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Article

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Panel 2

TTIP: Small Gains, High Risks?

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Introduction

In its final report of February 2013, the High-Level Working Group (HWLG) on Jobs and Growth, set up by the so-called Transatlantic Economic Council (TEC), recommended that the EU and the United States start negotiations on: "a comprehensive, ambitious agreement that addresses a broad range of bilateral trade and investment issues, including regulatory issues; and contributes to the development of global rules [that] goes beyond what the United States and the EU have achieved in previous trade agreements".

Subsequently, the European Commission adopted the draft mandate for the TTIP talks and a common position among the 27 member states was negotiated. The mandate was approved unanimously under the Irish presidency of the EU in June 2013. Negotiations started in July 2013. Since then, seven rounds have been held, alternating between Brussels and Washington.

The proposed Transatlantic Trade and Investment Partnership (TTIP) would be the largest free trade area in the world. In 2012, the two regions accounted for more than 45 percent of global value added in current dollars and for 30 percent of trade (exports and imports of goods and services) in the world. The sheer size and depth of the proposed undertaking suggest that it could have strong effects for EU member states, the United States, third countries and the world trading system.

In many EU member states the discussion of the proposed TTIP is very controversial, despite the fact that the scope and details of the agreement are still unknown to everyone. The key question is whether a TTIP is worth the effort, i.e. whether the gains outweigh the risks. The gains have economic and geostrategic components: the elimination of tariffs and other trade barriers across the Atlantic should increase trade and real per capita income, while a stronger regulatory cooperation should help impose Western standards in the world trade system of the 21st century. Critics dismiss the possible gains as small and fear that a trade deal may trigger a race to the bottom in health, safety, labour and environmental standards, and, that it will only bring economic advantages to the owners of large corporations.

This article focuses on the potential welfare gains from TTIP for European member states, the United States and third countries and employs a structurally estimated general equilibrium model. Such models have recently been used to quantify the gains from trade, but researchers are only starting to apply them to trade policy analysis.[1] This approach complements more traditional modelling efforts based on large scale computable general equilibrium (CGE) models.[2]

The central assumption in our analysis is that the proposed TTIP will affect trade costs between the EU and the United States in the same way as existing agreements have affected trade costs within other pairs of trade partners. We take an estimate of this average treatment effect of trade agreements from a large body of econometric literature and implement it into a simple model of the world economy. The main advantage of our approach is that we do not require bottom-up

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[1] The literature is well summarised in the chapter by Costinot and Rodriguez-Clare (2014) in the fourth edition of the Handbook of International Economics.
[2] In the context of TTIP, such an approach has been chosen by Francois *et al.* (2013) or Fontagné *et al.* (2013).

estimates of non-tariff trade barriers, and that we do not need to make external assumptions as to how the TTIP would lower them.

It is commonly understood that the import tariffs of both the EU and the United States are relatively low. As shown in Felbermayr and Larch (2013), the weighted average tariff on manufactured goods is about 2.8 percent for both regions, whereas the weighted tariffs on agricultural goods are only slightly higher (but more asymmetric). In contrast, overall trade costs are estimated to be much higher. For trade amongst industrialised countries, Anderson and van Wincoop (2004) report an *ad valorem* equivalent of international trade costs (transportation costs and border-related costs) of 74 percent. If a TTIP is to have any measurable effect, it has to be through the reduction of those latter costs.

Our analysis is based on trade and GDP data from the year 2012. In our simulations, we calculate real per capita income levels for a counterfactual scenario in which the 56 trade pairs involved in the TTIP have a preferential trade agreement. In our benchmark exercise, we find that the TTIP increases real income by 3.9 percent in the EU28, by 4.9 percent in the United States, but lowers it by 0.9 percent in the rest of the world. These numbers are substantially higher than those predicted by a study written by Francois *et al.* (2013) for the European Commission. Their results show an increase of 0.48 percent for the EU. While that study puts the long-run average gain from the TTIP in Europe at about 136 euros per capita (545 euros for a four-person household), our estimates put it at about 1,118 euros.[3]

We find that countries within the EU are affected differently. Countries in the periphery, which tend to have higher average trade costs, benefit more from the TTIP than countries in the core, which are already much more open. We also find that third countries that have strong trade ties with the EU or the United States would stand to lose out from TTIP. At the higher end, we find losses of about 3.1 percent in Canada, 2.6 percent in Mexico and 1.6 percent in Turkey. At the lower end, countries that are less exposed to the EU or the US markets, will lose less, e.g. China 0.5 percent. On average, countries not covered by the TTIP lose 0.9 percent, while the world in total will gain 1.6 percent.

These negative welfare (and trade) effects arise from the existence of trade diversion. Since Viner (1950), economists know that preferential trade liberalization is discriminatory because relative market access costs for outsiders increase. Baldwin (2011) argues that the proposed TTIP is different because it is not mainly about market access, but rather about establishing common standards from which third countries could benefit. However, in line with conclusions presented in the 2012 World Trade Report, our reading of the available empirical evidence suggests that such spillovers are by no means guaranteed.

Important facts and research strategy

Trade costs are still very substantial

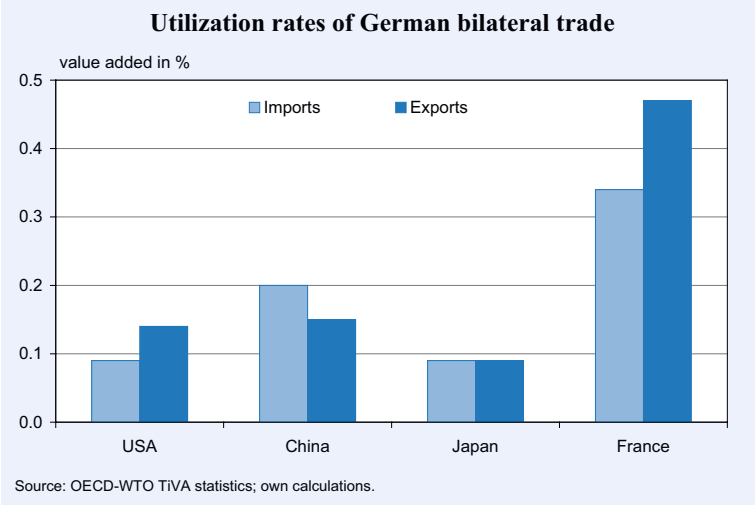
The most-favoured-nations (MFN) import duties imposed by either the EU or the United States have been lowered in various rounds of multilateral trade liberalization. As discussed in Felbermayr and Larch (2013), the overall weighted average tariff on industrial goods is 2.8 percent for both the EU and the United States; in the area of agriculture the average is slightly higher (3.8 percent in the EU, 2.8 percent in the United States).

Nonetheless, trade costs are still substantial around the world and across the Atlantic. To illustrate this, we can compare actual trade volumes to those predicted by simple trade models under the assumptions of (i) frictionless trade, (ii) identical preferences, and (iii) product differentiation. In these hypothetical textbook circumstances – see e.g. Feenstra (2004), the US imports (of goods and services) from the EU should equal the EU's share in world output (the EU's share in world GDP, i.e. 23.0 percent as of 2012), multiplied by the total US expenditure (the US GDP, adjusted for current account imbalance, amounting to 16,606 billion US dollars). This would yield imports of 3,818 billion US dollars. Actual imports, however, amount to 550 billion dollars only. The utilisation rate of potential EU exports to the United States, therefore, amounts to a mere 14 percent. Similar calculations result in an utilisation rate of potential US exports to the EU of about 12 percent.[4]

[3] These calculations are based on a GDP per capita of 28,385 euros. It is worth noting, however, that comparisons across studies are problematic. The Francois *et al.* (2013) exercise embeds its counterfactual analysis into a hypothetical future world (year 2027), projecting GDP growth trends into the future; while we use data on GDP and trade as observed in 2012.

[4] EU expenditure of 16,504 billion US dollars times US share in world GDP, 22.4 percent, relative to observed trade of 455 billion US dollars.

Figure 1



These numbers involve some overestimation, since they refer to gross trade and not to value-added trade. Using data from the OECD-WTO Trade in Value Added (TiVA) database for the year 2009, similar calculations for German bilateral trade with different trade partners reveals that the trade potential utilisation rate with the United States is lower than that with China, and a far cry from the rate observed with France – see Figure 1.

These calculations show that the assumptions (i) to (iii) made above cannot possibly hold. Assumption (i) – the absence of trade costs – is most obviously violated: tariffs in transatlantic trade are not zero, there is strong direct evidence that non-tariff measures exist and are important, and other barriers (not directly related to policy) are also pervasive. This is in line with empirical evidence (e.g. see the survey by Anderson and van Wincoop 2004; Chen and Novy 2012). In the following, we maintain assumptions (ii) and (iii) and attribute the entire gap between actual and hypothesized trade to trade costs.

Assuming the trade elasticities in the plausible range of 4 to 7, it is easy to back out the *ad valorem* equivalent (AVE) of trade costs that can generate the pattern shown in Figure 1. In Felbermayr *et al.* (2014) we estimate that the AVEs in transatlantic trade range between 33 and 65 percent, which is not too far from Anderson and van Wincoop's (2004) estimate of 74 percent for trade amongst OECD countries in the late 1990s.

Preferential trade agreements and trade costs

There are virtually thousands of estimates of the trade creating effects of preferential trade agreements. However, only few papers are able to convincingly sort out correlation from causal effect. Table 1 presents exemplary results from published articles. It shows the preferred point estimates generated in those papers and, assuming trade elasticity, translates these estimates into trade cost savings brought about by preferential trade agreements. We view the study by Egger *et al.* (2011) as the most comprehensive study in the field, since it deals with zero trade flows, heteroskedasticity and reverse causation, and draws on a very large sample of trade agreements (about 300). With our preferred trade elasticity of 7, this study concludes that existing trade agreements have reduced trade costs by between 16 and 26 percentage points, depending on trade elasticity. Applying these savings to the estimated level of transatlantic trade costs, this would imply a reduction of between 40 and 48 percent.

It is worth noting that the effects presented in Table 1 are top-down estimates of how trade agreements affect total trade costs. They include the reduction or elimination of tariffs, the alleviation of non-tariff measures, and indirect effects, such as those arising from increased private or public incentives to invest into further reduction of trade costs (e.g. language, infrastructure, etc.).

Modelling strategy

In our quantitative exercise, we use the theoretical model proposed by Egger and Larch (2011), which is

Table 1

Causal trade cost effects of existing PTAs, percentage points

Source	Point estimate	Trade elasticity 4	7
Baier & Bergstrand (JIE, 2007)	0.68	– 15.6%	– 9.3%
Egger *et al.* (AEJ, 2011)	1.21	– 26.1%	**– 15.9%**
Baier & Bergstrand (JIE, 2009)	1.08	– 23.7%	– 14.3%
Magee (BEP, 2003)	2.20	– 42.3%	– 27.0%

Source: Authors' compilation.

described in detail in Felbermayr *et al.* (2014). The model features imperfect competition *à la* Krugman (1980) and a so-called extensive margin (we take into account that the TTIP may terminate or commence bilateral trade relationships). We estimate a trade cost matrix that fits in with the observed bilateral trade data for the year of 2012 for 173 countries, assuming a trade elasticity of 7.

When we simulate the effect of a possible TTIP, we reduce trade costs between the EU member states and the United States under the assumption that TTIP has the same trade cost reducing effect as all pre-existing preferential trade agreements had on average using the estimate from Egger *et al.* (2011). By this, we assume that the TTIP will just be an 'average' preferential trade agreement. We take full account of general equilibrium effects such as adjustment in incomes, i.e. GDPs, and in price levels (what trade economists have come to label as multilateral resistance terms). This yields a new counterfactual matrix of trade flows, new vectors of GDPs, price levels, and welfare statistics (real per capita income, identical to an equivalent variation measure).

The welfare effects of TTIP

Potential gains with different trade cost functions

Table 2 reports unweighted, GDP-weighted and population-weighted summary statistics for the welfare estimates resulting from different specifications of our model. Starting with our preferred specification [1], a model that allows for selection (i.e. the fact that the TTIP could activate or deactivate trade relationships), we find that the effect of introducing the TTIP leaves the average country unaffected, but the standard deviation is relatively high (1.9 percent). The GDP-weighted summary statistics look different: the average country now gains 1.6 percent, and the standard deviation has gone up to 2.8. This implies that the TTIP increases world GDP, but its positive effect is concentrated in countries that are relatively rich to start with (the EU and the United States). Finally, population-weighted summary statistics also report a mean effect of zero: i.e. the average individual on the planet remains unaffected by the TTIP. The largest beneficiary of TTIP registers an increase in real per capita GDP of 5.6 percent (Spain), while the country most negatively affected experiences a 3.1 percent drop in its real per capita GDP (Canada).[5]

It is important to note that these effects are *ceteris paribus* changes: nothing else changes except the introduction of TTIP. Hence, all changes relative to the base line of 2012 are causally attributable to the agreement, and are not driven by assumptions regarding, for instance, changes in GDP for reasons other than TTIP, or the introduction of other trade agreements (e.g. the Comprehensive Economic and Trade Agreement – CETA) between Canada and the EU or any other agreements currently under negotiation). Clearly, higher GDP growth rates in emerging and developing markets, and the formation of other PTAs, will tend to attenuate the negative effects of TTIP on third countries.

Deactivating the selection channel (lower panel of Table 2) leads to greater dispersion on unweighted welfare effects, but otherwise does not significantly alter the summary statistics of welfare effects relative to the benchmark case. It seems that TTIP will predominantly affect the intensive margin.

Models [2] and [2'] refer to scenarios where only tariffs – as observed in 2012 – are eliminated between EU

[5] See Table 3 for results for selected countries. Felbermayr *et al.* (2014) presents detailed results for all 173 countries considered.

Table 2

Benchmark welfare effects (in %) and the roles of selection and PTA point estimates: summary statistics

Specifications	unweighted Mean	unweighted Std. dev.	GDP-weighted Mean	GDP-weighted Std. dev.	POP-weighted Mean	POP-weighted Std. dev.	Min	Max
Models with selection								
[1] Preferred	– 0.04	1.93	1.58	2.78	– 0.01	1.73	– 3.09	5.56
[2] Tariffs only	– 0.01	0.18	0.13	0.23	0.00	0.15	– 0.27	0.48
Models without selection								
[1'] Preferred	– 0.23	1.96	1.58	2.78	– 0.03	1.73	– 3.10	5.53
[2'] Tariffs only	– 0.02	0.18	0.13	0.23	0.00	0.15	– 0.27	0.48
Note: All specifications set the trade elasticity = 7.173 countries.								

Source: Authors' calculations.

Table 3

Welfare effects: selected countries and scenarios

		[1] Preferred	[2] Tariffs only	[3] Spillovers
1	Austria	2.83	0.22	4.73
2	Belgium	2.25	0.17	4.12
3	Bulgaria	3.94	0.33	5.90
4	Croatia	3.53	0.38	5.49
5	Cyprus	4.36	0.37	6.33
6	Czech Republic	3.04	0.24	4.96
7	Denmark	3.45	0.28	5.38
8	Estonia	4.31	0.36	6.29
9	Finland	4.60	0.39	6.58
10	France	3.46	0.28	5.32
11	Germany	3.48	0.28	5.28
12	Greece	4.21	0.35	6.17
13	Hungary	3.50	0.28	5.44
14	Ireland	4.70	0.39	6.70
15	Italy	3.86	0.32	5.74
16	Latvia	4.10	0.34	6.09
17	Lithuania	3.97	0.33	5.94
18	Luxembourg	2.57	0.20	4.48
19	Malta	4.84	0.41	6.86
20	Netherlands	2.85	0.22	4.73
21	Poland	3.51	0.28	5.44
22	Portugal	4.80	0.40	6.80
23	Romania	3.87	n.a.	5.82
24	Slovak Rep.	3.40	0.27	5.34
25	Slovenia	3.14	0.25	5.06
26	Spain	5.56	0.48	7.55
27	Sweden	4.25	0.35	6.20
28	United Kingdom	5.14	0.44	7.05
EU average		**3.94**	**0.32**	**5.83**
29	**United States**	**4.89**	**0.41**	**5.95**
30	Australia	– 2.01	– 0.17	– 0.93
31	Brazil	– 0.77	– 0.05	0.06
32	Canada	– 3.09	– 0.27	– 1.82
33	China	– 0.50	– 0.04	0.13
34	India	– 0.31	– 0.03	0.65
35	Japan	– 0.51	– 0.05	– 0.04
36	Mexico	– 2.56	– 0.22	– 1.37
37	Norway	– 1.91	– 0.17	– 1.05
38	Russian Fed.	– 1.01	– 0.08	– 0.16
39	South Africa	– 1.69	– 0.14	– 0.82
40	Turkey	– 1.56	– 0.14	– 0.72
Non-TTIP average		**– 0.92**	**– 0.08**	**– 0.07**
World average		**1.58**	**0.13**	**2.73**

Source: Authors' calculations. Results on all 173 countries are available in Felbermayr *et al*. (2014). No tariff data available for Romania in 2012.

countries and the United States, but other trade costs are left untouched. Across the board, under this assumption, welfare effects are less than one tenth of those obtained when non-tariff trade costs are reduced.

Table 3 reports detailed welfare results for all EU countries, the United States and a selection of third countries. All scenarios assume selection. We discuss the possible spill-over effects of transatlantic regulatory reform below.

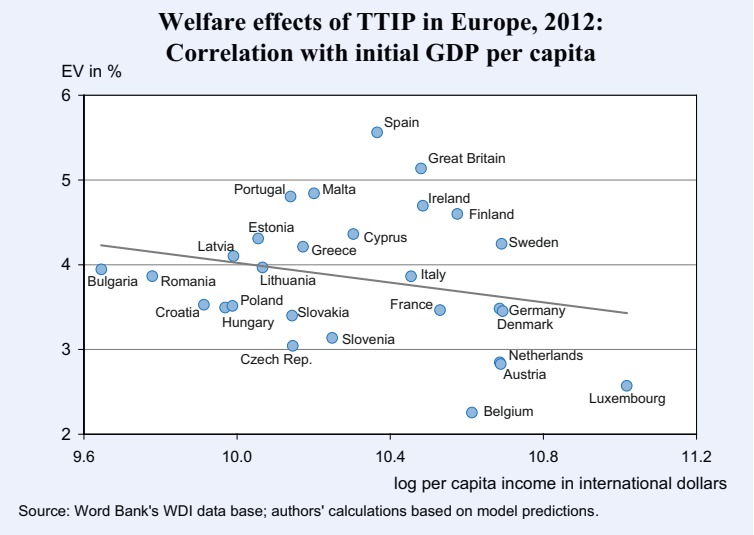
Does TTIP lead to divergence in the EU?

Let us now look more closely into the potential welfare effects of TTIP on EU countries. Figure 2 correlates the welfare gains in the EU28 with the baseline level of real per capita GDP (measured in log per-capita income expressed in purchasing power parities). The regression line indicates a negative correlation between the welfare gains and base line GDP per capita. The slope (– 0.21) is, however, not statistically different from zero at the conventional levels of significance (the robust standard error is 0.21). Nonetheless, it is important to notice that the TTIP does not appear to exacerbate real per capita GDP differences within the EU. The logic for this is clear: those countries that are already rich also tend to be rather open (like Belgium, the Netherlands or Austria, for example). They already enjoy low average trade costs with the world. Lower trade costs with the United States will not unlock large additional gains. In contrast, countries such as Greece, Spain or Italy appear to have higher multilateral trade costs, and would therefore benefit more from reduced trade costs with the United States.

Global welfare effects: who wins, who loses?

Table 3 reports the potential welfare effects for selected third countries, the EU and the United States. Europe gains 3.9 percent, while the United States gains 4.9 percent (together the TTIP partners increase their real income by 4.4 percent). The United States

Figure 2



Source: Word Bank's WDI data base; authors' calculations based on model predictions.

gains more than the EU. This is due to the fact that the EU is comprised of 28 separate countries, and trade among them is still hampered by border effects. Hence, the TTIP with the United States generates the trade diversion effects within Europe that dampen welfare effects. The United States, in contrast, is a homogenous country and can spare these effects. Real world GDP increases by 1.6 percent, but non-TTIP countries register losses of – 0.9 percent on average.

The TTIP would change the structure of world trade through trade diversion and preference erosion. *Trade diversion* occurs when third countries lose relative competitiveness in the EU and the United States, as firms within the TTIP see their trade costs go down. This loss of market share cannot usually be fully compensated for by increased trade with other non-TTIP countries. *Preference erosion* is a problem for countries that enjoy preferential trading conditions with either or both the EU and the United States in the 2012 baseline situation. Preference erosion happens within the EU, where the TTIP would dilute the value of the Customs Union and the Single Market. More problematically, it also happens within the bilateral agreements that either the EU or the United States maintain with third countries. For example, the United States has bilateral and plurilateral PTAs with 20 countries, the most important are with Canada, Mexico, South Korea, Australia, and with a range of South American countries. The EU has agreements with an even larger number of countries. This list includes countries that also have a PTA with the United States, such as South Korea or Mexico; European countries that are not in the European Union, as well as countries in the Middle East and North Africa.

It is well known that trade diversion and preference erosion may lead to adverse welfare effects from PTAs in third countries. Since the United States and the EU are frequently the most important trade partners for the countries with which they entertain PTAs, one also has to expect such effects in the context of the TTIP.

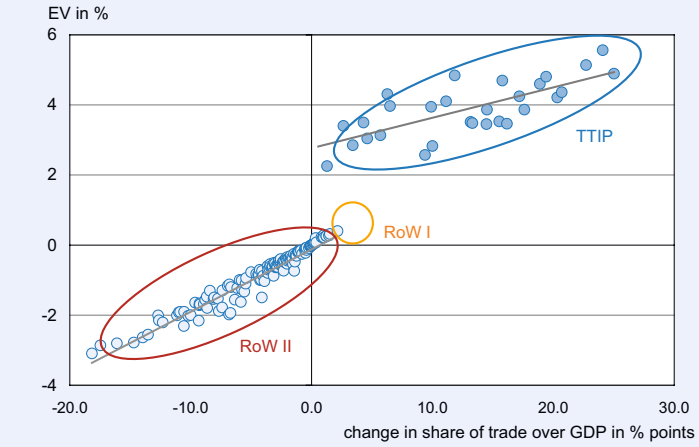
Multilateral openness, in contrast, attenuates both the negative and the positive effects of TTIP. Those countries that are relatively open in the baseline equilibrium benefit less from bilateral reforms than relatively closed economies; or, conversely, they stand to suffer less when their relative competitiveness in the United States or the EU markets deteriorates due to the TTIP. We must, therefore, expect that the non-WTO members or the countries with low overall trade openness typically tend to suffer more from TTIP than those within the WTO or with high baseline openness.

The 25 countries with the largest anticipated losses (ranging from – 3.1 to – 1.7 percent) mostly have PTAs with the TTIP members. 20 out of the 25 have a PTA with the EU, 12 with the United States, and 10 have PTAs with both the EU and the United States. Only 3 countries out of the 25 most strongly hit countries have no PTA with either the EU or the United States.

Figure 3 plots the change in per-capita real income in percent (equivalent variation, EV) against the change in the share of manufacturing trade (imports plus exports divided by two) over GDP implied by the model. Not surprisingly, there is a strong positive association: both effects are endogenous outcomes driven by the reduction of trade barriers across the Atlantic. Indeed, as demonstrated by Arkolakis *et al.* (2012), there is a unique non-linear relationship between the changes in openness and the changes in welfare generated by trade policy reforms. In some cases, the increase in overall openness due to the TTIP is predicted to be quite substantial: openness in Spain would grow from about 23.6 percent to 47.7 percent, and in the United States from about 12 percent to 36.9 percent.

Figure 3 reveals the three different groups of countries: the first is made up of the 29 countries directly

Figure 3



Source: Authors' calculations. RoW refers to the 'rest of the world'.

involved in the TTIP (the EU28 plus the United States), the second by 17 countries that remain outside of the agreement, but whose levels of overall openness and per capita incomes are bound to increase (denoted RoW I), and the third by the 127 countries bound to lose on both measures (RoW II). The non-TTIP countries that benefit are mostly small and poor, and are island states in many cases: Swaziland, Lao PDR, Brunei Darussalam, Lesotho, Palau, Micronesia, Marshall Islands, Tuvalu, Kiribati, Tonga, Solomon Islands, Samoa, Vanuatu, as well as central Asian countries such as Uzbekistan, Bangladesh, Tajikistan, and Mongolia. These countries stand to benefit, because the EU and the United States become richer and, therefore, trade more with these 17 economies. This positive effect outweighs the negative trade diversion effect in these cases.

Spill-overs: mechanisms and empirical evidence

The scenarios presented in columns 1 and 2 from Table 2 assumed that the TTIP lowers trade costs only between the EU member states and the United States. However, if the agreement were also to lower trade costs also between TTIP partners and third countries, or even amongst third countries themselves, the negative effects on the excluded countries may be attenuated, or may even turn positive (Baldwin 2011). Indeed, one may conjecture that the sheer size of the transatlantic partnership and its focus on regulatory convergence makes the TTIP systemically important, meaning that it may create positive spill-overs for other countries.

The reason for this is that firms based in the non-TTIP countries may benefit from a simplification of either the EU or the United States regulatory requirements. Kox and Lejour (2006) provide evidence that differences in services regulations can increase operating costs in different markets. This means that harmonizing those rules may result in lower costs for all exporters in a non-discriminatory fashion.

Citing this reference, Francois *et al.* (2013) include direct and indirect spill-overs in their analysis. They model *direct spill-overs* by assuming that improved regulatory conditions negotiated between the EU and the United States result in a limited fall in related trade costs for third countries exporting to the EU and the United States. This means that exporters from third countries enjoy improved access to the EU and US markets. However, there is no reciprocal benefit for the EU or the US based exporters.

Indirect spill-overs arise if third countries adopt some of the common standards agreed between the EU and the United States. This assumes that the TTIP can successfully impose global standards to which third countries also find it optimal to adhere. In such a scenario the transatlantic agreement would give firms from the EU and the United States improved access to third markets. In addition, the NTMs amongst third countries would also fall, as their standards and norms would move closer to the common model promoted by the TTIP. Therefore, indirect spill-overs would lead to lower costs and greater trade between third countries too.

Clearly, such spill-overs would further increase the overall welfare gains from a TTIP and make it much less likely that third countries would be disadvantaged. Column [3] of Table 3 reports the results of a scenario that deviates from our preferred specification and supposes, as in Francois *et al.* (2013), that a bilateral trade deal across the Atlantic would also lower trade costs between the TTIP insiders and outsiders (*direct* spill-overs, 30 percent of trade cost reduction within the TTIP), and amongst the group of outsiders (*indirect* spill-overs, 20 percent of trade cost reduction within the TTIP). Based on these assumptions, the average welfare effect for the non-TTIP countries is – 0.07, while it would be – 0.92 without spill-overs.

Major countries like China, India or Brazil would end up benefitting from the TTIP. We conclude that spill-overs from bilateral trade cost reductions to third countries can be powerful sources of additional welfare gains.

The problem with this scenario is that both its theoretical and empirical underpinnings are weak. On the theory side, authors have long stressed that preferential trade cost reductions are inherently discriminatory. Viner (1950) introduced the terms 'trade creation' and 'trade diversion' over sixty years ago to highlight the fact that the PTAs are likely to create new trade between member countries partly by diverting trade from non-members countries. If spill-overs were to be important, there should be no trade diversion. On the empirical side, there is a large body of empirical literature that explicitly quantifies the trade diversion effects for different preferential trade agreements. While Clausing (2001) finds little evidence for trade diversion for the Canada – United States Free Trade Agreement (CUSPTA),[6] Trefler (2004) and Romalis (2007) do find evidence for trade diversion for the CUSPTA and the NAFTA, respectively. While Trefler (2004) finds that trade creation does still outweigh trade diversion, Romalis (2007) concludes that the latter is so strong and actually annihilates welfare gains for the NAFTA members. Chang and Winters (2002) analyse the trade diversion effects of non-MERCOSUR exports to Brazil after the inception of MERCOSUR. They find strong negative terms-of-trade effects for non-member countries and conclude their analysis with the statement: "our results give empirical backing to the well-known theoretical argument that even if external tariffs are unchanged by integration, non-member countries are likely to be hurt by regional integration" (Chang and Winters 2002, 901).

Empirical literature on the third country effects of bilateral NTM reforms is less advanced. However, a few existing papers point towards discriminatory effects. Chen and Mattoo (2008) use panel data to analyse the effects of PTAs that include the mutual recognition agreements (MRAs). They find that while the MRAs increase trade between participating countries, the effects on outsiders are less clear cut and crucially depend on the ability of the outside countries to meet standards. As the standards are more likely to be met by developed than by developing countries, Chen and Mattoo (2008) conclude that developing countries in particular will be negatively affected by the trade diversion from any MRA that they are not part of. Baller (2007) uses a gravity model accounting for heterogeneous firms to investigate the effects of MRAs on developed and developing countries. She finds that regional harmonisation hurts developing countries' trade, but stimulates trade between developed countries. There is also a recent paper by Cadot *et al.* (2013) that highlights the trade diversion effects for non-tariff measures. They show that North-South PTAs hurt trade between developing countries. If the harmonisation is based on regional standards, exports of developing countries to developed countries are also predicted to be negatively affected. Given these results, the WTO's World Trade Report (2012, 152) concludes that: "evidence suggests that regional integration of TBT/SPS [technical barriers to trade (TBT), sanitary and phytosanitary (SPS)] measures has trade-diverting effects, especially to the detriment of developing countries".

Policy conclusions

The heated public debate on the proposed TTIP goes far beyond standard economic analysis of the pros and cons of regional trade integration. It addresses the fundamental tension between the desirability of democratic politics, open international markets, and the scope of the nation state (Rodrik 2011). In our paper, we have narrowed our focus on the potential economic impact of the TTIP down to EU member states and the world. Nonetheless, our research does offer some important insights for economic policy: firstly, our analysis suggests that the average EU citizen stands to gain substantial economic benefits from TTIP (about 1,000 euros per year). This is a larger amount than indicated in other studies that use different methods and assumptions, and a higher figure than many critical observers believe to be the case. While we do not deny the risks of a transatlantic agreement (see below), the economic benefits are big enough to tilt the balance in favour of TTIP. So, in our view, it is worth investing political capital in the project. This leads us to answer the rhetorical question asked in the title of this paper with a "No, the *potential* welfare gains are by no means small". Moreover, in contrast to wide-spread public opinion, the TTIP would not benefit core EU countries more than the periphery. While the robustness of this finding is still

[6] It is worth noting that Clausing (2001) uses prices rather than quantities in the welfare analysis, which is problematic (see Feenstra 2004). Additionally, the results from Clausing (2001) may be driven by the rapid growth of imports that would have occurred if the CUSPTA would not have been in place (see Romalis 2007).

to be ascertained, it would imply that there is no need to step up regional support programs following the conclusion of TTIP. Finally, our result that the United States stands to gain more than the EU has attracted public attention. Clearly, this possibility should have no bearing on the desirability of TTIP for the EU.

Negotiators have set their ambitions high. Our analysis remains more modest: we have assumed that the TTIP would reduce trade costs by as much as existing agreements have. However, we know that existing agreements often have holes (exceptions for agriculture, services), and that they often do not cover contentious issues pertaining to regulatory convergence or to investment (such as the much disputed investor-state dispute settlement mechanisms) – see Dür *et al.* (2014). It follows that the welfare gains from the TTIP could be substantial, even if some of the most problematic elements are dropped.

If the TTIP operates like the average existing trade agreement, it is very likely to have discriminatory effects on third countries. While it is conceivable that the establishment of global standards benefits all trading nations, we have refrained from assuming spill-overs in our main analysis: (i) there is no serious evidence yet that would support this modelling choice; (ii) the TTIP is, amongst other things, a very classical market access liberalisation exercise, e.g. in the services, public procurement, agri-food, or investment liberalization areas; (iii) in the area of regulatory convergence, the TTIP will – like the EU single market program – most likely result in mutual recognition of standards across the Atlantic, rather than in the establishment of a global standard. And even if it did, there are no guarantees that the EU or the US regulators would automatically admit goods or services from third countries that satisfy the EU or the US standards. This would depend on the small print and on the implementation of the agreement. Hence, a TTIP must be expected to have Vinerian, i.e. discriminatory, consequences for outsiders. Policymakers should work on measures to mitigate negative third country effects, e.g. by applying generous rules of origin, or by pursuing further multilateral trade liberalization at the WTO level.

Fourthly, in our analysis, we compare the long-run equilibria, but do not discuss the adjustment dynamics. We have also abstracted from distributional consequences. More research into these issues would be highly welcome. However, in the particular case of TTIP, there are reasons to be optimistic. Transatlantic trade is strongly intra-industry. This implies that adjustment processes will predominantly involve intra-industry reallocation. This should keep adjustment costs low as workers change jobs within sectors, and it should also lead to speedy adjustment. Thus, frictional unemployment on the adjustment path should remain limited. Moreover, the structure of factor endowments across the Atlantic is not too different. This leaves little scope for Stolper-Samuelson type effects. So, there are reasons to believe that the distributional consequences of TTIP should also be limited. Nonetheless, policymakers are advised not to obstruct the working of the labour market and to ensure that the TTIP does not result in more monopolistic market structures that create new barriers to entry.

References

Anderson, J.E. and E. van Wincoop (2004), "Trade Costs", *Journal of Economic Literature* 42, 691–751.

Arkolakis, C., A. Costinot and A. Rodríguez-Clare (2012), "New Trade Models, Same Old Gains?", *American Economic Review* 102, 94–130.

Baier, S.L. and J.H. Bergstrand (2007), "Do Free Trade Agreements Actually Increase Members' International Trade?", *Journal of International Economics* 71, 72–95.

Baier, S.L. and J.H. Bergstrand (2009), "Estimating the Effects of Free Trade Agreements on International Trade Flows Using Matching Econometrics", *Journal of International Economics* 77, 63–76.

Baldwin, R. (2011), *21st Century Regionalism: Filling the Gap between 21st Century Trade and 20th Century Trade Rules,* WTO Staff Working Paper ERSD-2011-08.

Baller, S. (2007), *Trade Effects of Regional Standards. A Heterogeneous Firms Approach,* World Bank Policy Research Working Paper 4124.

Cadot, O., A.C. Disdier and L. Fontagné (2013), "North-South Standards Harmonization and International Trade", *World Bank Economic Review,* forthcoming.

Chang, W. and L.A. Winters (2002), "How Regional Blocs Affect Excluded Countries: The Price Effects of MERCOSUR", *American Economic Review* 92, 889–904.

Chen, M.X. and A. Mattoo (2008), "Regionalism in Standards: Good or Bad for Trade?", *Canadian Journal of Economics* 41, 838–863.

Chen, N. and D. Novy (2012), "On the Measurement of Trade Costs: Direct vs. Indirect Approaches to Quantifying Standards and Technical Regulations", *World Trade Review* 11, 401–414.

Clausing, K.A. (2001), "Trade Creation and Trade Diversion in the Canada-U.S. Free Trade Agreement", *Canadian Journal of Economics* 34, 677–696.

Costinot, A. and A. Rodriguez-Clare (2014), "Trade Theory with Numbers: Quantifying the Consequences of Globalization", in: Gopinath, G., E. Helpman and K. Rogoff (eds.), *The Handbook of International Economics,* Amsterdam: Elsevier, 197–261.

Dür, A., L. Baccini and M. Elsig (2014), "The Design of International Trade Agreements: Introducing a New Dataset", *Review of International Organizations* 9, 353–375.

Egger, P., M. Larch, K. Staub and R. Winkelmann (2011), "The Trade Effects of Endogenous Preferential Trade Agreements", *American Economic Journal: Economic Policy* 3, 113–143.

Egger, P. and M. Larch (2011), "An Assessment of the Europe Agreements' Effects on Bilateral Trade, GDP, and Welfare", *European Economic Review* 55, 263–279.

Feenstra, R. (2004), *Advanced International Trade: Theory and Evidence,* Princeton: Princeton University Press.

Felbermayr, G. and M. Larch (2013), "The Transatlantic Trade and Investment Partnership (TTIP): Potentials, Problems and Perspectives", *CESifo Forum* 14(2), 49–60.

Felbermayr, G., B. Heid, M. Larch and E. Yalcin (2014), *Macroeconomic Potentials of Transatlantic Free Trade: A High Resolution Perspective for Europe and the World,* CESifo Working Paper 5019.

Fink, C. and M. Jansen (2009), "Services Provisions in Regional Trade Agreements: Stumbling Blocks or Building Blocks for Multilateral Liberalization?", in: Baldwin, R.E. and P. Low (eds.), *Multilateralizing Regionalism: Challenges for the Global Trading System,* Cambridge: Cambridge University Press, 221–261.

Fontagné, L., J. Gourdon, and S. Jean (2013), *Transatlantic Trade: Whither Partnership, Which Economic Consequences?,* CEPII Policy Brief 2013-01.

Francois, J., M. Manchin, H. Norberg, O. Pindyuk and P. Tomberger (2013), *Reducing Transatlantic Barriers to Trade and Investment: An Economic Assessment,* Report TRADE10/A2/A16 for the European Commission.

Kox, H. and A. Lejour (2006), *Dynamic Effects of European Services Liberalization: More to Be Gained,* MPRA Paper 3751.

Krugman, P.R. (1980), "Scale Economies, Product Differentiation, and the Pattern of Trade", *American Economic Review* 70, 950–959.

Magee, C.S. (2003), *Endogenous Preferential Trade Agreements: An Empirical Analysis,* Contributions to Economic Analysis and Policy 2(1).

Rodrik, D. (2011), *The Globalization Paradox: Democracy and the Future of the World Economy,* New York and London: Norton.

Romalis, J. (2007), "NAFTA's and CUSPTA's Impact on International Trade", *Review of Economics and Statistics* 89, 416–435.

Trefler, D. (2004), "The Long and Short of the Canada-U.S. Free Trade Agreement", *American Economic Review* 94, 870–895.

Viner, J. (1950), *The Customs Union Issue,* New York: Carnegie Endowment for International Peace.

World Trade Organization (2012), *World Trade Report 2012 – Trade and Public Policies: A Closer Look at Non-Tariff Measures in the 21st Century,* htpp://www.wto.org/ENGLISH/res_e/reser_e/wtr_e.htm.

Panel

"The Economist has been fighting for free trade for 170 years", as **John Peet**, the European Editor of this prestigious journal pointed out. Since the benefits of free trade are evident, he asked the panel to more discuss the potential barriers to a freer transatlantic trade. The Transatlantic Trade and Investment Partnership (TTIP) could, in his opinion, be the last chance to set world standards and regulations. If it does not succeed, it would be a big setback for both the EU and the United States, in addition to supporting anti-EU forces in Britain.

For the European Commissioner for Trade, **Karel De Gucht**, progress on the TTIP agreement is being hindered by cultural differences between the two parties. The United States underestimated the impact of the NSA issue, which has been a boon to TTIP opponents. The major distrust over data protection must be resolved as free trade requires data flow. Another problem is the role of the social media, which is often regarded as a reflection of public opinion. This, however, is not necessarily representative as it is relatively easy to get a large number of signatures in the social media. The successful campaign against ACTA (Anti-Counterfeiting Trade Agreement) is a good example of how effective the social media can be. The opponents of TTIP are against trade and afraid of globalisation. Bogus issues such as hormone beef keep being raised because they serve political purposes. Still, there is a big difference between ACTA and TTIP and the battle over the trade agreement "can be won with sufficient ambition on both sides of the Atlantic".

Karl-Ludwig Kley, Chairman of the Executive Board of the Merk Group, observed that the United States will remain the EU's most important trade partner, not least because of the cultural alignment. A standstill in trade agreements poses a risk for both partners, which is why TTIP is needed to modernise and adjust the trade partnership. Europe has vital interests in TTIP, especially in the area of chemicals, pharmaceuticals and life science, where the United States is the reference market for many products worldwide. Chemicals, for example, are regulated differently in the United States and the EU. If these regulations could be streamlined and harmonised, the non-tariff costs would be lowered substantially and more money would be freed up for R&D. "The season for TTIP is now", but strong political leadership will be required to get it passed.

The advantages that TTIP will bring to small businesses were stressed by **Anton F. Börner**, President of the Federation of German Wholesale, Foreign Trade and Services. Since SMEs are the backbone of economic growth, their needs should also be addressed in the trade agreement. Although tariffs are already low between the EU and the United States, they still matter, and SMEs in particular have problems dealing with regulations. They would benefit greatly from a reduction in regulatory costs. It is particularly important that people be told where the everyday benefits from TTIP will lie. In his opinion, small businesses are

well aware that we live in a globalised world and that a free trade regime is necessary for peace and welfare.

William M. Drozdiak, President of the American Council on Germany, observed that President Obama lent his support to the TTIP talks when he realised that an agreement would raise working and environmental standards in the United States, and he originally received support from his party for this reason. Now, however, fears are being expressed that TTIP will be 'NAFTA on steroids'. Although this charge is unfounded, Senate Majority Leader Harry Reid has refused to give the President fast-track authority on TTIP, fearing that jobs will be lost especially in the southern battleground states. Leader Reid overlooks the fact, however, that companies like BMW, Daimler and Volkswagen have helped transform the economies in these states. If Republicans win the Senate in November, there might be a window of opportunity for passing TTIP, since a Republican Congress could give President Obama fast-track trade promotion authority. The NSA problem is being emotionally debated also in the United States with pressure from politicians on the right and the left for curbing the excesses of the NSA. Silicon Valley companies are also lobbying for NSA reform. Finally, Mr Drozidak expressed the wish that the TTIP debate be conducted on a higher level and not be mired down over minor issues.

In the discussion, **Andreas Haufler**, Professor of Economic Policy at the University of Munich pointed to the fear of law suits in connection with investor protection clauses in the trade agreement. This concern is particularly strong in Germany. Commissioner De Gucht replied that ISDS (investor-to-state dispute settlement) is necessary but needs to be modernised. **Christoph von Marschall**, Diplomatic Correspondent of Der Tagesspiegel, had the impression that too much pessimism prevails over TTIP, also at this conference. The stakeholders in the German economy are not doing enough to promote the trade agreement. Presenting a positive TTIP narrative to the public is not only a job for the politicians. **Lady Barbara Judge** wondered whether the recent conflict in the Ukraine would make it more likely for the EU and the United States to reach a free trade agreement. William Drozdiak agreed that the chilling of relations with Russia has indeed led to a new US focus on Europe and to a focus on 'the primacy of the transatlantic relationship'.

Herbert Dieter of the German Institute for International and Security Affairs wondered whether China should not be invited to participate in the trade agreements since TTIP will have a strong impact on the rest of the world. "Are we forgetting the utility of multilateral agreements?", he asked. **William Y. Zhang** of the China Elderly Foundation agreed that his country should be at the negotiating table instead of having to accept afterwards the terms that others have arranged. With regard to China's participation in the talks, Commissioner De Gucht observed that "it takes two to tango". Unfortunately, China is not ready to take part in the negotiations since it has a record of tending to block or slow down the pace of talks. Its policy on subsidies is also a major hindrance. A well-designed TTIP agreement could also be a help in relations with China. In terms of China, Karl-Ludwig Kley agreed that a "multilateral approach at this stage is unrealistic". In terms of the investor-protection problem, he pointed out that in most ISDS cases the states and not the suing companies have won.

Anton Börner reiterated his plea that "we open up our closed business club" and "talk to ordinary people about the fundamental importance of free trade". William Drozdiak expressed confidence that there will be a two-thirds majority in the next Congress for a free trade agreement. Americans are also interested in eliminating the regulatory barriers for hiring foreign firms, for example, European specialists in flood protection, which could have protected New Orleans from flooding. Whether we end up with a 'TTIP light' will depend in part on whether EU countries are successful in cleaning up the banking sector. Finally Gabriel Felbermayr stressed that joint standards make sense across the Atlantic, but that we need to give the emerging world more time. For this reason it is important that TTIP be designed as an open platform.