

# How to make TTIP inclusive for all?

Potential economic impacts of the Transatlantic Trade and Investment Partnership (TTIP) on developing countries





August 2015

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**Potential economic impacts of the Transatlantic Trade and Investment Partnership (TTIP) on developing countries**

Study of the Ifo Institute for

Bertelsmann Stiftung

**Report, 30.08.2015**

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## **Inhalt**

<b>1.</b>	<b>Introduction</b>	<b>5</b>
<b>2.</b>	<b>TTIP and developing countries</b>	<b>8</b>
2.1.	Losers and winners	8
2.2	Derminants of losses and gains	10
2.3	The force of spillover effects	18
<b>3.</b>	<b>The new emerging world trade order and developing countries</b>	<b>23</b>
3.1.	TTIP, CETA, EU-Japan, TPP, RCEP and developing countries	24
3.2.	The containment of China	25
3.3.	China's trade policy initiatives and their global effects	27
3.3	On trade policy consolidation within the OECD	29
<b>4.</b>	<b>Policy conclusions</b>	<b>31</b>

## Tables

Table 1 The 10 biggest losers from TTIP among developing countries .....	9
Table 2 Welfare effects of TTIP and preference erosion .....	13
Table 3 Regional real income changes (%) from TTIP with and without regulatory spillovers .....	22
Table 4 Western mega regionals and their impact on regional real income (in %) .....	23
Table 5 Western PTA initiatives contain China.....	26
Table 6 Evaluation of RCEP and FTAAP.....	28
Table 7 The 10 biggest losers from an OECD FTA.....	30

## 1. Introduction

Since the creation of the World Trade Organization (WTO) in 1995, the rules of world trade have not changed. They do not account for the fact that the nature of international division of labor is no longer the one that prevailed during the negotiations in the Uruguay Round which led to the WTO (1986-1994). At that time, the geopolitical situation was entirely different than today's: the Soviet Union still existed, and the acronym "BRICS" was still unknown. Since then, the opening up of emerging markets such as China, both unilaterally and through its accession to the WTO, and other unilateral steps towards trade liberalization in many other developing countries, plus the arrival of modern information and communication technology, have changed the global economy. Countries no longer exchange final goods and raw materials with each other. Now, trade happens along global production chains: many firms in many different countries contribute towards the production of final goods by supplying parts and components, various services, and the final assembly. Goods are no longer made in one country for export, but they are made in the world for the world.

The reality of global production networks implies the need for new rules that go beyond the code book of the WTO and that speed up international transactions, make them more secure and less costly. This relates, for example, to services, the movement of professionals, investment liberalization and protection, the enforcement of intellectual property rights, the mutual recognition of product and process standards, regulatory cooperation, simplification and harmonization of rules and bureaucratic procedures, and many more topics. Since the WTO has not been able to broaden and deepen its rules, countries around the world are turning towards arrangements that involve smaller sets of countries and that tackle the aforementioned issues with different degrees of ambition reflecting the needs and development status of the involved economies. In a sense, the move towards mega-regional trade agreements reflects both the WTO's failure to modernize its rules and the need for differential treatment amongst different countries.

The negotiations between the EU and the US to create a Transatlantic Trade and Investment Partnership (TTIP) are spear-heading this dynamic evolution, but many other regions are also integrating more and more closely; see Part II of this study. Here, we investigate how the move away from the multilateral trade order as epitomized by the WTO affects third countries and what can be done that the emergence of a new world trade order does not lead to a substantial deterioration of development perspectives in poor regions or countries. The EU treaties require the Union to take the effects of its trade policies on poor countries into account, the goal being to avoid that commercial policy initiatives compromise the EU's goals to facilitate sustainable development worldwide.

The TTIP between the EU and the US would cover about 45% of world GDP, 11.5% of the world's population (as of 2013), and approximately 30% of world exports (as of 2012). Because of the sheer economic size of the involved parties, the formation of TTIP will have important effects for third countries. First, third countries may suffer from trade diversion. When the US grants the EU preferential access to its market, EU goods will become relatively cheaper for US

consumers and EU intermediate inputs will become relatively cheaper for US manufacturers. Thus the US will substitute away from third countries' goods towards EU goods. The same holds for US products on the EU markets. So trade is diverted away from third countries towards TTIP partners. Trade diversion has the potential to hurt developing countries. However, it depends on the types of goods the developing countries export to the EU and the US. In many raw materials and resource categories, like e.g. cocoa beans, EU and US products are not competitive or they are not produced because of climatic reasons. Thus, they cannot displace developing countries' exports. On the other hand, countries that predominantly export manufacturing goods are more likely to suffer from trade diversion. So whether and to what extent trade diversion will occur depends on the industrial structure of the respective country.

For the most goods, many developing countries already have preferential access to the EU and US market respectively (e.g. through the Generalized System of Preferences (GSP) or the Everything But Arms (EBA) initiatives).<sup>1</sup> So one might think, that trade diversion will not be an issue for these countries. However, they still might suffer from preference erosion. When TTIP lowers tariff or non-tariff barriers between the EU and the US, goods from within TTIP become cheaper relatively to goods from outside TTIP, regardless of the initial tariff exemption. Clearly, the amount of preference erosion depends on the size of the initial preference margin, i.e., the difference between the tariff imposed by either EU or US on each other's goods and the lower preferential tariff granted to developing countries.

The negative substitution effect described above can be counteracted by a positive income effect. To the extent that the EU and the US become richer due to TTIP and that their production rises, their demand for intermediates and final goods will rise. Especially countries in the European or US production network may benefit from this increased demand in the EU and US.

Another positive channel for third countries arises via imported competitiveness. If TTIP increases the competitiveness of EU and US producers of capital goods and intermediate goods, so that these become cheaper, countries which import these goods from the TTIP region may benefit from these cost reductions and become more competitive.

In summary, TTIP will have opposing effects on developing countries. In developing countries which produce raw materials that are not produced in the EU or the US the positive income effect will most likely dominate the negative trade diversion effect. As a consequence, they may slightly benefit from TTIP. Countries with a production structure similar to the EU and the US, on the other hand, will most likely suffer from trade diversion. But if the countries are very tightly integrated into the EU or US production network, the positive effects through increased goods demand in the EU and the US may still dominate. So we expect that countries closer to the EU or USA will be hurt less from TTIP. Which effect dominates in which country cannot be

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<sup>1</sup> Under these preference systems, developed countries grant developing countries tariff-free access to their markets for many goods in a unilateral, non-reciprocal way. These systems constitute an exemption from the WTO's most favored nation principle, by which any country applies the same tariffs to any other WTO member. The European "Everything but Arms" (EBA) program and the US' "Africa Growth and Opportunity Act" (AGOA) go beyond the GSP systems by allowing a broader range of products tariff-free into their countries.



ascertained without the use of a general equilibrium model of international trade. In this part of the study, we use such a tool (described in Aichele et al., 2014). The framework features national and international input-output linkages to account for global value added chains. It also includes sufficient sectoral detail to factor in cross-country differences in industrial structure and in the sector structure of tariff and non-tariff protection.

Despite almost two years of negotiations, very few details on the proposed TTIP agreements are known. Therefore, we work with simplifying assumptions. In our model, we distinguish between tariffs-only agreements, shallow ones (which address some non-tariff barriers) and deep ones (which one may also refer to as last generation deals). Most importantly, we assume that TTIP will lower trade costs – tariffs and non-tariff trade barriers – between the EU and the US by the same amount that other deep agreements have. In our default specification, we do not assume that the agreement also lowers trade costs between TTIP insiders and outsiders, or within the group of TTIP outsiders. We do not do so, because there is little existing evidence that would support such an assumption (see WTO, 2012). This does not mean, though, that trade cost savings cannot spill-over to third parties, either, because regulatory cooperation between the EU and the US ultimately result in the establishment of global standards which would also facilitate market access for developing countries, or because the TTIP agreement contains clauses that make deliberate efforts to assist developing countries.

In this part of the study, we first portray the winners and losers of TTIP and discuss the possible reasons behind the observed patterns. Then we turn our attention to the evaluation of further regional mega-deals currently being negotiated and on how they impact developing countries. Finally, we discuss policy options.

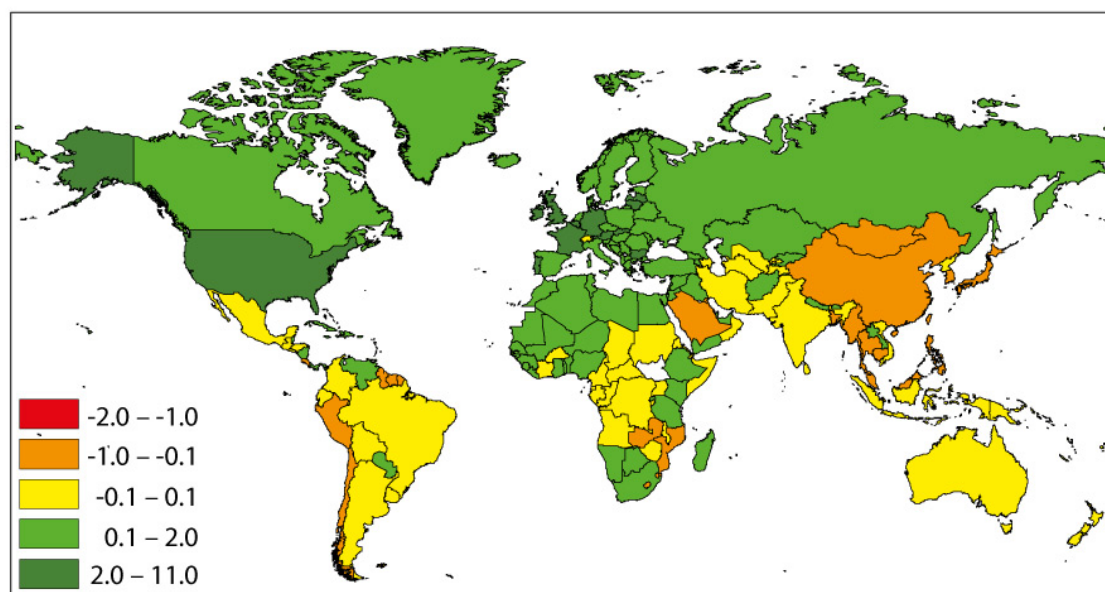
## 2. TTIP and developing countries

### 2.1. Losers and winners

While on the world level, TTIP raises real income by 1.3%, on average, the outlook for developing countries is less optimistic. On average, developing countries may expect a small reduction in real income of -0.06%. This implies a loss of relative importance of developing countries: their share in world GDP drops from 23.0 to 22.7%.

But the losses are not universal. The predicted effects on real income are in the range of -0.9% to +0.8%. So there is big heterogeneity in the third-country effects. Figure 1 shows the welfare effects of TTIP in a color-coded world map. The graph is accompanied by a table of the 10 biggest losers from TTIP, see Table 1.

**Figure 1** World map of real income changes from deep TTIP, in %



**Source:** Authors' calculation.

The biggest winners from TTIP are to be found in the Rest of Europe, Central Asia and the Eurasian Customs Union. Broadly, three regions will have to suffer sustained welfare losses from TTIP. As shown in Table 1, these are first and foremost China, ASEAN countries, and East Asia (i.e. Japan, South Korea, Taiwan). Cambodia, Malaysia, Taiwan and Thailand are most affected in this region, with real income losses of 0.9, 0.5, 0.4 and 0.3%, respectively. China and the Philippines are also predicted to face a reduction of real income of around a quarter of a percent. Apparently, the Asian production network is hampered by the formation of TTIP.

The model also predicts welfare losses for some countries in Latin America, especially for countries of the Pacific Alliance and to a lesser extent also Argentina (-0.04%) and Bra-

zil (0.01%). Costa Rica and Chile suffer real income losses of around 0.18%, Peru of 0.15% and Mexico of 0.08%, while, in the contrary, Colombia will have a small rise in real income of 0.09%.

While most countries in Africa, especially the North African countries which are close to the EU, gain from TTIP, a few countries in the South of the African continent like Swaziland and Lesotho (-0.67%), Mozambique (-0.17%) or Zambia (-0.10%) would face welfare losses.

**Table 1 The 10 biggest losers from TTIP among developing countries**

Rank	Country	Region	Population (mn.)	Change in per capita income (%)	Trend growth rate (%)
1	Cambodia	ASEAN	14.1	-0.9	8.2
2	Swaziland	SACU	1.2	-0.7	5.4
3	Malaysia	ASEAN	28.4	-0.5	2.4
4	Taiwan	East Asia	23.1	-0.4	3.0
5	Thailand	ASEAN	69.1	-0.3	3.3
6	Mongolia	Central Asia	2.8	-0.3	9.2
7	China	China	1318.2	-0.3	8.0
8	Philippines	ASEAN	93.3	-0.2	0.7
9	Costa Rica	Allianza del Pacifico	4.7	-0.2	0.1
10	Korea, Republic of	East Asia	48.2	-0.2	4.5
Population weighted average				-0.3	7.1

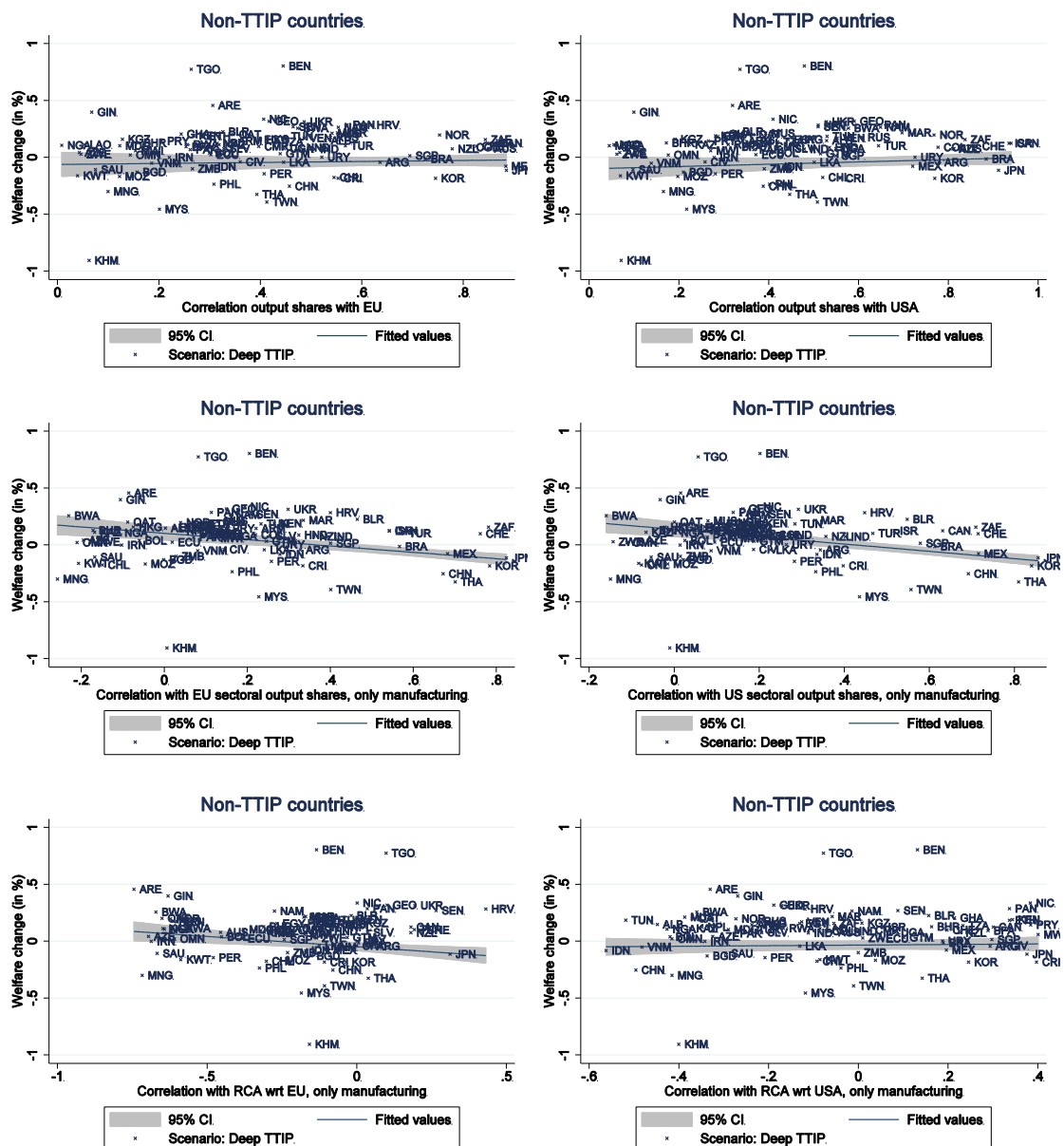
**Source:** Authors' calculation. Change in real per capita income due to introduction of TTIP (deep scenario); trend growth rate calculated as average of yearly growth rate of real per capita income since 2000 (Penn World Tables 8.0, series rgdpo).

It is important to put negative per capita income effects into perspective. Similar to the welfare benefits in TTIP countries, losses in non-TTIP countries build up over a period of about 10 years. And they are permanent: every year after the ramp-up period income will be lower by the simulated amount than without TTIP. The country with the largest loss amongst all countries, Cambodia, suffers a loss in yearly income of 0.9%. This is particularly regrettable, because Cambodia is a very poor country. However, its catch-up is in full swing: since 2000, its average yearly growth rate of real per capita income was 8.2%. So, the loss due to TTIP is only about one ninth of an average yearly growth rate. In the case of China, the loss due to TTIP is only one thirtieth of an average yearly growth rate. Other countries with more dismal growth performance, suffer proportionately more from TTIP. This is so in the case of the Philippines or Costa Rica. Looking at population weighted averages over the 10 most affected countries, we find that the average loss is 0.3%. As a matter of facts, in the group of severely affected countries, the most affected ones have relatively small populations.

## 2.2 Determinants of losses and gains

To understand the heterogeneity of welfare effects among developing countries, we investigate potential drivers of the observed patterns.<sup>2</sup> Is it preference erosion which hurts some countries, and if so, which ones? Are those countries hurt which have a similar production structure than the EU or the US? Is proximity to the TTIP countries important, because it implies close links to their production chains and potentially beneficial income effects? Does market size play a role?

Figure 2 Welfare effects of TTIP and countries' initial specialization



Source: Authors' calculation. Regression lines with 95% confidence intervals fitted to the data.

<sup>2</sup> Felbermayr et al. (2015) have conducted detailed case studies on the potential effects of TTIP for a number of developing countries

**Welfare effects and specialization:** From our previous discussion on trade diversion effects, we would expect countries with a similar specialization structure as the EU or USA to suffer more from TTIP. Indeed, this might be the reason behind the predicted welfare losses in China, Japan, Korea and the ASEAN countries. First, we inspect the overall correlation of a respective country's sectoral output shares with the one of the EU and the US, see the upper part of Figure 2. We find no evidence for a negative impact of a similar structure on welfare changes. Trade is predominantly in manufacturing goods, so next we investigate the correlation of sectoral shares in manufacturing only. Here we find a clear negative effect. The more similar the sectoral structure, the lower the welfare gain or the higher the welfare loss, respectively. To some extent, this pattern also emerges when looking at the correlations in the revealed comparative advantage structure (RCA) (for manufacturing trade).<sup>3</sup> At least when countries have a high correlation in their RCA with the EU, they experience lower welfare gains on average.

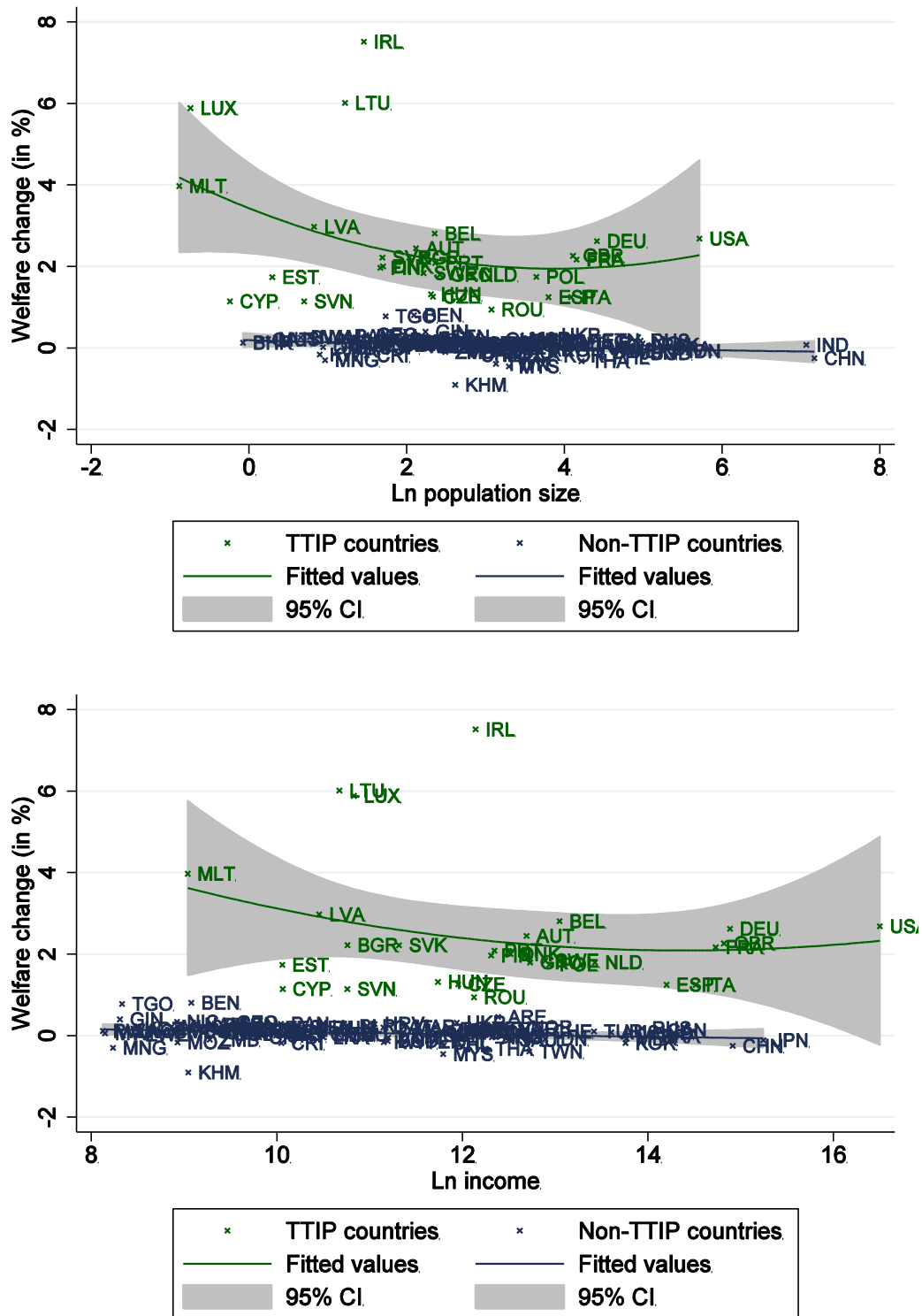
**Welfare and market size:** On the one hand, economic theory suggests that countries with small internal markets which get better access to a larger common market will benefit more than relatively big countries. On the other hand, we do not expect that trade diversion is related to third countries' market size, so we should not see an effect here. This notion is supported by a graphical inspection in Figure 3 of the relation between welfare changes and two measures for market size: the log of population and the log of national income. For TTIP countries, we clearly see a negative relation between market size and predicted welfare change. For non-TTIP countries, such a relation is not existent.

**Welfare and preference erosion:** Countries that already have preferential access to the EU or the USA will suffer more trade diversion effects from TTIP because the previously held preferences are eroded. To see whether such a pattern emerges in our simulated results, we regress (in a non-TTIP sample) the welfare change from TTIP on two dummy variables indicating whether the respective country has an FTA with the USA and the EU, respectively. Column 1 in Table 2 indicates that having an FTA with the EU might actually increase welfare gains from TTIP. This runs counter our previous conjecture. However, this mere correlation may confound the influence of distance and other variables. So in Column 2 we add distance as an additional regressor. The results do not change. Having an FTA with the EU has a positive effect, while having an FTA with the US does not seem to matter. Countries further away from the EU or US are worse off with TTIP. Increasing the distance with USA by 1% reduces welfare gains by 0.1 percentage points, increasing the distance to Germany by 1% reduces welfare gains by 0.07 percentage points. However, when we interact having an FTA with distance, then we indeed find a story of preference erosion. Having an FTA with the EU or the USA reduces welfare gains. But the further one is away from the respective region, the less relevant this effect becomes.

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<sup>3</sup> Revealed comparative advantage is computed as the share of a country's exports in some industry divided by the proportion of world exports in that industry. A country is said to have a comparative advantage in the industry under consideration if  $RCA > 1$  and a comparative disadvantage else.

Figure 3 Welfare effects of TTIP and country's market size



Source: Authors' calculation.

**Table 2 Welfare effects of TTIP and preference erosion**

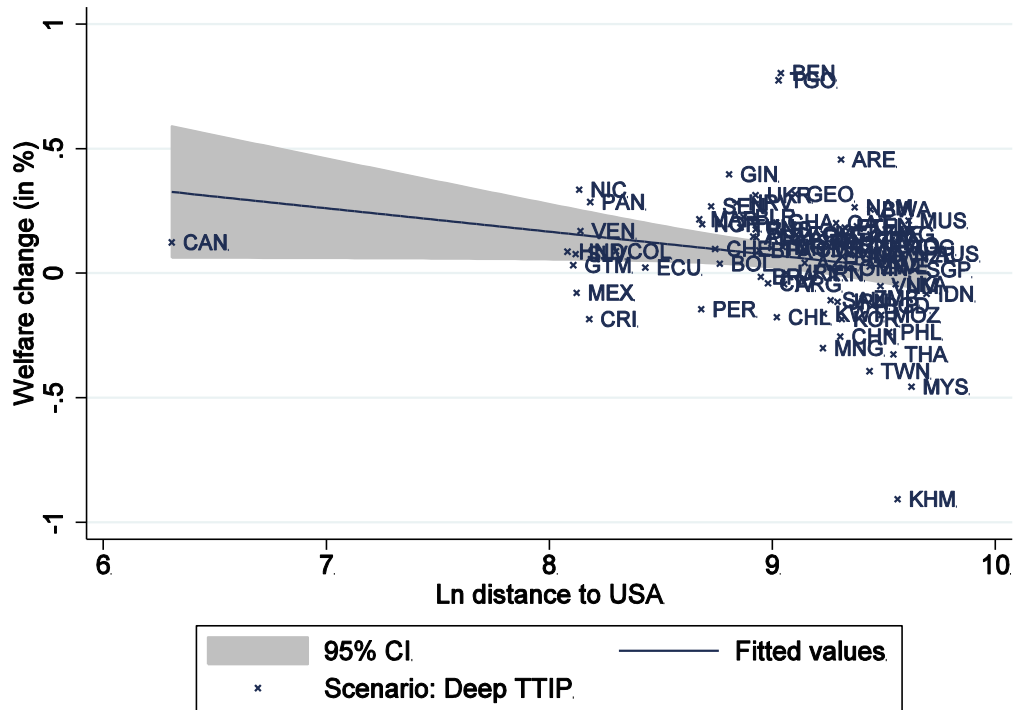
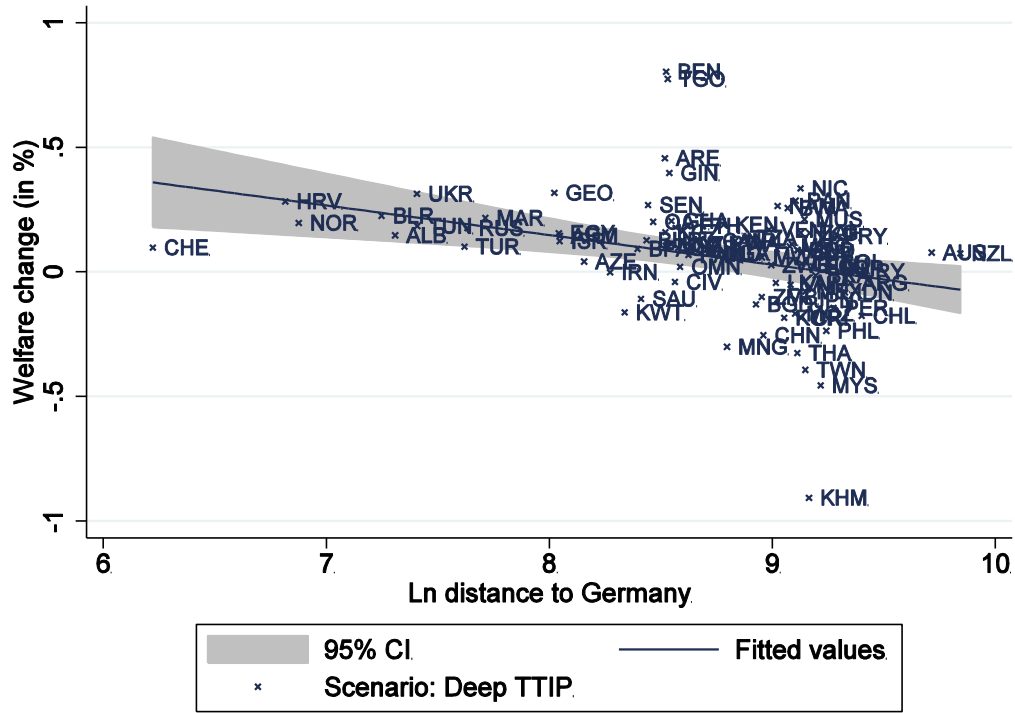
	Welfare change (in %)		
FTA with EU (0,1)	0.148***	0.114**	-1.038**
	(0.05)	(0.05)	(0.512)
FTA with USA (0,1)	0.001	-0.038	-1.912**
	(0.051)	(0.046)	(0.862)
Ln distance to USA		-0.101**	-0.254***
		(0.039)	(0.089)
Ln distance to Germany		-0.074**	-0.121***
		(0.03)	(0.041)
FTA with USA * In distance USA			0.208**
			(0.096)
FTA with EU * In distance Germany			0.134**
			(0.062)
Constant	0.009	1.589***	3.417***
	(0.039)	(0.418)	(0.933)
Observations	86	86	86
R-squared	0.099	0.203	0.257

Source: Authors' calculation.

**Welfare and distance:** Our conjecture is that countries close to TTIP countries may benefit more from positive income effects in the TTIP region, since they are part of the relevant production networks and can more easily participate in the economic expansion that should result from TTIP in the US and Europe. And indeed, Figure 4 suggests a negative relationship between distance and welfare effects. Close countries tend to benefit from TTIP, while far away countries have lower benefits or even a welfare loss. The relationship is more clear-cut when looking at the distance to Germany than when looking at the distance to the US.

**Welfare and production networks:** We use the share of a trade partner's value added in the total value added that is finally processed in the EU or the USA, respectively (in graph in %) as a measure for the depth of links in global value added networks. The linear fits presented in Figure 5 reveal a weakly negative relationship. Note that higher initial levels mean greater trade diversion. Alternatively, one can use the trade partner's share in intermediates processed in the EU and USA, respectively. Results turn out to be quite similar.

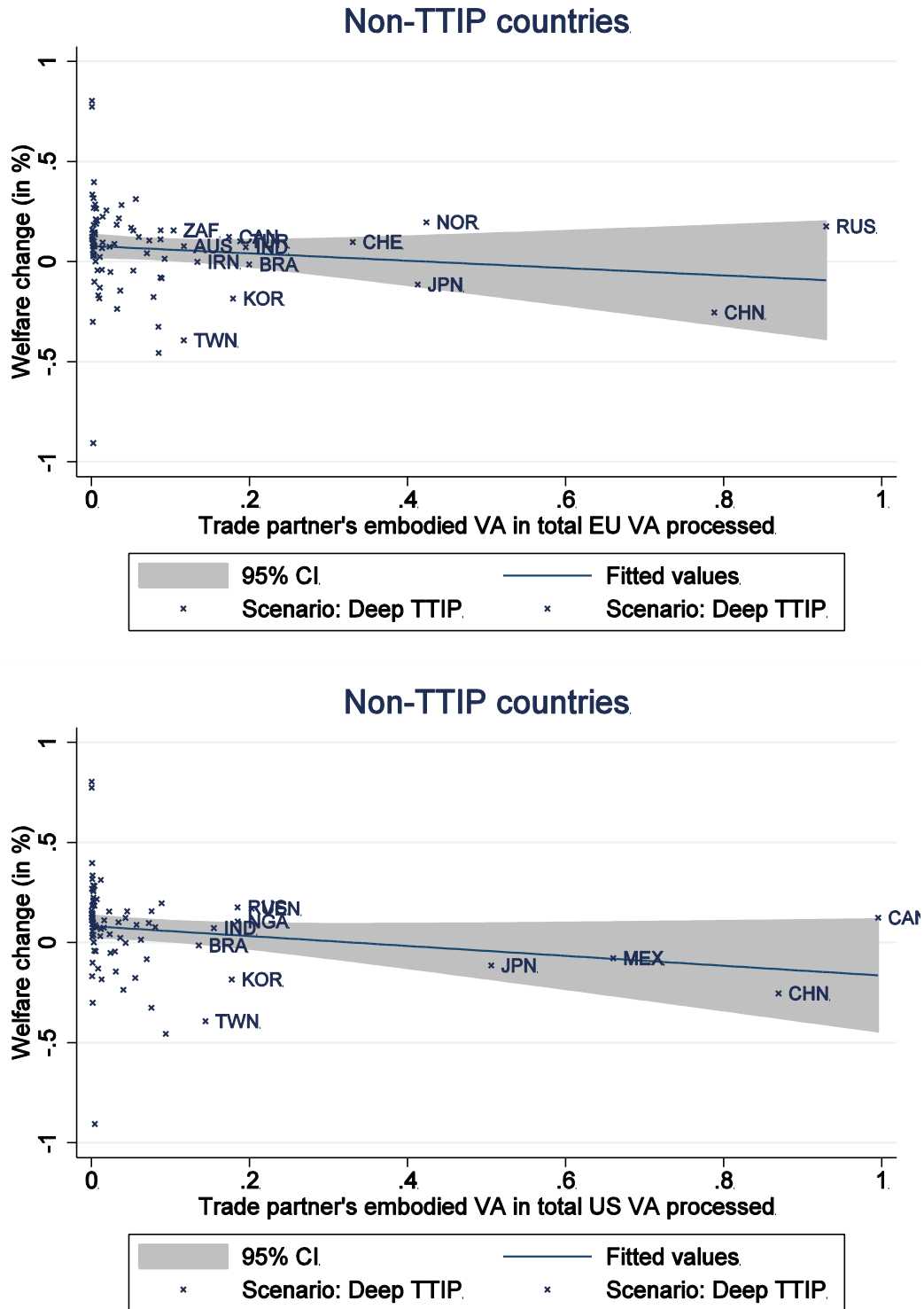
Figure 4 Welfare effects from TTIP and distance from TTIP insiders



Source: Authors' calculation.



Figure 5 European and US production networks and welfare effects of TTIP

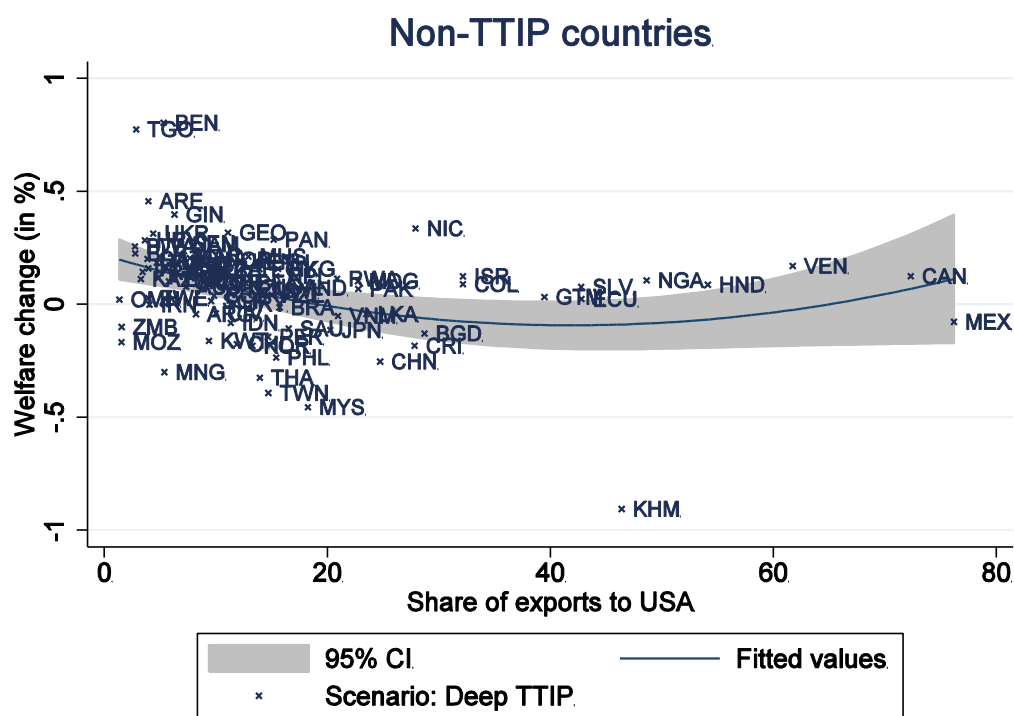


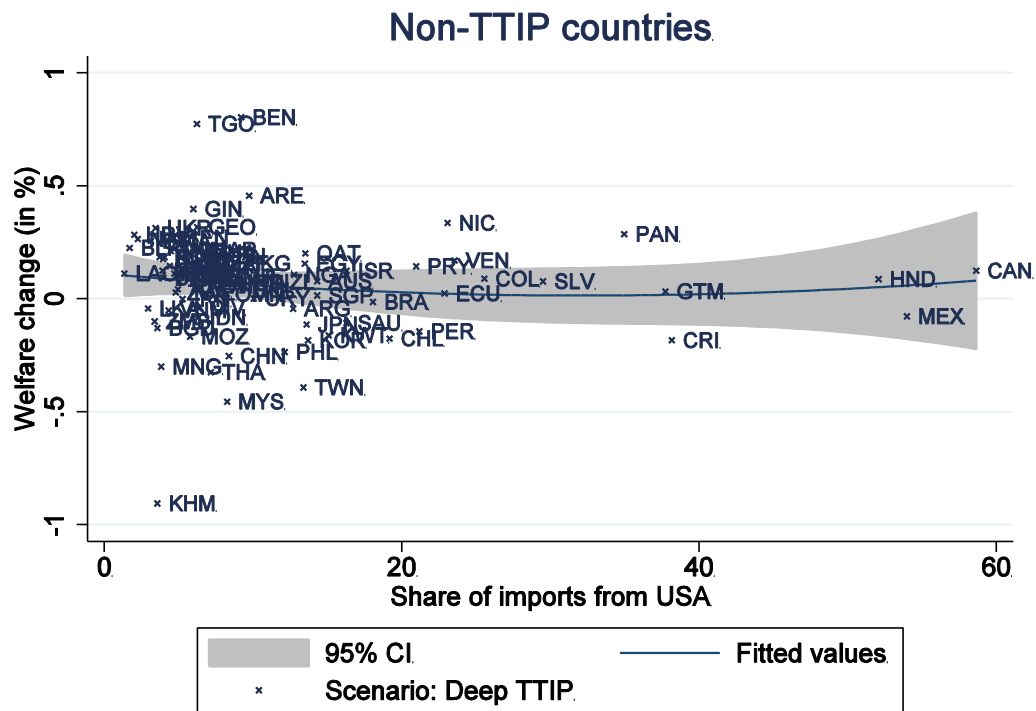
Source: Authors' calculation.

**Welfare and initial trade exposure with TTIP countries:** With respect to commercial links to the US, there seems to be a negative relationship between welfare changes in developing countries and shares of exports to the USA: countries with higher exports to the USA suffer relatively more from the increased EU competition in the US market. This signals the role of trade diversion. For high imports from the USA, no clear pattern emerges. This is consistent with a weak or non-existent “imported competitiveness” effect.

With respect to trade links of TTIP outsiders to the EU, the higher the exports to the EU tend to be, the better off are countries with TTIP. The same seems to be true for the initial import share from the EU. A possible explanation is the force of the EU production network, which is presumably stronger than the US one as the EU is a much more important trade partner for developing countries than the US. Figure 6 and Figure 7 show quadratic fits of these relationships.

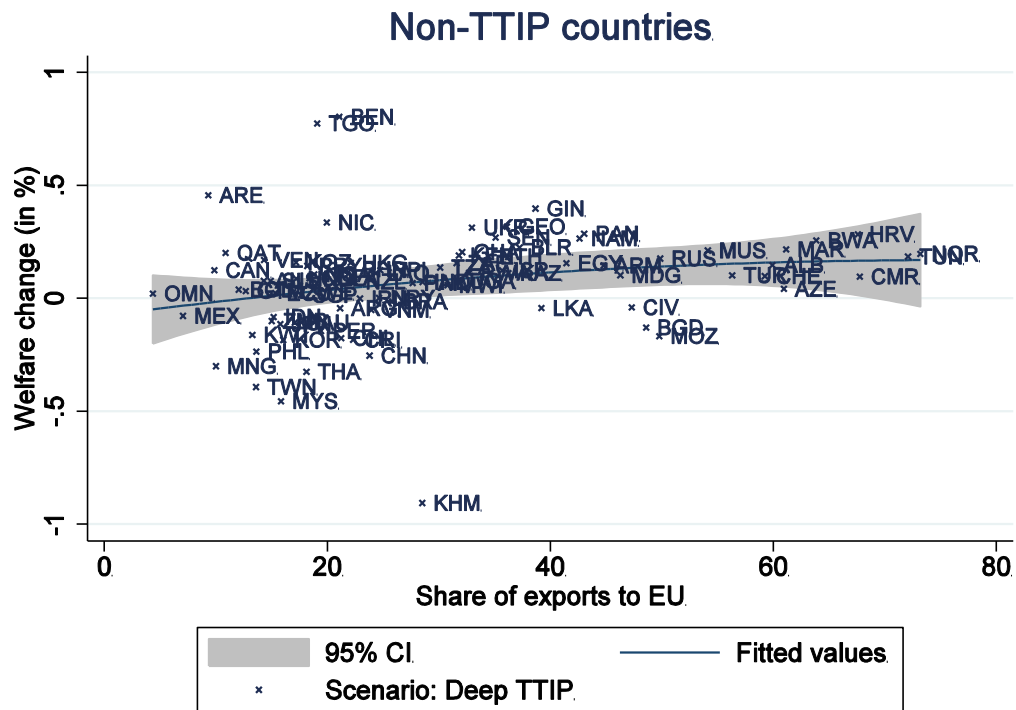
**Figure 6 Welfare effects of TTIP and initial trade with the USA**

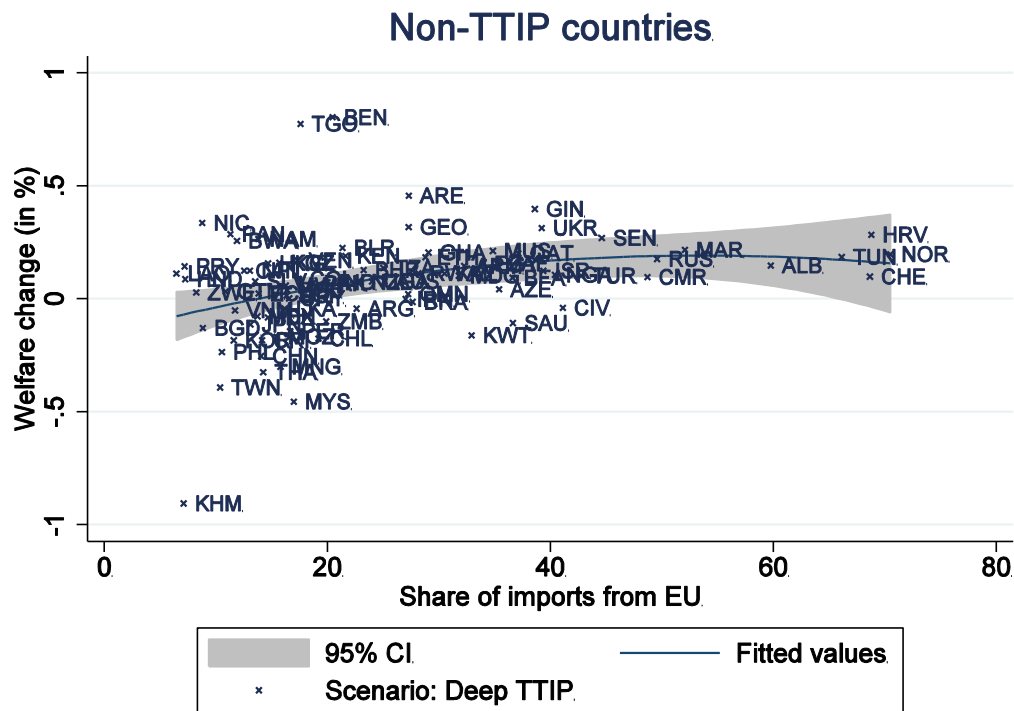




Source: Authors' calculation.

Figure 7 Welfare effects of TTIP and initial trade with the EU





Source: Authors' calculation.

### 2.3 The force of spillover effects

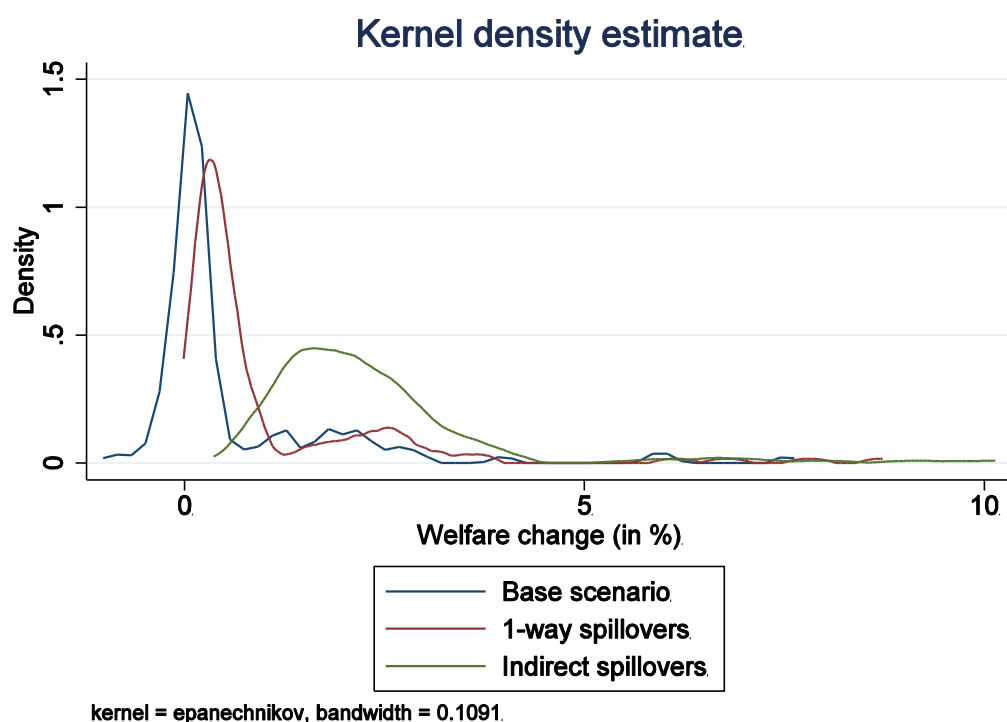
What happens, if TTIP not only lowers trade costs between the EU and the US but also between TTIP insiders and outsiders and/or within the group of TTIP outsiders? One reason why this could happen is that with the formation of the FTA, product standards might be harmonized, regulations on rules of origin might be relaxed or state aid for domestic firms might be outlawed. This leads to a reduction of trade costs between the FTA countries and their trade partners; a possibility referred to as spillover effect in the literature, see CEPR (2013). To simulate this, we create two TTIP spillover scenarios. In a first scenario, trade costs for third countries' exports to TTIP countries fall.<sup>4</sup> This is called a scenario of one-way spillovers, and it is supposed to reflect the easing of rules of origins and product standard harmonization or mutual recognition extended to third countries in the TTIP area. In a second scenario, we more broadly symmetrically reduce trade costs of all third country trade links as well. These indirect spillovers could be the result of a new global product standard emerging from TTIP.

Figure 8 shows the distribution of welfare changes for the basic scenario of a deep TTIP (blue line) as well as for the two spillover scenarios. The distribution in the base scenario has two peaks. One peak is centered around zero which shows the welfare changes of non-TTIP countries, and the second peak occurs at around 2.5%, the average real income increase registered by

<sup>4</sup> In the scenario, we use a trade cost reduction for exports into the TTIP trade bloc of 20% of the FTA effect.

TTIP countries. With direct spillovers (red distribution), both peaks shift to the right. Direct spillovers tend to improve welfare both for TTIP and non-TTIP countries, but more so for non-TTIP countries. When indirect spillovers are present (green distribution), all countries have welfare gains from TTIP. Especially non-TTIP countries may benefit from the falling global trade costs.

**Figure 8 Distribution of welfare changes with and without regulatory spillovers**



Source: Authors' calculation.

Figure 9 Comparison of TTIP's real income effects (in %) without and with spillover effects shows the country-specific real income effects of TTIP for the different scenarios; Table 3 provides regional averages. The upper panel refers to the baseline situation without spillovers. The middle part shows the effects of the one-way trade cost reduction with third countries. The lower part refers to the two-way trade cost reduction between TTIP countries and third countries.

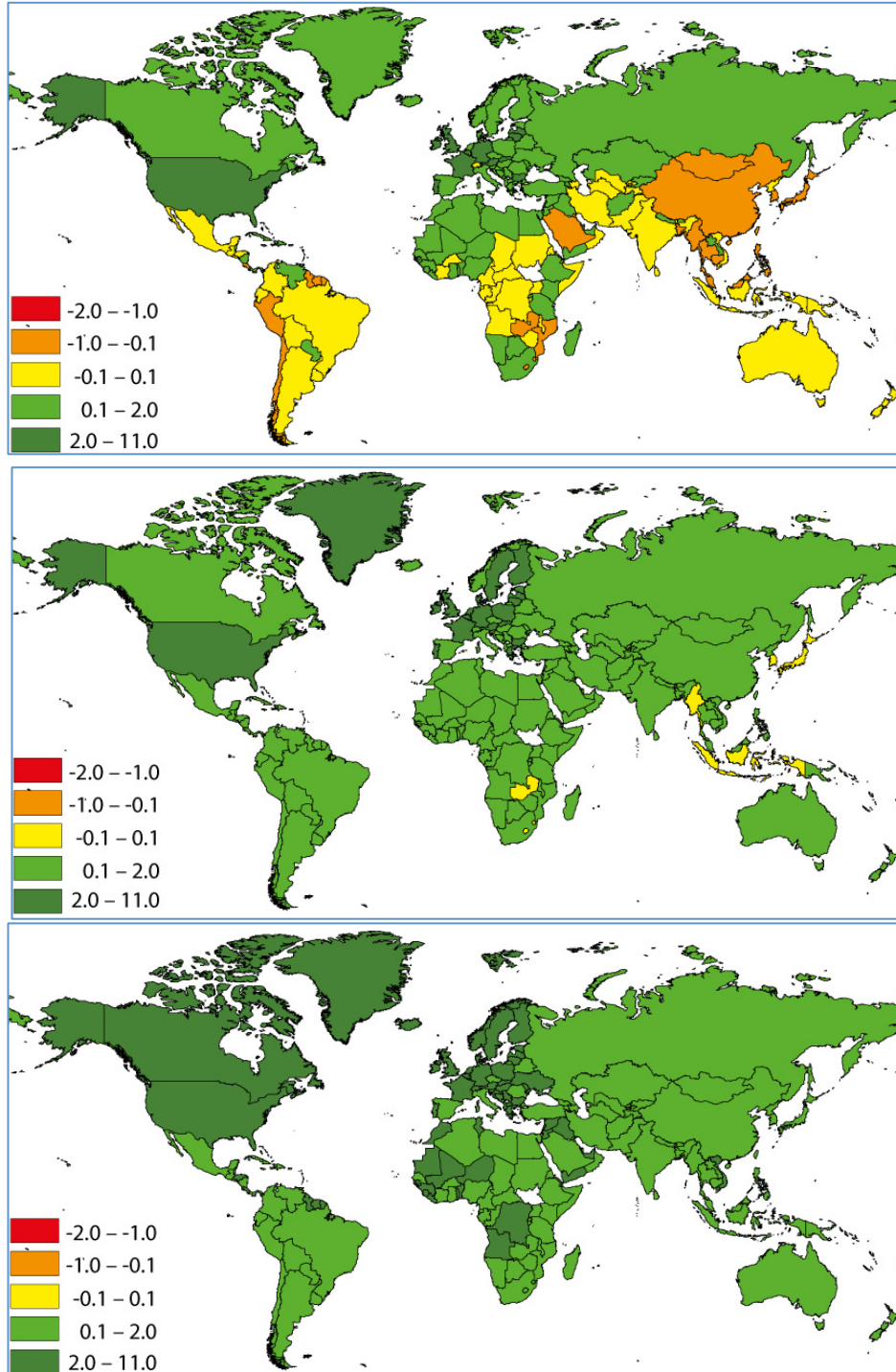
Spillover effects will buffer a lot of the negative welfare consequences for third countries. Countries which would have to tolerate a welfare loss from TTIP, in particular ASEAN countries and other East Asian countries like China, Japan and South Korea, will instead see small increases in their real income with the one-way trade cost reduction due to, e.g., simplification of rules of origin and harmonization of standards. What is more, the welfare of TTIP countries is also further advanced in this scenario. The positive welfare effects for negotiating countries as well as their trade partners outside the FTA negotiations should increase the likelihood of political enforceability of FTAs with standard harmonization.

If the spillover effects not only accrue for imports into TTIP but for the two-way trade of TTIP with third countries, the welfare effects are substantially positive for all countries, ranging from 0.2% to 10% in the particular scenario

In summary, accompanying FTAs with measures that create spillover effects for third countries is beneficial for the FTA countries. Furthermore, it also increases welfare in trade partners. This means, if TTIP effectively works like a multilateral trade policy initiative, lowering not only trade costs of insiders but also those of outsiders, everyone benefits. Thus, one should encourage policy makers and negotiators to find ways that make sure that TTIP does indeed help outsiders as well. We come back to this in the policy section of this report.

In our baseline scenario, we have opted not to implement spillovers. CEPR (2013) has made a different choice. As a consequence, that study does not talk about possible losses that TTIP could inflict on third countries. The point is that there is almost no empirical evidence available that proves the existence of spillovers for past episodes of regional regulatory cooperation (e.g., within the European Union's single market program). WTO (2012) surveys this literature: "*To sum up, 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.*" (World Trade Report, 2012, page 152). A more comprehensive review of the literature is provided by Felbermayr et al. (2015a).

Figure 9 Comparison of TTIP's real income effects (in %) without and with spillover effects (upper panel: baseline; middle panel: one-way spillovers; lower panel: indirect spillovers), % changes of real per capita income.



Source: Authors' calculations.

**Table 3 Regional real income changes (%) from TTIP with and without regulatory spillovers**

	Average welfare change (in %)		
	Base scenario	1-way spillover	2-way spillover
EU27	2.443	2.749	2.944
USA	2.680	3.254	3.443
Canada	0.123	0.492	2.181
EFTA	0.097	0.595	2.471
Turkey	0.101	0.354	1.368
Rest of Europe	0.146	0.520	2.128
Australia & New Zealand	0.077	0.188	0.803
Oceania	0.063	0.339	1.261
ASEAN	-0.083	0.087	0.379
China	-0.255	0.186	0.721
East Asia	-0.115	-0.008	0.203
South Asia	-0.130	0.329	0.643
Eurasian Customs Union	0.144	0.250	0.966
Central Asia	0.041	0.188	1.280
Middle East & North Africa	0.155	0.366	1.651
Oil exporters	0.456	0.695	2.898
Southern African Customs Union	0.256	0.188	0.707
Sub-Saharan Africa	0.803	0.744	3.042
Alianza del Pacifico	-0.177	0.264	0.918
MERCOSUR	-0.045	0.252	0.617
Latin America & Caribbean	0.038	0.162	0.623
Rest of World	-0.100	0.152	0.437

Source: Authors' calculation.



### 3. The new emerging world trade order and developing countries

The transatlantic trade talks are only one component in a larger reshuffling of the world trade order. If simultaneously to TTIP, multilateral trade negotiations could be revived and the (hypothetical) elimination of all tariffs within the WTO would be agreed upon, additional benefits can be expected for almost all regions. Particularly so for WTO members which still have high average tariff rates like China, and countries in South Asia, Sub-Saharan Africa, the Southern African Customs Union, or the Eurasian Customs Union. The regional averages are given in Column 2 of Table 4. The average world real income would rise by 1.6%, 0.3 percentage points of which being the additional effect of the elimination of WTO tariffs.

**Table 4 Western mega regionals and their impact on regional real income (in %)**

Region	TTIP		TTIP	TTIP, TPP,	OECD FTA	
		+ no	+ TPP	RCEP		+ no
		WTO	+ RCEP	+ EU-JPN		WTO
		tariffs		+ EU-CAN		tariffs
China	-0.231	0.414	1.993	-0.388	-0.744	-0.092
ASEAN	-0.194	0.420	1.611	0.620	-0.447	0.193
East Asia	-0.129	0.319	2.626	2.893	5.870	6.189
Alianza del Pacifico	-0.074	-0.156	0.143	0.164	0.623	0.585
MERCOSUR	0.005	0.198	0.033	0.040	0.040	0.238
South Asia	0.060	1.248	1.059	0.140	0.119	1.305
Oceania	0.063	-0.019	0.595	0.462	0.410	0.395
Australia & New Zealand	0.077	0.546	6.881	5.076	9.630	9.900
Oil exporters	0.085	0.706	0.685	0.637	0.688	1.282
Turkey	0.101	0.297	0.206	0.238	7.319	7.326
Sub-Saharan Africa	0.105	0.810	0.363	0.312	0.481	1.198
Latin America & Caribbean	0.113	0.440	0.347	0.396	0.536	0.848
Middle East & North Africa	0.115	0.651	0.313	0.334	1.094	1.619
Canada	0.123	0.187	2.204	4.687	5.529	5.552
EFTA	0.146	0.478	0.148	0.312	7.681	7.817
Southern African Customs Union	0.150	0.673	0.280	0.430	0.512	1.057
Eurasian Customs Union	0.172	0.888	0.377	0.438	0.634	1.359
Central Asia	0.201	0.211	0.444	0.474	0.634	0.613
Rest of Europe	0.292	0.461	0.539	0.682	0.982	1.128
Rest of World	0.399	0.568	1.054	0.758	1.668	1.809
EU27	2.120	2.264	2.175	3.406	4.456	4.582
USA	2.680	2.774	4.084	4.170	4.553	4.621

Source: Authors' calculation.

### 3.1. TTIP, CETA, EU-Japan, TPP, RCEP and developing countries

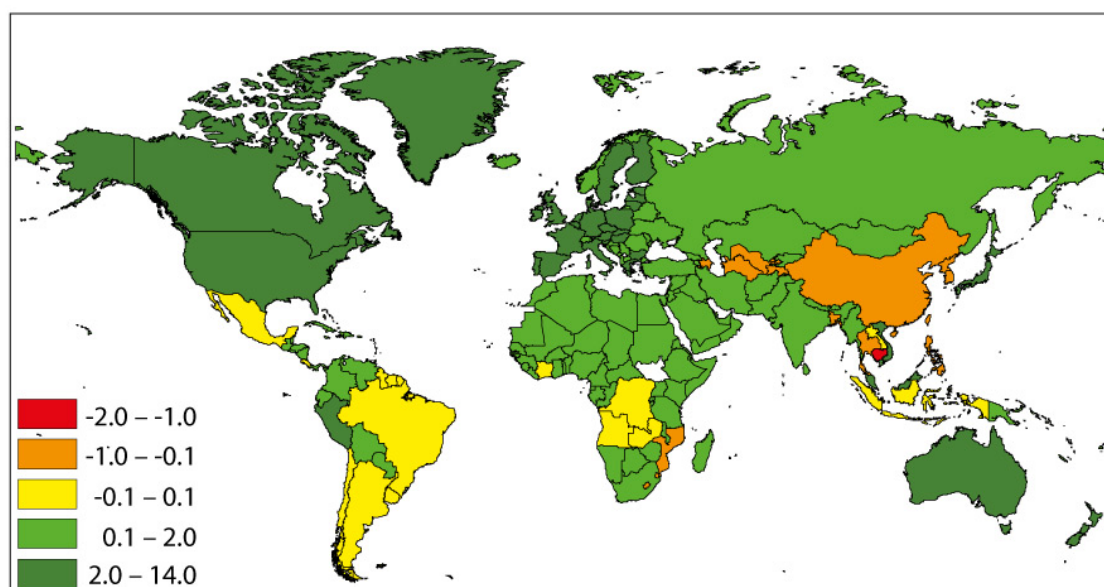
TTIP is not the only prominent FTA currently negotiated. The EU has negotiated a treaty with Canada, is in the process of negotiating an FTA with Japan; the US is involved in negotiating the Trans-Pacific Partnership and ASEAN negotiates with China, Australia and other FTA partners about a Regional Comprehensive Economic Partnership (RCEP).

If, aside from the formation of TTIP, a new world trade order would emerge with additional treaties like CETA, EU-Japan, TPP and RCEP, our simulations predict a higher average world welfare increase of 2.6%, compared to 1.3% with TTIP alone. Developing countries could expect a smaller than average real income increase of 0.07%. This average effect again masks a strong heterogeneity of effects across developing countries, ranging from -1.1 to +5.0%.

Cambodia (-1.16%), Thailand (-0.48%) and China (-0.42%) cannot capture the positive effects of the RCEP (+16%, +10% and +7%, respectively, in a scenario with RCEP, TPP and TTIP) in this scenario. About half of those countries' exports go to the EU, the US, and Japan. So they greatly suffer from trade diversion from an EU-Japan FTA. The same pattern emerges for other ASEAN countries like the Philippines, Indonesia, Laos, Singapore, Malaysia and Vietnam, even though especially Malaysia and Vietnam still capture large welfare increases of 2.5 and 5%, respectively.

Most countries belonging to the Pacific Alliance in South America (Chile, Columbia, Costa Rica, Peru, Mexico) are also better off in this scenario than with TTIP alone.

**Figure 10 Real income changes in a new world trade order, in %**



Source: Authors' calculation.

### 3.2. The containment of China

Until recently, China has not played a major role in the creation of regional free trade zones. After its accession to the WTO in 2001, which freed its trade not only with the EU and the US but with more than 150 other WTO members, most of them developing or emerging, there was very limited appetite in Asia and elsewhere for even closer integration with the Middle Kingdom. The emergence of international production chains centered around China has started to change this perspective.

Moreover, China has also become more assertive in its trade policy strategy. It has concluded 13 trade agreements and notified them to the WTO. Some of them are due to the existence of special areas in the Chinese zone of influence, e.g., the agreements with Hong Kong or Macau. Others are very regional in nature (the pact with ASEAN countries, for example). However, China has used bilateral trade agreements to secure access to raw materials (e.g., the trade deals with Chile, New Zealand, or Australia, the latter still being under negotiation). Finally, China has concluded trade agreements with countries farther away from its own territory, for example with Switzerland and Iceland (in 2014).

China looms large in US trade policy. For example, in its 2015 speech on the State of the Union, president Obama said *“But as we speak, China wants to write the rules for the world’s fastest-growing region. That would put our workers and our businesses at a disadvantage. Why would we let that happen? We should write those rules. We should level the playing field. That’s why I’m asking both parties to give me trade promotion authority to protect American workers with strong new trade deals from Asia to Europe that aren’t just free but are also fair. It’s the right thing to do.”*<sup>5</sup> This makes very clear that the US administration sees the ultimate objective of the TTIP and TPP agreements in securing a world trade order that limits the influence of China.

The EU does not advocate the containment of China in such blunt words, but it also has a strategic interest in defining the rules of the world economy for the future with countries that share a similar state of development and which also adhere, certainly with varying degrees, to its model of a social market economy.

The most important initiatives of the West, which implicitly or explicitly aim at containing China are, of course, TTIP and TPP. However, the agreements that the EU has negotiated with Canada or that it is being negotiating with Japan also have the potential to be at the detriment of China. Finally, given the existing set of agreements of both the EU and the US and the ongoing work, almost all OECD members will have mutual bilateral trade pacts with each other. Since the resulting spaghetti bowl (as this phenomenon was coined by Jagdish Bhagwati) of uncoordinated trade preferences and rules of origin reduce the value of each of these bilaterals, there is an inherent logic to harmonize them. This is an issue in conventional trade agreements focused on tariffs, but it is particularly relevant with respect to non-tariff barriers. For example, if the

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<sup>5</sup> Transcript of the speech available at <https://medium.com/@WhiteHouse/president-obamas-state-of-the-union-address-remarks-as-prepared-for-delivery-55f9825449b2>.

EU were to negotiate different criteria for the participation in public procurement with the US, Canada, and Japan, both governments and firms would face unnecessary bureaucratic costs. Thus, there is a strong logic to harmonize the different trade agreements that the EU has. But since its trade partners also have agreements with the US, these harmonization efforts need to be coordinated. The resulting outcome could be a future free trade zone that encompasses all OECD countries. For this reason, we study what effects such a trade arrangement would have for OECD countries and outsiders, in particular for China.

**Table 5 Western PTA initiatives contain China**

	Predicted real income growth (in %), different PTAs				
	TTIP	CETA	EU-JPN	TPP	OECD
USA	2.68	0.04	0.07	1.95	4.55
EU27	2.12	0.22	1.31	0.02	4.46
Rest of World	0.40	0.04	0.24	0.14	1.67
Rest of Europe	0.29	0.02	0.32	0.10	0.98
Central Asia	0.20	0.02	0.21	0.06	0.63
Eurasian Customs Union	0.17	0.02	0.17	0.07	0.63
SACU	0.15	0.00	0.21	0.08	0.51
EFTA	0.15	0.02	0.15	0.03	7.68
Canada	0.12	2.97	0.04	2.08	5.53
MENA	0.12	0.02	0.13	0.08	1.09
Latin America & Caribbean	0.11	0.02	0.14	0.16	0.54
Sub-Saharan Africa	0.10	0.01	0.13	0.07	0.48
Turkey	0.10	0.01	0.09	0.04	7.32
Oil exporters	0.09	0.02	0.21	0.38	0.69
Australia & New Zealand	0.08	0.00	0.15	4.77	9.63
Oceania	0.06	0.00	0.17	0.25	0.41
South Asia	0.06	0.00	0.05	0.04	0.12
MERCOSUR	0.00	0.00	0.02	0.00	0.04
Alianza del Pacifico	-0.07	-0.01	0.02	0.14	0.62
East Asia	-0.13	-0.02	1.68	1.74	5.87
ASEAN	-0.19	-0.03	-0.03	0.87	-0.45
China	-0.23	-0.03	-0.11	-0.08	-0.74
World	1.32	0.15	0.60	0.84	3.64

Source: Authors' calculation.

Table 5 shows the simulated effects of various trade agreements that the “West” is currently negotiating. Both the EU and the US are, through EU-Japan and TPP, talking to Japan, the second largest economy amongst all OECD members. We model these agreements as deep deals, but we are well aware that the broad scope of TPP could well mean that the agreement remains below the standards that are likely to be achieved in TTIP. Both agreements yield substantial gains to both the EU and the US that are, however, smaller than the gains that TTIP would yield. Interestingly, the sum of benefits of TPP and TTIP and of EU-Japan and TTIP are almost

exactly equal to the benefits delivered by a comprehensive agreement between all OECD members. Note, however, that the extra red tape inherent to a spaghetti bowl of uncoordinated agreements are not explicitly modeled, so that we may either underestimate the gains from an OECD FTA or overestimate the gains from other agreements, respectively.

We also find that all agreements shown in Table 5 produce losses for China. For some agreements, these losses may be small: in the case of CETA, the small scale of the Canadian economy limits trade diversion; in the case of TPP, China is protected by strong links to the value added chains of close-by TPP members, in particular Japan. For TTIP and EU-Japan China's losses are more pronounced. In the event of a consolidation of trade agreements into an OECD-FTA (including OECD countries such as South Korea, Australia, New Zealand, that have developed close trade links with China), the losses are more substantial and reach three quarters of a percent. Consistently across all scenarios, the Western trade policy initiatives end up hurting China.

The other region for which the sign pattern is predominantly negative across scenarios is ASEAN. However, the US negotiates with ASEAN countries in the context of TPP and the EU is negotiating a number of bilateral agreements with important ASEAN countries. So, the overall outcome of the current strategies is negative for China, but potentially positive for the most other world regions.

### **3.3. China's trade policy initiatives and their global effects**

Presumably as a result of the aforementioned developments, China has developed a more ambitious trade policy agenda on its own. It negotiates the RCEP agreement with its Southeast Asian trade partners. Very recently it has also pushed for a free trade agreement in the Asia-Pacific (FTAAP). This treaty was originally proposed by the United States and would cover the 21 Asia-Pacific Economic Cooperation (APEC) countries in Asia, Oceania, North America and the Pacific States in Latin America. One obvious difficulty with these agreements lies in the large heterogeneity between the countries involved. They differ very strongly with respect to their sizes, economic development status, and political orientation. For this reason, it is sensible to assume that these agreements are shallow ones: this means, they would result in an almost complete reduction of tariffs, but they go less far than deep agreements with respect to non-tariff barriers.

Table 6 shows the effects of these agreements on average incomes in world regions. First, and encouragingly, these mega-regionals are to the benefit of the world as such, even if they are of the shallow form. They also tend to benefit countries in almost all world regions (EFTA – the European Free Trade Area, consisting of Switzerland, Liechtenstein, Iceland, and Norway – being an exception in the context of RCEP).<sup>6</sup> The reason for this is the very high degree of trade

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<sup>6</sup> Within the regional groups, there may be countries that lose.

openness of China: an increase in China's income and volume of production generates substantial demand for raw materials, intermediate goods, and final manufactures from essentially all parts of the world. This has the power to mitigate negative trade diversion effects.

For China, FTAAP is about twice as valuable as RCEP. The reason is simply that FTAAP covers a larger share of the world economy. This ranking holds for both the shallow and the deep integration scenarios. The latter presents very large gains to China; however, as explained above, it is unlikely to materialize.

**Table 6 Evaluation of RCEP and FTAAP**

	Real income growth (in %), different PTAs			
	RCEP		FTAAP	
	Deep	Shallow	Deep	Shallow
ASEAN	12.28	1.22	21.63	4.70
Australia & New Zealand	9.89	6.35	11.80	7.32
China	7.63	2.13	17.86	5.80
East Asia	5.18	1.46	8.84	3.92
South Asia	4.82	0.90	7.84	3.54
Oil exporters	1.47	0.39	17.22	11.75
Oceania	1.04	0.42	15.53	9.36
Rest of World	0.84	0.53	26.30	21.45
Sub-Saharan Africa	0.57	0.16	12.71	8.27
Eurasian Customs Union	0.50	0.12	9.31	5.84
Rest of Europe	0.49	0.13	5.87	3.12
MENA	0.45	0.12	10.77	6.35
Central Asia	0.42	0.16	11.37	7.75
USA	0.39	0.06	5.26	2.79
Latin America & Caribbean	0.37	0.12	8.62	5.06
SACU	0.37	0.02	11.47	7.48
Canada	0.28	0.02	6.06	3.43
Turkey	0.24	0.06	4.59	2.41
EU27	0.20	0.02	4.80	2.90
MERCOSUR	0.18	0.01	4.69	2.64
Alianza del Pacifico	0.17	0.00	3.33	1.15
EFTA	0.02	-0.04	4.34	3.00
World	1.85	0.49	7.39	3.67

Source: Authors' calculation.

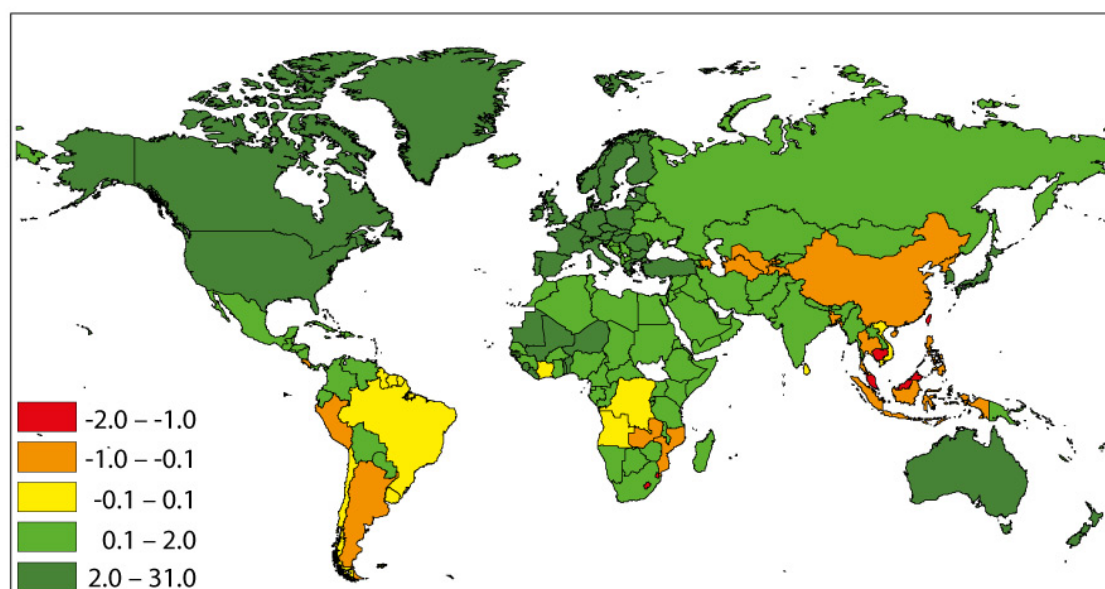
The Chinese trade policy initiatives do not hurt the US or Europe. However, the growth rates predicted for China by far exceed the ones predicted for the US and Europe so that these two superpowers would fall behind in relative terms.

### 3.3 On trade policy consolidation within the OECD

Finally, we turn to the case of a consolidated free trade area between all OECD members. We have discussed the logic for such an initiative above. Here, we present some more results pertaining to this scenario, and we combine it with a completion of the Doha Round (assuming that all remaining tariffs between the 160 WTO members are scrapped).

In the case of a consolidated effort of all OECD countries to form a deep FTA, world real income would rise by 3.6%. On average, an OECD FTA is beneficial for developing countries as well, the associated average real income gain is 0.3%. Still, this OECD trade policy strategy would harm China and other ASEAN countries. Cambodia, Taiwan, Malaysia, Thailand, China, Bangladesh and the Philippines are in the Top 10 of the biggest losers of an OECD FTA, with real income losses between 0.6 and 2%, see Table 7.

**Figure 11 World map of real income effects of an OECD FTA, in %**



Source: Authors' calculation.

**Table 7 The 10 biggest losers from an OECD FTA**

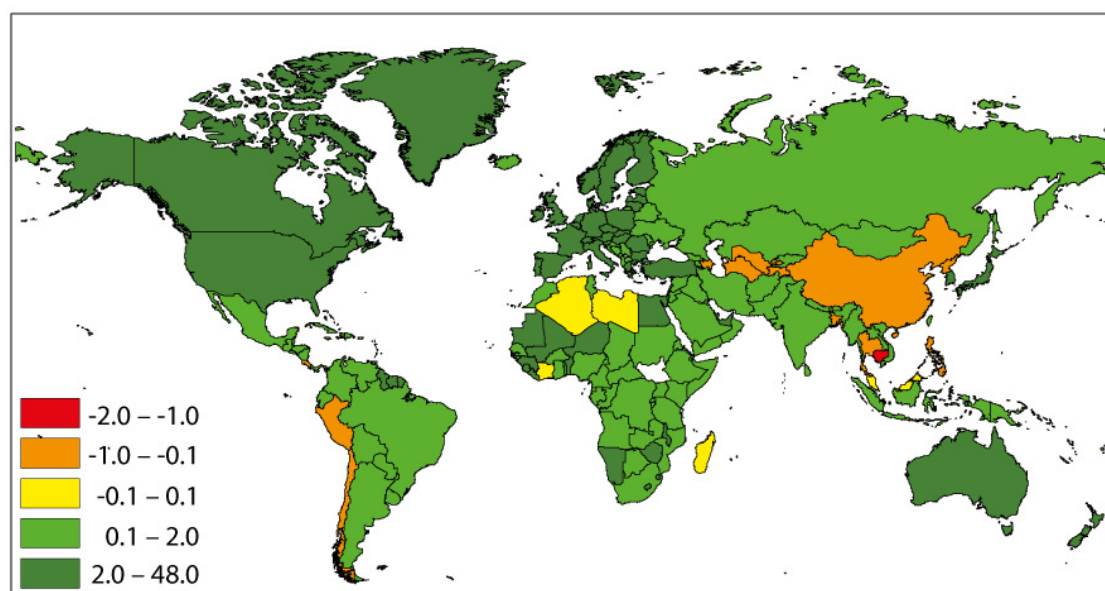
Country	Region	OECD FTA		OECD FTA, no WTO tariffs	
		Rank	Real income change (in %)	Rank	Real income change (in %)
Cambodia	ASEAN	1	-1.950	1	-1.667
Taiwan	East Asia	2	-1.369	17	0.109
Swaziland and Lesotho	SACU	3	-1.156	103	4.563
Malaysia	ASEAN	4	-1.029	13	0.052
Thailand	ASEAN	5	-0.988	10	-0.267
China	China	6	-0.808	11	-0.140
Bangladesh	South Asia	7	-0.624	4	-0.819
Philippines	ASEAN	8	-0.622	5	-0.582
Azerbaijan	Central Asia	9	-0.467	2	-0.856
Zambia	Sub-Saharan Africa	10	-0.388	21	0.215

Source: Authors' calculation.

If the consolidation of an FTA within the OECD would be accompanied by an elimination of all WTO tariffs, real income could be raised in almost all developing countries compared to a situation with an OECD FTA only. The real income gain would rise by 0.5 percentage points from 0.3% to 0.8%. On the world level, real income would rise by 3.9 instead of 3.6%. Since this is a GDP-weighted average, the additional gains in developing countries factors in little (all developing countries contribute to about 23% of world GDP only).



**Figure 12 World map of real income changes from OECD FTA plus elimination of WTO tariffs, in %**



Source: Authors' calculation.

#### **4. Policy conclusions**

In summary, current trade policy moves by industrialized countries seem to be defensive trade policy moves against the emerging dominance of China in world trade. While China and many of its neighboring countries like the ASEAN members would suffer from TTIP or an OECD FTA, such trade liberalization efforts seem to also benefit most of the (not-involved) developing countries. The increased income and economic power and thus demand for intermediate and final inputs from trade partners seem to outweigh trade diversion leading to positive third country effects. China and the ASEAN countries tend to be hurt because they have similar production structures and lose market shares in the TTIP region.

However, going forward in multilateral trade negotiations will further benefit almost all countries in the world. Regionalism by and large is not harmful when taking into account input-output linkages between countries. But multilateral tariff liberalization is still an important source of potential welfare gains for developing countries.

In the meantime, the mega-regional trade deals prepared by the EU have the potential to produce losers amongst developing countries. In this study, we have investigated the determinants of those losses and we have stressed the importance of spillovers to make the agreements truly inclusive. To be more concrete, there are a number of adjustments within the currently negotiated agreements of the West that could – if implemented – mitigate negative effects of developing countries. Here, we discuss three important recommendations:

1. The EU and US mega-regionals should avoid complex rules of origin to the greatest extent possible; instead, they should enshrine the principle of free movement of goods wherever possible. Complicated and narrow rules of origin define that only goods with high shares of value added originating in the partner of the agreement qualify for preferential tariff treatment. This has at least two costs: First, documenting the origin becomes costly for firms from the partner countries, so that firms may prefer not to utilize the trade preferences, in particular if tariffs are already low. Then, the treaties have lower trade-creating effects than expected. Second, tough rules of origin can crowd out suppliers from third countries, exacerbating trade diversion. Thus, generous and non-bureaucratic rules of origin are in the interest of both, the Western partners, and third countries. One could even limit the need to prove the origin of goods to cases where the external tariffs of the trade partners are very different which is, for example in the EU-US case, only the case in a narrow range of products.
2. In the area of non-tariff barriers, the agreements should extend the mutual recognition of standards to third countries to the greatest extent possible. This means that the application of the mutual recognition agreement is not governed by the nationality of producers, but by the question whether or not a product – regardless of its origin – satisfies either standard of the parties to the agreement. This, of course, requires independent, globally active, accredited certification bodies; in other words, a global TÜV. As we have seen in our analysis, if such an extension of mutual recognition triggers one-way spillovers, not only do third parties benefit, but the EU or US benefit as well.
3. Modern trade agreements rightly focus on achieving regulatory convergence and cohesion. This is particularly important for products, processes, or services that are not yet fully regulated, such as biotechnologies, nanotechnologies, big data, etc. If the agreements are to shape the development of global standards, it is important that third countries are at least informed about the regulatory work of the treaty partners. This could be easily achieved by requiring very high standards of transparency. The fierce public debate on trade policy, in particular in the area of regulatory cooperation, could possibly require that high standards of transparency are enshrined into the treaty anyway. Seen from that angle, making as much information on regulatory cooperation publically available is a win-win for insiders and outsiders. Clearly, there are many further ways to make the West's modern trade agreements as inclusive as possible. Felbermayr et al. (2015) discuss ten such options. However, the three points highlighted above strike us as feasible – supposing that the political will exists – and effective.

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# Imprint

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Asia Images | Shutterstock.com

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