

Transatlantic Free Trade: The View Point of Germany

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I. Introduction

Amongst industrialized countries, Germany is a relatively open economy. In 2012, exports of goods and services amounted to almost 52% of GDP. Trade with countries in the European Union (EU) amounted to about 27% of GDP; with countries outside of the EU to 25%. This is a striking difference to the US, where exports total about 14% of GDP.¹ In Germany, in 2012, exports directly support 12 million jobs, almost a third of total jobs (full-time equivalents), more than ever since records started. This is in spite of the fact that, over the last decades, German firms have started to massively source inputs from foreign suppliers: as of 2011, domestic value added accounts for about 70% of the gross value of exports. In fact, many observers believe that the comparative industrial strength of Germany is due to the country's increasing engagement in global and regional production chains.²

Therefore, it is only natural that governments in Germany have always stressed the importance of unrestricted access to export and import markets. Globally active businesses have pushed this agenda, and their international success has reinforced their political influence. The traditional orientation of German trade policy was staunchly multilateralist. However, with international trade (and now also investment) being an exclusive competence of the European Union, trade policy topics have gradually lost importance in the German political debate. This has changed abruptly with the transatlantic trade and investment partnership (TTIP) that the EU and the US are currently negotiating: the proposed agreement has come under fierce attack from many civil society stakeholders.³ This is not so much due to the changed orientation of the EU Commission which, since 2006, has actively pursued bilateral free trade agreements, but to a dramatically different political economy of trade policy. Traditional

¹ Data from World Development Indicators, 2013.

² See Marin (2010) or Aichele et al. (2013).

³ The same is true for the Comprehensive Economic and Trade Agreement (CETA) that the EU has negotiated with Canada and on which a final text has been agreed upon (but which is not yet ratified).

agreements were almost exclusively about lowering tariffs as much as possible to the advantage of consumers and to the detriment of some producers; the proposed TTIP is also about optimal regulation which is supposed to avoid unnecessary costs for producers but is resisted by consumers fearful of losing protection.

In this complex environment, the German government, various lobby groups, and the wider public have been trying to influence the negotiations which are conducted by the European Commission on the basis of an explicit negotiating mandate and on behalf of all EU Member States. While very few observers deny the possibility of welfare gains from a TTIP, the debate is about the size of these gains and how they compare to the risks that the agreement could entail. Very broadly, the debate relates to the tension between democratic decision making, the need to provide efficient and effective governance for global markets, and the still prevailing reality of the nation state (Rodrik, 2011).

Advocates of a TTIP have defended their case by pointing out that the multilateral system has not delivered since the creation of the World Trade Organization in 2005. While this has been acknowledged by the director general of the WTO Roberto Azevedo in the aftermath of the 2013 Bali summit,⁴ it clearly is an exaggeration. While the Doha round has run aground, the WTO has added more than 36 new members, among them heavy weights such as China or Russia. It has also helped to avoid protectionist backlashes in the 2008/09 global export collapse. And the WTO has developed an excellent track record in competence building and training in poorer economies.

Having said this, it is true that the existing rules of the WTO have been shaped during the negotiations in the Uruguay Round 1986 to 2004, in a period where the Soviet Union still existed, the BRICS have not yet opened up and entered the world economy, and the new information and communication technologies (ICT) have just started to penetrate the business world. The combination of unilateral liberalization of countries such as China together with the ICT revolution have led to the development of complex international production networks, in which countries specialize in different stages of the value chain. The establishment of these networks requires foreign direct investment, and it also relies heavily on international trade of services. Also, increased trade of components implies that the value added embodied in them may be subject to the payment of tariffs several times when components, processed parts, and final good cross borders. Moreover, the smooth functioning of production networks requires compatibility of regulatory regimes. For these reasons, the post 1995 world has different international governance needs than the world before. Non-tariff measures, investment, services, and regulatory cooperation are, thus, seen as the key areas of modern trade policy (Baldwin, 2011). Also, there are substantial doubts over the desirability of common global standards in these areas, and about the ability of the multilateral regime to establish them. The German government, the EU Commission and major stakeholders such as the BDI (Federation of German Industries) have all defended bilateral negotiations on these grounds.⁵

Moreover, with low average growth in the EU, the German government hopes that an ambitious TTIP could spur economic dynamism and incentivize further reform in EU Member States. Since a TTIP would cover about 46% of world GDP, it can be expected to have substantial economic effects.

For these reasons, the High-Level Working Group (HWLG) on Jobs and Growth, set up by the so called Transatlantic Economic Council (TEC), in its final report of February 2013, has recommend that the EU and the US engage in “... a comprehensive, ambitious agreement that addresses a broad

⁴ “...I am delighted to say that, for the first time in our history: the WTO has truly delivered“, Roberto Azevedo, concluding remarks to the WTO’s Ninth Ministerial Conference in Bali on Dec. 7, 2013.

⁵ See, for example BDI, 2014, p. 20, and references therein.

*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.”*

As the above quote shows, the TTIP is not primarily about the classical market access questions (i.e., tariffs, or quantitative restrictions), but about a number of “new” issues as well which are only partly covered by the WTO and which raise a number of new questions, e.g.: Is bilateral cooperation in regulatory affairs discriminatory for third countries? How can legitimate regulatory burdens be separated from protectionist motives? What is the right level for international regulatory governance: global or regional?

In this chapter, I address these (and other questions) with a special emphasis on Germany. I start with describing Germany’s trade and investment relationship with the US relative to other trading partners. In doing this, in the second section, I wish to first draw attention to a couple of facts that are often overlooked – such as the strong intra-industry nature of bilateral trade or the huge importance of horizontal foreign direct investment (FDI) – but that matter for a correct understanding of the expected impact of the TTIP on Germany and of the ongoing public debate. In the third section, I review different studies that have tried to quantify the economic effects of the agreement for Germany and its relationship to other EU countries and the world. The fourth section focuses on the political debate on the TTIP in Germany. In particular, I will address a number of contentious points, such as the inclusion of an investment chapter, the establishment of a regulatory cooperation council, mutual recognition of standards and the “level playing field” problem. I will explain how intra-European heterogeneity matters for Germany’s stance on the TTIP, how different political forces and stakeholders view the project and how they are shaping the debate. In the final section, I will provide a number of conclusions.

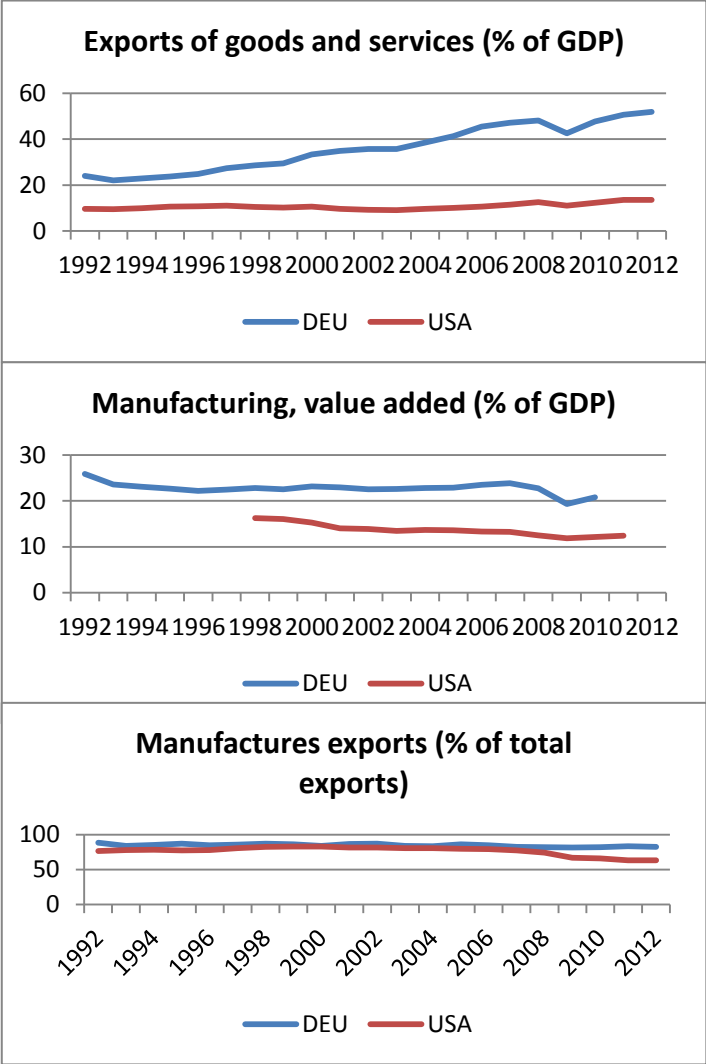
II. How Important is Transatlantic Trade and Investment for Germany

The macroeconomic context

Two of the most important stylized facts on the German economy are its overall openness and its persistent and substantial current account surpluses. Another fact that has attracted international attention is that Germany has been able to maintain a comparatively important role for manufacturing in total value added.

The upper panel of Figure 1 presents the evolution of a widely used openness measure – total gross exports of goods and services relative to GDP – since German reunification. In Germany, that ratio has gone up from about 24% in 1992 to almost 52% in 2012. Now, this ratio has increased in many other countries as well, but by less: while it has more than doubled in Germany it has gone up by less than 40% in the US.

Figure 1. Openness and Deindustrialization in Germany and in the US



Source: World Bank World Development Indicators 2013

Similarly, while both the US and Germany have experienced a decline in the relative importance of manufacturing in total value added (GDP), the decline has been about 4 percentage points in the US but only about 2 percentage points in Germany (1998-2011). The difference between the two countries has increased to almost 9 percentage points. During the same period, however, the share of manufactures in total exports has remained rather similar in both countries.

German trade partners: the US and the others

As shown in Table 1 in 2009, German gross exports to the US amounted to about 98 bn. USD; this is approximately 8.5% of total exports of goods and services (1,150 bn. USD). Imports from the US amounted to 74 bn. USD, this is 7.5% of the total (990 bn. USD). According to these data, the US was the second most important single trade partner for Germany, both as an exporter and as an importer. Gross exports refer to the transaction value at the border; they do not measure the domestic value added embodied in these transactions. In a world where trade in intermediate inputs amounts to at least two thirds of total trade, expressing trade data in value added terms leads to different conclusions than using the official data expressed in gross terms. This is particularly important for Germany: according to recent estimates, one Euro of gross exports contains only 69 cents of German value added; the rest is mostly made up by imported components that are re-exported in the final goods.⁶ However, the role of imported intermediates varies strongly across trade partners.

Table 1. Total German exports and imports in gross and value added terms, bn. USD and %, 2009

Partner	Exports				Imports			
	gross	share	VA*	share	gross	share	VA**	share
FRA	99.1	8.6	64.9	8.0	80.9	8.1	48.1	7.4
USA	98.0	8.5	95.3	11.7	74.4	7.5	62.9	9.7
ITA	77.0	6.6	55.2	6.8	62.6	6.3	41.3	6.4
GBR	76.7	6.6	59.0	7.2	59.4	6.0	40.4	6.2
CHN	63.3	5.5	40.8	5.0	68.8	6.9	46.1	7.1
CHE	60.0	5.2	29.0	3.6	45.2	4.6	23.3	3.6
AUT	53.0	4.6	26.5	3.3	48.9	4.9	24.0	3.7
NLD	52.3	4.5	27.0	3.3	67.0	6.7	32.7	5.0
ESP	43.4	3.7	32.7	4.0	38.1	3.8	25.5	3.9
BEL	34.9	3.0	20.1	2.5	30.5	3.1	15.2	2.3

Source: Trade in Value Added (TiVA) statistics, OECD (May 2013). *German value added embodied in partner country's final demand; **Partner country value added embodied in German final demand.

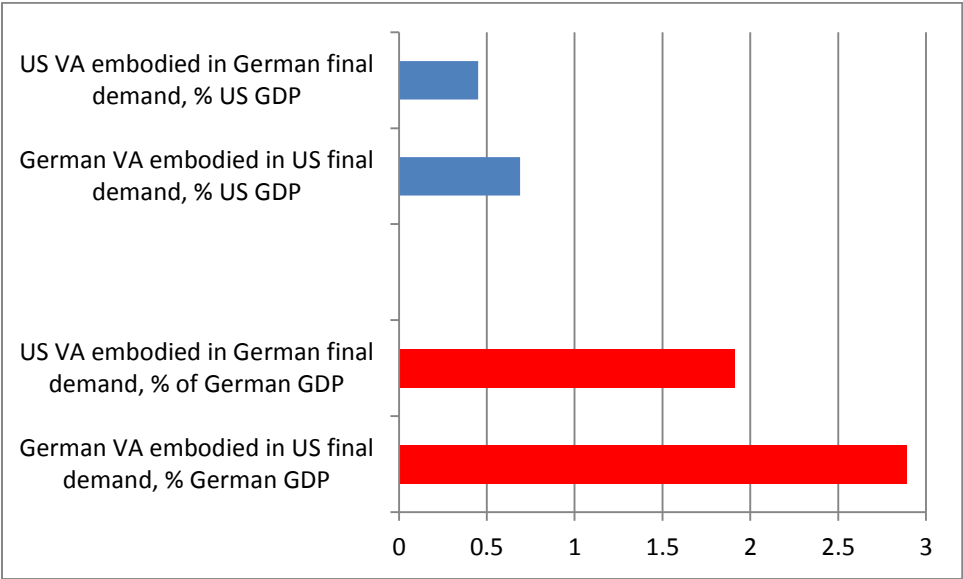
Indeed, when looking at the amount of German value added embodied in US final demand as a share of total German value added embodied in foreign demand, the US ranks first with a share of 11.7%. Also, when asking which partner country's value added matters most in total foreign value added embodied in German final demand, the US occupies a share of 9.7% which also puts it ahead of France and China. Hence, the official trade statistics, which are based on gross transaction values, underestimate the relative importance of trade with the US for German value added, i.e., for wages,

⁶ Aichele et al. (2013), table 1.

corporate profits, and taxes. Also, the data reveal that the bilateral trade balance of 24 bn. USD that Germany has registered with the US is about a third larger (32 bn. USD) when expressed in value added terms.

Figure 2 illustrates the role of Germany and the US as markets. It shows that about 0.45% of US income (measured by the share of US value added “sold” to Germany) depends on German final demand. Should Germany disappear, everything else equal, US GDP would be lower by this amount. German value added embodied in US final demand makes up 0.69% of total US demand (measured by US GDP). In turn, due to the asymmetry in market sizes between the US and Germany, the US is much more important for Germany: About 2.89% of total German income (GDP) is realized through sales to the US; 1.91% of total German demand (GDP) is spent on US services (labor, capital).

Figure 2 Exported and imported value added in final demand, % of total value added (GDP)



Source: OECD-WTO Trade in Value Added (TiVA) Statistics, own calculations. VA refers to value added.

The sectoral trade structure

Table 2 informs about the sectoral structure of German trade with the US. It refers to more recent data than Table 1, but it reveals patterns that have remained fairly stable over the last 10 years. It shows just about 18% of German exports lie in the area of services, and only 1.5% in agriculture and food products. Manufacturing still accounts for more than 80% of total exports; and the sectors Machinery and Equipment, Cars and Car Parts, and Chemicals make up more than 60% of this.

On the import side, the pattern is similar, but it is less pronounced. The three main manufacturing sectors together amount only to 42% of total US exports to the US. Imports of electronics from the USA to Germany are relatively important. Services exports (mostly business services, but also tourism) amount to almost a third of total US exports. Also, the agricultural sector is relatively more important, even if the absolute amount of US exports to Germany is very similar to the amount of imports. These data reveal the structure of comparative advantage between the US and Germany: the US has a slight advantage in the Services and Agri-Food areas; Germany has a small advantage in the classical manufacturing sectors.

The last column in Table 2 shed light on an important fact in German-US trade: that it occurs mainly in the same broad industries. The Grubel-Lloyd index measures the importance of this phenomenon:⁷ it takes values from 0 to 1, where a high value indicates that trade is strongly intra-industry. Clearly, the more disaggregate the industry classification is, the lower the index. Nonetheless, the table shows that at the two-digits level, the index is usually above 50% in the relevant industries.

Table 2 Main sectors of UG-German trade, 2011

	German Exports		German imports		Grubel-Lloyd Index
	USD bn	Share	USD bn	Share	
Manufacturing	87.0	80.3%	50.2	65.8%	0.73
Machinery and equipment	29.9	27.6%	11.6	15.3%	0.56
Cars and car parts	24.9	23.0%	7.1	9.3%	0.44
Chemicals, rubber, plastic	13.9	12.8%	13.6	17.8%	0.99
Electronics	2.8	2.6%	6.4	8.4%	0.61
Other transportation goods	2.6	2.4%	5.1	6.7%	0.68
Metals	2.5	2.3%	1.6	2.1%	0.77
Services	19.7	18.2%	24.0	31.5%	0.9
Services	6.2	5.7%	8.6	11.3%	0.83
Public procurement	4.4	4.0%	2.1	2.8%	0.66
Agriculture and Food	1.6	1.5%	2.0	2.7%	0.88
Food	0.7	0.7%	0.5	0.7%	0.81
Alcoholic beverages and tobacco	0.6	0.5%	0.2	0.3%	0.56
Total	108.4	100.0%	76.3	100.0%	

Source: GTAP 8.0.

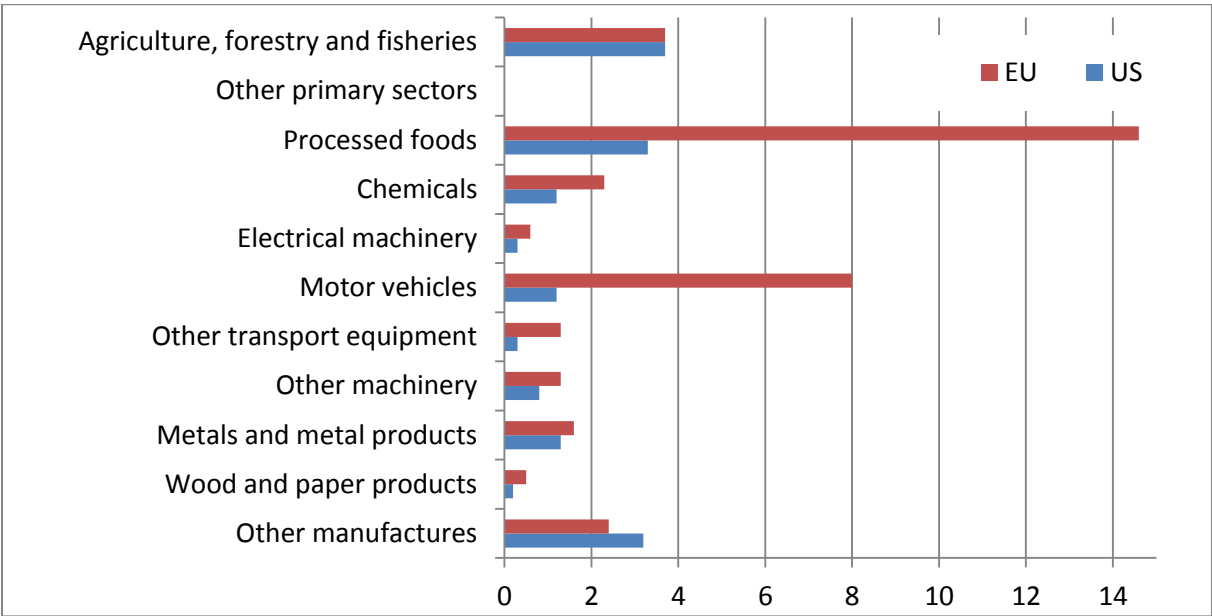
This fact has important implications: it suggests that any reallocation effects from a TTIP will occur within industries rather than between them. If a chemicals plant in Germany closes down due to increased competition from the US, another chemicals plant can be expected to expand, so that no switch of occupation amongst the laid-off workers is required. This means that both the speed of transition to a new competitive situation will be higher and the associated costs lower than in other agreements, where inter-industry reallocation effects are likely to dominate (such as, e.g., in the proposed EU-India agreement).

⁷ The Grubel-Lloyd index is defined as $1 - |X - M| / (X + M)$, where X denotes exports and M imports in a certain industry.

Trade barriers

As Figure 3 shows, import tariffs on both sides of the Atlantic are already low. Their trade weighted average is between 2 and 3%. However, due to the increasing fragmentation of production it is possible that final products have been effectively taxed several times when parts and components have crossed international borders. Moreover, in several industries, the height of tariffs is still considerable. Most importantly for Germany, the EU imposes a 10% import tax on cars – this provides substantial protection to firms in this industry. The US import levy on autos is only 2.5%, but due to high volumes of trade in this area this is a noticeable barrier. Moreover, in specialized product categories, US import tariffs can be very high: e.g., on small trucks they amount to 25%. Similar arguments apply to the chemicals sector, where US import tariffs amount to a weighted average of 1.7%, but the volume of German exports is about 14 bn. USD. In the area of processed foods, EU import tariffs are particularly high; they average more than 14%. While the US has more costly non-tariff barriers, tariffs for certain products are quite high: dairy products (19%), sugar (16%) or beverages (15%).

Figure 3 Ad valorem tariffs in transatlantic trade, industry averages, 2012.

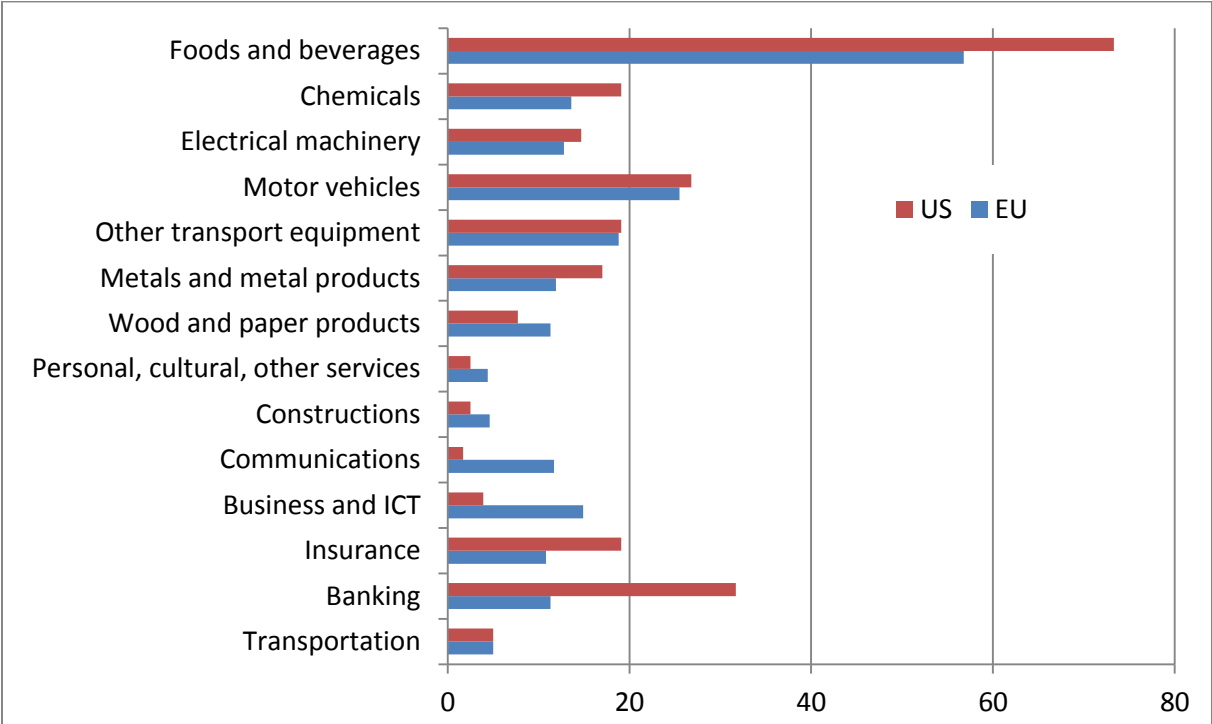


Source: Francois et al., 2013.

Virtually all observers agree that the bulk of trade barriers between Germany and the US lies comes in the form of non-tariff measures (NTMs). These arise from partly incompatible domestic regulations that may have legitimate origins but may nonetheless operate like trade barriers. Estimates of such barriers are difficult, and they are very likely to differ massively across EU Member States as the single market program is still not fully completed and substantial differences continue to exist (e.g., in the services area). Available evidence, such as the one provided by Berden (2009), ignores this heterogeneity. Nonetheless, it suggests that several sectors of major importance for the German-US trade relationship are strongly affected.

Figure 4 shows that, across industries, the ad valorem equivalent of NTMs is estimated to be at least one order of magnitude higher than prevailing tariffs. They are highest in the food and beverages industries, but also in sectors, such as motor vehicles, where they take mostly the form of technical barriers, they amount to about 25%. Even a partial reduction of those costs in the key German export industries would amount to a massive cost reduction for suppliers.

Figure 4 Ad valorem equivalents of non-tariff measures



Source: Berden et al. (2009).

The problem with NTMs is that their existence, in contrast with tariffs, is often not motivated by a desire to discriminate foreign suppliers. Differences in regulation across Germany and the US can reflect differences in preferences, such as those pertaining to risk aversion. This is mostly relevant in the agri-food sector and, partly, also in chemicals, where the so called precautionary principle practiced in the EU is in conflict with an US approach that relies more on liability law. However, in many industries – such as automotive, machinery, electronics – differences in regulation are mainly due to historical reasons. There, some convergence – in form of mutual recognition of standards – appears feasible. Finally, even in the sensitive agri-food sector, partial initiatives can be successful: since an EU-US agreement on organic food labels has entered into force in 2012, German trade in this segment with the US has increased substantially.

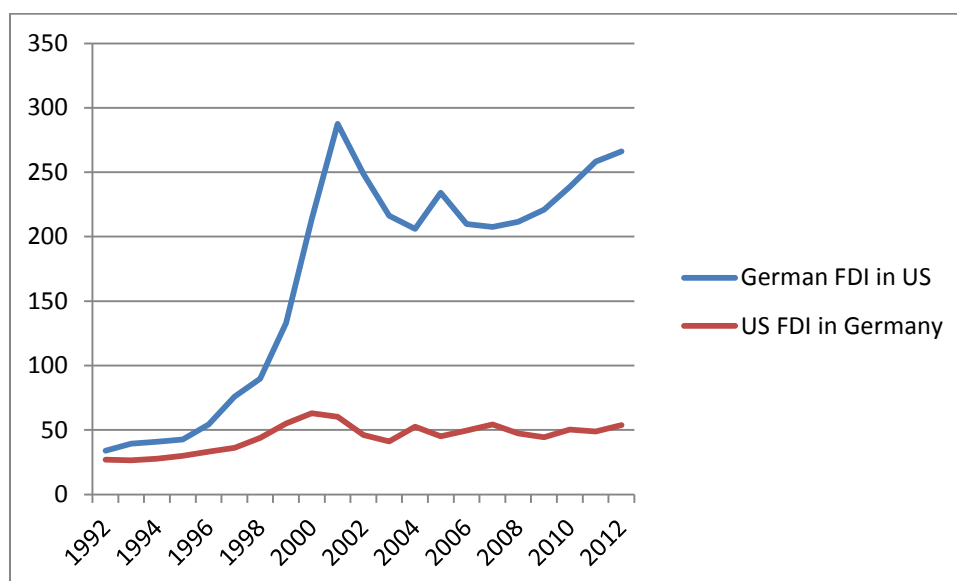
US-German investment ties

Since World War II, US firms have held many large subsidiaries in Germany, such as General Motor’s daughter Opel. But by the end of the last century, German investment into the US has soared. Figure 5 shows that the value of the stock of German foreign direct investment (FDI) in the US is about 265 bn. USD in 2012 and that it has almost increased ten-fold since 1992.⁸ US FDI in Germany, in 1992 very similar to the German level in the US, has also grown, but much less dynamically. In 2012, it stood at about 54 bn. USD. The patterns in the Figure are driven by several facts. First, Germany traditionally supplies capital to foreign countries mostly through FDI and bank loans, while the US uses portfolio investment (minority shareholdings) much more frequently. Therefore, the picture underestimates the amount of US capital for the Germany economy. Second, the boom in the late 1990s occurred in a

⁸ Foreign direct investment is defined by the fact that an investor holds at least 10% of the equity of a foreign company.

procyclical fashion, and was driven by a few very large transactions (such as the acquisition of Chrysler by Daimler in 1998).

Figure 5 Stocks of foreign direct investment, bn USD



Source: Deutsche Bundesbank & US Department of Commerce, valued at historical cost basis.

Table 3 shows that about 22% of the total German outward FDI stock is invested in the US; the second largest non-EU destination is China, but it only amounts to 4% of the total. Concerning inward FDI, the US amounts to 10% of the total in Germany.

Table 3 Structure of FDI stocks between the US and Germany, 2012

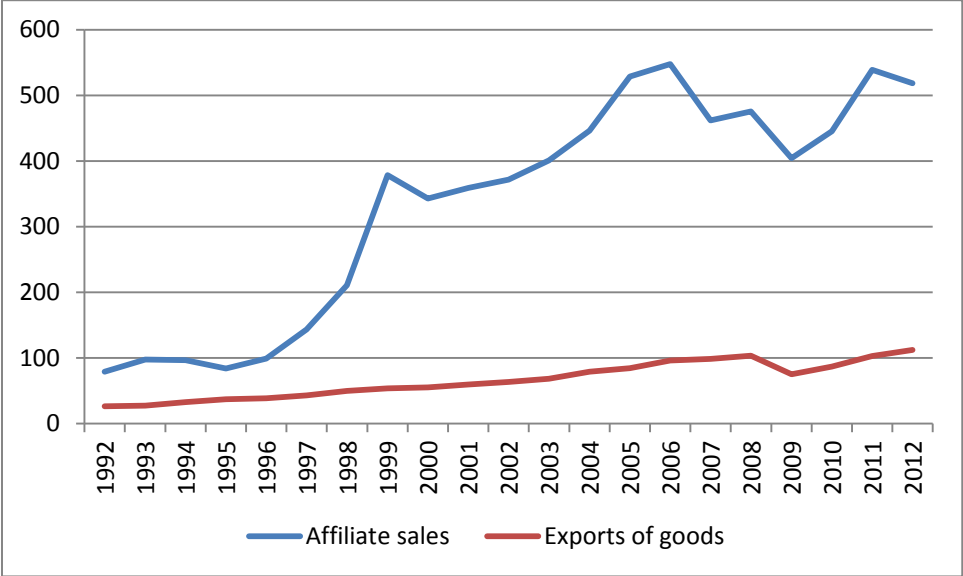
	German direct investment abroad		Foreign investment in Germany	
	Value	Share	Value	Share
EU	634	53%	454	80%
USA	263	22%	57	10%
China	48	4%	0	0%
Rest of Europe	96	8%	51	9%
Rest of the World	156	13%	6	1%
Total	1197	100%	567	100%

Source: Deutsche Bundesbank Bestandserhebung über Direktinvestitionen, April 2014. Consolidated stocks.

It is often argued that the EU-US relationship is characterized more by very deep capital market integration rather than by trade. This is broadly true in general; and it is a particularly accurate description in the case of the US-German link. Figure 6 contrasts German exports (in bn. USD) to the US with sales of affiliates of German multinationals in the US. The diverging pattern of these series is striking: in 2012, affiliate sales of 519 bn. USD were about five times higher than exports. These sales vary strongly with the US business cycle, but – at least until 2006 – the have also exhibited an upward trend that has much outperformed exports. The annual growth rates in nominal volumes were 16 and

12%, respectively. Interestingly, while German exports to the US have recovered their 2008 historical maximum from 2008, affiliate sales still are below the 2007 maximum.

Figure 6 German exports to the US and US sales of affiliates of German multinationals, USD



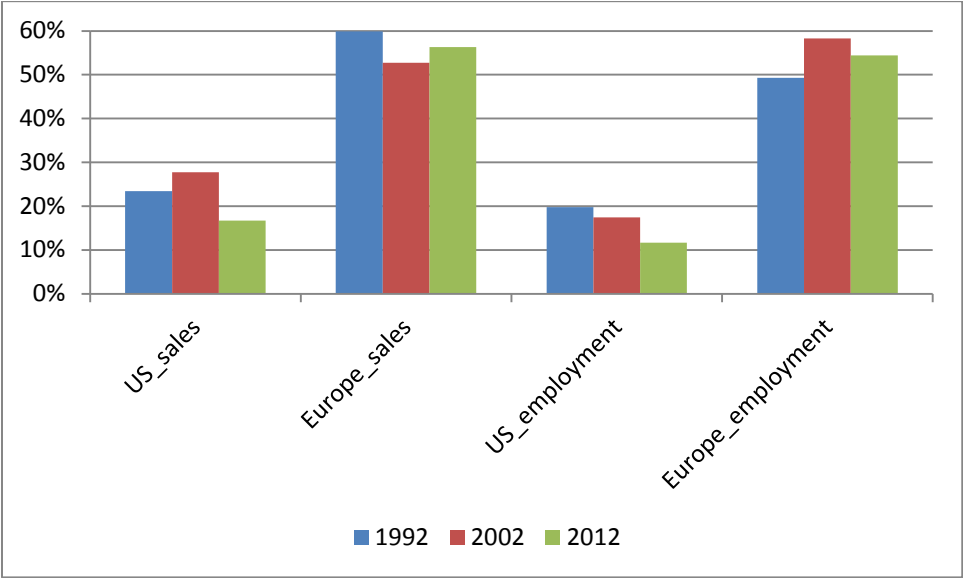
Source: COMTRADE and German Bundesbank, own calculations.

German firms employ about 762,000 workers in the US; this number is somewhat lower than the all time high of 827,000 workers in 2001, but it is about 70% higher than the employment at the time of German reunification (1989).

Comparing the relative importance of the US and European (EU plus Switzerland, Norway, Iceland, Liechtenstein) markets for German multinational activities, Figure 7 shows that – despite the impressive trends in Figure 6 – the US has gradually lost importance since 1992. The share of employment of German affiliates in the US has fallen from about 20% to 12%, and the share of sales has come down from 23 to 17%.

The largest part of German FDI in the US is horizontal, i.e., market-seeking. It is strongly motivated by the desire to avoid exchange rate risk, tariffs or other trade barriers, and to shorten delivery times. Vertical, i.e., cost-seeking, FDI has been modest, since wage costs are not systematically lower in the US than in the Germany. With energy prices strongly diverging over the last years, cost-seeking FDI could, however, become more important.

Figure 7 Activities of German multinationals in the US and Europe, % of total sales and employment



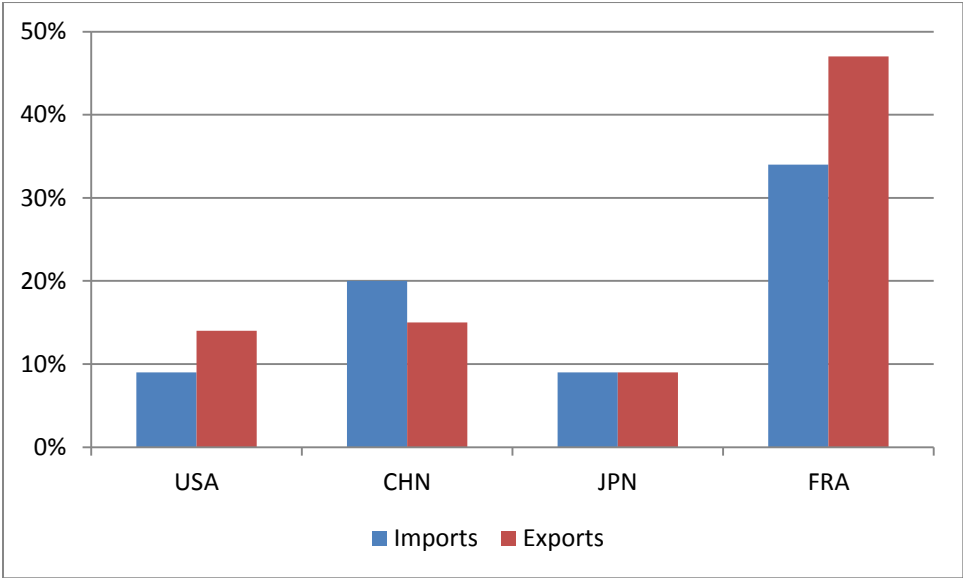
Source: German Bundesbank, own calculations.

III. What Economic Benefits Can Germany Expect from A TTIP?

Trade potential utilization rates

The volume of German trade with the US is impressive in absolute terms. However, it is difficult to interpret the data without putting it into perspective. For this reason, Figure 8 relates observed bilateral trade in goods and services (in value added terms) to the amount of trade which one would expect in hypothetical textbook circumstances. Assuming that there are no trade frictions of whatever form, that consumers have identical preferences in all countries, and that trade results from national product differentiation (such as in the Anderson van Wincoop (2003) or Krugman (1980) models; see, e.g., Feenstra (2004), Chapter 5), one can easily derive an estimate of the potential bilateral trade volume. German exports to the US amount to about 14% of this friction-free benchmark; this is one percentage point lower than the corresponding utilization rate in exports to China, and much below the 47% achieved with France. German imports from the US fall even shorter from the potential.

Figure 8 Utilization rates of German bilateral trade, %, value added



Source: OECD-WTO TiVA statistics, own calculations.

The very large gap between actual and hypothesized trade must arise due to a violation of the assumptions made above: (i) preferences between the countries may differ, (ii) the assumption of specialization driven by product specialization may fail, (iii) or – most obviously – there are substantial frictions to trade. As we have shown before, trade between the US and Germany is predominantly intra-industry in nature, so product differentiation seems consistent with the facts. Also, since per capita income levels and the internal distribution of income are not too different between the US and Germany, differences in preferences cannot plausibly explain much of the gap. Consequently, trade costs must still play a substantial role in US-German trade.

Clearly, trade costs take many forms – tariffs and non-tariff barriers make up only a limited part. For trade amongst OECD countries, Anderson and van Wincoop (2004) estimate total trade costs, expressed in ad valorem terms, to amount to about 74%, only 8% thereof being attributable to policies. However, as we argued above, estimations of non-tariff measures are fraught with uncertainties. Not

only is it difficult to ascertain their level, but it is also hard to come up with plausible estimates of how they could realistically fall in a TTIP.

Bottom-up versus top-down estimates of NTMs in quantitative models of a TTIP

It is not the objective of this paper to discuss advantages and disadvantages of different modeling approaches. However, some explanation is required as different quantitative assessments come to different conclusions as to the expected trade and welfare effects of a TTIP. Models differ with respect to several dimensions, but the most important distinction rests on the treatment of trade costs.

One strand of research works with the available “bottom-up” estimates of the level of NTMs and assume some reduction (i.e., by 25%). Another strand works with a very generic definition of trade costs and assumes that a TTIP would result in a reduction by the same amount that can be inferred from other, already existing, trade agreements. This “top-down” approach is usually embedded into a structurally estimated general equilibrium model of international trade (as described by Costinot and Rodriguez-Clare (2014)), while the “bottom-up” approach usually is implemented in a more traditional computable general equilibrium (CGE) model of the GTAP type whose calibration borrows external parameter estimates. Kehoe (2005) has compared the ex ante predictions for several trade agreements obtained under the latter approach with econometric ex post evaluations and finds that standard „models drastically *under-estimated* the impact of NAFTA on North American trade”.

Two major reasons for this failure lie in the inadequate treatment of trade costs (NTMs are largely ignored) and in the definition of scenarios that ignore dynamic effects of trade agreements on trade costs (i.e., changed incentives for private and public incentives to invest in a further reduction of bilateral trade costs).

The existing quantifications of the economic effects of a TTIP go more or less far in remedying these problems. For example, the studies by Francois et al. (2013) or Fontagné (2013) allow for NTMs along with tariffs and incorporate econometric estimates of their ad valorem tax equivalents, but they do not allow a TTIP to affect other types of trade costs. Moreover, their scenarios are based on expert opinions about what is achievable in a TTIP. Felbermayr et al. (2014) and Aichele et al. (2014), in contrast, allow a TTIP to potentially affect a broad class of trade costs. Moreover, these papers use econometric estimates of the average ex post effect of existing agreements on trade costs to define the TTIP scenario. The latter approach leads to much larger trade and welfare effects of a TTIP. Moreover, basing the TTIP scenario on the observable effects of existing agreements logically implies a different treatment of trade costs amongst non-TTIP countries or between non-TTIP countries and the EU or the US. While Francois et al. (2013) assume that these trade costs fall by 20% and 30%, respectively, of the assumed trade cost reduction within the TTIP, the other studies do not assume such spill-overs, mostly because there is no clear empirical evidence for their existence (see below).

In the following, I briefly discuss potential trade and welfare effects obtained by different studies for Germany. Since Francois et al (2013) and Fontagné (2013) do not provide country-level results for the EU, I focus on the results reported by Felbermayr et al. (2014) and Aichele et al. (2014).⁹ The latter study provides analysis for a TTIP that is assumed to be as deep and comprehensive as the deepest and most comprehensive trade agreements that exist (according to the analysis of Dür et al. (2014)). This

⁹ Note that Felbermayr et al. (2014) is an update of Felbermayr et al.(2013).

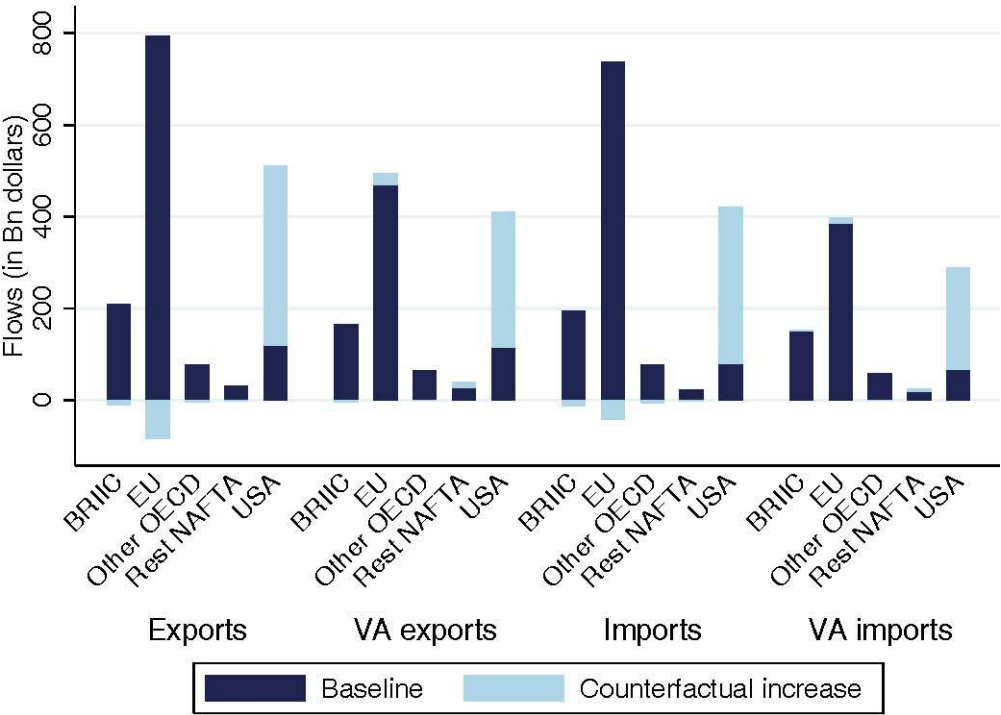
means, that the TTIP is assumed to be as ambitious as an average over NAFTA, the EU and a couple of smaller preferential trade agreements.

Trade effects of a TTIP

Figure 9 presents baseline and counterfactual German exports and imports without and with a TTIP. The baseline refers to the observed data from year 2007. The counterfactual analysis asks: what would the world economy look like if – in the year of 2007 – the EU and the US had had a deep preferential trade agreement that has had time to unfold all its effects?

The chart shows that both exports and imports of Germany to and from the USA would increase very substantially. Indeed, the model simulation suggests that gross exports could approximately quintuple from about 100 bn. USD to something around 500 bn. USD. Netting out imported intermediates, the value added content of German exports to the US could still go up by a factor of 4. These are very large numbers – possible excessively large ones. However, compared to Figure 8, the effects do not look entirely impossible, at least if one compares with German-French trade. In the more modest scenarios calculated by Aichele et al. (2014), trade increases are substantially smaller. Since we do not yet know what exactly can be negotiated, the figure provides a qualitative rather than a quantitative perspective.

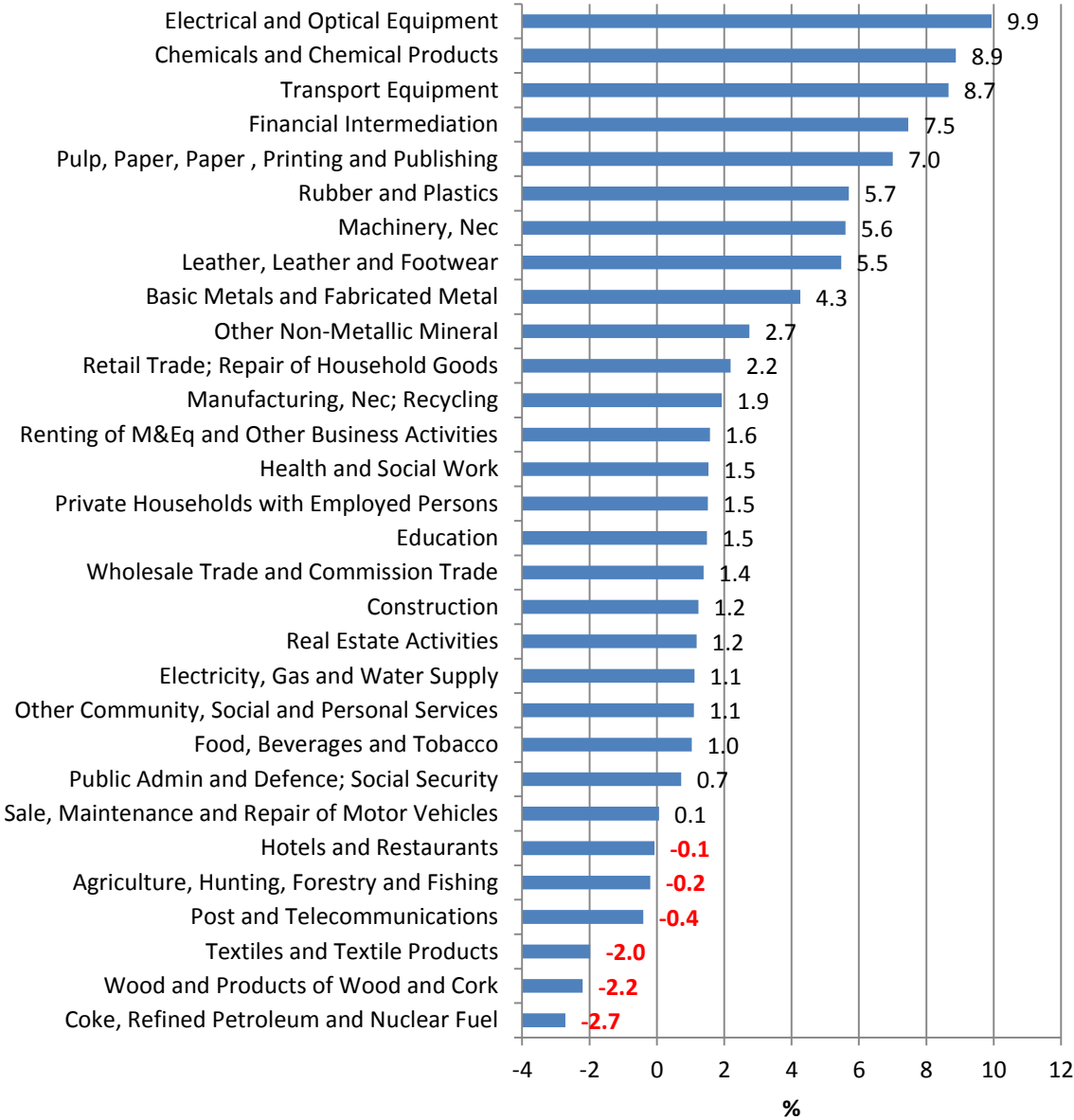
Figure 9 Baseline and counterfactual German trade flows, USD bn



Source: Aichele and Felbermayr (2014).

Figure 9 shows that imports from the US are also bound to increase by about the same proportion than exports.¹⁰ Germany’s exports and imports to and from the EU are expected to shrink but something around 10%; trade with the BRICS (Brazil, Russia, India, Indonesia, China, South Africa) could also fall, but by a much smaller percentage change. Countries that are strongly involved in the US production chain – Mexico and Canada, both members of the NAFTA – or in the German chain – EU Member States -- could increase both imports and exports from and to Germany. This is visible only when one looks at the value added content of trade, but almost invisible when focusing on gross trade.

Figure 10 Estimated output change across sectors (%)



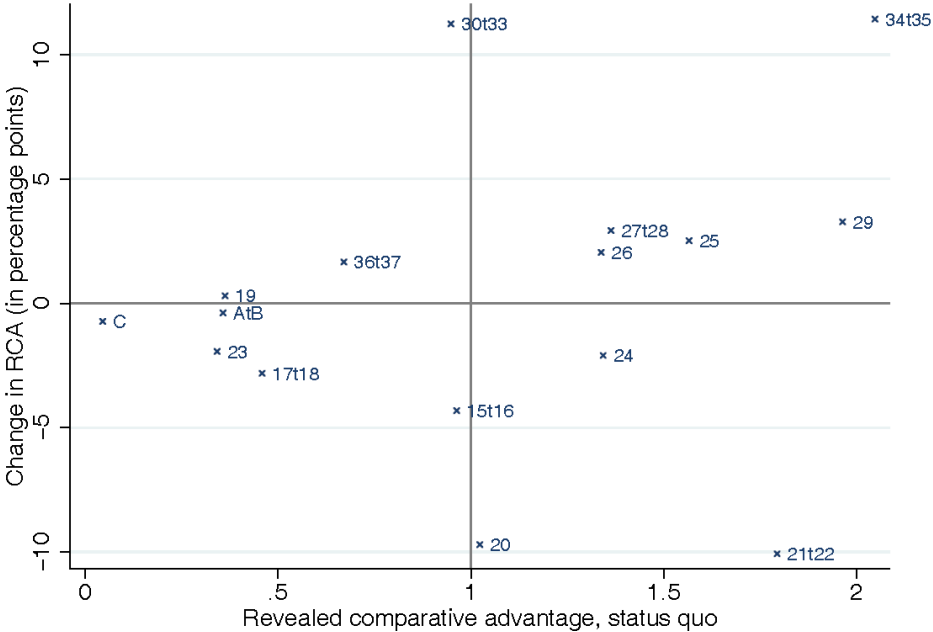
Source: Aichele and Felbermayr (2014).

Figure 11 inspects the sectoral structure of output effects in Germany. According to Aichele et al. (2014), a deep TTIP would have positive output effects in all but in 6 out of 30 sectors. Amongst the

¹⁰ The model assumes that the multilateral trade balances of countries remain fixed at the baseline equilibrium, but it does allow that the bilateral structure of balances adjusts.

losing sectors, agriculture stands out – as sector where Germany has no comparative advantage relative to the US. The largest output gains could occur in the classical German strongholds such as Chemicals (9%), Transport Equipment (9%), and Machinery (6%). A major winner could also be the Electrical and Optical Equipment industry (10%), in which Germany could be able to recover market shares that it lost to Asian suppliers. Services sectors could also benefit, but by smaller amounts. Financial intermediation, where non-tariff trade costs appear relatively high, could increase output by 7.5%. These patterns suggest that a TTIP could reinforce Germany’s comparative advantage. Figure 11 investigates this possibility.

Figure 11 Change in Germany's structure of revealed comparative advantage (RCA) through a TTIP



Notes: Aichele et al. (2014). ISIC rev. 3 industries, AtB...Agriculture, Hunting, Forestry and Fishing, C...Mining and Quarrying, 15t16..Food, Beverages and Tobacco, 17t18...Textiles and Textile Products, 19...Leather, Leather and Footwear, 20...Wood and Products of Wood and Cork, 21t22...Pulp, Paper, Paper, Printing and Publishing, 23...Coke, Refined Petroleum and Nuclear Fuel, 24...Chemicals and Chemical Products, 25...Rubber and Plastics, 26...Other Non-Metallic Mineral, 27t28...Basic Metals and Fabricated Metal, 29...Machinery, Nec, 30t33...Electrical and Optical Equipment, 34t35...Transport Equipment, 36t37...Manufacturing, Nec; Recycling.

Figure 11 shows in which sectors Germany currently has a comparative advantage (as measured by the Balassa-Samuelson index of revealed comparative advantage (RCA)), and how this index would change as a consequence of a TTIP. The diagram illustrates that Germany has a strong comparative advantage in the areas of Transport Equipment (ISIC codes 36 to 37), Machinery (29), Rubber and Plastics (25), Chemicals (24), and Pulp and Paper (21 to 22), to mention the most visible sectors. With the exception of Pulp and Paper, the analysis of Aichele et al. (2014) suggests that Germany will increase its RCA in the areas of Transport Equipment and Machinery, two sectors that are of central importance for the country. The chemicals industry, also a major exporter, is expected to register a slight decline in its RCA, but the most pronounced decreases could happen in the Wood and Pulp&Paper sectors. In Electrical and Optimal Equipment, Germany has a neutral competitive position in the status quo, but simulations suggest that the RCA could improve quite dramatically. Overall, there is a rough tendency for industries with high present RCA to develop their advantages further.

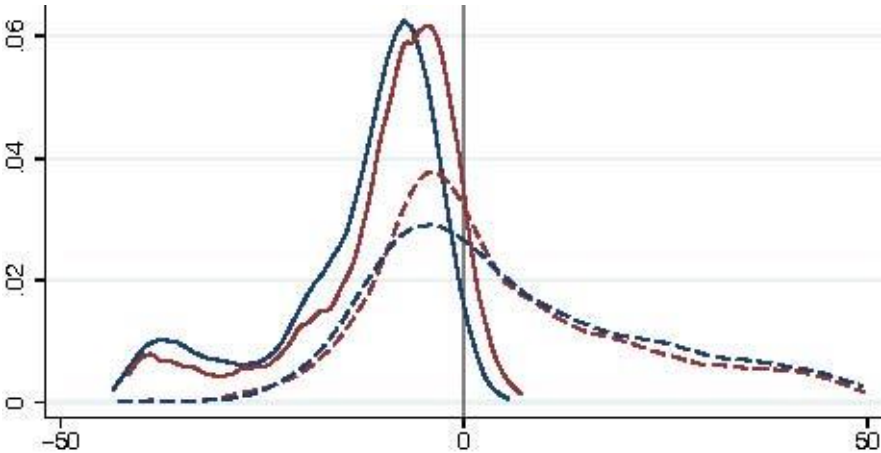
Interestingly, in sector in which Germany does not have a comparative advantage (such as, e.g., in Agriculture), the model does not predict any substantial change in the RCA indicator.

So far, the study by Aichele (2014) is the only one to calculate general equilibrium consistent industry-level effects of a TTIP. However, while quantitative impacts are generally much higher in Aichele et al. (2014), the results are qualitatively comparable to what Francois et al. (2013) find for the entire EU. The sectors that are set to benefit are Transportation Equipment and Machinery. For and Electrical and Optical Equipment, the assumed reduction of trade costs with non-TTIP countries neutralizes any gains. Fontagné et al. (2013) also find that Transportation and Machinery are bound to benefit, however, they find negative effects for agriculture. So, those studies tend to confirm the patten depicted in Figure 11.

All studies find that a comprehensive TTIP would substantially increase bilateral trade across the Atlantic. Felbermayr et al. (2013) report the largest increase; according to that study, German exports and imports to the US could almost double (both go up by approximately 94%). The other studies have no Germany-specific trade effects. Francois et al. (2013) and Fontagné et al. (2013) they find an EU wide increase of exports to the US by 28% and 49%, respectively, while imports would go up by 37% and 53%, respectively. Trade changes for Germany should be expected to be somewhat stronger.

All studies report that within-EU trade will be redirected. This is to be expected as the trade diversion resulting from the EU customs union and the single market program is partly unwound. Again, studies differ with respect to the magnitude of this effect.

Figure 12 Automotive Industry: Distribution of changes in bilateral trade



Notes: Aichele et al. (2014). Solid lines refer to gross trade; dashed lines to value added trade. Blue lines refer to TTIP countries, red ones to non-TTIP countries.

Figure 12 is taken from Aichele et al. (2014). It plots the distribution of bilateral trade changes in the automotive industry for two samples: one made up by TTIP insiders (EU Member States and the US), and another made up by the rest of the world. It also differentiates between changes in gross trade on the one hand and changes in value added trade on the other hand. The modes of all distributions lie in the negative quadrant, implying that most countries within TTIP and outside would trade less. The result is driven by a reduction in within-EU trade. Moreover, the distribution for TTIP-outsiders lies to the right of the one for insiders, which means that the reduction in trade amongst outsiders will be less pronounced. Finally, and most interestingly, the distribution of changes of bilateral trade in value added terms has a thick right tail for both samples of country pairs. This suggests that TTIP reinforces

value chains within both groups of countries: for many country pairs, while gross trade falls, the embodied value added content increases.

Germany's overall openness (measured by exports over GDP) goes up by approximately 10 percentage points in Felbermayr et al. (2014). It goes up by about 5.5% in Francois et al. (2013) for the whole of Europe and by about 2% in Fontagné et al. (2013) in Germany. These are substantial effects that would make a relatively open economy even more open.

Welfare effects of a TTIP for Germany

All available studies clearly suggest that the mere elimination of transatlantic tariffs would result in very minor welfare gains that range between 0.0% and 0.28% for Germany. Indeed, it is well known that reducing low tariffs even further cannot unlock large welfare gains as those are proportional to the square of the initial tariff rate. In contrast, non-tariff barriers are different, in particular if they are assumed to waste resources. The evidence very strongly suggests that the levels of NTMs are by an order of magnitude higher than those of tariffs. Moreover, their elimination does not entail the loss of government income but frees up resources for the production of additional goods and services.

Francois et al (2013) predict EU real per capita income to increase by 0.48% compared to the 2027 references; Fontagné et al. (2013) find a smaller gain of 0.30%. The studies by Felbermayr et al. (2014) and by Aichele et al. (2014) find effects that are between 5 and 13 times bigger for the EU average. This results from a combination of several effects: first, in the latter two studies, the underlying trade cost reduction is bigger than in the former two; second, TTIP frees up resources rather and does not redistribute rents from producers to consumers; third, the liberalization scenario refers to an observed reference situation rather than to a predicted one in the future where GDP shares of both EU and US are lower than today and, hence, welfare gains from a TTIP smaller.

Table 4 Welfare effects from a TTIP for selected countries and regions

	Francois et al. (2013)	Fontagné et al. (2013)	Felbermayr et al. (2014)	Aichele et al. (2014)
Reference year	2027	2025	2012	2007
Germany		0.34%	3.48%	3.45%
EU-Average	0.48%	0.30%	3.94%	2.60%
USA	0.39%	0.31%	4.89%	3.58%
China	0.03%	n.a.	-0.50%	-0.24%
ASEAN	0.89%	n.a.	-0.07%	-0.12%
Rest of the World		-0.06%	-0.92%	n.a.
World	0.14%	n.a.	1.58%	1.08%

Notes: The reported numbers are equivalent variation measures. They report the change in real per capita income after full phase-in of a TTIP relative to an observed or predicted (if referring to a future date) reference situation.

One question of particular interest in the EU is whether countries in the core of the continent – such as Germany and countries closely connected to it such as Austria or the Czech Republic – benefit more than countries in the periphery. The available studies suggest that, whenever intra-European production chains are fully accounted for (Fontagné et al., 2013; Aichele et al., 2014), Germany

registers larger gains than the EU average. This would tend to increase income inequality within the EU. It appears that countries that are strongly integrated into the German value chain benefit more than those left outside. The single sector perspective adopted in Felbermayr et al. (2014) comes to a more optimistic conclusion, as Germany wins slightly less than the EU average. Note that the single-sector view imposes less structure; it can be understood as a reduced form approach to a more complex model where the fundamental drivers of comparative advantage are not fixed. This interpretation implies that TTIP could be less beneficial for peripheral countries in the short-run, but may turn out to offer overproportional advantages for them in the long-run.

Finally, the studies disagree about whether or not the TTIP will affect third countries negatively. The study of Francois et al. (2013) is the only one to assume that bilateral trade cost reduction between the EU and the US generates spill-overs through which trade costs in the rest of the world fall, too, albeit by a lower rate. This is a topic of great political relevance, in particular regarding the multilateral system; see the next section for further discussion.

Before turning to the policy debate in Germany, it is worth reiterating that the simulation results should all be taken with a grain of salt: whether the economic effects are large or small depends, more than on anything else, on the supposed scenario. In Aichele et al. (2014), if the TTIP is not a deep agreement but only a “medium” one, the welfare benefits for Germany would be less than half the 3.45% presented in Table 4. With this caveat in mind, the simulations are still informative about the qualitative impacts and should be interpreted accordingly.

IV. Elements of the Public Debate in Germany

Cross-Sector Heterogeneity

While the effects of a TTIP will be mostly felt within narrowly defined industries or sectors, there is, of course, a substantial amount of heterogeneity across them. It would be beyond the scope of this paper to provide a comprehensive analysis; however, some remarks on a number of key sectors are useful as they illustrate larger issues. For this reason, in the following I provide some discussion on the agricultural sector, the automotive sector, and the chemical sector.

Agriculture. Most regions within Germany are characterized by small farms; farms in Eastern Germany are an exception. 646,000 persons are employed in the agricultural sector; they generate value added amounting to 0.86% of GDP.¹¹ Net incomes in the agricultural sector amount to about double this quantity due to various transfers.¹²

Germany is a net importer of raw agricultural goods, but a net exporter of processed food; these products amount to less than 1% and to 4% of total exports, respectively. Exports to the US amounted to about 1% and 2% of total exports in raw and processed goods, respectively. For imports, those numbers stand at 5% and 2%; see Bureau et al. (2014) for details. It is therefore safe to say that raw agricultural exports to the US are almost non-existent; exports of processed goods are more important. Amongst the most important goods, only 4 goods (at the six digits level of disaggregation) amount to 74% of total exports – they are all alcoholic beverages (wine, sparkling wine, spirits).

Regarding imports of raw agricultural goods, Germany imports nuts (almonds, pistachios), and animal feed (soy beans, sunflower seeds) from the US; alcoholic beverages (whiskies and wines) and see food dominate imports of processed goods.

Table 5 Top 10 Source destinations, agricultural imports (ISIC Rev. 3 01-05), 2013

Rank	Country	Imports, USD bn	Share
1	Netherlands	7.6	19.7%
2	Spain	3.8	9.8%
3	France	2.3	6.0%
4	Italy	2.1	5.5%
5	Brazil	2.0	5.1%
6	USA	1.9	4.9%
7	Poland	1.5	3.9%
8	Danmark	1.1	3.0%
9	Czech Republic	1.0	2.6%
10	Vietnam	0.7	1.9%
	Sum over top 10	24.0	62.3%
	Total	38.5	100.0%

Source: Destatis.

Overall, the US amounts to less than 5% of Germany's agricultural imports; Brazil has overtaken the US in the last years, mostly by expanding its exports of soy beans, ethanol, and tropical fruits at eh

¹¹ Most recent data (2013), Destatis.

¹² BELV (2012).

expense of the US. But also Vietnam has appeared as an import supplier of agricultural goods to Germany. Both countries could be affected by trade diversion should a TTIP be concluded.

The agricultural sector, despite its miniscule role in the overall economy, has always proven problematic in trade negotiations. It is likely that TTIP is no exception. The current disputes are not of a nature to be solved through trade-offs, unlike those that were bundled in the Blair House agreement (Johnson 1998). In many cases, the roots of the disputes are much deeper, and refer to fundamental divergences in the role of the state, the conception of risk and in the overall legal and institutional framework of each party. For example, there is a rather fundamental divergence in understandings of scientific evidence, scientifically proven risk and the precautionary principle between the US and EU. In multilateral instances (e.g. WTO, *Codex Alimentarius*) and in bilateral discussions, the US has emphasized specific issues (e.g. science-based risk assessments, brand based intellectual property recognition), while the EU has emphasized others (e.g. respect of traditional denominations, animal welfare, etc.). Similarly, the EU and the US stress different issues in their bilateral cooperation and association agreements signed with third parties.

Over recent years, the transatlantic dialogue has nevertheless brought some progress on which negotiators could build. For example, the parties have accepted mutual recognition of wine-making practices and recognition of geographic indications for wine and spirits (2006). It has not solved all disagreements, though, and the US still considers important European wine names as “semi-generic”. They have concluded an agreement on sanitary measures to protect public and animal health in trade in live animals and animal products, including the progressive recognition of the equivalence of sanitary measures, the recognition of animal health status, the application of regionalization and the improvement of communication and cooperation (2003). The cooperation did not manage to overcome any of the issues that involved fundamental conceptions in risk analysis. Neither did it solve the divergence regarding decontamination at the end of the processing chain (meat), rather than control at each step. In 2012, a mutual recognition agreement on organic products entered into force. As a result, organic products certified in either the EU or the US can be sold as organic in either region since June 1, 2012. The EU-US banana agreement entered in force January 2013. Finally, there are other signs of a willingness to progress within the TTIP discussion, which led from the US side, to greater acceptance of regionalization for recognition of low risk of dissemination of the bovine spongiform encephalopathy status; and from the EU side to accept lactic acid based methods of pathogen control in beef.

All these efforts are steps on which the TTIP can build on. It is also worth recalling that both parties have agreed, by signing the WTO SPS agreement, that all measures aimed at protecting human, animal and plant health must be based on scientific principles. Importantly, in all EU and US free trade agreements concluded with third parties, both entities have made explicit references to WTO rules in the sections dealing with SPS and TBT standards, suggesting that they intend to comply to a common set of standards. Compliance to this global framework is important to ensure that bilateral agreements remain consistent. It should also ease the bilateral negotiations on these issues.

On the optimistic side, one may also argue that regulatory divergence is sometimes overestimated. For example in terms of food safety, one often stresses the differences between the EU and US philosophy for risk management. The EU philosophy is said to rely on the idea that the whole process is monitored and traceable at each step. By contrast, the US system is seen mostly as verifying safety of the end product. While there is some truth in this comparison (see the various issues above), it ignores that both the EU and the US have adopted compulsory Hazard Analysis at Critical Control Point approach in several food sectors, including meat.

Bureau et al. (2014) find that the main areas where Germany could expect additional exports to the US are dairy products, processed products including wine and spirits, and possibly sugar and biodiesel. The TTIP could, however, have serious adverse consequences for the suckler cow sector (cows raised for meat production only). Ethanol, poultry, and cereals (corn and low-quality) wheat could also be affected by strong increases in imports from the US.

Beyond the potentially negative impact for particular sectors, the main farmer association in Germany issues warnings on distortions that would result if trade was liberalized without regulatory convergence, for example concerning the use of pesticides, standards (such as minimum space requirements for pigs or chicken) or the treatment of meat in lactic acids. Consumer protection agencies, in contrast, fear that regulatory convergence would undermine significant sections of the EU policy, in particular in terms of risk management and precaution, but also on consumer information and dispute settlement.

Automotive industry. The industry that is the most visible export industry of Germany is, beyond doubt, the car industry. Traditionally, the car industry has been doubtful as to the advantages of further trade liberalization. Indeed, it is one of the most protected sectors, with EU import duties at 10%. However, in the current discussion about TTIP, the car industry has adopted a different, very welcoming, position. This is due to the fact that the industry is already very strongly integrated across the Atlantic. All major US car manufacturers – General Motors, Ford, and Chrysler – have either very sizeable European affiliates or they are owned by a European firm. Similarly, the main German car makers, Volkswagen, BMW, and Daimler-Benz, have large production sites in the US. Indeed, the BMW plant in Spartanburg, Carolina, is the biggest exporter of US-made cars to markets outside North America, beating any facility run by General Motors Co. (GM), Ford Motor Co. (F) or Fiat SpA (F)'s Chrysler as well as the entire state of Michigan, the historic home of the American auto industry.¹³

US car workers are about 40% less expensive than workers in highly unionized German plants, according to data from VDA the German car lobbyist.¹⁴ For this reason, the German car industry is increasingly interested in exporting US made cars to Europe and to other destinations. Accordingly, the elimination of tariffs would be very welcome. Similarly, the car manufacturers would benefit greatly from a mutual recognition of standards regarding things such as the height of bumpers, the color of brake lights, the design of side mirrors, or the setup of tests for emissions.

Without providing details for Germany, Francois et al. (2013) find that the elimination of tariffs and 25% of existing US and EU NTBs would increase EU vehicle and parts exports to the U.S. by 149% and increase U.S. vehicle and parts exports to the EU by 347%. Similar effects are found by Aichele et al. (2014) for Germany. For this reason, the industry has lobbied for comprehensive mutual recognition, where a vehicle certified as compliant with safety and environmental requirements in the US is accepted as compliant in the EU, and vice versa. The underlying assumption, which is broadly supported by data, is that European and US cars have very similar safety and environmental performance even if regulation differs.

¹³ Reported by Bloomberg on <http://www.bloomberg.com/news/2014-07-10/bmws-made-in-america-surging-as-biggest-auto-export-cars.html>

¹⁴ Information provided by Bloomberg, see footnote 13.

Chemical industry. The chemical industry is an example of a highly sophisticated sector which is not very visible in citizens' daily lives but which evokes fears and worries, in particular in Germany. In particular, there are many concerns about a lowering of safety standards in this area.

In the chemical sector, differences in the regulatory environment across the Atlantic are deep. Both sides have different regulation for the safety of chemicals. REACH in the EU and the U.S. Toxic Substances Control Act (TSCA) cannot be compared with each other as their building principles are very different (precautionary principle in the EU, ex post application of sound science in the US). This makes mutual recognition impossible until the legislation changes. The chemical industry in Germany has acknowledged this problem. It has argued that a TTIP “cannot and will not put into question the regulatory autonomy, neither of the EU nor of the U.S. Regulatory autonomy does not preclude regulatory cooperation. A difference needs to be made between regulatory convergence in existing and future legislation: in fields where the goal of legislation is comparable or even identical, ideally both parties agree on mutual recognition. This will remain the exception in the chemical sector where the transatlantic gap has widened rather than closed in the past years. But it should be possible to approximate certain points – which have arisen under existing legislation and constitute trade obstacles, e.g. reporting requirements, exchange or recognition of data – without compromising the protection standards.”¹⁵

The German chemical industry has proposed concrete steps for reducing duplication and for achieving more convergence in the long term. These include (i) cooperating in the prioritization of chemicals that need to undergo assessment; (ii) approximation of methods in chemical assessment; (iii) intensive exchange of information and finding out about possibilities how to cooperate in newly arising topics (e.g. regulation of nanomaterials, combination effects of chemicals, endocrine active substances); (iv) cooperation and exchange of information for data between public agencies in charge of chemicals.

Moreover, for the energy-intensive chemical industry, it is important to benefit from the U.S. “shale gas revolution”, e.g. by liquefying gas and exporting it to Europe. This would at least reduce the transatlantic differential in gas prices and improve the competitiveness of European industry.

Investor-State Dispute Settlement

With the entry into force of the Treaty of Lisbon on Dec 1 2009, the European Union has gained exclusive competence with respect to the common commercial policy and may be a party to international agreements covering provisions on foreign direct investment.¹⁶ As of today, there is no EU trade agreement in force that has an investment chapter, but all major trade deals in negotiations are planned to include one.

At least this is what the High-Level Working Group has recommended for a TTIP. The chapter would include provisions that remove market access barriers for foreign investors and to grant protection against discrimination and expropriation without compensation to foreign investors. If the agreement is breached, foreign investors can sue the state (i.e., the EU or the US) via a special investor-state dispute settlement (ISDS) mechanism that is separate from the normal public judicial system. The ambition is set the standard for a modern and more comprehensive investment chapter: it would go

¹⁵ VCI (2014).

¹⁶ Point (e) of Article 3(1) of the Treaty on the Functioning of the European Union (TFEU).

beyond traditional bilateral investment treaties by applying to pre-establishment as well as post-establishment; it would cover a broader range of financial transactions, and it would go farther in ensuring transparency and impartiality of the decision process in the ISDS processes in line with recommendations put forward by the UNCTAD in its *Investment Policy Framework for Sustainable Development*.

More than any other proposed elements of the partnership the investment chapter has sparked a considerable debate in Germany. The critics stress the following points: (i) there is no need for an investment chapter, (ii) it would favor foreign investors over domestic ones, (iii) it would threaten governments' ability to impose new and stricter regulation, (iv) it would introduce an EU-wide liability scheme.

As discussed above, there are good reasons to believe that the degree of capital market integration is much deeper than the degree of integration on goods and services markets. This is particularly true for the US-German relationship, where both countries are important sending and receiving countries of foreign direct investment from each other. Affiliates of German multinationals achieve sales of ZZZ bn USD in the US, while German exports amount only to UUU.

Hence, critics that, from Germany's point of view, there is no particular need to include an investment chapter into TTIP. However, the situation is different for many other EU member states. Most new member states have concluded bilateral investment treaties (BITs) with the US in the early 1990s, but these agreements do not respect the recent UNCTAD recommendations, nor do they contain pre-establishment provisions (i.e., on liberalization of market access). Replacing those old BITs by an investment chapter in TTIP would offer the opportunity to modernize the rules and procedures; it would also substitute the EU for member state governments as the US counterpart (see below). Finally, there is also a geostrategic component to the debate: German multinational enterprises have built wide-reaching global production networks and they have a vital interest in protecting their foreign direct investments. For this reason, the EU is currently negotiating a BIT with China. Since such a BIT would of course be reciprocal, it would grant Chinese investors in Europe special rights that – in the absence of a EU BIT with the US – would be denied to American investors. So, while an investment chapter in TTIP is no priority for Germany, it is important for other EU member states and plays a key role in the overall EU strategy in international investment protection.

Germany was the first country in history to sign a BIT: it did so in 1959 with Pakistan. Since then, it has concluded 155 treaties, 132 of which are still in force. 21 agreements have been replaced by new ones (e.g., the agreement with China); two agreements have been unilaterally cancelled (Bolivia, South Africa). Typically, the partners to the agreement are poorer, less developed countries, which are recipients of German FDI. In the case of the TTIP, Germany itself is a recipient of FDI – this has dramatically changed the public perception of BITs. Moreover, under the umbrella of the Energy Charter, an agreement covering the energy sector which contains an ISDS mechanism, Germany has been sued twice by the state-owned Swedish energy firm Vattenfall which has bought power plants in Germany in the 1990s. The more controversial of these cases relates to the German “Energiewende” project, which foresees shutting down all nuclear power plants until the year of JJJ. Vattenfall has access to the ISDS while other –Germany based – electricity producers must go to the standard courts to seek compensation. Critics say that this constitutes a parallel system which treats foreign investors differently to domestic ones. Advocates of ISDS counter that this is to neutralize various advantages that domestic companies may enjoy in domestic courts.

A more relevant point of criticism is that investors may sue governments when the latter modify regulations that affect the profitability of firms' investments post establishment. This can happen under the title of indirect expropriation, which occurs when the expected present value of the investment is reduced without compensation. Existing agreements often are rather unclear on the exact legal definition of indirect expropriation. This uncertainty may invite frivolous claims, which – even if they end up being turned down – cause substantial costs and make governments reluctant to envisage regulatory changes in the first place. This regulatory chill need not be bad, in particular in a country such as Germany in which the density of regulation is already very high.

The last important question on ISDS which is particularly important in Germany is the following: which legal entity the – Union or the Member State – is the respondent to an investment dispute under the investment chapter in the TTIP. A recent EU regulation provides an attempt towards clarification.¹⁷ In Article (5), it states: “Where the Union, as an entity having legal personality, has international responsibility for the treatment afforded, it will be expected, as a matter of international law, to pay any adverse award and bear the costs of any dispute. However, an adverse award may potentially flow either from treatment afforded by the Union itself or from treatment afforded by a Member State. It would as a consequence be inequitable if awards and the costs of arbitration were to be paid from the budget of the Union where the treatment was afforded by a Member State, unless the treatment in question is required by Union law. It is therefore necessary that financial responsibility be allocated, as a matter of Union law, between the Union itself and the Member State responsible for the treatment afforded on the basis of criteria established by this Regulation.” So, under an investment chapter the EU has legal responsibility, while the financial responsibility rests with the Member States.

The regulation clarifies the allocation of financial responsibility. But what looks like a simple administrative procedure has deep economic implications. Under the investment chapter, political risks, which a foreign investor incurs in a specific Member State, will, in case of damage, be dealt with at the Union level. This implies that the risk premium that an investor requires will be the same in the entire Union. The equalization of risk premia implies an implicit transfer of countries with low levels of risk to those with higher levels. By distorting the price system, it could incentivize investors from the US to invest in countries with high underlying risk rather than, say, in Germany. This problem is only now emerging and has not been discussed much in the public debate so far. However, it deserves further scrutiny as it could preempt political configuration within the EU that many memberstates would probably resist.

Multilateralism and discrimination of third countries

The stated objective of the TTIP, e.g., according to the negotiating mandate that EU member states have given to the EU Commission, “is to increase trade and investment between the EU and the US”; creating trade between and within the group of third countries is not an objective. Rather, much of the political discussion about the TTIP puts forward the need to ascertain transatlantic leadership in the future world trade system. While a TTIP certainly would not be an open attempt to discriminate against third countries, containment of emerging powers such as China or Brazil does certainly play a role in the motivation of politicians.

¹⁷ Regulation (EU) No 912/2014 of the European Parliament and the Council of 23 July 2014 establishing a framework for managing financial responsibility linked to investor-to-state dispute settlement tribunals established by international agreements to which the European Union is party.

It is very obvious that most of the future demand growth will happen outside of the transatlantic economy. In 1995, about 60% of world demand (world income in USD) originated within the EU or the US; in 2013 this share has already fallen to 46% and it is projected to fall to about less than a third of world demand by 2050.¹⁸ Moreover, the share of German exports to the EU27 and the US has fallen from 75% in the year of 2000 to 65% in the year 2012. A similar but somewhat less dramatic erosion of relative importance has happened with imports. And there is very little evidence that would suggest a reversal or even a slow-down of these trends.

These facts are, of course, well-known to all relevant German decision makers. Representatives of several key lobbying groups have repeatedly stated that they do not wish to see an Atlantic Fortress or an Economic NATO established as such a development could endanger free access of German firms to emerging markets. However, so far, very few proposals have been made to ensure that a TTIP would not discriminate against outsiders. The BDI, the German Federation of Industries has argued that a TTIP should be designed such that discriminatory disadvantages for third countries are minimized, e.g., by simplifying rules of origin, or by even limiting the requirement to prove the origin of goods to a short list of sensitive sectors.

One may argue that a TTIP will not have substantial trade diverting effects since both the EU and the US have relatively low MFN tariffs relative to most trade partners. However, the TTIP is supposed to do much more than eliminating most tariffs. In many areas, such as for example the opening of public procurement markets, liberalization of investment, or the reduction of quantitative restrictions, the TTIP will effectively discriminate against foreign suppliers. A key question is whether regulatory convergence between the EU and the US also reduces trade costs between third countries and TTIP members and/or amongst third countries themselves.

The evidence strongly suggests that preferential trade agreements do divert trade. Panagariya (2000) nicely motivates his discussion of trade diversion and creation by stating: "*Any discussion of the welfare effects of PTAs must inevitably begin with the influential concepts of trade creation and diversion.*" Are these trade diversion effects substantial?¹⁹ While Clausing (2001) finds little evidence for trade diversion for the Canada – United States Free Trade Agreement (CUSFTA)²⁰, Trefler (2004) and Romalis (2007) do find evidence for trade diversion for CUSFTA and NAFTA, respectively. While Trefler (2004) finds trade creation does still outweigh trade diversion to ensure that there are welfare gains from NAFTA in Canada, Romalis (2007) concludes that "*the more detailed data used in this paper reveals much more substantial trade diversion than Trefler, so much so that there appear to be essentially no welfare gains for any NAFTA member.*" (page 417) However, Romalis (2007) does not only find no welfare gains for the NAFTA members, but also finds evidence for negative third-country effects for non-NAFTA members. His analysis of trade diversion reveals that a 1 percent drop in intra-North American tariffs leads to about a 2 percent fall in exports from other countries relative to the European Union.

Chang and Winters (2001) analysis the trade diversion effects of non-MERCOSUR exports to Brazil after 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*

¹⁸ OECD World Economic Outlook, May 2014.

¹⁹ Panagariya (1999) is a nice survey discussing the likely effects of PTAs including the potential trade diversion effects.

²⁰ Note 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 CUSFTA would not have been in place (see Romalis (2007)).

well-known theoretical argument that even if external tariffs are unchanged by integration, nonmember countries are likely to be hurt by regional integration. " (page 901)

Regulatory cooperation can proceed in two main ways: by creating a joint standard, or by mutually recognizing standards. Establishing joint standards is hard, so that most progress has been made by negotiating mutual recognition agreements (MRAs). The problem with MRAs is that they do not create a single world standard to which third countries could adhere. Rather, they would have to abide by the national standards in the PTA countries, since the MRA does not extend to them. For this reason, MRAs are potentially as much trade diverting as tariff reductions are; joint standards, in contrast, could actually spur third country trade. What is the empirical evidence on this question?²¹

Chen and Mattoo (2008) use panel data to analyze the effects of PTAs that harmonize standards and find that while they increase trade between participating countries, the effects on outsiders are less clear cut. They depend on the ability of the outside countries to meet standards. As the standards are more likely met by developed than by developing countries, Chen and Mattoo (2008) conclude that specifically developing countries will be negatively affected by trade diversion from an MRA where they are not a member. Additionally, the stringency of the rules of origin plays a crucial role for the effects on outsiders. If the rules of origin are very strict, then gains from the MRA are restricted to MRA member countries, whereas otherwise also outside countries potentially gain from harmonization of standards of other countries. Baller (2007) uses a gravity model accounting for heterogeneous firms to investigate the effects of MRAs on developed and developing countries. She distinguishes between MRAs for which she finds positive effects on the extensive (entering new markets) and intensive (volume of trade) margin, and harmonization of standards or technical regulations. For the latter she finds ambiguous effects. Specifically, in line with Chen and Mattoo (2008), she finds that developing countries' trade is affected by regional harmonization whereas trade with developed countries is increased.

Fink and Jansen (2009) focus on services trade and argue that the scope for MRAs is likely to be limited. The reason is that with regard to services, MRAs are mainly relevant for mode 4 movements.²² However, mode 4 trade is hardly affected by trade liberalization, making large gains from MRAs unlikely. Further, MRAs for services only apply to a small number of professional services sectors, like accounting, architecture and engineering. Further, most of the MRAs do not implement automatic recognition of qualifications (OECD (2003)), limiting their effect further. There is also a recent paper by Cadot et al. (2013) that highlights trade diversion effects for non-tariff measures. They show that North-South PTAs hurt trade between developing countries. If the harmonization is based on regional standards, also exports of developing countries to developed countries are predicted to be negatively affected.

Let us summarize these empirical findings in the words of the World Trade Organization: *"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). The implication of all this is that Germany could be negatively affected if a TTIP ends up disrupting trade with emerging countries.

²¹ For a detailed discussion, see the World Trade Report (2012) prepared by the World Trade Organization.

²² Mode 4 movements are services supplied by nationals of one country in the territory of another. This includes independent services suppliers and employees of the services supplier of another country, like, for examples a doctor going from his home country to the patients' country to treat him there.

The position of the German government

In its 185 pages long so called coalition agreement between the conservative and market friendly CDU/CSU and the social democratic SPD, the current government has committed itself to the TTIP. In an own section entitled “Strengthening free trade and trade agreements”, the pact first talks about the need to strengthen global trade governance through the World Trade Organization and to complete the Doha Round. Then, the agreement says that the coalition strives for the speedy conclusion of a free trade agreement with the US and of further agreements with fast-growing emerging markets.

As to the much disputed protection of international investments, the government pushes for maintaining the high current levels of protection. It strives towards establishing “level playing fields” and international standards.

The coalition agreement sets forth that EU trade deals should enshrine the core labor provisions of the International Labor Organization (ILO), so that free trade does not lead to wage and social dumping. It insists that a TTIP must maintain the high European standards in the areas of consumer and data protection.

The German position in Europe recognizes “the special need for protection of cultural goods and media”. In the negotiations about an EU-US free trade agreement, this need must be respected and secured by means of exceptions.

“The planned free trade agreement with the US is central for deepening the transatlantic relations. We want that the negotiations are successfully concluded without compromising parliamentary control and judicial protection. Our objective is to eliminate as far as possible any existing barriers in the transatlantic trade and investment relations. Justified exceptions must be part of the treaty for both sides. We will pay special attention on securing the European standards of protection in the areas of data, social, environmental and food safety standards, as well as in the areas of consumer rights, public services, culture and media.” (p. 168, translation of the author).

However, the social democrat party has increasingly expressed concerns about several dimensions of the TTIP. State secretary Brigitte Zypries (from the SPD) said on 13 March 2014 in German Parliament, as regards ISDS: “At present, we are in the consultation procedure, and we are speaking against an inclusion of the arbitration procedures in the agreement. We are working towards this, and we would be grateful for support.”

Bernd Lange,²³ German socialist-democrat politician and chairman of the International Trade Committee in the European Parliament, sees the TTIP as an important contribution towards the re-industrialization of Europe—an important policy objective of his party. In particular, the areas of public procurement, and the mutual recognition of technical standards would present interesting opportunities. He also stresses that tariffs, despite their low average levels, still matter for EU-US trade because of the sheer volume of transactions. Finally, he also asks for an US commitment to ratify a number of ILO norms relating to the recognition of trade unions or work councils.

He defines three “red lines”, which, if transgressed, would lead to rejection of a TTIP by the social-democrat fraction in the EU Parliament. First, he stresses the need for a parallel EU-US framework

²³ Lange, Bernd “Die roten Linien von TTIP”, IPG-Journal, Friedrich Ebert Stiftung, 2014. Available under <http://www.ipg-journal.de/kommentar/artikel/die-roten-linien-von-ttip-559/>

agreement on data protection. Moreover, in his party's view, provisions on data protection have no place in a free trade agreement. In Europe, many citizens are very sensitive in this area, not least because of historical experiences with totalitarian regimes. Second, he opposes the inclusion of an investor-state dispute settlement (ISDS) mechanism in trade agreements between countries (such as the EU or US) with reliable and developed judicial systems. He does recognize the importance of investment provisions in an agreement, and seems to accept ISDS in treaties with emerging countries. Finally, he formulates the opposition of his group against the speedy conclusion of a treaty that delegates responsibility about regulatory convergence to extra-parliamentarian bodies. If a comprehensive agreement turns out impossible, he proposes a smaller deal centering on the elimination of tariffs, the mutual recognition of technical standards, and public procurement. The red lines have been concocted into a joint position paper of the SPD and the trade unions, in which 14 conditions are laid down which need to be met if the SPD is to accept the treaty. The core of these points is similar to Bernd Lange's demands.

At the same time, the conservative party is increasingly coming under pressure as well. Besides the small but powerful lobby of farmers, it is also exposed to criticism from both the catholic and the protestant churches. The President of the Commission of the Bishops' Conferences of the European Community (COMECE), the German cardinal Reinhard Marx, has stressed that a free trade agreement between the US and Europe not only is an economic opportunity, but also constitutes a particular responsibility. A key question, in his mind, is whether the agreement serves the common – global – good, or whether it harms developing countries. He would oppose an agreement that does not create advantages for the world's weakest. He asks for TTIP to advance clear, ethically founded norms in the world economy. By this, he seems to mean labor or environmental standards.²⁴

Summarizing, the German government supports a TTIP. But there is a substantial degree of skepticism in both coalition parties and the final position of the government is not yet fully clear.

24 Press communiqué by the German Bishops' Conference, 10.06.2014 - Nr. 099.

V. Conclusions

Germany is a country that has hugely benefitted from globalization. Its strong and efficient redistributive welfare state has cushioned adverse effects for individuals with low incomes. Germany has successfully secured a rather advantageous spot in the global production chain in what one may call “old economy” sectors (automotive, chemicals, machinery) as it has specialized on relatively value-added intensive activities.

TTIP carries great promise for Germany. All available quantitative studies predict that the country could register a substantial increase in its real per capita income. However, not all sectors will benefit from the agreement. Most importantly, the agricultural sector will come under pressure. Moreover, the TTIP goes beyond a traditional free trade agreement. In particular, the inclusion of an investment chapter containing an investor-state dispute settlement mechanism has raised concerns from many sides.

The TTIP will affect the economic and political relations of Germany with other EU Member States. First of all, the available quantitative studies all predict that the relative importance of traditional German trade partners such as France, Italy or the UK will decline to the advantage of the US. This is a natural consequence of the fact that a TTIP would unwind the discriminatory effects that the EU customs union and the EU single market have had on the US. However, the erosion of links within the EU will further limit the readiness of Germans to invest into the EU unification project. Second, certain aspects of the TTIP could lead to a socialization of liabilities between EU member states, as the EU would act as the respondent in investment disputes. This could be seen as an additional step towards a liability union in Europe.

The TTIP will also affect Germany’s economic and political links with third countries. Quite clearly, it will shift the trade pattern away from emerging economies and towards the US. This could endanger Germany’s close economic links with China, and it could also push Asian and African developing countries closer to China. While Germany remains officially committed to multilateralism, it remains to be seen which steps are taken in order to avoid that a TTIP leads to new opposing blocks in world trade – a situation that Germany would more than many other participants to the TTIP would suffer from.

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