Behind-the-border measures and the new generation of trade agreements:
TBT and SPS compared.

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Introduction

2016 was an eventful year for trade policy and in particular for major preferential trade agreements (PTAs), such as the so-called mega-regional. Early 2016, twelve Pacific Rim countries, including Canada and the United States (US), signed the Trans-Pacific Partnership (TPP) agreement. Around the same time, Canada and the European Union (EU) agreed at the level of negotiators to conclude the Comprehensive Economic and Trade Agreement (CETA). Finally, the US and the EU continued their efforts to find common ground in the negotiations towards the proposed Transatlantic Trade and Investment Partnership (TTIP) treaty. At the end of 2016, the US elected a new president who had campaigned against trade agreements. In his first video address he announced to stop the ratification procedures for TPP, a threat he later followed up on his first day in office in early 2017 through issuing a presidential order (The New York Times 2017).

The process of drafting, signing and ratifying mega-regional agreements has been politicized for some time. The new generation of PTAs has faced public scrutiny in many European countries, in particular in some of the most trade-dependent nations, such as Germany, France, Belgium and Austria. Thousands of people took the streets to protest against CETA and TTIP in the past 2 years (Reuters 2016). An important area of contestation relates to new rules behind-the-border, so-called non-tariff measures (NTMs), many of which touch on standards and regulations. Trade-sceptics lament that agreements that foresee increased “regulatory cooperation” would in reality lead to a loss of national sovereignty in regulating one’s own health, social and environmental laws, as illustrated by the infamous chlorinated chicken episode or concerns

¹ An earlier draft of this paper was presented at the World Trade Forum 2016 in Florence. We thank the participants for their valuable comments.
about investors suing domestic environmental policies through investor-state arbitration. These concerns were echoed by national and regional governments. Only after some concessions vis-à-vis the Belgian government of Wallonia could EU Member States proceed to sign CETA (The Guardian 2016). Anti-PTA sentiments also arose in the US in the context of the presidential campaign. The criticism focused on job losses in manufacturing industries and, in this context, trade agreements were quickly identified as the main culprit for de-industrialization. Both major party forerunners criticized for instance TPP (Ballotpedia 2016). The US president, Donald Trump, called for a re-negotiation of the North American Free Trade Agreement (NAFTA), blocked TPP ratification procedures and froze the TTIP negotiations. In particular, the latter agreement had the ambition to develop a new template for advancing regulatory cooperation in NTMs.

**TBT and SPS at the World Trade Organization**

This chapter takes a close look at the core of behind-the-border regulations, namely provisions related to technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS) in the aforementioned trade agreements (CETA, TTIP and TPP). The TBT and SPS Agreements were the result of the Uruguay Round trade talks and entered into force with the creation of the World Trade Organization (WTO) in 1995.

The SPS Agreement covers all measures whose purpose it is to protect human or animal health from food-borne risks, human health from animal- or plant-carried diseases and animals and plants from pests or diseases. The TBT Agreement, in contrast, covers all technical regulations, voluntary standards and conformity assessment procedures to ensure that these are non-discriminatory and do not create unnecessary obstacles to trade, except when these are sanitary or phytosanitary measures as defined by the SPS Agreement.

Since the TBT and SPS Agreement entered into force, a total of 52 and 44 requests for consultations cited the TBT and SPS Agreement, respectively. In particular in the first few years, both Agreements accounted for a significant share of total consultation requests at the WTO (Figure 1). On average, the TBT and SPS Agreements accounted 7% and 6% of annual consultation requests between 1995 and 2016, respectively. The only WTO Agreements that
have been cited more frequently are the Anti-Dumping Agreement, the Agreement on Subsidies and Countervailing Measures and the Agreement on Agriculture.

**Figure 1: Requests for consultations referring to the WTO TBT and SPS Agreements, 1995-2016**

Given the different foci and scope of the two agreements, TBT and SPS-related measures draw attention from different economic sectors. Figure 2 shows, for instance, that TBT measures are particularly relevant for the chemicals, plastics and machinery sectors. SPS measures, in contrast, are common for live animal and vegetable products. Both, TBT and SPS are also almost equally present in the food and beverages sector. Even though TBT and SPS measures vary by industry, Figure 2 also illustrates that many TBT and SPS measures cannot be allocated to a certain industry, one reason being that these measures often include non-product specific requirements on, for example, packaging, marking or labelling.

**Source: Authors’ illustration based on World Trade Organization (2016a)**
In the next section we briefly discuss the existing literature on NTMs and PTAs with a special focus on TBT and SPS. This is followed by providing some descriptive empirical evidence on how TBT and SPS obligations have evolved over time. Then we address three key questions related to the new generation of large PTAs: First, how much innovation versus imitation characterizes the TBT and SPS chapters in mega-regionals such as CETA and TPP? Tackling this question will allow us to better understand the degree to which new templates have been agreed as well as the source and extent of obligations that may have been copy-pasted from past agreements. Second, to what extent may CETA and TPP meet their objectives to become design blueprints for future trade agreements? To answer this question, we investigate the degree to which EU and US negotiators respectively relied on CETA and TPP texts to draft their proposals for the TBT and SPS chapter negotiations in the context of the TTIP talks. Thirdly, we take a closer look at specific EU and US TTIP draft proposals to understand where the parties converge and where they diverge. Understanding how compatible or not these draft proposals are will give us an
idea on how likely it will be to find agreement on NTM-related obligations between the transatlantic partners.

In answering these questions, we principally rely on text-as-data approaches. We find that in all three agreements negotiators draw relatively more on TBT than SPS legal texts from previous PTAs. When focusing on TPP, we observe a significant import of legal texts from past US trade deals. By contrast, CETA’s negotiators relied less on previous PTAs and appear to have developed a more innovative approach on TBT and SPS matters. We further find evidence suggesting that EU negotiators attempt to implement these innovations in TTIP. Indeed, the European draft proposals for the TBT and SPS chapters of TTIP rely heavily on CETA texts, speaking to a prominent role CETA could play long-term. Interestingly, TPP plays a fairly limited role in the US draft proposal for TTIP, even though it is an agreement largely written by the US. Finally, when focusing on specific treaty language, we find that the EU and US converge on general topics such as the objective, scope and coverage of TBT and SPS in TTIP, but do diverge in more detailed items such as standard-setting processes and conformity assessment procedures. This reflects differences in regulatory philosophies that will be hard to bridge. In the concluding section we point towards future research directions.

**Literature Review**

The proliferating number of PTAs has been the focus of a growing body of literature in law, economics and international relations. Whereas the economics literature primarily concentrates on quantifying the effect of NTMs on trade flows (for a comprehensive overview, see Ederington and Ruta 2016), a variety of contributions have focused on mapping and assessing the design of NTMs. Early studies focused on the relationship between plurilateralism and multilateralism, in other words, between PTAs and the WTO. Piermartini and Budetta (2006), Lesser (2007) and Piermartini and Budetta (2009) provide selective insights into NTMs, with a focus on TBT, across large numbers of PTAs. More recently, Molina and Khoroshavina (2015) expanded the sample size to include 238 trade agreements. The mentioned studies find that the majority of PTAs do refer to the WTO TBT Agreement and only partially go beyond it. Indeed, the most recent

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contribution by Molina and Khoroshavina (2015) finds that 85% of PTAs refer to the WTO TBT Agreement – in one form or another. In one third of the surveyed agreements, the parties affirm their rights and obligations under the TBT Agreement. In one quarter of these agreements, the parties indicate specifically that TBT issues are to be governed by the WTO TBT Agreement. Most of this work has focused exclusively on technical standards and regulations.

Allee, Elsig and Lugg (2017) extent the analysis beyond TBT issues and investigate the importance of WTO rules for PTA provisions on antidumping, services, SPS, intellectual property, safeguards, procurement, dispute settlement and investment. The authors find considerable differences across the issue areas. While antidumping sections in over 90% of the surveyed PTAs refer to WTO rules, less than 5% of the investment provisions do so. The numbers for TBT and SPS measures confirm previous research: Around three quarters of PTAs that include TBT and/or SPS provisions, also include a reference to the WTO. Allee, Elsig and Lugg (2017) go one step further. In addition to identifying WTO references, the authors also calculate the amount of WTO language that is directly incorporated into PTAs. Their text-as-data approach yields interesting results. On average, around 11% of the TBT and SPS chapters in the almost 300 surveyed PTAs are copied in verbatim from the respective WTO agreements. Some TBT and SPS chapters copy up to 60% and 51% from the relevant WTO agreement, respectively.

Why do parties that are engaged in preferential trade negotiations rely so heavily on the existing multilateral rules? The reasons for this are manifold. Allee, Elsig and Lugg (2017), for instance, point to a number of explanations why WTO treaties are attractive. First, the WTO regime is well-established and some areas, such as TBT-related rights and obligations, have been developed in Geneva over many decades. Second, the WTO dispute settlement system has interpreted these rules over time providing clarity and predictability. Third, almost all PTA signatories are WTO members and therefore attempt to build strong ties between the PTAs and the WTO laws. And finally, most trade negotiations are well trained and informed about WTO law.

The recent contributions by Baccini, Dür and Haftel (2014) and Allee and Elsig (2016) provide additional systematic evidence by expanding the analyses on the import from other PTAs either
in terms of the amount of text or closeness to certain templates. Indeed, Allee and Elsig (2016) find that, when considering the closest match between two PTAs, the TBT and SPS chapters between PTAs overlap on average around a striking 70%. Baccini, Dür and Haftel (2014) corroborate the view that negotiators do not “reinvent the wheel” but rather choose from a limited menu of principal models or templates. The authors find that most PTAs heavily draw from existing templates of at least three competing models: the Southern model, the EU model and the NAFTA (North American Free Trade Agreement) model. In a nutshell, the Southern model includes primarily narrow and shallow agreements in which member states agree on the (often partial) reduction of tariffs on a selected number of goods. Provisions on trade in services, foreign direct investment (FDI) or other non-trade issues are very limited, if not absent. The EU model presents the institutions-based integration type in which powerful bodies and institutions are created to reinforce the integration process. These agreements cover non-trade issues but the legal language is kept relatively vague and leaves it to the created institutions to enforce the commitments. The NAFTA model, by contrast, promotes rules-based integration. Trade and non-trade commitments as well as their enforcement are more precisely formulated which limits the need to create further institutions.

To what extent the EU and the NAFTA models influenced the design of the latest mega-regionals, CETA and TPP, is the focus of two other studies by Allee, Elsig and Lugg (2017) and Allee and Lugg (2016), respectively. The former study suggests that the EU and Canada brought distinct ideas about what they wanted to the negotiation table, as indicated by their previous PTAs, and ended up writing a mostly unique agreement. Indeed, not only is the overall share of text copied from previous PTAs into CETA relatively moderate, there also appear few agreement(s) that served as a clear or dominant template for the negotiations. Based on the text analyses, both sides were able or willing to import roughly similar amounts of texts from their past PTAs. This stands in contrast to the findings of Allee and Lugg (2016) who conduct a similar analysis of TPP. The language of previous US PTAs is disproportionally prominent in TPP compared to other TPP drafters’ past PTAs. Ten of the PTAs that match TPP most closely are previous US PTAs. Some bilateral PTAs such as, for instance, with Bahrain, Oman, and South Korea have almost half of their contents copied into TPP.
In this chapter we follow the above work and study in more detail the TBT and SPS chapters of CETA, TTIP and TPP. Before doing so, we provide an overview of the evolution of TBT and SPS in PTAs over the past decades.

**Evolution of TBT and SPS in Preferential Trade Agreements**

TBT and SPS play a particularly important role in trade negotiations because they regulate politically sensitive areas and can present a balancing act between pursuing legitimate domestic policy objectives and taming protectionist agendas that negatively affect international trade.

On the one hand, the WTO recognises each member’s right to adopt the standards and regulations they consider appropriate - for example, for human, animal or plant life and health, for the protection of the environment or to meet consumer and/or security objectives. On the other hand, it is a key concern enshrined in WTO treaties to ensure that these measures are non-discriminatory and do not create unnecessary obstacles to trade. To prevent potential protectionism in disguise and lack of transparency, the WTO encourages its members to apply international standards, guides or recommendations, except when such international standards are ineffective or inappropriate to achieve their legitimate goals (Articles 2.4, 5.4 and Annex 3 of the WTO TBT Agreement). To reduce the burden of cross-country differences in standards and regulations further, countries may decide to cooperate on or even harmonize TBT and SPS related standards.

While it is beyond the scope of this chapter to assess the depth of TBT and SPS provisions in detail, we focus below on four broad areas that show how the structure and content of TBT and SPS provisions has evolved over time\(^3\): The presence of TBT/SPS provisions, the reference to the respective WTO Agreement, cooperation features and finally, attempts towards mutual recognition and harmonisation.

The presence of TBT/SPS chapters and provisions in PTAs is an obvious prerequisite for the discussion. The variable indicates whether or not the parties consider TBT and SPS-related issues to be crucial in defining the rules of preferential trade between them. A second important

\(^3\) For a more detailed analysis of TBT provisions in PTAs, see Molina and Khoroshavina (2015).
variable is the reference to the respective WTO Agreements. As previously outlined, PTA partners refer to WTO rules for a number of reasons. These references can come in different forms and shapes. In the US draft proposal for TTIP, for instance, it reads that:

“The Parties affirm their rights and obligations with respect to each other under the TBT Agreement.”

The EU draft proposal, for instance, states that:

“The WTO Agreement on Technical Barriers to Trade (hereinafter referred to as “the TBT Agreement”) is hereby incorporated into and made part of this Agreement.”

For the purpose of this chapter, we do not differentiate between the different phrasings and restrict ourselves to capture whether or not there is a TBT/SPS chapter/provision in the PTA. Our third indicator of the importance and scope of TBT and SPS in PTAs is concerned with the cooperation and information exchange that the parties envisage. While recent PTAs often include separate chapters on regulatory cooperation, this was not always the case. In modern agreements, such TTIP, the obligation to cooperate in this area may read as follows

“The Parties shall strengthen their co-operation in the areas of technical regulations, standards, metrology, conformity assessment procedures, accreditation, market surveillance and monitoring and enforcement activities in order to facilitate the conduct of trade between the Parties, as laid down in Chapter […] (Regulatory Cooperation).”

A significantly deeper commitment than cooperation on TBT and SPS matters, is the harmonisation of such. Harmonization presupposes a common legislative framework which, in reality, may not be achievable or desirable for a number of reasons. In this case, PTA parties may resort to equivalence as a complementary approach. The parties would accept as equivalent the technical regulation and/or conformity assessment procedures of each other. Using TTIP as an example again, the text may read as follows:

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4 For a more detailed analysis of references to the WTO TBT Agreement in PTAs, see Molina and Khoroshavina (2015).
5 EU draft proposal for the TTIP TBT chapter.
“The Parties undertake to co-operate towards global harmonization of technical requirements in the framework of existing or planned international agreements or organizations in which the US and the EU or its Member States participate.”

As a final variable, we consider whether or not the use of international standards, guidelines or recommendations is explicitly encouraged in the PTA. In the context of the WTO SPS Agreement, the development of international standards is a prerogative of various standardization bodies, such as the Codex Alimentarius Commission, the International Office of Epizootics, and the Secretariat of the International Plant Protection Convention. As we discuss below, the definition of an international standard as well as its development is more disputed in the TBT context. For the purpose of this chapter, we limit ourselves to whether or not the use international standards is encouraged in the TBT chapter of a PTA. Above variables are taken from the Design of Trade Agreements (DESTA; Dür, Baccini and Elsig 2014) database which has manually coded a number of TBT and SPS features.

Figure 3 illustrates that, even though the numbers of PTAs (including TBT and SPS chapters and provisions) countries sign varies considerably by year, the relative share of PTAs including TBT and SPS matters in total PTAs has steadily increased. To show this overall trend graphically, we computed the annual average shares of the TBT and SPS variables in total PTAs as illustrated by the bold line.

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6 EU draft proposal for the TTIP TBT chapter.
Figure 3: Evolution of TBT and SPS in PTAs, 1990-2016

Figure 3 graphically shows what can also be seen in Table 1 and 2 – namely, the extent to which parties harmonise TBT and SPS measures is much less prominent than the extent to which they commit to cooperation or refer to the respective WTO Agreement.

Table 1 and 2 provide more fine-grained information for PTAs with different groups of countries and over time. Until recently, TBT-related provisions were predominantly found in trade agreements between developed and developing countries, so-called North-South PTAs. Indeed, the share of total PTAs that included such provisions was considerably higher in North-South (N-S) PTAs than in North-North (N-N) and South-South (S-S) PTAs. Over time, the vast majority of PTAs have significantly incorporated TBT and SPS related rules, regardless of the level of the parties' development.
Table 1: Evolution of TBT in PTAs by development group, 1990-2016

<table>
<thead>
<tr>
<th>Years</th>
<th>Group (Number of total PTAs)</th>
<th>% of PTAs with a TBT chapter/provision</th>
<th>% of PTAs with a reference to the WTO</th>
<th>% of PTAs encouraging cooperation on TBT matters</th>
<th>% of PTAs encouraging harmonization on TBT matters</th>
<th>% of PTAs encouraging the use of international standards</th>
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<tbody>
<tr>
<td>1991-1995</td>
<td>N-N (9)</td>
<td>13</td>
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<td>0</td>
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<tr>
<td></td>
<td>N-S (35)</td>
<td>60</td>
<td>14</td>
<td>46</td>
<td>14</td>
<td>17</td>
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<tr>
<td></td>
<td>S-S (60)</td>
<td>46</td>
<td>11</td>
<td>31</td>
<td>9</td>
<td>13</td>
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<tr>
<td></td>
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<td>40</td>
<td>70</td>
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<tr>
<td></td>
<td>S-S (104)</td>
<td>51</td>
<td>28</td>
<td>42</td>
<td>3</td>
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<td>2001-2005</td>
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<td>33</td>
<td>67</td>
<td>17</td>
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<td></td>
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<td>2006-2010</td>
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<td>33</td>
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<td>N-S (32)</td>
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<td>69</td>
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<tr>
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<td>S-S (69)</td>
<td>85</td>
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<td>72</td>
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<td>2011-2015</td>
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Source: Authors’ illustration based on DESTA
Table 2: Evolution of SPS in PTAs by development group, 1990-2016

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<thead>
<tr>
<th>Years</th>
<th>Group (Number of PTAs)</th>
<th>% of PTAs with a SPS chapter/provision</th>
<th>% of PTAs with a reference to the WTO</th>
<th>% of PTAs encouraging cooperation on SPS matters</th>
<th>% of PTAs encouraging harmonization on SPS matters</th>
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Source: Authors’ illustration based on DESTA

TBT and SPS in the New Generation of Mega-regionals

Having briefly illustrated the evolution of TBT and SPS in PTAs over time, we take a closer look at the new generation of mega-regional trade agreements: CETA, TPP and TTIP. Whereas the final treaty texts are available for CETA and TPP, the analysis of TTIP is based on the drafts that were published by the EU Commission, in the case of the EU proposal, and leaked by Greenpeace in the case of the US proposal (Greenpeace 2016).

The analysis relies on the text-as-data methodology that has been employed by Allee, Elsig and Lugg (2017) and Allee and Lugg (2016). First, all prior PTAs of CETA, TTIP and TPP signatories are identified in DESTA. The relevant PTAs (are all available in English), and in the case of TTIP PTA draft texts, are then transformed from .pdf into .txt files. These files are analyzed using WCopyfind (version 4.1.5), an open source windows-based program that compares documents on the similarities in their words and phrases. The program allows for a number of refinements.
Similar to the previously mentioned authors, the present analysis follows the convention to use a minimum of six consecutive identical words for a match. All punctuation, outer punctuation, numbers, letter case and non-words are ignored. Finally, it should be pointed out that WCopyfind only reports the PTAs that have a minimum of matches between the PTA and the mega-regional PTAs. If a PTA is not included in the following figures, this indicates that the PTA did not have any matches with the mega-regional PTA of interest.

The Trans-Pacific Partnership Agreement

In order to assess the extent to which the TBT chapter in TPP is novel or imitated from past agreements, we compare the chapter to the 71 TBT chapters that TPP members signed in their previous trade agreements since 1995 as well as to the WTO/GATT TBT Agreements from 1979 (Tokyo Code) and 1994 (Uruguay Round). A significant amount of texts from 52 of these agreements (73%) have made their way into TPP (Figure 4).

We observe that, on average, 21% of the previous TBT chapters are copied into TPP. In line with Allee and Lugg (2016), our analysis finds that the US has by far had the most influence on the design of the TPP’s TBT chapter compared to other TPP parties. Eight out of the ten most influential PTAs are US agreements. More than 35% of the TBT provisions from bilateral US PTAs such as with Bahrain, Oman and Morocco were copied into TPP. On average, US negotiators managed to incorporate 30% of previous TBT provisions into TPP (Table 3). Interestingly, US negotiators copied on average considerably more from PTAs with non-TPP countries (33%) than from PTAs with TPP countries (23%).
Table 3: Text-as-data results by TPP country

<table>
<thead>
<tr>
<th>Country</th>
<th>Average % copied from previous PTA TBT (Number of influential PTAs)</th>
<th>Average % copied from previous PTA TBT with TPP partners (Number of influential PTAs)</th>
<th>Average % copied from previous PTA SPS with TPP partners (Number of influential PTAs)</th>
<th>Average % copied from previous PTA SPS with non-TPP partners (Number of influential PTAs)</th>
</tr>
</thead>
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<td>22.0 (7)</td>
<td>25.0 (5)</td>
<td>14.5 (2)</td>
<td>16.3 (4)</td>
</tr>
<tr>
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<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
</tr>
<tr>
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<td>21.2 (5)</td>
<td>22.0 (1)</td>
<td>21.0 (4)</td>
<td>15.3 (4)</td>
</tr>
<tr>
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<td>24.6 (8)</td>
<td>29.5 (4)</td>
<td>19.8 (4)</td>
<td>15.6 (5)</td>
</tr>
<tr>
<td>Japan</td>
<td>20.0 (5)</td>
<td>21.5 (4)</td>
<td>14 (1)</td>
<td>0.0 (0)</td>
</tr>
<tr>
<td>Malaysia</td>
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<td>19.8 (4)</td>
<td>22.0 (3)</td>
<td>16.6 (5)</td>
</tr>
<tr>
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<td>2.0 (1)</td>
<td>0.0 (0)</td>
<td>5.0 (1)</td>
</tr>
<tr>
<td>New Zealand</td>
<td>16.0 (6)</td>
<td>19.5 (2)</td>
<td>14.3 (4)</td>
<td>11.5 (6)</td>
</tr>
<tr>
<td>Peru</td>
<td>23.8 (6)</td>
<td>23.8 (4)</td>
<td>24.0 (2)</td>
<td>13.4 (5)</td>
</tr>
<tr>
<td>Singapore</td>
<td>14.0 (6)</td>
<td>17.0 (1)</td>
<td>13.4 (5)</td>
<td>7.7 (3)</td>
</tr>
<tr>
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<td>22.8 (4)</td>
<td>33.0 (8)</td>
<td>19.8 (9)</td>
</tr>
<tr>
<td>Vietnam</td>
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<td>0.0 (0)</td>
<td>0.0 (0)</td>
<td>0.0 (0)</td>
</tr>
</tbody>
</table>

Source: Authors’ illustration

The dominant position of the US is followed by Chile and Peru which both managed to integrate an average of almost a quarter of their previous TBT provisions into TPP (Table 3). To a certain extent, this dominance is driven by the partners with which Chile and Peru have signed previous PTAs. Indeed, Chile’s impact on TPP is mainly driven by its PTAs with other large TPP economies such as Australia (33%) and the US (31%) (Figure 4). On average, 30% of text from Chile’s previous PTAs with TPP countries was copied into TPP, only 20% from PTAs with non-TPP countries.

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7 The number of influential PTAs is the number of PTAs for which WCopyfind identified minimum of matches between the PTA and the mega-regional PTAs.
PTAs with large economies, which are likely to have significant negotiation power, are also important for Peru. The most influential PTAs with other TPP countries include the bilateral treaties with the US (31%) and Canada (22%). Interestingly, however, there is also a large part of 23% of text copied from the PTA with the non-TPP country China. On average, similar shares of text were copied from TPP and non-TPP PTAs: 23% and 24%, respectively.

**Figure 4: TBT in TPP**

Source: Authors’ illustration
At first sight, both NAFTA and the WTO TBT Agreements appear to have had a rather limited impact on TPP’s TBT chapter. However, with regards to the WTO Agreements their presence is more substantial as the employed text-as-data methodology tends to underestimate the importance of WTO rules. PTA parties adopt (parts of) the WTO Agreements through referencing rather than replicating the text (Allee, Elsig and Lugg 2017). Only 4% of the Uruguay WTO TBT Agreement was copied into TPP. However, the TBT chapter actually explicitly incorporates large, yet selected, parts of the WTO Agreement.\(^8\)

Turning to SPS, we compare the TPP SPS chapter to 69 SPS chapters that TPP members signed previously as well as to the WTO SPS Agreement. The texts of 33 out of these agreements (48%) appear to have significantly been incorporated into TPP (Figure 5). However, the share of influential agreements is lower compared to TBT (73%), the amount copied from previous agreements is also lower. On average, we find that 15% of previous SPS chapters were copied into TPP.

Figure 5 shows that the US has had the biggest influence on the SPS chapter, however, its dominance is less pronounced than in the TBT context. Still, five out of the ten most influential SPS chapters have been concluded by the US. The largest shares of text were copied from bilateral PTAs with Australia (28%), Korea (24%), Peru (22%), Columbia (22%) and Panama (21%). On average, US negotiators managed to copy 20% from previous US PTAs into the SPS chapter of TPP. As in the case of TBT, US negotiators actually drew more text from previous PTAs with non-TPP partners than TPP partners (Table 3).

\(^8\) The TPP TBT chapter incorporates Articles 2.1, 2.2, 2.4, 2.5, 2.9, 2.10, 2.11, 2.12; Articles 5.1, 5.2, 5.3, 5.4, 5.6, 5.7, 5.8, 5.9; Paragraphs D, E and F of Annex 3.
The influence of the WTO SPS Agreement appears limited with 6%. However, the TPP countries explicitly state in Article 7.4 that “The Parties affirm their rights and obligations under the SPS Agreement.” and that “Nothing in this Agreement shall limit the rights and obligations that each Party has under the SPS Agreement.” Overall, references to the WTO SPS Agreement are less
frequent than to the TBT Agreement and appear mainly in the articles on Definitions, Objective, Cooperation, SPS Committee, Equivalence, Science and Risk Analysis and Transparency.

In summary, we find that the TBT chapter of TPP is not only influenced by a larger number of previous PTAs but also incorporates more text from previous PTAs than the SPS chapter. US treaty language dominates both chapters. US negotiators use a large range of previous TBT chapters to influence the TPP TBT chapter. Interestingly, the US is the only country that copies a considerably higher share of text from previous TBT chapters with non-TPP countries than from TBT chapters signed with TPP countries. On average, they manage to copy 30% of previous TBT chapters into TPP. In contrast, US negotiators only copy an average of 20% from previous chapters into the TPP SPS chapter. Nonetheless, in comparison to the influence of the other TPP countries, it can be said that TPP, to a large extent, is “Made in America” as proclaimed by US authorities.

*The Comprehensive Economic and Trade Agreement*

In order to study the design of CETA’s TBT chapter, we also build and expand on Allee, Elsig and Lugg (2016) and compare CETA to the 41 PTAs the EU and Canada signed previously as well as to the two WTO TBT Agreements from 1979 (Tokyo Code) and 1994 (Uruguay Round). A relatively small number of 11 treaties (27%) appear to have influenced the design of the CETA chapter on TBT (Figure 6). We find that, on average, 16% of these chapters were copied into CETA and that considerably more text was copied from Canadian PTAs. Out of the six most relevant previous PTAs, Canadian negotiators copied an average of 25% into the CETA TBT chapter. The most important agreement is the bilateral PTA with Jordan out of which a striking 50% were copied into CETA (Figure 6). The EU only copied text from its bilateral PTAs with Singapore (10%) and Korea (9%). Overall, Canada did not only copy a larger share of text from its previous PTAs, it also used a higher share of PTAs available than the EU. Out of the twelve PTAs Canada already has, six were influential to the design of CETA’s TBT chapter. In contrast, the text of only two out of 28 EU PTAs appears to have had an influence of CETA.

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*Office of the United States Trade Representative (2017)*
As in the previously discussed case of TPP, the WTO TBT Agreement does not appear influential at first. However, a qualitative assessment of the text shows that the Agreement actually forms the foundation of the CETA TBT chapter. Indeed, Canada and the EU refer to the TBT Agreement seven times and explicitly incorporate Article 2 to 9 as well as Annex 1 and 3.

Canada’s influence in the design of CETA is also reflected in its SPS chapter, if less pronounced (Figure 7). Out of the 25 PTAs that Canada and the EU previously signed and which included a SPS chapter, only eight appear to have been influential to the design of the CETA SPS chapter. On average, 7% of these agreements were incorporated into the chapter. Canada’s PTAs with Colombia (17%) and Peru (16%) were copied most significantly. Interestingly, we find that the relatively low average share of Canadian PTAs copied into CETA’s SPS chapter is pulled down by
the very limited influence of TPP (3%). On average, Canadian negotiators managed to copy an average of 12% from previous PTAs whereas EU negotiators only included 4% of their five most influential PTAs.

**Figure 7: SPS in CETA**

![Figure 7: SPS in CETA](image)

*Source: Authors’ illustration*

Similarly to the TBT chapter, the WTO rules form an integral part of CETA’s SPS chapter as “*The parties affirm their rights and obligations under the SPS Agreement.*”

Overall, we find that, similarly to the case of TPP, more text was copied from previous TBT than SPS chapters. Canadian negotiators also drew considerably more text from previous PTAs than EU negotiators did. Still, compared to TPP, CETA appears more innovative as the average shares of texts copied from previous PTAs are lower than in TPP’s case.
In this section, we focus on the TTIP draft proposals of the EU and US and contrast them in Figure 8 and Figure 9. In order to understand which, if any, previous EU PTAs may have influenced the design of the EU’s draft proposals for TTIP’s TBT chapter, we compare the draft to 28 previous EU PTAs as well as the two WTO TBT Agreements from 1979 (Tokyo Code) and 1994 (Uruguay Round). We find that only eight (27%) of these texts had an impact and that, on average, only 11% of their texts were incorporated into the EU’s TBT draft for TTIP. By far the most significant share was copied from CETA - 26% (Figure 8). A side-to-side comparison between CETA’s chapter and the EU’s TTIP TBT draft suggests that the largest parts were drawn from CETA’s articles on Scope and Definitions, Cooperation, Technical Regulations and Transparency.

Figure 8: TBT in EU and US TTIP draft proposals
The US negotiators appear to have drawn more heavily from previous US PTAs when designing the TBT draft proposal. On average, 22% of the most influential US TBT chapters were copied into the draft (Figure 8). They also seem to have used the full range of previous PTAs – out of the 14 previous PTAs and the two TBT Agreements, only two treaties did not have an impact on the US TBT draft for TTIP.

The Top 3 PTAs with Oman, Bahrain and Morocco, which also heavily influenced TPP, are found to be important text sources for US American negotiators. Most text drawn from the US-Bahrain PTA originated from its articles on Scope and Coverage, International Standards, Conformity Assessment Procedures and Transparency. An interesting observation is that the US most recently negotiated PTA, the Trans-Pacific Partnership, did not have significantly more influence on the draft proposal than other, older, PTAs.

Whereas the share of text copied from the WTO TBT Agreement is small, the Agreement does present an important building block for the EU as it explicitly incorporates the TBT Agreement and makes it part of the TTIP draft as well as refers to it seven times. The US TBT draft proposal refers 10 times to the WTO TBT Agreement with explicit references such as “The Parties affirm their rights and obligations with respect to each other under the TBT Agreement.”

CETA is also found to be the, by far, most important source of treaty text for the EU’s SPS draft. 31% of CETA’s SPS chapter was copied into the TTIP draft proposal, mainly taken from its articles on Trade Conditions, Import Checks and Fees and the Joint Management Committee. Out of the 15 available previous PTAs and the two TBT Agreements, EU negotiators only used 8 texts (47%) and copied an average of 10% (Figure 9).
Similarly to the TBT draft, US negotiators used the full range of available PTAs. On average, 12% of the texts from previous PTAs are copied into the SPS draft proposal for TTIP. The most influential PTAs were the bilateral agreements with Panama and Oman out of which 18% were copied into the US draft SPS chapter (Figure 9). Most text from the Panama agreement was drawn from its article on the Committee on Sanitary and Phytosanitary Matters. We observe again that TPP appears to have had considerably less influence on the design of the SPS draft proposal than the other agreements.

The EU and the US both refer nine times to the WTO SPS Agreement with references such that they “[…] affirm their rights and obligations [US: with respect to each other] under the [US: WTO] SPS Agreement.”
In summary, we find a pattern that is similar to the previously discussed mega-regionals TPP and CETA. Both, EU and US negotiators drew less text from previous PTAs when drafting their SPS proposal than they did when drafting the TBT proposal. Almost all of previous US PTAs were influential for the TTIP draft. The EU, in contrast, did not only copy less text but also used less previous PTAs. In fact, CETA is by far the most important text source for the EU’s TTIP draft on TBT and SPS. TPP, the latest US PTA, by contrast, does not seem to have been influential in shaping the US TTIP draft.

Comparing US and EU draft proposals for TTIP

The previous discussion indicates that the US was particularly influential in designing the TBT and SPS chapters of TPP while Canada managed to replicate considerable shares of its previous PTAs in CETA. It appears somewhat puzzling that the US did not use much of the TPP template to draft the TBT and SPS chapters for TTIP, while the EU did rely heavily on CETA. This could be interpreted as the US looking for a new approach going into the negotiations, while the EU having elaborated together with Canada some important design elements for its future approach. The final question we focus on is how compatible the EU and US TTIP drafts are and in which areas they converge or diverge?

We offer below a side-by-side comparison for two selected areas. We have chosen two different design features, namely scope and coverage (capturing the ambitions and objectives) and standard-setting processes (capturing the regulatory philosophy). In relation to the article of the Scope and Coverage (US) and the Objective and Scope (EU) (Table 4), we observe substantial convergence. The text in bold shows the text overlaps that the text-as-data analysis using WCopyfind identifies. The underlined passages show the text that we regard as de facto matches but that the software did not identify because the word strings did not meet the requirement of six identical consecutive words. Both parties use similar language, the EU explicitly stating the objective of the TBT chapter being the only significant difference.
### Table 4: US vs EU TTIP TBT: Objective, scope and coverage

<table>
<thead>
<tr>
<th>Scope and Coverage (US)</th>
<th>Objective and Scope (EU)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This Chapter applies to the preparation, adoption, and application of standards, technical regulations, and conformity assessment procedures of covered bodies that may, directly or indirectly, affect trade in goods between the Parties, including any amendments thereto and any additions to their rules or product coverage, except amendments and additions of an insignificant nature.</strong> Notwithstanding paragraph this chapter does not apply to: (a) purchasing specifications prepared by governmental bodies for production or consumption requirements of such bodies; or (b) sanitary and phytosanitary measures as defined in Annex A of the Agreement on the Application of Sanitary and Phytosanitary Measures.</td>
<td>The objective of this Chapter is to promote convergence in regulatory approaches by reducing or eliminating conflicting technical requirements as well as redundant and burdensome conformity assessment requirements. This Chapter applies to the preparation, adoption and application of technical regulations, standards and conformity assessment procedures that may affect trade in goods between the Parties. This chapter does not apply to: (a) purchasing specifications prepared by a governmental body for production or consumption requirements of governmental bodies; or (b) sanitary and phytosanitary measures as defined in Annex A of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. All references in this Chapter to technical regulations, standards and conformity assessment procedures shall be construed to include any amendments thereto and any additions to the rules or the product coverage thereof.</td>
</tr>
</tbody>
</table>

Arguably, this presents more of a difference in the mode of expression and linguistic style than a difference in substance. Below we focus standard-setting processes – an area in which longstanding divergences exist in terms of the regulatory approach.

As outlined in detail by Büthe and Mattli (2011), the TBT-related standard-setting processes between the US and the EU are for historical reasons systematically different. While the US American system is characterized by fragmentation, overlap and competition among multiple standard-setters, the standard-setting processes in the EU are hierarchical and coordinated by the European Committee for Standardization (CEN) and the European Committee for...
Electrotechnical Standardization (CENELEC). Both organizations have cooperation agreements with the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), resulting in a considerable overlap of standards. The overlap between US standards and ISO/IEC standards, in stark contrast, is estimated to be below one percent (Egan and Pelkmans 2015). While the WTO TBT Agreement does not define international standards exclusively as the products of ISO and IEC, Annex 1 and 3 of the WTO TBT Agreement do assign them a prominent role and a certain degree of regulatory authority.

The differences in interest are evident. While the US has an incentive to either limit the prominence of ISO/IEC standards as international standards or strengthen its influence in the standard development at ISO and IEC, the EU has an incentive to find ways for the US to begin adopting more systematically ISO and IEC standards (Egan and Pelkmans, 2015). Following this logic, we find some nuanced indications of these opposing positions in the respective TTIP drafts. For instance, while the European draft includes, already ambitious, provisions on the cooperation between standardization bodies including, the US seems to go beyond this as it is very much concerned about “allow[ing] persons of the other Party to participate on terms no less favorable than persons of the Party” in standard-setting processes (Table 5).
Table 5: US vs EU TTIP TBT: Standards and Standardization

<table>
<thead>
<tr>
<th>Standards (US)</th>
<th>Standardization (EU)</th>
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<tbody>
<tr>
<td>Where a Party requests a body to develop a standard that may be used for purposes of complying in whole or part with technical regulation or conformity assessment procedure, the Party shall specify in the request that the body shall: (a) allow persons of the other Party with relevant technical expertise to participate in any of its technical bodies, including by accessing working documents, attending meetings, submitting technical proposals and advice concerning development of the standard, and ensuring prompt consideration of any such proposals and advice; (b) not impose conditions on such participation that impede persons of the other Party with relevant technical expertise from participating, such as obligations to adopt or implement the standard, to withdraw an existing standard, to be affiliated with a national standards body or other entity that includes persons of the Party, or represent a national position or view; [...]</td>
<td>The Parties shall promote closer cooperation between the standardization bodies located within their respective territories with a view to facilitating, inter alia: (a) the exchange of information about their respective activities, (b) the harmonization of standards based on mutual interest and reciprocity, according to modalities to be agreed directly by the standardization bodies concerned, (c) the development of common standards, and (d) the identification of suitable areas for such co-operation, in particular in new technologies.</td>
</tr>
</tbody>
</table>

While a detailed discussion is beyond the scope of this chapter, we also find evidence of diverging views on the definition of international standards as well as on different aspects of conformity assessment procedures.\(^\text{10}\)

Overall, we find that the EU and US use similar language for horizontal articles such as on the scope and coverage as well as general cooperation. The more detailed articles, in contrast, do include some nuanced differences that reflect longstanding and partly conflicting views on issues such as standardization and conformity assessment. The brief analysis of TTIP suggests that the political power of countries in standard-setting organizations and conformity assessment procedures is influencing the text.

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\(^{10}\) For a related discussion on this topic, see Egan and Pelkmans (2015).
assessment bodies is reflected in their approach to designing corresponding chapters in trade agreements – a topic which needs further exploration.

**Conclusions**

Trade agreements have always been somewhat contested, however, the criticism that the new generation of mega-regional agreements (CETA, TPP and TTIP) has received is unprecedented. An important area of contestation relates to the envisaged cooperation on behind-the-border issues, so-called non-tariff measures.

In this chapter, we took a close look at the core of NTMs, namely technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS) in the aforementioned trade agreements to address three questions. First, how much innovation versus imitation characterizes CETA and TPP? Second, to which extent do these two agreements present templates for TTIP? Third, in which areas do the EU and US converge and diverge?

Using a text-as-data approach, we find that in all three agreements negotiators rely heavier on texts from previous PTAs when designing the TBT chapter than the SPS chapter. In both chapters in the TPP treaty, we identify a considerable prominence of legal texts from existing trade deals, predominantly from US agreements. By contrast, CETA negotiators relied less on previous PTAs and appear to have developed a more innovative approach to TBT and SPS matters. We also find evidence suggesting that EU negotiators attempt to implement these innovations in TTIP. Indeed, the European draft proposals for the TBT and SPS chapters of TTIP rely heavily on CETA text. Interestingly, TPP plays a fairly limited role in the US draft proposal for TTIP, even though it is an agreement largely written by the US and most recent. Finally, we find that the EU and US converge on general topics such as the objective, scope and coverage of TBT and SPS in TTIP but do diverge in more detailed items such as standard-setting processes and conformity assessment procedures.

The findings of this chapter open up multiple avenues for future research. In particular, we intend to further explore the possibilities that text-as-data methodologies offer. While the quantification of text overlaps between agreements provides us with a first indication of the distribution of negotiation power, we would like to learn more about the content that is actually
being copied from one agreement to the next. Are the copied text passages merely standard provisions or do they contain substantial concessions that define the trade relations between the PTA signatories? A second avenue we intend to explore further is the nexus between the processes at standard-setting organizations and the design of related PTA chapters. More precisely, we would like to build on the above TTIP discussion and address the question as to whether, and if so how, countries’ political power at standard-setting organizations such as ISO and the Codex Alimentarius affects the design of the TBT and SPS chapters in trade agreements.
References


