
	(2.989)
Regime type * Relative scope	0.463***
	(0.175)
Enforcement	-0.0167
	(0.0581)
Escape flexibility	-0.0675
	(0.0834)
Rigidity on flexibility	0.167*
	(0.0890)
Member states	0.00866
	(0.00951)
Power	-0.786***
	(0.232)
Veto players	-0.608
	(0.485)
Rule of law	0.0648
	(0.157)
Left-right positioning	0.0901
	(0.131)
GDP	0.0730
	(0.0463)
Trade/GDP ratio	0.00165
	(0.00333)
WTO membership	1.082***
	(0.243)
PTA activity	0.00848
	(0.0153)
First PTA	-2.644***
	(0.703)
Agriculture	0.0395
	(0.220)
Geographic distance	-2.39e-05
	(2.36e-05)
Common language	-0.150
	(0.300)
Year	-0.00757
	(0.0223)
Constant	21.92
	(43.98)
Observations	77

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

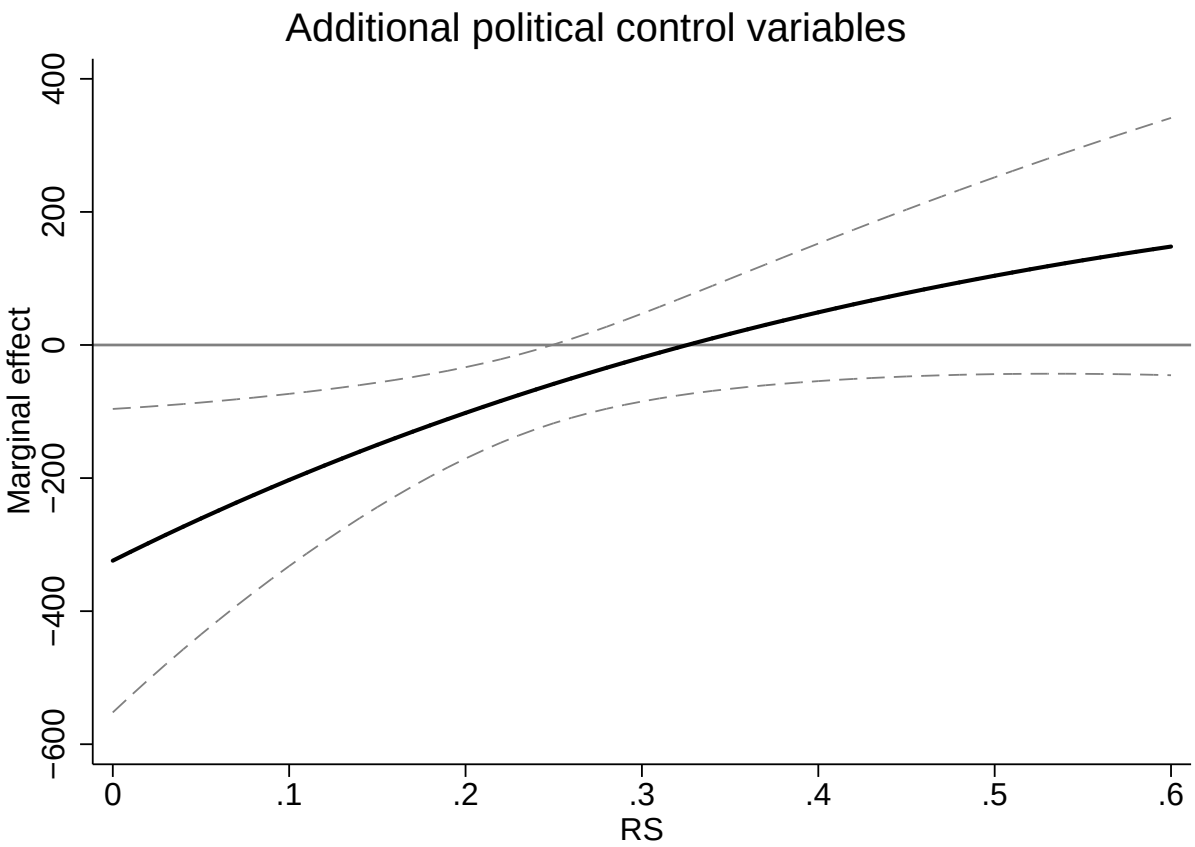


Figure A-5: Robustness Check V - Additional Political Control Variables

Table A-8: Robustness Check V - Shared Frailty Model

	Shared frailty
Regime type	-0.0450*
	(0.0230)
Relative Scope	-1.779
	(2.074)
Regime type * Relative Scope	0.135
	(0.122)
Transaction costs	0.438
	(0.309)
Enforcement	0.00540
	(0.0633)
Escape flexibility	-0.0401
	(0.0541)
Rigidity on flexibility	0.126**
	(0.0521)
Member states	0.0185**
	(0.00750)
Power	-0.273*
	(0.153)
Veto players	-0.525
	(0.628)
Rule of law	0.289**
	(0.147)
GDP	0.0656*
	(0.0340)
Trade/GDP ratio	-0.00198
	(0.00139)
WTO membership	0.756***
	(0.238)
PTA activity	-0.00998
	(0.0131)
First PTA	0.440*
	(0.246)
Geographic distance	-0.152*
	(0.0828)
Common language	-0.315**
	(0.151)
Year	-0.0143
	(0.0134)
Constant	34.42
	(26.66)
Observations	198
Number of groups	198

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

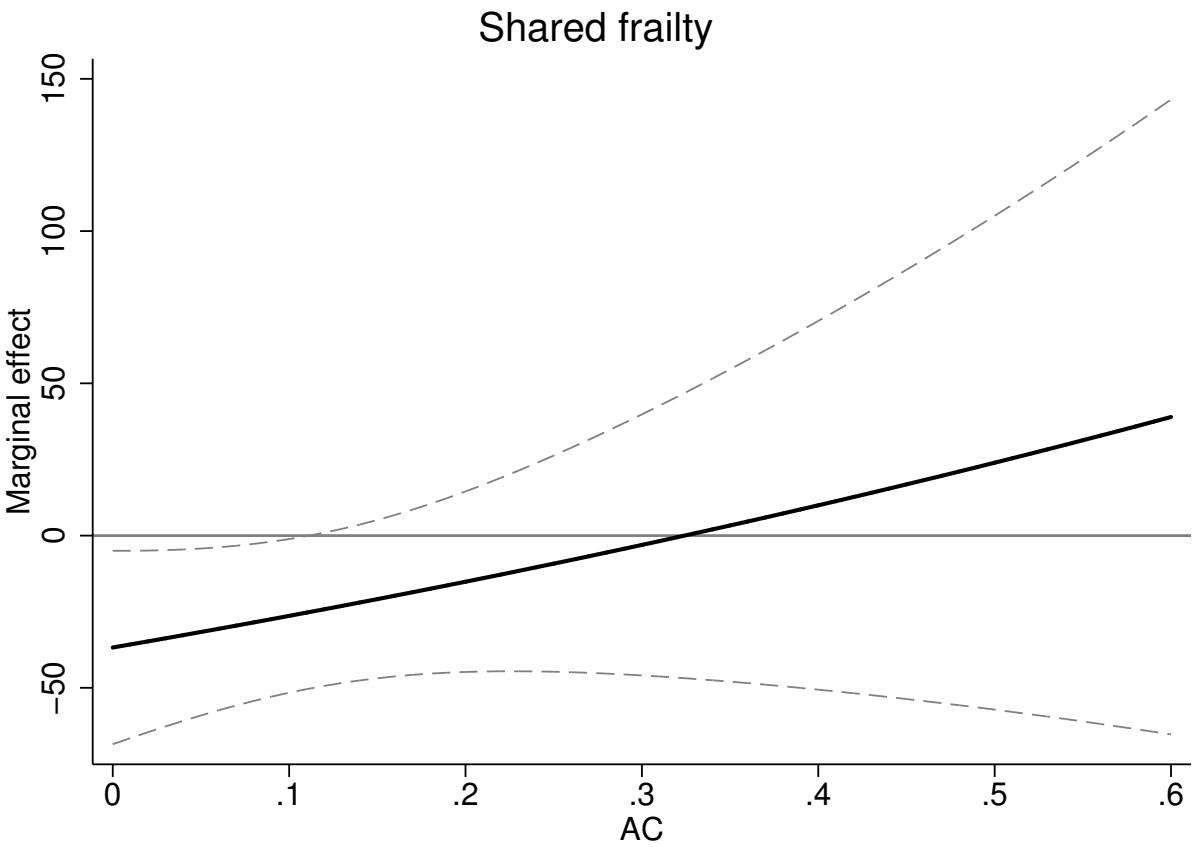


Figure A-6: Robustness Check VI - Shared Frailty Model