

TTIP and third countries: The role of trade policy spillovers

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TTIP and third countries: The role of trade policy spillovers

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Abstract

Some recent analysis of TTIP has predicted a more positive outcome for third countries because it was assumed that that trade barrier reductions in TTIP also benefited third countries in the form of “trade policy spillovers”. The article examines the conceptual and empirical foundation for such spillovers and concludes that they are real and a potentially important phenomenon, but current estimates related to TTIP are uncertain and need a stronger theoretical and empirical foundation. Spillovers take different forms and vary across sectors and trade policy measures, and they often reach only a subset of countries rather than the whole world. The fear of trade diversion from preferential trade agreements (PTAs) can also create “domino effects” whereby third countries initiate new agreements. Some trade policy spillovers can be expected from TTIP, but “domino effects” are likely more important than the global diffusion of standards. The main reason is that regulatory differences between the EU and the USA limit the scope for harmonization of standards in TTIP.

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Introduction¹

In analysis and policy discussions about the Transatlantic Trade and Investment Partnership (TTIP), an important issue is how this agreement could affect third countries. According to existing studies, predictions about the economic impact of TTIP on third countries vary greatly, from substantial losses to significant gains. In this conceptual note, we show that the assumptions regarding so-called “trade policy spillovers” constitute a main reason why results on TTIP’s impact on third countries differ so much. We examine the concept of trade policy spillovers conceptually and empirically, and conclude tentatively what assumptions about such spillovers that might be plausible in the case of TTIP. Trade policy spillovers have also been included in studies of the Trans-Pacific Partnership (TPP) (Kawasaki 2014, Petri and Plummer 2016).

Trade policy spillovers imply that trade cost reductions between two countries also affect trade barriers for other countries. The idea is not new; e.g. Smith and Venables (1991) analysed how the change of rules and regulations in the EU internal market was often non-discriminatory and could therefore also benefit third countries. The issue was raised more recently by Copenhagen Economics (2009) in a study on EU-Japan trade, maintaining that for non-tariff measures (NTMs) “many of the identified instruments available for reducing the NTMs are multilateral in nature” (p. 83) and “other countries may free-ride on the benefits of NTM reduction” (p. 13). While this study did not estimate numerically the impact of such spillovers, this was later undertaken for TTIP in CEPR (2013, 28ff.), assuming that for NTMs, some of the reductions obtained for EU-USA trade would also apply automatically to trade between EU/USA and third countries (“direct spillovers”).

Trade policy spillovers dampen the discriminatory impact of trade integration for outsiders.² This is however not the only channel by which

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² According to standard trade theory, PTAs have a discriminatory impact since trade costs are lowered only for some trade partners, and the resulting change in relative

the discriminatory impact of regional trade integration may be dampened or nullified. Another such channel is value chain effects or input-output effects. Due to globalisation, value chains have become increasingly international, with goods and services produced with inputs from many countries. Even if a PTA (preferential trade agreement) reduces the demand for final goods or services from third countries, there could be a compensating increase in the demand for parts or services that are used in production or distribution. We may call this GVC demand spillovers. For example, if TTIP stimulates the production of cars in the EU, it could increase the demand for car components also from third countries. Or if TTIP leads to larger EU-USA trade in cars, it could increase the demand for transport services from third countries. Observe, however, that the sign of this GVC effect is ambiguous and depends on the nature of the value chains.

General economic growth due to TTIP may also add to this demand effect, across the whole range of sectors. As described also in the early literature on regional trade integration, this demand effect may be large enough to outweigh losses from trade diversion.

A fourth channel by which the discriminatory impact of PTAs may be reduced or eliminated, is via political-economy responses – if third countries adjust their own trade policies as a compensatory measure. We may distinguish between policy responses that require agreements with other countries, and responses that may be implemented unilaterally. Regarding the first type, for example, outside countries may fear to lose from TTIP and therefore have incentives to join TTIP or negotiate separate agreements that could mitigate any adverse effects. Within a new trade theory framework, Baldwin (1993) suggested a “domino theory of regionalism” whereby the discriminatory impact of PTAs would strengthen the motive for outside countries to join the PTAs. More recently, Baldwin and Jaimovicz (2016) provide empirical support for the presence of domino effects; indicating that PTAs are contagious and the degree of contagion is related to the importance of the partners' markets.

While the domino effect requires trade policy negotiation, a different type of political-economy spillover is the diffusion or multilateralization of standards through unilateral adaptation by third countries. This is the “gold standard” effect of trade agreements suggested by some advocates

prices shifts demand from outsiders to the participating countries. This tends to increase trade within the integrating bloc (“trade creation”) but may reduce trade with outside countries (“trade diversion”). In early theories about regional integration, the trade and welfare impact would depend on the industrial structure of the countries involved and the allocation of tariff revenue (see e.g. Robson 1980 for an overview). In the new trade theory, the demand shift due to integration also tends to shift production of differentiated goods into the integrating bloc (Baldwin and Venables 1995). Such “production-shifting” increases the welfare gains from integration and the losses for outsiders.

for “megalaterals” such as TPP and TTIP.³ This is underlying the concept of “indirect spillovers” suggested by CEPR (2013). In this case, trade costs would be lowered due to TTIP not only for the trade between EU/USA and third countries (in both directions), but also between third countries. According to this, TTIP would even lead to lower trade costs and trade between e.g. Russia and China.

In the article, we will also make an attempt to bring the concept of trade policy spillovers closer to reality. Analysing to what extent all regulations in the EU, USA or the world are discriminatory or not is however a massive task which is beyond the scope of this article. By drawing on various sources, we nevertheless aim to improve the empirical assessment of the nature and extent of trade policy spillovers. By examining different fields of regulatory cooperation, the article aims to improve our understanding of spillovers and how they differ across regulatory approaches, sectors and countries. In the following section, we will show that trade policy spillovers play a key role in some current estimates on the impact of TTIP for third countries, but these estimates are based on sweeping and ad hoc assumptions about such spillovers. A better understanding of trade policy spillovers may therefore contribute to improving methods and the accuracy of such estimates in future work.

³ E.g. in a speech in November 2012, Hillary Clinton called the Trans-Pacific Partnership (TPP) a “gold standard in trade agreements”; see <http://www.washingtonexaminer.com/watch-clinton-called-tpp-gold-standard-in-trade-agreements-in-2012/article/2595068>.

Trade policy spillovers in earlier analysis of TTIP

Several studies have included trade policy spillovers in their analysis of TTIP, using different types of model simulations where TTIP is modelled as a reduction in barriers to trade (and sometimes investment). Spillovers have also been included in recent studies of TPP; see IMF (2016) for an overview.

For TTIP, CEPR (2013) assumed that 1/5 of the NTM trade cost reductions for trade between the EU and the USA also applied to trade between EU/USA and third countries. In addition to these “direct spillovers” they also assumed that 1/10 of the intra-TTIP NTM trade cost reductions applied to trade between third countries because of “indirect spillovers”. The logic is that “the EU and the US act as a regulatory hegemon” and “there is scope for setting de facto common, global standards” (ibid., 29). In the case of indirect spillovers, the USA and the EU would also obtain better access in third country markets. Table 1 shows the relative impact of trade policy spillovers in the overall results of the study.

Table 1: The role of spillovers in the total impact of TTIP, according to CEPR (2013). Ambitious scenario with 1/5 “direct” and 1/10 “indirect” spillovers. Percentage change in GDP.						
	Total effect	Partial contribution from:				
		Tariffs	Total NTMs goods	Total NTMs services	Direct spillovers	Indirect spillovers
EU	0.48	0.11	0.26	0.03	0.07	0.02
USA	0.39	0.04	0.23	0.06	0.06	0.00
Other countries	0.14	-0.01	-0.04	-0.01	0.05	0.15

Source: CEPR (2013), Appendix 5, Table A.1. Assumptions in the ambitious scenario are: 100% elimination of tariffs, 25% reduction in NTMs (50% of “actionable” part). In addition, there are gains from more open public procurement not shown in the table.

Trade policy spillovers play a major role for third countries – the total impact of TTIP for third countries would clearly be negative without trade policy spillovers. This result is however reversed due to trade policy spillovers; particularly the indirect spillovers – assuming that TTIP will create global regulatory standards – play a key role. Hence in the assessment of TTIP for third countries in this study crucially depends on the spillover effects.

Another study on TTIP including spillover effects is Aichele et al. (2014). They estimate empirically the average impact of PTAs in the past, divided into “shallow” and “deep”. The resulting parameter estimates are thereafter plugged into the model in order to simulate numerically the impact of a shallow or deep TTIP, and other scenarios where spillovers are added. For spillovers, they replicate the assumptions of CEPR (2013) – with 1/5 for direct and 1/10 for indirect spillovers, compared to intra-TTIP NTM reductions.

	Only tariff cuts	Shallow TTIP	Deep TTIP	Direct spillovers	Indirect spillovers
USA	0.01	2.06	2.68	3.25	3.37
EU	0.00	1.57	2.12	2.57	2.65
Other countries	-0.00	0.05	-0.03	0.23	1.21

Source: Aichele et al. (2014), Table 11, p. 46.

Also in this case, trade policy spillovers change the game completely for third countries – reversing a modest welfare loss from deep TTIP into a considerable gain, especially in the case of indirect spillovers.⁴

The two examples serve to illustrate the importance of trade policy spillovers in the analysis of PTAs. For the TTIP parties, the spillover effects taken together represent about 15-23% of the total effects. For third countries, the spillovers dominate the outcome.⁵

Earlier studies also shed some light on the role of GVC demand spillovers; especially if we focus on scenarios without trade policy spillovers we can distinguish between the two types of effects. If there is a standard trade creation/diversion effect, we would expect that tariff reduction or discriminatory NTM reductions in TTIP should lead to an increase in EU-USA trade, and a reduction in intra-EU trade as well as imports into the USA and the EU from third countries. In the mentioned studies, the trade creation effect for EU-USA trade and the trade diversion effect for intra-EU trade are strongly confirmed in booth studies and also in Fontagné et al. (2013). With respect to TTIP trade with third countries are mixed; with Aichele et al. (2014) suggesting a standard trade diversion effect⁶,

⁴ The welfare impact of TTIP is much higher in Aichele et al. (2014) than in CEPR (2013). This is due to differences in methodology, which we do not address here since it is beside our main focus.

⁵ In Fontagné et al. (2013), another numerical simulation analysis of TTIP, spillovers are even more important for the EU and USA, however results for third countries are not reported in this respect.

⁶ The authors show that the patterns for gross trade and trade in value added (where the origin of inputs is accounted for) are broadly similar; however, with some exceptions.

whereas CEPR (2013) and Fontagné et al. (2013) provide evidence for an increase in some components of the trade between the EU/USA and third countries.⁷ Fontagné et al. (2013) conclude that for the EU, the “missing trade diversion” for the EU viz. third countries are due to GVC demand spillovers.

⁷ According to CEPR (2013) – focusing on scenarios without trade policy spillovers – tariff reductions in TTIP lead to a standard trade diversion effect with less import from third countries, but NTM reductions lead to increased trade (exports as well as imports) with third countries. These statements are based on calculations based on CEPR (2013), Appendix 5, Tables A18-A23 and A30, A31, A34. According to Fontagné et al. (2013,10) TTIP leads to modest trade diversion for the USA in the form of less import from third countries, but for the EU there is no such overall trade diversion effect viz third countries.

Trade policy spillovers: Some conceptual issues

The preceding section confirms beyond doubt the importance of trade policy spillovers in the analysis of PTAs, and in particular in the analysis of the third country effects of PTAs. In the following, we shall therefore address some conceptual and theoretical aspects of this new element in trade policy analysis. For the analysis of GVC demand spillovers, the reader is referred to the growing literature on global value chains; see e.g. Timmer et al. (2014).

If we define the direct trade policy spillovers as the ones occurring automatically with no policy adaptation or response from third countries, we may distinguish different types. A first category is trade policy measures that are non-discriminatory. For example, food standards or standards for the qualifications of services providers or standards for toxic content or residue limits are mostly common to all suppliers – you simply do not allow more toxic chemicals from some trade partners. While the standards as such are mostly non-discriminatory, certification and implementation measures may be differentiated across suppliers, e.g. with simplified procedures for some trading partners, and thereby be discriminatory. Some aspects of standards are however “scalable”; e.g. the duration of patents could be different across countries. Many standards are nevertheless non-discriminatory by nature. As noted by Pelkmans et al. (2014), WTO rules may also limit the possibilities for discriminatory implementation of the standards and promote non-discriminatory features of the trade regime. Non-discriminatory effects could also be obtained from institutional reforms; e.g. if a PTA establishes institutions that facilitate procedures and improve the access to information.

For non-discriminatory NTMs, trade barrier reductions apply to all trade partners and can be taken into account as appropriate in existing trade models. A caveat is that standards may have a differential impact across suppliers, depending on the characteristics of trade partners. For example; strict food standards may be easier to comply with for trade partners that are similarly strict and have developed institutions for quality control. This is an emerging theme in the literature on food standards (see e.g. Medin and Melchior 2015). Hence institutional similarity may increase the extent of direct policy spillovers, so they may apply only to some countries and not be global in scope.

A second type of trade policy spillovers is what we may call simplification effects. This occurs when the costs for third country suppliers are

reduced as a by-product of PTAs. For example, when the EU has one standard instead of 28, it benefits third countries that no longer face new costs of adaptation to every national standard. This is the case modelled theoretically by Smith and Venables (1991) – showing that PTAs may (in some configurations) lead to higher market shares for third countries if their fixed costs of market access are reduced. This serves to illustrate that in the case of simplification effects, fixed trade costs may be a key element.

The role of the WTO for promoting non-discriminatory implementation of trade policies illustrates that trade policy spillovers may sometimes be due to legal provisions in trade agreements. In the European context, a particular type of such “legal spillovers” is that TTIP may affect rules in other trade agreements of the EU, automatically and without requiring any active policy response from third countries. This is the case for the EEA (European Economic Area) agreement involving Iceland, Liechtenstein and Norway. The EEA provides full access to the EU internal market in all sectors except agriculture and seafood, and full regulatory homogeneity in the sense that the EFTA countries adopt all new regulations (with a veto right that is rarely used). Hence if the EU and USA agree on a new standard or regulation that is written into the internal market legislation, it may automatically apply also to the EEA. But if TTIP only leads to looser forms of regulatory cooperation (e.g. mutual recognition agreements), this will not necessarily be the case. The legal spillovers in the EEA illustrate that spillovers may apply only to a subset of countries.

Another type of legal spillover in the EEA follows from Protocol 12 of the EEA Agreement, which establishes full parallelism between EFTA/EEA countries and the EU for agreements on mutual recognition of conformity assessments (procedures and data requirements for the approval of products or processes) (MRAs): When the EU has concluded an MRA with third countries, EFTA does the same in order to maintain the regulatory homogeneity of the European Economic Area. Only the EU has the right to initiate new MRAs with third countries; but with a presumption that EFTA will enter into parallel agreements.

In the “domino” model of Baldwin (1993), the driving force is that for third-country exporters of differentiated goods, the comparative gain in profits from joining the PTA determines the political support for membership. The more countries that are members of the PTA, the greater is the gain from joining, and this creates the “domino effect”. In Baldwin’s model, the number of manufacturing firms is exogenous and the PTA is fully open so all new members are welcome. It is therefore not clear where the process of PTA enlargements ends and what is the final outcome. As shown by Melchior (1997) in a model with many countries and endogenous number of firms, there may be a saturation level since the gains from further enlargement reaches a maximum for a certain size of the PTA. Hence while the incentive to join increases monotonously with

bloc size, the incumbent's incentive to enlarge reaches a maximum before all outsiders have joined. The logic is simple: In the new trade theory, some of the gains for insiders are obtained by discriminating against outsiders, but this advantage is eliminated if all countries join. The global welfare level would still be highest if all countries join.⁸

Hence even in theory, the domino effect could be less than global. In real trade policy, the incentive to form a compensating PTA would also differ across countries, depending on economic and geographical features. For example, given that economic interaction depends on geography, the neighbours of the EU and the USA may have a stronger incentive since a very large part of their trade is with TTIP, as illustrated by Pelkmans et al. (2014). Some countries have agreements with the USA and the EU already in place (Mexico and Canada), whereas EFTA countries in Europe do not yet have agreements with the USA. Domino effects from TTIP could be in the form of full-fledged PTAs or in the form of agreements covering particular areas. For example, TTIP liberalization in services could spill over into the TiSA negotiations, or mutual recognition agreements within TTIP could motivate similar agreements involving third countries.

Another type of domino effect is that TTIP may set standards that the USA and the EU could apply in other trade agreements. TTIP also builds on earlier agreements of the two parties; e.g. the Canada-EU Trade Agreements included new provisions on investment that may potentially be reflected in TTIP, and TPP sets a standard for tariff reductions that may also affect TTIP. In international negotiations, perceptions of fairness play an important role and if a sector is liberalised for one country, other suppliers would like to obtain the same. This dimension of the domino effect could also apply to the renegotiation or revision of former trade agreements.

As seen above, direct trade policy spillovers and domino effects may not necessarily be generalized to the whole world, but to a subset of countries only. For TTIP, non-TTIP countries in NAFTA and the EEA represent the first layer; other developed (mainly OECD) countries the second. The reach of spillovers is also an issue related to the global diffusion of standards. The extent of multilateral diffusion may depend on institutional aspects such as the prevalence of multilateral processes and standards; the institutional and legal similarity of trade partners; the patterns of economic interests; and the extent of conflict. For international regulatory cooperation there are complex processes going on in a number of fields. In some cases, it is possible for major countries to become global hegemon and set a "gold standard". More often than not,

⁸ The domino effect could actually be stronger, the stronger is the discriminatory impact of a PTA. Hence there could be an inverse relationship between direct and indirect spillovers. In CEPR (2013) and Aichele et al. (2014), however, the "direct" and "indirect" spillovers are assumed to be proportional.

however, it is difficult to achieve such hegemony. And if there is no “gold standard”, it can hardly be diffused across the globe.

Hence trade policy spillovers are of different types so an important task is to distinguish between them and to examine to what extent NTMs are discriminatory or not. It is also likely that spillovers are not global in scope so a second key issue is to find out more about the scope for “multilateralization” of TTIP standards or other standards. With this in mind, we will examine some regulatory fields in order to assess the potential spillover effects of TTIP.

International regulatory cooperation and TTIP: Introductory notes

While tariff reductions are easy to measure, lowering NTM-related barriers in PTAs or other international agreements is subject to a variety of forms of cooperation, ranging from the complete and legally binding harmonisation of standards and procedures at one end, to *ad hoc* exchange of information at the other. OECD (2013) reviews the multitude of approaches, suggesting a hierarchy as shown in Table 3, from the most to the least legally binding.

Table 3: An illustrative hierarchy of international regulatory cooperation
Integration
Treaties, conventions
Regulatory partnerships
MRAs (Mutual Recognition Agreements)
Transgovernmental networks
Soft law, Guidelines, Principles
Voluntary standards
<i>Ad hoc</i> exchange of information
Source: OECD (2013, 50)

The ranking should be considered as illustrative only since the content of each form of cooperation may differ dramatically from case to case, especially for the intermediate types where the true content may range from good intentions only at one end, to *de facto* binding regulations with far-reaching impact at the other end. For example, IOSCO (International Organization of Securities Commissions, see www.iosco.org) is an international network of national financial regulators that has succeeded in establishing (voluntary) standards that are nevertheless applied by more than 100 countries. Hence even if the success of IOSCO is partial and the organization failed in areas where the conflicts of interest were too large (Verdier 2009), it shows that transnational regulatory networks can be one important channel for international regulatory cooperation. Similarly, the Basel Accords for banking supervision were decided by a small group of countries but nevertheless became standards widely applied worldwide (see e.g. Basel Committee for Banking Supervision, 2016). In the light of Brexit, it may be noted that the Basel Accords were pushed especially by the USA and the UK, with strong opposition at times from Germany and France (Verdier 2009). Due to a mixture of economic interests, coercion and the importance of reputation in financial markets, it was possible to establish a global standard (ibid.).

Regulation in a field may often involve a range of different tools or measures. For example, TTIP builds on two decades of regulatory cooperation through the Transatlantic Business Dialogue (TABD), but it is hoped that when this cooperation becomes treaty-based through TTIP, it will become more efficient.

Regarding forms of regulatory cooperation, it is important to distinguish between legally binding laws, rules or regulations and standards that are often voluntary. For example, a regulation may set health-related requirements for a product or process, and a standard may be a way of fulfilling these requirements. In this respect, the approaches of the EU and the USA differ considerably. In the EU, some standardization bodies⁹ are officially recognized as European Standardization Organizations and create EU-wide standards that replace national standards. Contrary to this centralized procedure, the USA has a more decentralized pattern of standardisation, with a large number of competing standard-setting bodies (Kommerskollegium 2013). In the centralized European system, standards have a semi-legal status, but in the USA this is not the case. Even for trade within the EEA (European Economic Area), Nordås (2016a) found that differences with respect to the origin of legal systems had a strong impact on cross-border services trade. The differences between EU and U.S. legal systems and approaches to regulation therefore impede regulatory cooperation in TTIP.

The European system of standardization is an example of extensive harmonization of regulation. When the EU internal market was formed in 1992, mutual recognition of standards was also an important approach in cases where standardization was not possible and this is still an element of the EU system. According to Correia de Brito et al. (2016) it is only in the EU and the Trans-Tasman agreement between Australia and New Zealand that MRAs apply to standards as such. When neither standardization nor MRAs on standards is possible, we go down the ladder towards less extensive forms of regulatory cooperation. Based on current information available, that is likely the main approach to regulatory cooperation in TTIP. For example, MRAs on testing procedures and data exchange may be established. In some fields such as the approval of cars and chemicals, such trade-facilitating measures may be significant and lead to large cost savings.

The decentralised approach to standardization in the USA also contributes to some regulatory heterogeneity across U.S. states. This is also important in other policy areas – e.g. public procurement where a main EU ambition in TTIP is to obtain access to the sub-federal procurement markets. There is also regulatory heterogeneity across EU countries: In spite of the build-up of “*aquis communautaire*” over time, the EU has supranational competence in some areas but far from all. While external trade policies and regulations for goods production and trade are to a larger extent common, there is more regulatory heterogeneity for investment and trade in services. For example, Nordås

⁹ These are the international non-profit private associations CEN (European Committee for Standardization), CENELEC (European Committee for Electrotechnical Standardization) and ETSI (European Telecommunications Standards Institute)(for more information, see <http://www.cencenelec.eu/Pages/default.aspx>).

(2016a) show that regulation of professional qualifications varies considerably across EU countries, and OECD's database of services trade restrictiveness¹⁰ show that the same applies to foreign investment restrictions (e.g. foreign ownership shares). If one looks at EU's offer in the TISA negotiations on trade in services (see European Parliament, 2015), the extent of national variation is large. This regulatory heterogeneity on the EU side may in some cases be an issue in TTIP. E.g. in the TTIP negotiations on mutual recognition agreements related to pharmaceuticals, the USA has demanded audits on national EU practices.¹¹

¹⁰ See <http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm>.

¹¹ Document "Note – Tactical State of Play of the TTIP Negotiations – March 2016", available at <https://www.ttip-leaks.org/>.

Harmonization versus mutual recognition: The case of chemicals

The chemicals sector represents 11% of world trade in goods and includes four of the nine sectors that have been chosen as priorities for regulatory cooperation in TTIP (chemicals, cosmetics, pesticides and pharmaceuticals).¹² Some chemicals involve important health risks and many countries have therefore developed extensive regulations. As shown by Ecorys (2009), chemicals are subject to a large number of various rules and regulations in the EU and the USA; some sector-specific and some general. Chemicals is also an example of the complexity of regulatory cooperation. Useful reviews of regulatory issues related to TTIP and chemicals are provided by Ecorys (2009), Kommerskollegium (2013), Elliott and Pelkmans (2015), and Ecorys (2016). Some international regulatory issues are also addressed in OECD (2010) and OECD (2013).

In the EU, the REACH (registration, evaluation, authorisation and restriction of chemicals) regulation adopted in 2006 is the major pillar in chemicals regulation. A basic principle is “no data, no market” so REACH requires the firms to present considerable information about production, use, classification, labelling, chemical content and toxicological properties before it is approved for sale. REACH is based on the precautionary principle, which means that a product may be restricted if there is a potential risk, even if there is scientific uncertainty. In addition to REACH, the regulation on classification, labelling and packaging (CLP) is another main pillar of EU’s regulation of chemicals.

In the USA, chemical regulation rests on several legal pillars and procedures (Elliott and Pelkmans 2015) but a key piece of legislation has been the Toxic Substances Control Act (TSCA). The original law from 1976 was widely considered as obsolete but as a major step in U.S. environmental legislation, it was recently (in June 2016) replaced by a modernized version.¹³ The new TSCA strengthens and expands procedures for risk evaluation and data collection. This law also strengthens the Federal level, which is important since practices may vary across states. The TSCA reform brings U.S. legislation closer to REACH, but still with

¹² Trade share calculated based on trade data from WITS/COMTRADE for 143 countries in 2014, using the SITC-4 classification of chemicals. This also includes the three other sub-sectors in brackets.

¹³ See <https://rules.house.gov/sites/republicans.rules.house.gov/files/114/PDF/HR2576SA-OJCR-Summ.pdf> for a summary of the new TSCA law.

more conditionality on data collection and less comprehensive testing and approval procedures.

If the EU and the USA want to set the “gold standard” for chemical regulation, they could sort out the differences related to the precautionary principle and search for a middle ground, allowing but limiting the use of the precautionary approach (e.g. related to the nature of scientific evidence, the duration of measures etc.). This is however politically difficult and it seems unlikely that TTIP will affect REACH not the TSCA. Hence TTIP aims to facilitate trade and investment with limited systemic change. Similar conflicts apply to other well-known areas such as genetically modified crops and the use of hormones in meat production, where TTIP will operate in the intermediate or lower parts of the OECD regulatory hierarchy.¹⁴

Even if that harmonization or MRA for standards is not possible, other forms of regulatory cooperation may be feasible. For chemicals in general, this seems to be general ambitions of exchange of information, notification and possibly participation of firms from the other party when new regulations are drafted, and regulatory cooperation in the future. For pharmaceuticals, there is also an ambition to implement an MRA related to conformity assessment procedures for good manufacturing practices (GMP); procedures for exchange of secret information; according to current information. For cosmetics, there is a conflict about the prohibition of animal testing in the EU, and by March 2013 modest progress in negotiations.¹⁵ The two parties have been preparing MRAs since the 1980s and in 1998, an agreement was made covering six sectors (medical devices, electrical safety and pharma telecoms equipment, electromagnetic compatibility (EMC) of equipment and appliances, recreational craft, electrical safety of goods, pharmaceutical GMP and medical devices). However, the last three were never implemented due to regulatory gaps and lack of trust. For a useful overview of this and other aspects of MRAs, see Correia de Brito et al. (2016). In TTIP, a new attempt is made to implement these agreements; including the one on pharmaceuticals, and new MRAs may be added (cars is a possible case that could be of considerable importance).

To what extent will these reforms lead to a reduction of NTM-related trade costs, and to what extent will there be spillovers? The evidence needed to assess this is limited. In a study of MRAs by Correia de Brito et al. (2016), it is concluded that “The weak impact of MRAs on trade can also be explained by the relatively small costs gains, as a share of the

¹⁴ A general reservation is that our information is incomplete and the negotiation outcome is unknown, so all statements about TTIP are based on available information at the time of writing (July 2016).

¹⁵ Document “Note – Tactical State of Play of the TTIP Negotiations – March 2016”, available at <https://www.ttip-leaks.org/>.

total costs of TBTs. Most of the costs of TBTs are caused by regulatory divergence and by definition that is not touched by traditional MRAs.” According to this, the lack of harmonization will severely limit the NTM reduction for chemicals. There is nevertheless a lot to gain from technical cooperation, learning and information flows. For some chemicals, the costs of approval are very high: According to OECD (2010), the average cost of testing new industrial chemicals was about 145000 EUR per product/market, and for new pesticides the cost would be a high 17 million EUR. For drugs, the costs of testing and approval are also huge.

While bilateral MRAs should have little direct spillovers to third countries, plurilateral or multilateral cooperation in the field may contribute. The OECD has worked for about 30 years to promote international regulatory cooperation on chemicals. “OECD’s Mutual Acceptance of Data (MAD) system means that a safety test carried out on a chemical product in one OECD country can be accepted by other OECD countries as long as it was carried out in accordance with the OECD Test Guidelines and Principles of Good Laboratory Practice (GLP). Non-OECD economies are also allowed to adhere to this system.” (OECD 2010). According to the OECD, the MAD system may have produced a cost reduction from 66 to 38 million EUR for new industrial chemicals, and from 339 to 204 million EUR for pesticides (*ibid.*). Another key element in international cooperation on chemicals is the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), established under UNECE in 2002 and revised in 2013. GHS is widely adhered to internationally, also by the EU. The USA, however, has not only partially adopted the GHS and a possibility is that TTIP will lead to a change in this respect.

For chemicals, therefore, there is – in the visible horizon – little reason to believe that TTIP will set a new gold standard that the rest of the world will follow. The EU-USA regulatory gap will remain but there will be some sector-specific reforms that may facilitate trade, and general cooperation and exchange of information that may also lead to future reforms. The reforms are largely exclusive between the EU and the USA so they are essentially non-MFN or discriminatory. MRAs and bilateral cooperation should not have strong direct spillover effects. Hence the direct spillovers will be limited, and this also applies to the indirect spillovers of the “gold standard” type unless the TTIP parties succeed in more ambitious reforms. There could be some learning and adaptation by other countries from regulatory approaches in TTIP.

Given the current regulatory gaps for chemicals between the EU and the USA, a “competition between systems” currently seems more likely than global convergence. For chemicals, some countries have established regulations that are inspired by REACH, e.g. Korea (Kommerskollegium 2013). For genetically modified crops, the world is divided: EU/EEA and Africa have restrictive attitudes, whereas the Americas and parts of Asia have a more liberal approach. Also in this case, the precautionary principle is at the heart of the matter. It would be constructive

and could lead to global convergence if the EU and the USA could bridge the regulatory gap between them, but this may happen only to a limited extent in TTIP. The analysis here also suggests that the fear of a “race to the bottom” is not warranted in the case of chemicals. Even if there are regulatory gaps, both parties have extensive legislation related to chemicals and TTIP will not lead to a removal of current regulations.

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Spillovers in TTIP

Regulatory cooperation in TTIP would at least partly be discriminatory since e.g. MRAs in TTIP would not apply to others. In addition, there would be improvements in market access that are also exclusive unless they are generalized in other agreements. For tariffs, services trade and public procurement, TTIP could be likely to have domino effects, as illustrated by the considerable interest from other parties in the evolution of TTIP. For TTIP in general, there could therefore be some “domino effects” when third countries observe the tariff and NTM reductions undertaken in TTIP and the potential trade diversion resulting from this.

Chemicals may not be representative so TTIP could invent the gold standard in other fields. For trade in agricultural goods, there is however a similar regulatory gap. Here the two parties have worked for some years to facilitate trade through MRAs or agreements on “equivalence”, where it is agreed on a product-by-product base to acknowledge the standards of the other party as equivalent. This has been a partial success although progress has been slow (Veggeland and Sørbye 2015). As noted, trade conflicts about hormones and GMO remain unsolved and to our knowledge not on the TTIP negotiating table. The former experience with the EU-USA MRA agreement suggests that some results may be obtained, but in a slow process.

Hence for goods trade in general, the emerging pattern is:

- There will be tariff reductions which are discriminatory but may have some domino-type political economy indirect spillovers.
- There will be few gold standards but some trade-facilitating reforms that are largely discriminatory, with limited direct spillovers but some weak indirect spillovers through learning and institutional innovation.

For services, some aspects of market access are discriminatory and others not. For example, public procurement for services in TTIP could be discriminatory with limited direct spillovers but could spill over to other PTAs or even the WTO plurilateral agreement later.

For services, the STRI (Services Trade Restrictiveness Index) of the OECD provides a useful tool for examining market access, regulatory gaps and NTMs. Using STRI data in the analysis of trade and trade agreements, Nordås (2016b) concludes that trade agreements are most likely to stimulate services trade when initial trade barriers are not too high,

and the parties have a similar regulatory framework and engage in regulatory cooperation. Hence also for services, regulatory gaps may persist but here a major obstacle to trade may be the selective market access restrictions that apply to some sectors (cultural services, transports, selected professional services). Here it is not the precautionary principle that blocks progress, but sector interests (the latter two) and non-economic concerns (preserving the national culture or public sector services). Comparing France, Germany, Poland, the UK and USA for the 22 sectors available in the STRI database, we find that the highest level of restrictions is found in the USA for 8 sectors; followed by Poland (7), France (3), Germany (2) and the UK (0).¹⁶ Hence it will be interesting to see whether TTIP is able to cut the peaks in these and other EU countries.

Since a considerable part of services trade is delivered in the form of commercial presence, restrictions on foreign ownership, the movement of personnel, or the nationality of staff or governing bodies are important elements. Such regulations are often non-discriminatory in nature; e.g. the World Bank's database of investing across borders (World Bank 2010) makes almost no mention of preferential rules. This is however possible, as demonstrated by the EU/EEA where intra-EEA investors have better access in some respects. Hence investment barriers may or may not be discriminatory, depending on the policy choice. Hence there could be direct spillovers, and there could be domino-type indirect spillovers if certain sectors are liberalized. For example, if the USA modifies the Jones Act which limits foreign operators in domestic shipping and allows the EU to enter this market, other shipping nations would want similar treatment.

As noted, MRAs on professional qualifications in services could be important and trade-enhancing.¹⁷ This is a promising field for TTIP, and also a field where regulatory cooperation could produce more results over time. Since professional standards tend to be MFN/non-discriminatory, this is a field where we could expect larger direct spillovers. Indirect spillovers could be more uncertain.

For TTIP and services, the overall emerging pattern is:

- There is considerable variation across EU countries, and many countries have selectively high barriers in some sectors.
- Services trade restrictions are often of an MFN nature, but discriminatory liberalization is possible for some types, e.g. procurement and

¹⁶ See <http://stats.oecd.org/Index.aspx?DataSetCode=STRI#>.

¹⁷ A caveat is that in some current agreements e.g. CETA between the EU and Canada, the agreement only covers professions that are regulated by the parties (Nordås 2016a). For the EU countries, the number of regulated professions varies from 47 to 404 (ibid.). An agreement covering only regulated sectors at the country level could therefore lead to inferior market access for the most liberal countries.

foreign ownership restrictions. Hence some direct trade policy spillovers are possible but this depends on the negotiation outcome.

- Domino-type spillovers are likely if countries give up their selective protection of some sectors.

Hence for goods and services overall, there is a complex pattern of barriers and types of regulatory cooperation, with variable extent of spillovers in different fields. Although somewhat speculative since we still do not know how TTIP will look like if it is ever concluded, Table 4 tries to summarize the prospects for trade policy spillovers from TTIP, using 1-5 scales to assess the extent or strength in each case. If there is uncertainty, a range is indicated; e.g. 1-5 would mean that “anything can happen” whereas 1-2 indicates nothing or just a little. Table 4 does not cover all TTIP issues but many of the most important ones.

Table 4: Illustrative assessment of the extent of trade policy spillovers from TTIP

	Expected trade policy spillovers			Strength of multilateral regulation	Reach of spillovers	Sectors particularly affected
	Direct	Standard diffusion	Domino effects			
	1=low, 5=high				1=selective, 5=global	
Tariff cuts	1	1	3	4	2-3	Goods
Public procurement	1	1	2-3	3	2-3	All
Harmonization or mutual recognition of standards	2	4	2	2	3	Goods
Coordination or mutual recognition of procedures/ approvals	1-2	2	2	1-4 (sector-specific)	1-2	All, especially some goods sectors
Foreign ownership/ affiliate restrictions	1-3	1	3-4	2	3-4	All, especially services
Treaty-based regulatory cooperation	1	2-3	2-3	n.a.	2-3	All
Regulatory agencies networks	1	2	2	1-4 (sector-specific)	2-3	All
Financial regulation	2	2	2	4	3	Financial sector
Data protection	2	3	2	2	2-3	All, especially high-tech
ISDS (Investor-State Dispute Settlement)	1	4	4	2	2-4	All
Mutual recognition of qualifications	2	2	2	2	2	All, especially services
Exchange of information on regulatory practice	1-2	2	1	2	2-3	All, especially goods

Note: Own assessment based on literature reviewed in the text and other sources. Assessments of TTIP are tentative and based on available information at the time of writing (July 2016).

In the table we have also added ISDS (Investor-State Dispute Settlement). Here there is still the chance of setting a “gold standard” in TTIP, since – at least according the dominating view in Europe – there is a need for reform compared to the traditional system for investment treaties from developed to developed countries, securing an appropriate balance between the states’ right to regulate and the companies’ legitimate interests, a consistent application of the law over time, better sharing of the costs and better transparency. The EU has proposed a reformed ISDS clause, building on earlier practice in e.g. CETA. If TTIP can produce an improved standard for ISDS there could certainly be a chance for a wide application of this globally. Such diffusion would currently require bilateral negotiations between countries but a plurilateral approach could also be possible in the future. Hence we give ISDS a high mark both for “gold standard” and “domino effects” in the table. However, it remains to be seen if this can be achieved in TTIP.

From Table 4, combined with the assessments about what the TTIP may accomplish, the overall verdict is:

- The scope for direct trade policy spillovers in TTIP is limited for trade in goods, since market access reforms are likely to be mostly discriminatory. For trade in services, there is greater scope for direct spillovers since regulations are more often non-discriminatory. For investment measures, the extent of spillovers is uncertain since reforms may be discriminatory or not.
- On the global diffusion of standards the scope is large but the expectations for TTIP low; perhaps except ISDS where TTIP still has the chance of creating the “gold standard”. At least in the short run, limited harmonization of standards is to be expected and this will limit the indirect trade policy spillovers.
- According to Table 4, domino effects from TTIP are likely and on the whole more important than direct spillovers and the diffusion of standards, particularly since they also apply to discriminatory market access reforms where the prospects for TTIP success are greatest.

The final balance depends on the outcome of negotiations but the tentative conclusion is that in the case of TTIP, the “domino effects” may become more prevalent than other spillovers. Hence the greatest international repercussion of TTIP may be to influence international trade policy and the formation of new trade agreements, rather than automatic drizzle-down effects as suggested by some studies on TTIP.

The last right hand side numerical indicator in Table 4 provides an assessment of whether spillovers are global or only reach a subset of countries. For some measures such as ISDS and investment issues, the

reach of spillovers could be more global, if TTIP is successful. In the majority of cases, however, a limited reach of spillovers is predicted. Especially in the neighbourhoods of the EU and the USA, it is likely that TTIP will have major trade policy repercussions. An interesting case is the UK, which may be added to this neighbourhood due to Brexit.

Conclusion and implications

The analysis has shown that assumptions about trade policy spillovers have been extremely important in some recent analysis on the impact of PTAs, especially regarding the impact of TTIP on third countries. Direct trade policy spillovers may occur if trade barriers are non-discriminatory or due to simplification effects if PTAs provide trade facilitation or harmonization of standards. Indirect spillovers may either occur according to the “gold standard” effect whereby PTAs set new standards that are unilaterally adopted by other countries, or by means of a “domino effect” whereby the PTA parties or third countries initiate new trade agreements that contain similar terms as the original PTA, or renegotiate old agreements to the same effect. While the gold standard effect mainly applies to regulatory issues, the domino effect may apply to tariffs, other market access issues and regulatory issues.

In the light of this classification the articles have examined the probability of trade policy spillovers in TTIP, drawing on the growing literature on regulatory cooperation. We find that the scope for direct trade policy spillovers from TTIP is present but limited, because some of the major expected reforms such as tariff cuts, public procurement, and bilateral regulatory dialogue are discriminatory in nature. There is a scope for a “gold standard” effect of TTIP but most likely the regulatory gap between the two parties is so large that harmonization of standards will be limited and the diffusion of standards from TTIP therefore modest. In several areas, “domino effects” are possible since TTIP is economically important. TTIP will increase the incentive for third countries to enter into new agreements with the USA and the EU in order to avoid the trade diversion effects from discriminatory reforms. The terms agreed in TTIP may be replicated by the two parties in other agreements. The analysis also suggests, with support in the literature on regulatory cooperation, that trade policy spillovers more often than not apply to a subset of countries only; depending on geography, economic interests, regulatory gaps and institutional similarity.

These conclusions have important implications for future analysis of PTAs. Some earlier studies have used sweeping and *ad hoc* assumptions about the magnitude of trade policy spillovers and their global reach. With arbitrary assumptions, the results are also more uncertain. Trade policy spillovers are nevertheless a real and important phenomenon and more research should be undertaken to improve their theoretical and empirical underpinning. A growing number of ex post empirical studies indicate that regulatory issues are quantitatively important for trade.

In computable general equilibrium (CGE) models frequently used for analysis of trade agreements, a standard approach is that NTMs are represented by “tariff equivalents”, whereby costs are assumed to be proportional to the value of sales. But standards are not just like tariffs and involve fixed trade costs, non-economic objectives related to health and the environment, and preferences that may differ across nations. In the future, research on regulatory cooperation should to a larger extent go beyond the tariff equivalent approach and use models that better reflect the true properties of standards. Regulatory cooperation is often subject to complex international negotiations, and more knowledge about these could enhance our understanding of regulatory cooperation and the impact of trade agreements.

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