

# Dimensions and Effects of a Transatlantic Free Trade Agreement Between the EU and US

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## Executive Summary

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On behalf of the German Federal Ministry of Economics and Technology, the Ifo Institute has conducted a study on the dimensions and effects of a free trade agreement between the EU and the US. This document presents an overview of the most important results. To anticipate the key findings: The study predicts that a comprehensive free trade agreement, which lowers non-tariff barriers (NTBs) significantly, increases German exports to the US. This is driven by a substantial boost to sales of medium-sized firms. Trade liberalization increases the average real wage by about 1.6%, while it leads to a marginally lower unemployment rate. The study does not expect a lasting negative impact on the international trading regime.

## I. Introduction

In Germany, the possibility of a transatlantic free trade agreement (TAFTA) between the US and EU was first advocated by the then Foreign Minister Kinkel in 1995.<sup>1</sup> Towards the end of the 1990s, this initiative was followed up by Leon Brittan, former European Commissioner for Trade, who advanced plans for a “*New Transatlantic Agreement*”. However, at the time the idea did not gain traction. Brittan’s successor as Commissioner for Trade, Peter Mandelson, revived the idea in 2007, and signed the „*Framework for Advancing Transatlantic Economic Integration*”. Currently, there are strong signs for renewed interest in a deeper bilateral transatlantic free trade and investment relationship coming from both the U.S. and the EU. The current proposals go far beyond a simple elimination of tariffs, which are already at rather low levels. A plea for a far-reaching free trade agreement can also be found in the Christmas issues of *The Economist*.<sup>2</sup>

The transatlantic free trade initiative needs to be considered against the backdrop of (i) *eroding competitiveness* of industrialized countries relative to emerging nations such as China and India, (ii) the long-lasting standstill in *multilateral* negotiations at the World Trade Organization (WTO), and (iii) the need for growth-stimulating structural reforms, as vividly highlighted by the current crisis in the EU.

## *Existing free trade agreements*

Both the EU and the US maintain a number of free trade agreements, which typically cover both trade in goods and services. According to data published by the WTO, the United States maintains 14 bilateral agreements, some of which involve several countries (NAFTA, which includes the United States, Canada and Mexico; CAFTA, which involves a number of Caribbean States). The EU has a total of 35 bilateral agreements. Korea, Mexico, Canada, Singapore (not yet in force), Israel, and Chile all have bilateral agreements with both the EU and with the US.

However, an agreement between the EU and the USA would be unprecedented in terms of its sheer dimension. It would create a free trade area representing nearly 50% of global economic output, with only 11.8% of the world population.

In the following synthesis of the ifo study, we proceed as follows. First, we outline the relevant defining features of the transatlantic trade relationship. This includes a brief discussion of the existing tariff and non-tariff barriers. Then we present the most important results of a survey amongst German trade associations. This enables a better understanding the views of German companies on TAFTA and serves as external validation of the simulation exercises. Thereafter, the main empirical results of the Ifo study are presented, emphasizing trade creation, trade diversion and welfare effects of TAFTA.

## *Special features of the EU-US relationship*

The United States is Germany's second largest export market (after France). Despite the dynamic development of China, the Ifo Institute’s medium range forecasts predict this ranking to remain roughly stable. The United States is third behind the EU and China as a source German of imports.

Germany and the United States differ significantly in their export shares. The German share stands at 50.5% of GDP, while the USA comes in at 13.9% of GDP.<sup>3</sup> This highlights clearly the different economic orientations: Germany is strongly orientated towards exports, while domestic consumption dominates in the United States.

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<sup>1</sup> The Economist, 16. Oktober, 1997, “Fast track to nowhere”.

<sup>2</sup> The Economist, 22. Dezember, 2012, “The rich world's economy -The gift that goes on giving”.

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<sup>3</sup> Source: UNCTAD.

With these facts in mind, it is not surprising that, in 2010, Germany generated a goods trade surplus of 208,252 million USD with the rest of the world. Conversely, the U.S. had a deficit of 645,123 million USD with the world. In 2010, 8.2% of total German exports went to the US, valued at 108,372 million USD, while imports from the U.S. accounted for 6.6% of all German imports (76,898 million USD). Regarding industrial goods, Germany had a surplus of 26,908 million USD in 2010. In total, more than 80% of all German exports to the US are industrial goods. Trade in machinery and the automotive sector alone, account for over 50% of total exports, while exports in agricultural products and services together represent less than 20%. It is clear that, from a German perspective, manufactured goods dominate the transatlantic trade with the U.S..

**Table 1: Composition of bilateral Trade**

	Million USD	% of Bilateral Trade
<b>Industrial goods</b>	87,043	80.3%
<b>Services</b>	19,732	18.2%
<b>Agricultural goods</b>	1,581	1.5%
<b>Total</b>	108,372	

However, when looking at trade in services, a different picture emerges. Germany was the second largest exporter of services in 2010 in nominal terms, with services exports relative to GDP at 7.4%. This was twice as much as the US (3.8% of GDP), the largest exporter in nominal terms. However, Germany had an overall deficit of 24,192 million USD with the world, while the United States had a surplus of 145,827 million USD. This difference is also reflected in bilateral trade in services, where Germany recorded a deficit of 1,025 million in 2010.<sup>4</sup>

This divergence in trade in goods and services suggests that the U.S. has a comparative advantage in services exports, while Germany has an advantage in manufacturing industries. This relationship also holds for the nominal trade volume. Nonetheless it must be noted that Germany's deficit in services trade has declined

<sup>4</sup> Source: OECD, Destatis, own calculations.

substantially in recent years, during which the German services industry has rapidly caught up. Turning to the agricultural sector, the U.S. exports larger volumes to Germany than it imports. However, in general, trade in agricultural commodities commands much lower volumes relative to output than the other sectors.

Across all sectors, trade between the U.S. and Germany (or, more broadly, the EU) has a strong *intra-industry* nature (Grubel-Lloyd indices of 0.73 to 0.90). Additionally, *intra-firm* trade (i.e. international transactions within the same firm) is quantitatively very important and accounts for, e.g., 80% of German exports in the automotive industry, 76% in the chemicals sector and 61% in machinery. Interestingly, however, the share of *intra-firm* trade in imports from the U.S. to Germany is higher than in German exports to the U.S. This marked asymmetry has to do with the structure of foreign investment between the two countries. Furthermore, the share of *intra-firm* trade exceeds 30% in 12 of 32 sectors, measuring German exports to the US as well as in imports from the United States. In almost all sectors, a significant fraction of German imports from the U.S., and of exports to the US, takes place within firms. This demonstrates the high degree of cross-linkages between the two countries.

**Low average tariff duties, high industry variation**

Tariff barriers between the U.S. and EU on average are low. In 2007, for the manufacturing sector, the trade weighted average tariff rate was approximately 2.8% in both countries. However, this low average masks extreme sectorial peaks (for example, in textiles or motor vehicles). Furthermore, the agricultural sector is generally regulated much more heavily.

**Table 2: Comparison of weighted average customs duties 2007 (%)<sup>5</sup>**

	Imports of USA from EU	Imports of EU from USA
<b>Agricultural goods</b>	2.62	3.89
<b>Industrial goods</b>	2.82	2.79

Peak tariff rates may reach 350% in the U.S. and 74.9% in the EU. The EU median is 3.5, while the U.S. features a median of 2.5; the arithmetic

<sup>5</sup> Source: TRAINS Data from WITS.

mean is more than a percentage point higher than the median. This latter fact testifies to a substantial amount of skewness in the distribution of tariffs across products, as illustrated by Figure 1.

In both the U.S. and the EU, a least 25% of all product lines are not subject to import duties. However, it is also true that 25% of product lines are subject to tariff rates higher than 6.5% (EU) and 5.5% (U.S.). This is relevant for welfare: economic theory shows, that in addition to the average rate, the distribution of tariffs matters.

**Figure 1: Customs duties at product level in descending order (logarithmic scales)<sup>6</sup>**

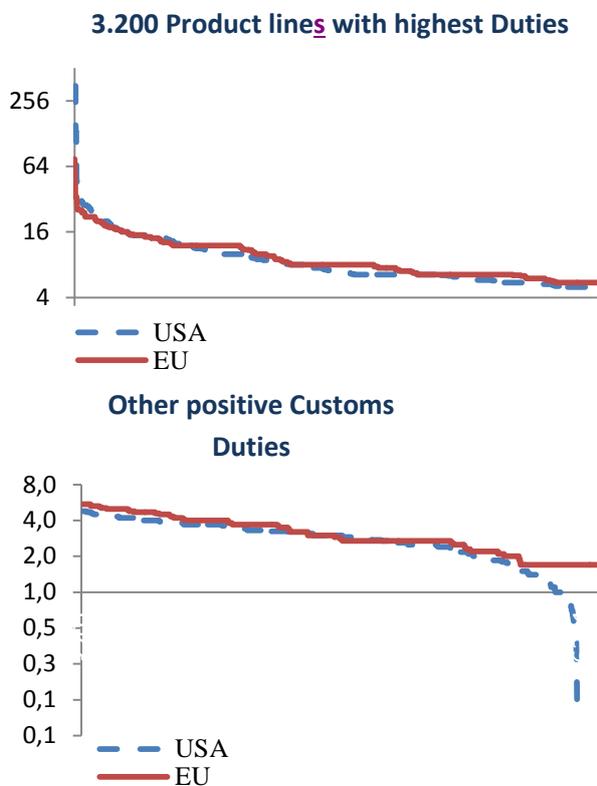


Figure 1 shows that some industries clearly have the potential to benefit greatly from tariff liberalization. Nonetheless, in comparison to other countries, the average tariff rates between the EU and U.S. are at very low levels. It is therefore unlikely that the elimination of these relatively low tariffs will lead to strong trade and welfare effects in the aggregate.

<sup>6</sup> Source: World Trade Organization-Trade Analysis Online. HS 2007 Rev.4, Data for 2007. MFN statutory duty. Own calculations.

### *Non-tariff trade barriers (NTBs)*

Identifying and quantifying statistically robust non-tariff barriers (NTBs) at the industry level is a particularly challenging task. Until now, there is no well-established methodology by means of which one could estimate NTBs consistently across countries and sectors in a harmonized way, so that the results could be safely used in model simulations.

Nevertheless, to present estimates of non-tariff barriers at the industry level, we use results from the MIRAGE consortium. This enables statements about the distribution of NTBs across sectors and demonstrates important asymmetries between the U.S. and the EU. Results show that, while European alcohol and tobacco exporters to the U.S. face additional costs averaging about 14%, U.S. companies can expect additional costs of more than 50% on their exports to the EU. Similarly, the chemical industry in Europe has NTBs amounting to additional costs of 112%, more than three times as much as in the U.S.. This compares to the European machinery sector, which appears to impose no additional costs on U.S. imports, while exports to the U.S. face NTBs that increase the cost by 46%.

Summarizing, compared to tariff duties, NTBs are quantitatively much more important, probably by about one order of magnitude. Thus, they play a much stronger trade-restricting role. What is more, they take a much more asymmetric shape between the U.S. and the EU than tariffs.

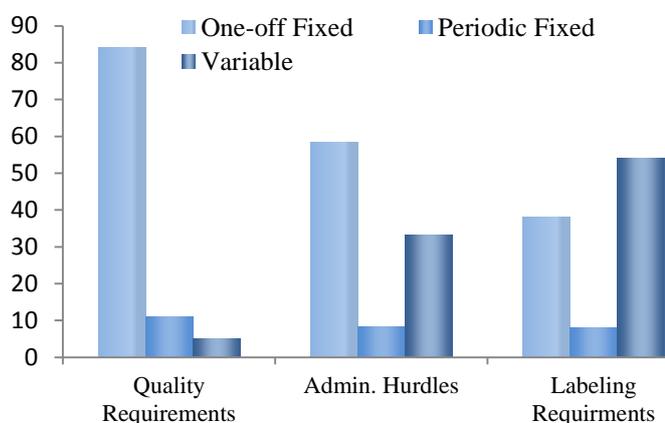
### *Survey amongst German trade associations*

Before we proceed with the parameterization and simulation of a general equilibrium model to quantify the effects of a free trade agreement between the EU and U.S., we present the results of a survey amongst leading German trade associations. This allows us to check the plausibility of the results generated by our models and acts as external validation. In addition, the survey captures the firms' attitudes towards the different liberalization scenarios, as well as towards the prospect of a free trade agreement between the EU and the US in general. The results aid the parameterization our model, which, like all 'new' trade models, does not make use of unrealistic assumptions such as perfect competition and homogeneous (i.e., identical) firms.

A total of 60 trade associations were contacted, of which 70% responded to our initial contact.

20% of associations did not respond at all, while 10% were willing, but unable, to be interviewed by December 2012, due to time constraints. We asked the trade associations, which types of trade costs were most crucial for their members in terms of exports to the US. We also asked about the economic role of these costs (variable or fixed costs), what advantages and disadvantages companies expect from a free trade agreement, and how these effects were distributed across businesses by size.

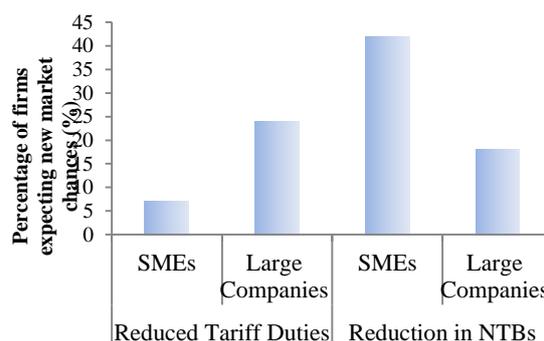
**Figure 2: Decomposition of NTB induced costs by cost type (%)**<sup>7</sup>



The survey results show that non-tariff barriers (NTBs), and, in particular, quality standards, constitute the main obstacles for German exporters in gaining access to the U.S. market. NTBs are primarily understood as market entry fixed cost (see Figure 2). A reduction of NTBs appears to be especially useful for small and medium enterprises (SMEs). Conversely, the benefits of simply eliminating tariffs accrue to larger firms. For most industries, the American market is more important as an export destination, than as a manufacturing base.

<sup>7</sup> Source: Own survey amongst selected trade associations in Germany.

**Figure 3: New market opportunities from lower trade barriers by firm size classes**<sup>8</sup>



Additionally, particularly in the chemical and agricultural sectors, small and medium enterprises see big opportunities and great chances to develop (see Figure 3).

Finally, the largest new market opportunities are seen in the machinery and plant engineering sectors, in metal production and processing, in the chemical and pharmaceutical industries, as well as in agriculture and forestry.

**Table 3: Percent of trade associations who expect a positive effect of trade liberalization on employment, by size**<sup>9</sup>

Scenario	SMEs	Large Companies
i) Total reduction of all tariffs between EU and USA	80%	69%
ii) Complete reduction of tariffs and additional creation of a single market	87%	75%
iii) Complete removal of tariffs between all OECD countries as part of the WTO.	79%	73%

<sup>8</sup> Source: Own survey amongst selected trade associations in Germany.

<sup>9</sup> Source: Own survey amongst selected trade associations in Germany.

## II. Trade creation, trade diversion and welfare effects

In this section, we discuss trade creation and diversion effects of different liberalization scenarios, as well as their implications for welfare. Our model focuses primarily on the reallocation effects within industries, i.e., on *intra-industry* trade (Krugman, 1980), as opposed to *inter-industry* trade. This is a salient choice because, as we have seen above, trade between the EU and the U.S. mainly takes place within similar industries.

### Model

The key idea of our approach in this study is to first econometrically measure the trade effects of existing PTAs, and then apply the results to the transatlantic agreement with the help of a model simulation. This has the advantage that, in addition to tariffs barriers, NTBs are automatically taken into account as well. We call this scenario “comprehensive agreement” and contrast this in a second scenario with only a pure tariff reduction.

Building on the work of Egger et al. (2011) and Egger and Larch (2011), we perform a structural econometric estimation of trade effects, and simulate the counter-factual scenario of a transatlantic free trade agreement. When estimating the effects of existing PTAs, it is absolutely crucial to take into account the non-random occurrence of free trade agreements. This is achieved through the use of an instrumental variables estimator. Furthermore, we carefully model that the start-up of trade relationships between two countries may be subject to other economic laws than the intensification of pre-existing economic relationships. Following the estimation of parameters, the effects of a TAFTA Agreement were quantified by simulating our model. A total of 126 countries are considered: all EU countries, USA, Canada and Mexico (the three NAFTA countries), as well as other large and important emerging markets such as China and India.

### Trade creation effects of a comprehensive liberalization

Across existing preferential trade agreements (PTAs), our econometric estimates show average long-term trade creation effects of at least 67%. Carefully modeling the selection of countries into PTAs increases these effects still further. Trade growth within already existing trade relationships (the so-called intensive margin) turns out to be

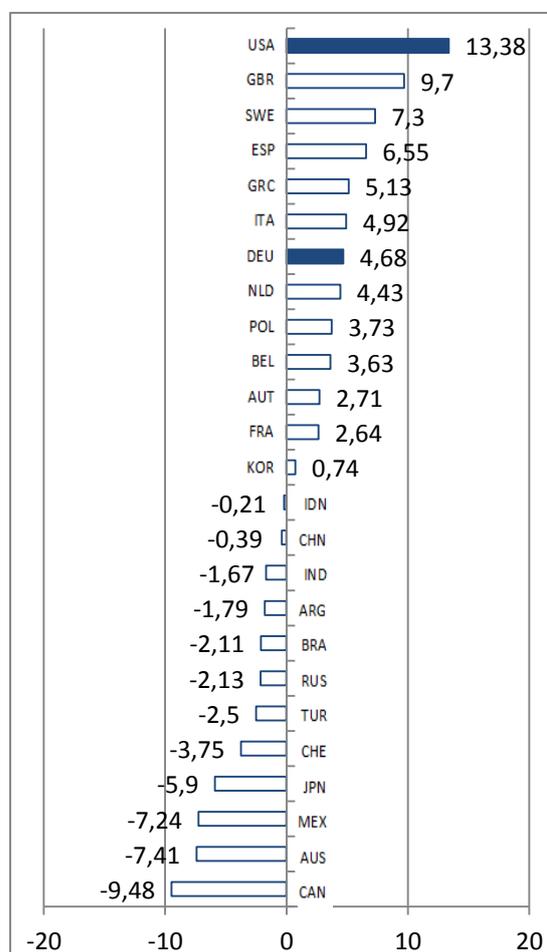
more important than growth stemming from the inception of new trade relationships (the so-called extensive margin).

Taking into account all relevant general equilibrium effects, trade between EU member states and the United States grows strongly by an average of 79%. This trade creation is a multiple of what would be expected from the observed reduction in tariffs duties alone. Compared to other studies, our econometrically correct methods signal greater trade creation effects in all country pairs affected by a transatlantic trade initiative trade grows.

### Trade diversion effects of comprehensive bilateral liberalization

A comprehensive transatlantic trade agreement also increases trade between pairs of countries that are not directly affected: In 56% of those pairs, trade increases. Overall, in this group of country pairs, it rises by about 3.4% on average. There is, however a high degree of heterogeneity. Trade between a few small countries can even come to a complete standstill.

Figure 4: Welfare effects of a comprehensive Free Trade Agreements.



Although total German exports increase overall, they fall in more than half of Germany's bilateral relations. Importantly, however, the decline in most cases is either small or refers to very low trading volumes. The minimum change in bilateral exports is -40%, while the maximum increase is +94%. The changes in bilateral trade for the US are even more asymmetric. The median number over all bilateral trade relationships indicates a decline of 25%, with a minimum at -36% and a maximum trade creation of 109%. This shows the considerable heterogeneity in the change in trade flows, which are due to trade diversion effects. However, if one focuses on bilateral trade flows, it becomes clear that German exports to the US rise by 94%, while exports to Canada and Mexico rise a little less (by +19 and + 10%, respectively). Exports to markets with which the EU or the U.S. have PTAs are considerably reduced, especially trade with some EU countries. This is due to trade diversion effects.

#### Welfare effects of a comprehensive liberalization

Figure 4 shows the welfare effects for a selected number of countries. The increase in trade raises average global welfare (real income) in the long run by about 3.3%. In *Germany*, welfare increases by about 4.7%, in France by 2.6%. The USA and Britain are major winners with an increase of 13.4% and 9.7% respectively. Countries with which either the EU or the United States already enjoy free trade agreements are the main losers. These include Mexico, Canada, and Chile, as well as countries in North Africa.

It is very clear that a comprehensive free trade agreement has a significant potential for welfare gains in the long run for the TAFTA-member countries. Looking at the 27 EU member states and the U.S., our results show that all future TAFTA member states would achieve an increase in welfare. The spread of welfare gains for the EU lies between 2.6% (France) and 9.70% (UK).

To put these effects into perspective, it is very important to bear in mind, that these calculated welfare gains pertain to the *long-term* effects, and are only generated from a *comprehensive* agreement.

The welfare effects generated by TAFTA have two main sources: (i) the introduction of TAFTA leads to an increase in the availability of foreign

products and possibly to the availability of entirely new products or product varieties; greater product diversity has a positive effect on welfare. (ii) Due to lower trading costs, prices are lower, and consequently the consumer price index falls, leading to an increase in the purchasing power of income. This, too, constitutes an important source of welfare gains.

#### Trade creation, trade diversion and welfare effects of a tariff elimination

As mentioned above, the weighted average tariff on imports from the EU and the U.S. in 2007 was only 2.8%. Thus, it is not surprising that the elimination of these tariffs leads to lower trade creation effects than what the occasional observer may expect. On average, though, trade creation is still 5.8%. However, there are now a few TAFTA member countries whose trade volumes fall. For countries not participating in TAFTA, the trading volumes fall on average by about 0.5%. However, in about 60% of non-participating countries pairs, trade is still rising as a consequence of TAFTA. Trade diversion is therefore also less pronounced than in a more comprehensive treaty.

Figure 5: Welfare effects of a tariff elimination

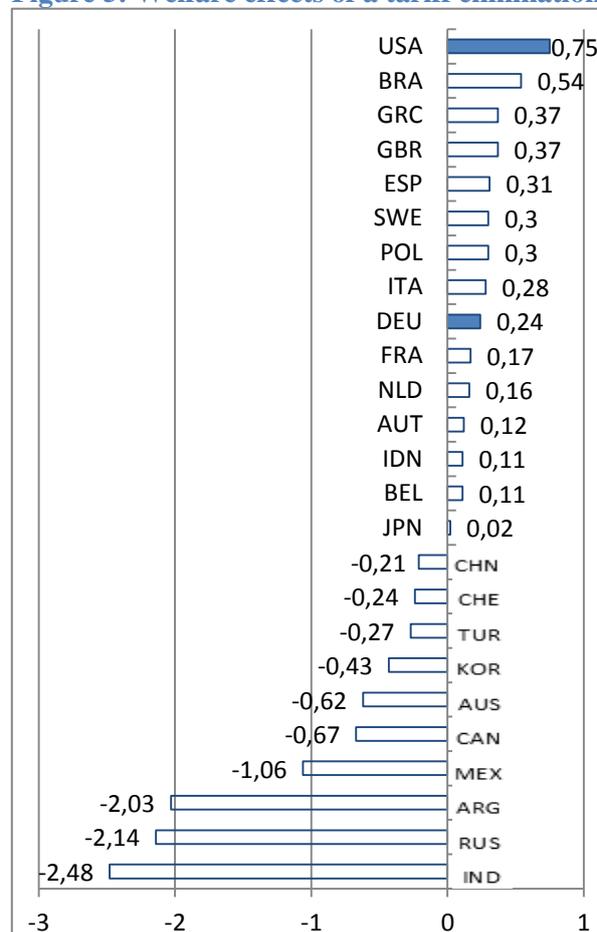


Figure 5 provides an illustration of the welfare effects of the tariff elimination scenario. In the long-run, welfare increases by 0.24% in Germany, while America's increases by 0.75%. The global average long-run increase is 0.09%. Once again, those countries, with which the U.S. and the EU already maintain FTAs lose; however, losses are now much smaller (for example, Canada: -0.67% and Mexico -1.06%).

Germany's reduced welfare gain of only 0.24% can be attributed to the already low rate of tariff duties. In comparison, substantial gains from a transatlantic agreement require eliminating NTBs. This is also corroborated by the results of the trade association survey, as well as the stylized empirical facts discussed above.

### III. Effects on the Labor Market

**Table 4: Effects of the free trade initiative on labor markets**

	Germany	USA	EU26	NAFTA2
<b>[A] Unemployment rate</b>				
Baseline Scenario	8,70%	4,60%	6,90%	4,90%
Tariff Scenario	8,70%	4,60%	6,90%	4,90%
NTB-Scenario	8,64%	4,55%	6,85%	4,91%
Single Market Scenario	8,38%	4,49%	6,70%	4,91%
<b>[B] Number of unemployed (thousands, absolute change)</b>				
Tariff Scenario	-2.10	-6.25	-9.89	0.65
NTB-Scenario	-25.22	-68.79	-98.91	6.51
Single Market Scenario	-109.30	-103.19	-280.89	-3.91
<b>[C] Real Wage (Change relative to baseline scenario)</b>				
Tariff Scenario	0,13%	0,17%	0,13%	-0,04%
NTB-Scenario	1,60%	2,15%	1,67%	-0,46%
Single Market Scenario	8,32%	5,25%	6,18%	-0,21%

For a more detailed analysis of the effects on the labor markets, on productivity growth, and on firm-specific effects, we empirically implement the theoretical model of Felbermayr et al. (2011). In doing so, we build on work by Felbermayr et al. (2012). The theoretical model incorporates an accurate modeling of the search process on labor markets and differentiates between firms according to their size (employment, turnover) and productivity.

The simulation makes use of the econometric results of the above presented approach. At the same time, the careful modeling of labor markets

and the inclusion of firm heterogeneity makes a higher aggregation level of data necessary; this concerns mostly the level of regional detail. We consider five regions: Germany, USA, the rest of the EU, the rest of NAFTA and the rest of the world.

We examine three scenarios. The "tariff scenario" assumes, as mentioned above, the complete elimination of all import duties. In the "NTB scenario" it is assumed that the trade creation between the US and the EU due to TAFTA is on average equivalent to what was measured econometrically in section II for existing agreements. This means that the initially calibrated equilibrium trade barriers are reduced such that average trade creation predicted by the model is exactly 76%. This reduction of course includes the reduction of all tariffs to zero. The entire reduction of non-tariff barriers is achieved through changes in the variable cost of trading. In the third scenario, "single market scenario", we

assume that the level of total effective bilateral trade barriers between participating TAFTA countries fall to the levels that we have calibrated for trade relations within the EU. To reflect the greater geographical distance, we assume an ad valorem surcharge for transportation costs on transatlantic trade of 10%.

Table 4 shows that merely eliminating tariffs does not generate any significantly measurable effects on *structural* (meaning equilibrium and not cyclical) unemployment neither in the US nor in Germany, nor in the rest of the EU for that matter. If the TAFTA agreement amounts to substantial reductions in NTBs, then up to 110,000 new jobs in Germany, and a total of 400,000 jobs can be created in the EU. Employment growth in the US is lower. In Canada and Mexico, there are only very small, partially positive effects on employment. The rest of the world is losing about 240,000 jobs in this scenario. Relative to the 'Status Quo' (2007), an ambitious reduction of NTBs leads to a pronounced increase in the real wage in Germany, in the EU as a whole, and also in the USA. In the other regions, real wages

remain almost unchanged. Liberalization generates new jobs, but above all it leads to better paying jobs.

At an average of 3,311 euros gross monthly wage in Germany, the implementation of the “single market scenario” increases a workers wage by 268.75 euros a month.

**Table 5: Change in average labor productivity (relative to baseline scenario)**

	<b>Germany</b>	<b>USA</b>
Tariff Scenario	0.06%	0.07%
NTB-Scenario	1.14%	1.14%
Comprehensive Scenario	5.65%	3.70%

In our model simulations, the increase in real wages is due a higher average productivity of labor. This is driven by the fact that trade liberalization leads to a reallocation of employment away from companies with low labor productivity towards companies with high labor productivity. Accordingly, the proportion of these relatively productive firms increases in relation to total employment.

The productivity effect is an important factor in increasing the gross domestic product (GDP), Table 5. It turns out that the productivity-enhancing effect of the free trade agreement is negligible in all regions, as long as one focuses only on the tariff reduction. The “NTB scenario” results in a productivity effect of about 1% which is already quite pronounced, but in the ambitious “single market scenario” it increases further to 5.65% in Germany, more than in other regions. In other markets, the productivity effect can even be negative: by displacing exports a reverse re-allocation effect can ensue. Work is shifted towards non-exporting firms, which are also less productive. However, this productivity reducing effect is very small in all cases.

Higher productivity of domestic firms leads to a reduction of average prices for domestic consumers. Increased competition due the entry of new foreign companies that serve the domestic market through exports also dampens prices. In fact the price level falls in all scenarios and in all regions. The decline in third markets follows from the fact that the higher average productivity of American and/or European companies also causes price adjustments downwards in those countries.

**Table 6: Gross and net employment effects for Germany**

	<b>NTB Scenario</b>	<b>Single Market Scenario</b>
Firm exits	2.549	11.045
Shrinking firms	19.620	85.031
<b>Jobs lost</b>	<b>22.169</b>	<b>96.076</b>
Firm entries	42.757	185.304
Growing firms	4.631	20.072
<b>Jobs gained</b>	<b>47.389</b>	<b>205.376</b>
<b>Net effect</b>	<b>25.220</b>	<b>109.300</b>

#### *Effects on small and medium-sized enterprises*

Trade liberalization leads to growth of export-oriented SMEs, which only start operating in the U.S. market following improved market access conditions. Therefore among the medium-sized companies, especially the smallest benefit. In contrast, large companies, which are already exporting to the U.S., and account for a larger proportion of total employment, remain largely unaffected by a TAFTA agreement. On the one hand they benefit from falling transaction costs; on the other hand they face stiffer competition both in their home markets and abroad. The entry of more efficient American companies into the German market may deteriorate the competitiveness position of certain non-exporting, small firms. However, on the macroeconomic level, this is compensated for by lower prices due to increased competition, which leads to overall welfare gains for consumers. Generally, a TAFTA agreement leads to an increase in the degree of internationalization of firms, especially in the medium size range.

#### **IV. Industry-level effects**

For analysis at the industry level, a computable general equilibrium model of the type MIRAGE (Modeling International Relationships in Applied General Equilibrium) was used. The underlying dataset is based on the GTAP 8 data set for 2007. Since the program allows an aggregation of countries/regions and industries, Germany and the U.S. were analyzed separately for this study. The rest of countries were grouped into eight regions. The industry level was left as disaggregated as possible.

In the considered scenario, all duties in the agricultural and industrial sectors are lifted, while no NTB reduction is performed. In the services sector, it is assumed that the market access in telecommunications, air transport, postal services, financial services and environmental services will be liberalized based on the GATS (General Agreement on Trade in Services) agreement.

The reported results reflect the long-term. They report percentage changes relative to a situation, in which no agreement was reached. The results indicate trends at the sector level; for the macroeconomic analysis please refer to the two previously described analyzes.

Looking at the development of the bilateral exports between the U.S. and Germany, it is evident that export growth is to be expected in all three main sectors of the economy (agriculture, industry, services); see table 7. The sector, in which trade gains are most pronounced, is the agricultural sector, albeit from a relatively low level.

The largest increases on the German side can be expected in the agricultural sector for dairy products, vegetable oils and fats and sugar. For America the growth is much stronger on average, with especially high increases forecast for meat products.

**Table 7: Export growth by sector**

	German Exports to USA	US Exports to Germany
<b>Agriculture</b>	<b>28.56%</b>	<b>56.02%</b>
<b>Industrial goods</b>	<b>11.10%</b>	<b>17.85%</b>
<b>Services</b>	<b>3.78%</b>	<b>1.44%</b>

In the industrial sector, the strongest German gains in export growth take place in the textile and leather branches. The US is expecting equally strong export growth here too. However, quantitatively more welfare relevant effects come from the significant increases in mechanical and automobile engineering exports, both in the US and Germany. Especially in automotive engineering it is to be expected that US exports grow significantly faster than German exports.

**Table 8: Growth in overall exports**

	US Exports	German Exports
<b>Agriculture</b>	<b>0,16%</b>	<b>3,54%</b>
<b>Industrial goods</b>	<b>0,74%</b>	<b>3,17%</b>
<b>Services</b>	<b>0,42%</b>	<b>2,46%</b>

In the service sector, Germany is able to expand its bilateral exports significantly. Strikingly, double-digit growth in financial services, communications sector, and in business services are the driving force here. In these areas, there is also significant, but lower overall growth, on the American side too.

Table 8 shows changes in the aggregate volume of exports for the US and Germany in percent. Changes in all export sectors were corrected using the GDP deflator.

At the multilateral industry level, i.e., against all trading partners, all U.S. sectors feature positive export growth, whereas individual sectors in Germany experience a decline in exports. Overall however, in both economic regions, exports increase in all of the three main sectors of the economy.

## V. Effects on the Global Trading Regime

Does a regional agreement, like the one between the US and the EU reduce the likelihood of a successful reform of the multilateral trade regime under the WTO? Or does it increase its chances? Baldwin and Seghezza (2010) recently demonstrated very convincingly that regional integration efforts are neither a building block for nor a stumbling block to the progress of multilateral liberalization. On the one hand, they reduce the incentives of the participating countries to make concessions at a multilateral level. On the other hand, they increase the benefits from successful multilateral negotiations for initially uninvolved countries. In particular, the emerging economies could be persuaded to make concessions.

Only a reduction of NTBs, which are not addressed within the existing WTO agreements, can deliver significant additional welfare benefits. Such liberalization appears to be unthinkable in the current WTO framework. In that sense, the multilateral approach does not

represents a feasible alternative to deeper regional agreements.

An important objection, that has been frequently made, is that a transatlantic free trade agreement will diminish the value of bilateral agreements with third countries, such as with Turkey, or the signatories of the Cotonou Agreement (post-Lomé), because they would be confronted with increased European competition on the American market. This results in "TAFTA swallowing bilaterals" (Langhammer, 2008, p 17).

The results of our study suggest that, for example, Canada should have a vital interest in successfully concluding its negotiations on a free trade deal with the EU. The same applies to all countries that maintain free trade agreement with either the USA or the EU. Countries that are already linked by agreements to either the EU or the U.S., would have an incentive to form a bilateral agreement with the partner with whom they do not yet have an agreement. This is the core of the building bloc argument. Thus, a deep bilateral agreement between the EU and U.S. poses no existential threat to the multilateral trading system.

### Conclusion

Compared to other free trade agreements, that have been completed in the recent period, or are currently being negotiated, the expected welfare, growth and employment effects of a transatlantic free trade initiative are significantly more substantial, in the U.S., in Germany and other EU member states, but also in third countries.

This is so because the EU and the U.S. are each other's main trading partners; the main player on the European side being Germany.

At the same time, the two economic blocs are sufficiently similar in terms of their cost and productivity structures. This makes it very unlikely that an agreement involving comprehensive trade liberalization generates strong competitive effects based on different wage levels.

The facts of very similar economic development levels, strong mutual investment positions, deep political ties (for example, the common defense policy) and high degrees of cultural proximity, suggest that the partners should find it easier to lower non-tariff regulatory barriers to market entry. In many areas, for example in the approval

of products, this requires high levels of institutional trust.

The central point of criticism on a comprehensive agreement between the EU and U.S., is that such a trade deal would put third countries at a disadvantage. It is (or rather was) often said that this would jeopardize the functioning of the World Trade Organization (WTO) and hinder the successful conclusion of a multilateral agreement (Doha Round). However, modern empirical research points at the possibility that the conclusion of important bilateral agreements actually increases the incentives of third parties to achieve further liberalization steps at the multilateral level.

### Literature

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