Treaty Design and Trade Attitudes: A Conjoint Analysis of Public Support for the Transatlantic Trade and Investment Partnership (TTIP)¹

Hyeonho Hahm, Moritz Osnabrügge, Elena Frech, Thomas König²

Abstract: What types of trade agreements are the public willing to accept? Based on a nationally representative sample in Germany, we conduct a conjoint experiment to explore how treaty design, its content and the dynamic process of political persuasion influence public support for the Transatlantic Trade and Investment Partnership (TTIP). Our findings confirm that the treaty design has a substantial effect on public support towards TTIP. In particular, Germans support a trade agreement that allows domestic courts to resolve potential disputes whereas they oppose an agreement with international arbitration courts. Such institutional preferences vary little with individuals’ key attributes, including education, information, national sentiment, and sociotropic concerns. On the other hand, we also find some evidence to demonstrate the importance of public endorsement but little evidence to support the logic of economic-self interest. This finding points to limits in major explanations of trade preferences and sheds new light on the informational role of dispute settlement.

1. Introduction

Since July 2013, the United States of America and the European Union (EU) have been negotiating a free trade agreement, the Transatlantic Trade and Investment Partnership (TTIP), aiming at facilitating market access and the reduction of trade barriers, including the introduction of common rules and product standards. Facing popular resistance in the beginning, the supporters, including German government, advertised with economic arguments, i.e. common benefits of the public from reduced tariffs and lower trade barriers (Bundesregierung 2013; Feldmayr et al. 2013).³ Indeed, a successfully negotiated TTIP aims to boost economic growth in the United States and Europe and add to the over 13 million American and European jobs already supported by transatlantic trade and investment (Office of the United States Trade Representative 2013). In particular, Germany, where more than every fifth

¹ The authors gratefully acknowledge support of the Collaborative Research Center 884 "Political Economy of Reforms" (SFB 884) at the University of Mannheim funded by the German Research Foundation (DFG). For helpful comments and suggestions, we thank Michael Bechtel, Xiao Lu and Anton Strezhnev.
² Hyeonho Hahm: University of Mannheim, Germany, hahm@uni-mannheim.de; Moritz Osnabrügge, Bocconi University, Italy; Elena Frech, University of Geneva, Switzerland; Thomas König, University of Mannheim, Germany.
³ The EU’s estimated annual benefit to be realized from the TTIP is 0.9% of GDP, or 163 billion U.S. dollars; the United States is estimated to realize a 0.8% increase in GDP, or 132 billion U.S. dollars (Office of the United States Trade Representative 2013).
job depends directly or indirectly on international trade and its exports of goods and services constitute about a half of its GDP, is expected to profit from TTIP. However, according to a recent Eurobarometer survey from fall 2014, German population has the lowest level of support for TTIP, at 49%, compared with 58% in the EU as a whole. Over time, other surveys conducted by Pew (2014; 2015) indicate that public support is decreasing from 55% to 41% in the period 2014 to 2015. In light of the economic benefits, these survey results and increasing opposition to TTIP are puzzling.

In this paper we aim to explain public support towards TTIP in Germany, which is one of the largest and the most powerful EU member states. Why do people, who are considered to profit economically from TTIP, oppose the treaty? How can the government garner broader public support for TTIP? Drawing upon the current debate over TTIP in Germany and the literature on treaty design and trade preferences, we focus on the three main dimensions of TTIP – the scope and depth of the agreement, dispute settlement mechanisms and the dynamic process of political persuasion by different political actors. To systematically assess various theoretical dimensions, we designed a conjoint experiment and embedded it in a large-scale representative online panel survey, the German Internet Panel (GIP) which combines the possibilities of an online study with the advantages of a representative panel (Blom et al. 2015). Conducting a conjoint experiment, we ask respondents to evaluate various (hypothetical) treaty designs and contents with randomly assigned attributes to measure preferences and importance of these characteristics of multidimensional agreements. This enables us to vary multiple attributes of the trade agreement simultaneously, and thus to evaluate which attributes make individuals more or less likely to support respectively reject TTIP.

According to our study, individual attitudes towards TTIP vary depending on the content and design of the trade agreement and the political actors endorsing it. Contrary to the logic of economic self-interest, a deeper and wider trade agreement does not increase public support. Interestingly, a partial reduction of scope – in particular, in terms of custom duties – is likely to increase public support for TTIP. Also another element of the content, the standardization of rules and regulations, generally tends to decrease support. On the other hand, we also find some evidence to show the role of political actors who endorse the agreement in shaping public support: if the treaty is advertised by the German Consumer Organization (Verbraucherzentrale), an independent, non-profit organization for consumer protection, the respondents become more supportive. If the treaty is endorsed by the opposition parties, respondents support the treaty less. While these effects of the depth/scope of the treaty and endorsement on public support for TTIP vary depending on several important individuals’ attributes, we uncover a broad public consensus about the institutional design of TTIP. People view national court favorably, whereas they view international arbitration courts unfavorably. We find that this design element of dispute-settlement procedures is the most significant factor that influences public support for TTIP, after controlling major explanations of trade preferences. Introducing private arbitration tribunals
significantly reduces support for TTIP, compared to domestic courts, regardless of individuals’
education, information about TTIP, national sentiment, and their sociotropic concerns.

Our study aims to contribute to the existing literature in several ways. First, our study joins the debate
over the role of dispute settlement mechanisms or courts\(^4\) in maintaining government compliance with
international agreements. According to the literature, governments have an incentive to create dispute
settlement mechanisms that can help domestic audiences to gain information about government
behavior, empowering them to deter noncompliance (Carrubba 2009; Chapman 2007; Chaudoin 2014;
Dai 2005; 2007; Fang 2008; Mansfield, Milner, and Rosendorff 2002; Simmons 2000). This is
particularly important for the effectiveness of compliance with international agreements, which
generally depends on domestic political factors. When domestic audiences support compliance and
mobilize in response to an institutional alarm sent by dispute settlement, international cooperation is
more likely to be “feasible and durable” (Koremenos, Lipson, and Snidal 2001, 762), even without
enforcement power. This paper directly examines the behavioral micro-foundations of these arguments
that are at the core of many broader theories of the effects of international institutions.

Second, our findings show that individual attitudes towards free trade may shift as a function of the
specific features of the agreement and given context. Despite the diversity of its focus, including
economic self-interest (Mayda and Rodrik 2005; O’Rourke and Sinnott 2001; Scheve and Slaughter
2001b), sociotropic concerns (Mansfield and Mutz 2009), national sentiment (O’Rourke and Sinnott
2001; Mayda and Rodrik 2005), and the level of knowledge (Hainmueller and Hiscox 2006), a large
literature has emphasized the importance of individual-level attributes that are relatively fixed in
explaining public attitudes towards trade. While our analysis partially supports these findings, we
demonstrate that content and design of the treaty and political persuasion by specific political actors
involved in the public debate significantly influence individual attitudes towards TTIP, independent of
individuals’ relatively fixed characteristics.

Although a growing body of literature emphasizes that the institutional design plays a critical role in
achieving international agreements, this insight has rarely been incorporated into the study of trade
preferences. Highlighting the multi-dimensional nature of the trade agreement, our analysis also
suggests that the aggregate level of public support for TTIP may vary depending on which issues prevail
in the dynamic process of public debate and ongoing negotiations, which determine the specific design
of the treaty.

\(^4\) Following Carrubba and Gabel (2015, 3), we call an independent standing body to which member states can challenge another
for alleged violations of treaty obligations and which executes third-party review as international “courts”. Most international
treaties include provisions requiring the peaceful settlement of disputes, and many agreements designate international courts
as the final legal venue for the settlement of disputes related to the treaty. Thus, most scholars commonly associate commonly
associate the role of dispute settlement with international courts (Alter 2014, 12).
2. The Transatlantic Trade and Investment Partnership – Negotiations and the Public

The negotiations over TTIP as a free trade agreement between the USA and the EU started in July 2013. The TTIP texts are being developed by 24 joint EU-US working groups, each considering a separate aspect of the agreement. Negotiations are held in week-long cycles alternating between Brussels and the USA. The European Commission is the official negotiator representing all 28 EU member states. It got its official mandate from the European Council in October 2014. The 28 member states will have to approve, via unanimous voting under TFEU Articles 207 and 218, the negotiated agreement in the Council of the European Union, at which point the European Parliament will also be asked for its endorsement. Early on critics called the secrecy of the negotiations and the sole mandate of the European Commission into question, arguing that TTIP encloses topics that go well beyond trade and therefore require approval by national parliaments. As a response, the European Commission has made negotiation documents public, including all EU proposals in the regulatory and rules components of the agreement. Meanwhile, the President of the European Commission, Jean-Claude Juncker, declared that each member state will separately ratify the agreement, if necessary by a vote in national parliaments.

Over the course of the negotiations and in response to the increasing public opposition to TTIP, the positions of the political actors noticeably changed in Germany. A typical example is the German Vice-Chancellor Sigmar Gabriel, who is the Minister for Economic Affairs and chairman of the German Social Democratic Party (SPD) who is the most likely candidate for chancellorship in the 2017 German elections. Within the SPD a large number of left-wing members criticize TTIP and other trade agreements for undermining national labor standards, workers’ rights and job security. While Sigmar Gabriel initially tried to "open his party up for TTIP and CETA" (Sueddeutsche Zeitung 2015) in 2015, he proclaimed in August that the negotiations with America have “de facto failed” (Frankfurter Allgemeine Zeitung 2016). With this drastic statement the German Vice-Chancellor responded to the criticism of unions and party members as well as to the public protests against TTIP. On 17 September 2016, about 250.000 protesters took to the streets in seven big German cities. Besides the fear against lower standards, plans for arbitration tribunals to hear cases by companies against governments over breaches of investment protection fostered intense controversy because it was seen as giving individuals and corporations access to a special legal procedure that can challenge domestic policy decisions. After all, German parties demanded to "[...] design investment protection rules in accordance with constitutional rules" (Die Zeit 2015).
3. Theoretical Expectations

Many studies have investigated the relative strength of the two competing economic models (e.g., Mayda and Rodrik 2005; O’Rourke and Sinnott 2001; Scheve and Slaughter 2001b) in explaining trade preferences. First, drawing upon the Heckscher-Ohlin approach, the so-called Stolper-Samuelson model argues that increased trade will benefit abundant factors but tends to hurt scarce factors within a country. Thus, high-skilled individuals are more supportive of free trade than low-skilled individuals in countries like the US that are well endowed. Contrary to the Stolper-Samuelson model, which makes a strong assumption about the mobility of factors of production, the Ricardo-Viner model assumes that factors are tied to particular industries. Thus, when that industry is under threat from imports, all factors tied to it will support protection. Likewise, when an industry is highly productive and gaining export markets, all factors within it will support free trade.

Other scholarship on individual attitudes toward trade has contested these major accounts, either by emphasizing that citizens react to macroeconomic performance, rather than to individual benefits, or by pointing out the importance of ideational factors such as national sentiment and knowledge. For example, Mansfield and Mutz (2009) provide the so-called “sociotropic” explanation (see also Kinder and Kiewiet 1981), according to which citizens are more likely to form their attitudes toward trade based on its perceived effects on the national economy. Also, according to them, the reported association between education and free trade support is less representative of distributional concerns linked to the factor endowment, as major models claim, than of individuals’ anxieties about other countries or other types of people. Indeed, previous empirical studies (O’Rourke and Sinnott 2001; Mayda and Rodrik 2005) report that protectionist trade attitudes are associated with nationalist sentiment. Hainmueller and Hiscox (2006) also point out that the positive relationship between education and support for trade liberalization primarily reflects the fact that more educated respondents tend to be more exposed to economic ideas about the overall efficiency gains for the national economy associated with greater trade openness.

Another theoretical approach begins from the premise that political factors can shift individuals’ attitudes towards trade, as compared to the previous scholarship that focuses on the economic and social attributes of individuals, which are relatively fixed. By analyzing cross-national data on government spending and individual-level opinion data on trade attitudes among OECD countries, Hays, Ehrlich, and Peinhardt (2005) show that individual support for trade is higher in countries where governments provide generous welfare programs for labor and retirees. Ehrlich and Hearn (2013) further support this finding using a survey experiment in the USA. Accordingly, respondent groups that were provided with
the information about the Trade Adjustment Assistance (TAA) program were more supportive of free trade than the control group without the facts about the TAA, and this increase was especially large among low-income respondents. Walter (2010) analyzes public opinion data from Switzerland and shows that welfare expansion occurs through increased support for the Left among trade losers.

In a similar vein, recent work pays attention to the dynamic process of political persuasion that shapes citizens’ attitudes towards free trade. When forming an opinion on such a complex matter, people may use heuristics or informational shortcuts without a sufficient understanding of a detailed knowledge of the matter at hand (Downs 1957; Lupia and McCubbins 1998). Most models of elite opinion leadership are based on the idea that the less informed eschew active, mindful processing and rely instead on convenient shortcuts that do not require effortful thinking about the actual substance of an issue. Using district-level referendum results on CAFTA in Costa Rica, Hicks, Milner, and Tingley (2014) demonstrate that the left-leaning party was successful at persuading voters to oppose signing a free trade agreement with the United States. Likewise, Naoi and Urata (2013) show that anti-trade campaigns organized by agricultural cooperatives and the opposition Liberal Democratic Party mobilized much broader mass opposition to Japan’s participation in the Trans-Pacific Partnership Agreement than could have been predicted from economic models.

Our study aims to contribute to this literature in three ways. First, we identify the main dimensions of TTIP – the depth of the agreement, its scope, and dispute-settlement mechanisms – and the dynamic process of political persuasion by political actors, and highlight their roles in shaping public support for the trade agreement. These aspects imply that individual attitudes towards the agreement may not be fixed; rather, they can shift as a function of the specific features of the agreement and given context.5 Second and importantly, we emphasize that the content and design of the trade agreement can influence public support. A large body of literature emphasizes that the institutional design matters to achieve international agreements, but this insight has rarely been incorporated into an individual-level study of trade policy. We investigate how the variation in design affects individual attitudes towards trade agreement. By incorporating this so-called “rational design of international institutions” literature into the study on trade preferences, we seek to contribute to further understanding of the micro-foundation of trade agreements. In particular, in addition to the depth and scope of the treaty, mostly related to tariff/nontariff bindings and regulations, we pay special attention to the importance of dispute settlement. The premise that dispute settlement mechanisms transmit information to domestic audiences is at the center of existing studies on enforcement. We scrutinize this assumption by exploring how the different designs of dispute settlement shape public support towards trade agreement. Lastly, we pay attention to the nature of the multi-dimensionality of TTIP and the preferences of

---

5 See Bechtel, Hainmueller, and Margalit (2015) for the distinction between “fundamental” versus “contingent” attitudes.
individual towards it. Using a conjoint experiment, we examine the relative strength of multiple hypotheses about trade preferences.

3.1 Depth and Scope

International agreements vary significantly in their design. In particular, the depth and the scope of the treaty constitute the core of such agreements, directly determining their extent and subsequent aggregate efficiency. Downs, Rocke and Barsoom (1996, 383) define the depth of an international agreement as “the extent to which [the agreement] requires states to depart from what they would have done in its absence.” Depth of trade agreements can refer both tariff bindings, nontariff barriers (including quantitative restrictions such as import quota and other regulations such as customs procedures, licensing rules, product standards, and government procurement rules) that are used to control the amount of trade. Accordingly, deeper trade agreements have significant tariff reductions and make it more difficult for treaty members to impose nontariff barriers.

On the other hand, scope refers to the number of issue areas covered by the agreement. Some agreements focus on a single, narrow issue, while others deal with multiple issue areas. Most of trade agreements regulate the trade of goods, but they occasionally do not cover agricultural goods (Davis 2003). Citing World Trade Report 2011, Johns and Peritz (2015) summarize that nearly 73 percent of the preferential trade agreements (PTAs) in their sample address nontariff barriers on agricultural goods, but these provisions tend to differ significantly from one agreement to the other, reflecting members’ domestic political concerns. In addition, roughly half of PTAs regulate the trade of services, such as accounting and telecommunications (340).6

To the extent to which depth and scope directly relate to the aggregate economic benefits for a society, we expect that the variation in terms of depth and scope can play a significant role in shaping individual attitudes towards trade agreements. We note that these two design elements are often interdependent in practice, while the conceptual distinction between the two is important. That is, one can discuss the extent of nontariff barriers of certain goods only when treaty members decide to deal with the related areas. According to many economists (see for example Alston et al. 1992), deeper and wider trade agreements would enable people to get more benefits from the aggregate efficiency gains associated with expanded trade. This suggests that individuals will support TTIP as its depth and scope increase. However, some recent studies find the opposite, where a trade agreement is more effective when

---

6 These agreements can also address nontrade issues. Approximately half of PTAs have intellectual property provisions (World Trade Report 2011), which typically require members to recognize and protect copyrights, patents, and trademarks. Similarly, many PTAs regulate competition policy (53 percent) by prohibiting monopolies and cartels and protect foreign investment (42 percent) by, for example, requiring expropriating countries to provide compensation to foreign investors. Trade agreements also increasingly address noneconomic issues, such as human rights and environmental protection (Hafner-Burton 2005; Steinberg 2002)
member states comply with treaty rules and when they create stable regimes that endure over time, while wider and deeper agreements are likely to impose stricter constraints on its members, making it more difficult for members to comply and making the treaties less stable (Johns 2014, 2015; Johns and Peritz 2015). In this vein, Rosendorff (2015, 151) emphasizes that all free trade agreements attempt to manage a fundamental trade-off: deeper concessions in the form of lower bindings increase the gains from freer trade, but countries are reluctant to join an institution that binds too tightly. While this theoretical discussion and empirical evidence largely focuses on the level of member state behavior, we expect that individual attitudes towards trade agreements may also reflect this tension.

**Hypothesis 1 (Depth/Scope):** *Individuals are likely to support TTIP when the depth and scope of the treaty is moderate.*

### 3.2 Dispute-Settlement Mechanisms

A large body of literature argues that dispute settlement mechanisms play a critical role in facilitating international cooperation. During the negotiation, member states face the uncertainty about the future cost of compliance and such uncertainty creates a “time inconsistency” problem that endangers the prospects for a cooperative agreement in the present (Kucik and Reinhardt 2008, 477). As a response, scholars argue that the dispute settlement procedures serve as a fire alarm by signaling possible violations of the agreement, and as an information clearing house by providing a venue in which the facts of the case can be investigated (Carrubba 2005; 2009; Carrubba and Gabel 2015; Rosendorff 2005). The alarm can activate domestic audiences to punish the offending government politically (McGillivray and Smith 2000; 2004), and this threat of ex post punishment helps facilitate cooperation and enhance the credibility of commitments by making compliance more attractive ex ante (Chaudoin 2014; Leeds 1999; Mansfield and Pevehouse 2006). On the other hand, serving a crucial information-providing role, the dispute settlement procedures can also enhance the stability of the cooperation by reducing transaction costs and increasing transparency (Rosendorff 2005).

However, often, the domestic audiences receiving this information may not accept it automatically, and the function of information transmission may depend on how dispute settlement mechanism is designed. We expect that dispute settlement design can influence the credibility of signal sent by the court and thus affect public support for TTIP. In the current TTIP negotiations, dispute settlement mechanisms have been mainly discussed for different types of the courts, varying in the degree of

---

7 In particular, existing studies show that dispute settlement mechanisms are associated with the effective functioning of PTAs and pacifying and trade-enhancing effects (e.g., Haftel 2007; Kono 2007).

8 Another path that the dispute settlement procedures can facilitate an international agreement is to enhance the flexibility (Rosendorff 2005; Rosendorff and Milner 2001). That is, dispute settlement procedures allow a contracting partner to violate the agreement, compensate the losers, and still remain within the community of cooperating nations. Studies have shown that the flexibility clauses can promote the cooperation, by allowing for legal suspension of concessions without having to fear punishment for breaking the commitment (Rosendorff 2005; Kucik and Reinhardt 2008).
delegation to international tribunals. The first common option is international arbitration system composed of corporate lawyers, widely known as investor-state dispute settlement (ISDS). However, this ad hoc tribunal has been criticized because it lacks transparency and can restrict the capacity of governments to regulate in the public interest by allowing individual companies to sue national governments for alleged violations of the agreements. An alternative is a domestic court. While this option can be effective in countries with long traditions of rule of law, critics say that they might be biased in favor of “host” countries. A third alternative is an arbitration court composed of national judges. Despite the variation in detail, this new type of international court consists of national judges agreed by member states and specializes on cases of potential breaches of the TTIP agreement.

Indeed, international adjudication is a form of delegation – a conditional grant of authority to an independent non-state body to resolve disputes arising from interstate cooperation. This intuition underlies much of the concern with democratic accountability. In particular, the length of delegation chain is likely to influence citizens’ perceived legitimacy of arbitrators or judges. For example, citizens may expect from their domestic courts, rather than international courts which they may feel “distant”, that their home country and/or their own interests will be less likely to be ‘run over’ by foreign companies. We therefore expect the involvement of national judges into the dispute settlement to have a positive effect on individual preferences over the TTIP agreement.

**Hypothesis 2**: Individuals are more likely to support TTIP if disputes are solved by their domestic courts.

### 3.3 Endorsement

When forming an opinion on such a complex agreement like TTIP, people are likely to rely on heuristics or informational shortcuts that do not require effortful thinking about the actual substance of an agreement. Bechtel et al. (2015) note that this influence on public preferences could be the reason why governments as well as parties in opposition make frequent statements about certain topics or proposals that are internationally bargained over. Indeed, different political actors have actively participated in the current debate on TTIP, seeking to mobilize the public for, or against the agreement. We expect that public attitudes towards TTIP are influenced by the identity of the endorser. According to Lupia and McCubbins (1998), ‘speakers’ are persuasive if ‘principals’ perceive them as ‘knowledgeable’ and having ‘congruent interests.’ Different political actors, including federal government, the opposition parties, European Commission, and German consumer organisation are assumed to represent different levels of credibility. For example, people should be more in favor of TTIP if it is supported by an

---

9 See Simmons 2014 for a discussion of conditions and consequences of more delegative forms of dispute settlement. Existing studies have heavily focused on legalization as the singular defining feature of dispute settlement mechanisms (e.g., Jo and Namgung 2012; Kono 2007; Smith 2000; also see Allee and Elsig 2016)
institution known for its interests and expertise in consumer protection than if it is endorsed by any other institution that is known to have conflicting interests with them.

**Hypothesis 3**: *Endorsement by institutions with interests and expertise in consumer protection will increase the support towards the trade agreement.*

### 4. Research Design

In this study we use a conjoint experiment to analyze the different dimensions of public support for the TTIP trade agreement. Similar to Bechtel et al. (2015) our analysis employs a survey experimental research design where respondents evaluate “a set of alternatives, where each has randomly varied attributes” (Hainmueller et al., 2014, 1). This enables us to discern which effect the different elements or dimensions of the highly complex TTIP treaty have on public support.

#### 4.1 The German Internet Panel

The survey experiment was fielded within the *German Internet Panel (GIP)*, a longitudinal and representative survey of the German society.\(^{10}\) The GIP is a bimonthly online panel study with a sample of about 3,400 respondents, which uses a probability sample of the German population. The respondents are between 16 and 75 years old and are recruited off-line using an ADM selection mechanism with separated random route address sampling to ensure representativity (Blom et al., 2015). Probability based off-line recruitment of respondents is used to reduce the sampling bias that online surveys usually have with regard to older citizens for example. Additionally, to reduce the sampling bias with regard to populations without internet access, computer, or computer literacy, the GIP equipped the recruited households without internet or without a computer with the necessary technical devices. Practical help with operating the computer and filling in the survey is also provided to the respondents. Compared to other (longitudinal online) surveys (see Cheshire et al., 2011), the GIP has a very low panel mortality rate. Almost one year (5 waves) after the start about 70% of the originally sampled members participated (Blom et al. 2015, 402).

#### 4.2 Survey Questions Asked

---

\(^{10}\) The GIP constitutes a core part of the Collaborative Research Center 884 “Political Economy of Reforms” of the University of Mannheim, Germany. As an online panel survey, the GIP collects individual attitudes on a broad range of political, economic, and social topics (Blom et al., 2015). The collected information is used by scientists of various disciplines to explain public opinion and reform decisions.
The following questions as well as the experiment were fielded in wave 18 of the GIP, which was answered in the time between July 1st, 2015 and July 31st, 2015. We asked a number of questions on general attitudes and knowledge about TTIP. Because we give the respondents background information about the TTIP negotiations the general and knowledge questions were asked before conducting the experiment to avoid contamination.

First, we asked the respondents for their stand on Europe:

Some say European unification should be pushed further. Others say it already has gone too far. What is your opinion? 12

The following question was asked to measure the general attitude of the German respondents towards the United States.

Generally speaking, how would you describe your views of the United States of America (USA)? 13

Before mentioning any further details about TTIP we first asked the respondents whether they have heard of TTIP before. This allows us to control for specific knowledge about TTIP later during the analysis.

The European Union (EU) and the United States (US) are currently negotiating the terms of a possible free trade agreement, the Transatlantic Trade and Investment Partnership (TTIP). Below, this agreement will be referred to as the TTIP free trade agreement. Have you heard of the TTIP free trade agreement between the EU and the US? 14

Subsequently we introduced the TTIP and gave some background information. Afterwards we asked for the respondents’ view of TTIP (as described so far), and of the implications the potential free trade agreement would have on Germany.

---

11 The reported questions are professional translations of the German questions. Please find the original questions as fielded in Germany in the appendix.

12 The respondents were asked to place their answer on an eleven-point scale “should be pushed further” and “has already gone too far”. Alternatively “don’t know” was a possible answer.

13 The respondents were asked to place their answer on a five-point scale “very negative” and “very positive”. Alternatively “don’t know” was a possible answer.

14 The respondents could choose “Yes, I’ve heard of the TTIP free trade agreement”, and “No, I haven’t heard of the TTIP free trade agreement”. The order of appearance is randomized. “Don’t know” was a possible answer.
Introductory text:

Below, we focus on the current negotiations over the TTIP free trade agreement between the EU and the USA.

The focus of the negotiations is on three main questions:

1) To what extent should **customs duties** be reduced? Customs duties are fees that are paid on goods that are imported into the EU or the USA. Currently, the customs duties on goods being imported into the EU amount to an average of 2.8% of the value of the goods.

2) To what extent should **product rules and regulations** for the EU and the US be standardized (i.e. for industrial machinery, cosmetics, and food)?

3) Who should rule on cases of alleged **violations in contracts** made under the TTIP free trade agreement?

Questions:

*Are you in favor of or against the TTIP free trade agreement and if so, how strongly?*¹⁵

*If the TTIP free trade agreement between the EU and the USA were signed, what effect do you think this would have on Germany?*¹⁶

4.3 The Experimental Setup: Conjoint Analysis

In the experiment, we confront the respondents with four binary comparisons of trade agreements (treaty versions). Before, we give the respondents some information and instructions:

Currently, it is unclear exactly what the TTIP free trade agreement will include. Below, we would therefore like to ask you to evaluate possible versions of the treaty between the EU and the USA.

In each case, we will present you with two treaty versions: A and B. In each case we will ask you to decide which of the two treaty versions, A or B, you prefer. After that, we’d like to know to what extent you are in favor of or against each of the treaty versions.

---

¹⁵ The respondents were asked to place their answer on a five-point scale from “completely against” to “completely in favor”. Alternatively “don’t know” was a possible answer.

¹⁶ For the four questions on the perceived effects of TTIP (question 6-9), the respondents were asked to place their answer on a five-point scale from “a very negative effect” to “a very positive effect”. Alternatively “don’t know” was a possible answer.
There is no right or wrong answer; we are interested in learning your personal opinion. For our purposes, it is very important for you to compare the two treaty versions, A and B, as they are described. As there are many possible variations of the treaty, we will ask you to draw a comparison between treaty versions A and B several times.

The two treaty versions vary along three main dimensions: scope/depth, dispute settlement mechanisms and endorsement. Each dimension consists of one or several characteristics (depth, for example, is measured by tariff rates, and the extent of regulations, and scope by exemptions from the tariff reduction and standardization of regulations). Finally, each treaty characteristic has different values. Table 1 summarizes the different characteristics and values each dimension includes.

<table>
<thead>
<tr>
<th>Dimensions and Characteristics</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depth and scope</strong></td>
<td></td>
</tr>
<tr>
<td>Customs duties on imports</td>
<td></td>
</tr>
<tr>
<td>- remain as they are</td>
<td></td>
</tr>
<tr>
<td>- are abolished in 50% of the cases</td>
<td></td>
</tr>
<tr>
<td>- are abolished altogether</td>
<td></td>
</tr>
<tr>
<td>Rules and regulations for products</td>
<td></td>
</tr>
<tr>
<td>- remain as they are</td>
<td></td>
</tr>
<tr>
<td>- are standardized in 50% of the cases, with equal concessions from each side</td>
<td></td>
</tr>
<tr>
<td>- are completely standardized, with equal concessions from each side</td>
<td></td>
</tr>
<tr>
<td>Exemptions from standardization of rules and regulations for</td>
<td></td>
</tr>
<tr>
<td>- (no exemptions)</td>
<td></td>
</tr>
<tr>
<td>- food products</td>
<td></td>
</tr>
<tr>
<td>- industrial machinery in the field</td>
<td></td>
</tr>
<tr>
<td>- chemical products</td>
<td></td>
</tr>
<tr>
<td>- pharmaceutical products</td>
<td></td>
</tr>
<tr>
<td>- automobiles</td>
<td></td>
</tr>
<tr>
<td><strong>Dispute-settlement procedures</strong></td>
<td></td>
</tr>
<tr>
<td>Who should rule on disputes?</td>
<td></td>
</tr>
<tr>
<td>- private judges</td>
<td></td>
</tr>
<tr>
<td>appointed by the disputing parties (arbitration court)</td>
<td></td>
</tr>
<tr>
<td>- representatives of the countries involved (governmental arbitration court)</td>
<td></td>
</tr>
<tr>
<td>- regular domestic courts of the involved countries</td>
<td></td>
</tr>
<tr>
<td><strong>Endorsement</strong></td>
<td></td>
</tr>
<tr>
<td>The agreement was endorsed by</td>
<td></td>
</tr>
<tr>
<td>- German federal government</td>
<td></td>
</tr>
<tr>
<td>- opposition parties in the German Bundestag</td>
<td></td>
</tr>
<tr>
<td>- European Commission</td>
<td></td>
</tr>
<tr>
<td>- German consumer organization</td>
<td></td>
</tr>
</tbody>
</table>
In each comparison the respondent is presented with a table presenting the five different characteristics that can be attributed to the three underlying dimensions. For each characteristic one randomly drawn value is shown (see table 1). We ensure that at least one characteristic varies between the two treaty versions that have to be compared. We impose one restriction on the combinations of characteristics. Specifically, we present exceptions to the standardization of rules only if the rules are partly standardized (see Table 1). If rules and regulations are completely (i.e. all) standardized exemptions are not possible by definition. Also if everything stays as it is, hence there are no (not more) common product regulations, making specific exceptions is not sensible. We randomize the order in which the dimension characteristics are mentioned to prevent an effect of profile orders.

Following the table presenting the two treaty versions, we measure the respondent's preference for the different treaty characteristics by first asking which treaty the respondent prefers (“Comparing treaty versions A and B, which of the two do you prefer?”).

5. Results

This section presents the results. In a first step, we test the three main hypotheses by using conjoint analysis, which allows to examine multiple causal hypotheses at the same time. We believe that this is especially helpful for analyzing trade agreements because international treaties typically involve multiple dimensions (Koremenos et al. 2001; see Johns and Peritz 2015 for trade agreements). Technically, we calculate the average marginal component effect (AMCE) using the estimator proposed by Hainmueller et al. (2014), which is implemented in the cjoint-package (Strezhnev et al. 2016). For all estimations we calculate clustered standard errors by respondents because the respondents take part in four conjoint comparisons. The AMCE expresses the average effect of a treaty attribute on the probability that an individual supports the trade agreement TTIP, where the average is computed on the basis of all the other treaty attributes. A major advantage of AMCE is that the corresponding estimators can be nonparametrically identified. The AMCE assumes that there are no carryover and profile-order effects as well as randomization. In a second step, we focus on further results that include interaction effects with distributional impact, sociotropic considerations, national sentiment, and economic knowledge. The Online Appendix includes additional material on the robustness and validity tests. We implement our analysis using an alternative specification of the dependent variable. Furthermore, we implement diagnostic tests to check the three main assumptions of AMCE.
Figure 1: Effects of treaty attributes on the probability to prefer a trade agreement

Note: The figure illustrates estimates of the effects of the randomly assigned treaty attributes on the probability of being preferred. The bars capture 95% confidence intervals. The points without horizontal bars refer to reference categories. The sample size is 23700.

Figure 1 summarizes the main results of the conjoint experiment. The AMCE estimates are the dots and the lines reflect the confidence intervals. The experiment considers the dimensions of customs, standards and exceptions, dispute-settlement procedures and endorsement. Note that the estimates for each treaty attribute are calculated relative to a reference value. The reference category for the dimensions customs and standards is “remain as they are”, and for the dimension exception the reference is “no exception”. The estimates on different dispute settlement mechanisms use an “arbitration court” as a reference category and the estimates on endorsement take the “European
The results demonstrate that public support for TTIP varies significantly with the specific characteristics of the treaty. First, we find evidence that respondents prefer an agreement where customs are reduced in 50% of the cases rather than a complete dismissing of customs. Interestingly, we find that respondents prefer to cut customs by 50% against no customs’ cuts. This suggests that the preferences are not linear and corroborate Rosendorff’s (2015, 151) theoretical insights into the trade-off of free trade agreements, according to which deeper and wider trade agreements would enable people to get more benefits from expanded trade, but they are also likely to impose stricter constraints. It is notable that the effects of standards are somewhat different from those of custom duties. Respondents prefer treaties where less standards are unified. Furthermore, the findings show that exceptions in automobiles, chemicals, industrial machines, which are often perceived as Germany’s competent sectors, reduce support for the treaty. A notable exception is food, and people are likely to support TTIP when excluding it from the standardization. This finding corresponds to previous reports that Germans are particularly concerned about US food safety standards (Bertelsmann Stiftung 2016).

Importantly, we find a significant and substantively large effect of dispute settlement. In comparison to ad hoc private arbitration system, dispute settlement via domestic court increases public support by about 19 percent. The dispute settlement via representatives of the state are also more likely to be accepted compared with private arbitration, but less likely to be accepted compared with domestic court. Taken together, these results suggest that public support for TTIP is highly sensitive to different types of dispute settlement, confirming our second main hypothesis. People oppose more delegative forms of dispute settlement.

Finally, we also find that the endorsement profile matters. Compared to endorsement by the European Commission or other political bodies such as the government or the opposition, public endorsement by the consumer organization with strong interest and expertise in consumer protection increases public support towards TTIP by up to 15 percent. Overall, these results are consistent with theoretical expectations from the literature on opinion formation and information shortcuts: institution with stronger credentials of expertise and similar interests, compared to other institutions known to have conflicting interests, are more likely to increase public support for TTIP.17

Robustness

17 According to additional analysis, this negative effect of opposition party endorsement is largely driven by a majority of respondents who do not support opposition parties. Among those who support the opposition parties in the Bundestag (currently, the Left and the Green), this negative effect disappears.
In a next step, we continue to examine our results to understand the robustness of our experimental results. We test the robustness by looking at whether the effects of specific design of TTIP vary across different subgroups with theoretically relevant respondent attributes. Considering prior scholarship that emphasizes the role of education, information, national sentiment, and sociotropic concerns, we present the results separately by subgroup in our figures.

First, the Stolper-Samuelson theorem suggests that high-skilled individuals are more supportive towards trade than low-skilled individuals. Previous studies often use the level of education as a measure of factor endowment (for example, Scheve and Slaughter 2001a and 2001b; Mayda and Rodrik 2005; and O’Rourke and Sinnott 2002). As Figure 2 shows, we see weak evidence of an interaction between respondents’ skills, imperfectly approximated by the level of education,\(^{18}\) and treaty design.\(^{19}\) Although more educated Germans are more supportive of TTIP, compared to the less educated, we do not find a substantively large difference. Also, more standardization decreases public support for TTIP in both groups. Overall, these results suggest that economic material benefits do not automatically yield positive attitudes toward TTIP. Also we find that the substantively large effects of dispute settlement procedures and endorsement are robust, although those effects are more pronounced among the more educated. Both the more educated and less educated Germans are more likely to prefer domestic court and accept endorsement by consumer organization.

\textit{Figure 2: Effect of treaty attributes on preference for a trade agreement by education}

---

\(^{18}\) Several studies point out that education can represent something other than skill level. In particular, Hainmueller and Hiscox (2006) find that the education captures the effects of exposure to economic ideas. Mansfield and Mutz (2009) argue that education is tied to ethnocentrism, or national sentiment, and may also promote anti-trade preferences. To differentiate these alternative possibilities, we also divided the sample into a group that heard about TTIP and a group that did not yet hear about the trade agreement (Figure 3), and into one group with positive views on the United States and another group with negative views (Figure 4).

\(^{19}\) We also replicated this analysis for the subsamples of respondents with and without college education, but the result remains the same.
Note: The figure illustrates estimates of the effects of the randomly assigned treaty attributes on the probability of being preferred conditional high school education. The left panel refers to individuals with a high school degree and the right panel refers to individuals without a high school degree. The bars capture 95% confidence intervals. The points without horizontal bars refer to reference category. The sample size is 8525 (left panel) and 15175 (right panel).

Second, we take a closer look at whether the information about TTIP can influence our main findings since previous research highlights that exposure to economic ideas and information may increase support (Hainmueller/Hiscox 2006, Mansfield/Mutz 2009). We divide the sample into a group that has heard about TTIP before and a group that has not heard about TTIP. Figure 3 summarizes our results. The reduction of customs has a positive effect on trade support only among respondents who have heard about TTIP, but only with regard to the partial reduction of the scope. On the other hand, the standardization of rules and regulations decreases support for TTIP among those who have heard about TTIP. This impact was not significant among the counterparts who have not heard about TTIP. Put it another way, the impact of scope and depth varies by whether or not the respondents are well informed. Our estimates on exceptions highlight that one potential explanation may be a concern about sensitive areas such as food products. The estimates on dispute settlement and endorsement are robust in both groups and similar to our main results in Figure 1. While the existing literature suggests that endorsement may play a more important role in compensating for individuals’ lack of specific knowledge about the issue at stake, we find no evidence to support this expectation in the case of TTIP.

Figure 3: Effect of treaty attributes on preference for a trade agreement by the information about TTIP
Note: The figure illustrates estimates of the effects of the randomly assigned treaty attributes on the probability of being preferred conditional on having heard about TTIP. The left panel refers to individuals who have heard about TTIP and the right panel refers to individuals who have not heard about TTIP. The bars capture 95% confidence intervals. The points without horizontal bars refer to reference category. The sample size is 17370 (left panel) and 6330 (right panel).

Third, we take into account national sentiment, which may explain opposition towards economic cooperation with other countries. For this purpose, we divide the sample into a group that has a positive and a negative view of the United States. Figure 4 illustrates our findings. The results show that deeper and wider agreements, in terms of customs, attract more support for TTIP among respondents with positive view of the United States, but not among those with negative view. However, standardization has a negative impact on trade support only among those who have negative view. The effects of exceptions are relatively similar across the subgroups. Consistent with the previous results, the effects of dispute settlement mechanisms remain remarkably strong in both groups. On the other hand, those with positive view of the United States are less likely to respond to endorsements than those with negative view.

*Figure 4: Effect of treaty attributes on preference for a trade agreement by national sentiment*
Note: The figure illustrates estimates of the effects of the randomly assigned treaty attributes on the probability of being preferred conditional US views. The left panel refers to individuals who have neither a positive nor a negative view, a negative, a very negative view as well as individuals who did not respond. The right panel refers to individuals who have positive and very positive views on the US. The bars capture 95% confidence intervals. The points without horizontal bars refer to reference category. The sample size is 16075 (left panel) and 7625 (right panel).

Lastly, we examine the role of sociotropic concerns. This factor is expected to be especially important because individuals may not be able to foresee the individual-level implications of the treaty (Bechtel et al. 2015; see also Mansfield and Mutz 2009). We divide the sample into a group believing that the treaty has negative and positive implications for Germany. We find that the estimates vary significantly across both groups. The effects of scope and depth on trade support are conditional on whether individuals believe that the treaty has positive implications for Germany or not. While endorsement by the opposition parties are less likely to be accepted in both groups, compared to endorsements by other political bodies, the impact of consumer organization’s endorsement is not significant among those who expect positive implications of TTIP for Germany. On the contrary, the effects of different dispute settlement mechanisms are still large and robust across both groups: individuals are less likely to support the agreements that include more delegative forms of dispute settlement.

Figure 5: Effect of treaty attributes on preference for a trade agreement by sociotropic concerns
To sum up, we find that the treaty design, its specific content and political persuasion by different political actors systematically shift public support for TTIP. In particular, the treaty design involving dispute settlement mechanisms plays a critical role in shaping public support towards TTIP. The effects of the depth, scope and endorsements vary across the different subgroups. The effects of scope and depth are conditional particularly on whether or not individuals are well informed and whether or not they have positive views of the United States and implications for Germany. The extent to which individuals respond public endorsements depends on whether they have negative view of the United States and whether they are concerned about negative implications of TTIP for Germany. On the contrary, there is a broad public consensus about how to design a dispute settlement mechanism, cutting across key individuals’ attributes that constitute major explanations of trade preferences.

6. Concluding Remarks

In this paper, we identify specific treaty attributes that determine individual attitudes towards TTIP.
Being of interest in itself, analyzing attitudes toward TTIP provides us an invaluable chance to test existing theories of trade preferences by drawing on specific predictions in a more focused way within a real-world context. In particular, by connecting the rational design literature to the existing studies on trade preferences, our results suggest that the existing understanding of trade attitudes as a function of relatively fixed individuals’ attributes requires substantial qualification. By combining survey data from a nationally representative German sample with a conjoint experiment, our results demonstrate that individual attitudes towards TTIP vary depending on the specific content and design of the trade agreements and the political actors endorsing it.

Specifically, public support for TTIP appears to reflect the tension between economic benefits from deeper and wide agreement and reluctance to join agreements that bind too tightly. Yet, the effects of the reduction of custom duties are distinct from those of the standardization of rules and regulations. Also, our results confirm the role of major political actors who endorse the agreement: if the treaty is advertised by the German Consumer Organization, the respondents are more easily convinced, hence more supportive. If the potential treaty is endorsed by the opposition parties in contrast, respondents support the treaty less. Given these effects of treaty design in terms of scope and depth and those of political endorsement, we also examine their interactions with individuals’ key attributes, including skills, information, national sentiment, and sociotropic concerns. Importantly, we find that the design element regarding the dispute-settlement procedures is the most significant factor that influences public support for TTIP, even after controlling major explanations of trade preferences. Introducing private arbitration courts significantly reduces support for TTIP, compared to domestic courts, regardless of individuals’ skills, information of TTIP, national sentiment, and their sociotropic concerns. Given the importance of the key individual-level attributes that existing literature emphasizes, the underlying consensus about which types of dispute-settlement mechanisms to accept deserves keen attention.

This finding is particularly important considering its implication for the existing literature on dispute settlement. According to the literature, the dispute settlement mechanisms or courts transmit information about member state behavior to domestic audiences who can punish or reward their elected leaders. Consequently, this threat of punishment helps member states more credibly commit to cooperation. Our results indicate important limitations on the degree to which the informational role of dispute settlement can create noncompliance costs. Germans express their strong opposition to international arbitration tribunals, which is widely used for the resolution of disputes in international trade. If domestic audiences are less likely to support this tribunal and thus less likely to accept its signal, the effectiveness of such a dispute settlement mechanism would suffer.

On the other hand, our findings highlight the contextual and dynamic nature of trade support. Given the multi-dimensionality of the trade agreements, the aggregate level of public support for TTIP would
vary depending on the specific design of the treaty and which issue area prevails in the dynamic process of public debate. Anecdotal evidence from Germany, where high ranking politicians drastically changed their political standpoint on TTIP and on specific components of it after observing increasing media attention and skepticism of the particular issue (Bertelsmann Stiftung 2016; Frankfurter Allgemeine Zeitung; Sueddeutsche 2015; The Economist 2016), confirms these findings. Hence, we suggest that negotiations on trade agreements and their outcome can be influenced by public support that is shaped by interactions between the proposed treaty design and dynamic process of political persuasion.

References


Organization 68(4), 877–911.


Office of the United States Trade Representative. (2013). *Fact Sheet: Transatlantic Trade and Investment Partnership (T-TIP)*


