

# Controversies Regarding the TTIP Agreement in the Academic Literature

Maik Huettinger, Corresponding author, ISM – University of Management and Economics, Arklius Gatve 18, 01305, Lithuania, [maihue@ism.lt](mailto:maihue@ism.lt)

Aras Zirgulis, ISM – University of Management and Economics, Arklius Gatve 18, 01305, Lithuania, [arazir@ism.lt](mailto:arazir@ism.lt)

## *Abstract*

The main academic studies evaluating the impact of the Transatlantic Trade and Investment Partnership (TTIP) agreement are critically reviewed. The focus of this paper is on analysing to what degree the models which are predominantly used, are actually able to predict what they promise. This is done by decoding their methodologies and by discussing critical misconceptions caused by incorrect interpretations of results. The findings indicate that most of the studies analysed, are based on fragile and highly questionable assumptions. We argue that the predictions of each model can be tailored according to the preferred outcome of the modeller, which calls into question the legitimacy of this type of policy analysis in general. Finally, three policy options are suggested, aiming to unite the different views on TTIP.

**Keywords:** TTIP, Transatlantic Trade and Investment Partnership, Policy Evaluation, Heterodox Economics

**JEL:** B40, B50, C18, C60, F17

## **1. Introduction**

Free-Trade Agreements (FTA) can lead to vast improvements of living standards. However, the loss in national sovereignty and control over one's economy is a cost, which along with the potential for job displacements and declining terms of trade, are also unpleasant realities of international trade. The question of how to measure the costs and benefits of international trade is a relatively new and important part of the job of the modern economist.

In the area of applied international trade studies, there are two prevailing approaches: using econometric models or General Equilibrium models. Ideally, the modeller should be someone uninterested in the outcome of the model. If the modeller is interested in the output of the model being a certain way, it is possible to include (or exclude) assumptions which push the results in the desired direction. This possibility of model abuse is a topic seldom mentioned in the literature.

This paper will present the main academic studies by decoding their methodologies and by discussing critical misconceptions caused by incorrect interpretations of results. We hope that this will clarify many misunderstandings and stereotypes held by decision makers. The aim of this paper is not to criticise FTAs per-se, but to show the inadequacies of the currently used models that analyse the benefits and risks of trade agreements.

## **2. Overview of the main studies on TTIP**

The main studies on TTIP may be loosely divided into two groups based on their policy outcome recommendations. Most studies favour the implementation of TTIP and have been conducted by the London based Centre for Economic Policy Research (CEPR), the French CEPII, and by the team of Gabriel Felbermayr (Fontagné, Gourdon & Jean, 2013; Francois & Pindyuk, 2013; Felbermayr, Heid & Lehwald, 2013b). However, one major study (Jeronim Capaldo, 2015) is critical of the other works and, hence, TTIP.

What these studies have in common is that they suggest different policy scenarios - based on a reduction of tariff and non-tariff barriers. The studies which find positive economic outcomes for TTIP are based on the CGE (Computable General Equilibrium) or SG (Structural Gravity) models. Possible gains in wealth are based on the assumption that specialisation and efficiency improvements allow an increase in productivity. The main Neo-classical assumptions, like the notion of full employment, perfect competition, and rational behaving actors are also staples of the CGE models. As the CEPR and the CEPII studies both work with the same datasets, their results are very similar (Breuss, 2014). In contrast, the model produced by Capaldo uses the United Nations Global Policy Model (GPM) which is based on Keynesian assumptions and finds differing results.

### **2.1 The Centre for Economic Policy Research Studies**

A well-known study titled ‘Reducing Transatlantic Barriers to Trade and Investment - An Economic Assessment’ prepared by the Centre of Policy Research (CEPR) (Francois & Pindyuk, 2013) for the European Commission is considered, by many critics, to be biased due to a possible conflict of interest (Beck, 2014). The CEPR study is based on the ECORYS study (Berden et al., 2009b), which focuses on the estimation of non-tariff barriers (NTB). The core of the ECORYS study is a business survey, which asks decision makers in corporations to what extent they believe that NTBs negatively influence their activities. With the help of a gravity model, the ECORYS study calculates the costs of NTBs. The CEPR study is only one of the ECORYS satellite studies, but it is probably the most influential. In addition to the CEPR study, others have used the ECORYS database, but they have, instead, focused on the effects of the TTIP agreement on one single EU member state (Berden et al., 2009a; Francois & Pindyuk, 2013; Kinnman & Hagberg, 2012; Plaisier et al., 2012; CEPR, 2013). According to Pelkmans et al. (2014), the main differences between these studies are the number of scenarios provided, the intensity of NTBs in estimations, and the calculations of static and dynamic effects. In another study, the Bertelsmann foundation provides an impact estimation on each state of the United States of America (Atlantic Council, 2013). This study assumes higher spending of consumers (due to lower prices) as an engine for prosperity and employment.

While the ECORYS study provides seven scenarios, the authors of the CEPR study simulate the effects for five different scenarios (Francois et al., 2015). The latter one assume a full liberalisation and removal of NTBs as very unlikely, and organises the more likely scenarios into three limited and two ambitious scenarios. The three limited scenarios are: (a) a 98 per cent tariff cut; (b) a 10 per cent reduction of NTBs for services; (c) a 25 per cent reduction of NTBs in public procurement. In the case where decision makers choose deeper integration, the authors suggest the following, more ambitious scenarios: (d) a 98 per cent tariff cut, a 10 per cent reduction of NTBs for services and goods, plus a 25 per cent reduction of NTBs in public procurement; (e) a 100 per cent tariff cut, 25 per cent reduction of NTBs for services, plus a 50 per cent reduction of NTBs in public procurement. The 25 per cent were defined as NTBs which are actionable and which would be reduced as a result of the TTIP

agreement.

For the three limited scenarios (a, b, c), Francois et al. (2015) predict only a small impact on GDP growth rates between 2017-2027. For (a) they vary between 0,1 per cent (EU) and 0,04 per cent (USA); for (b) between 0,02 per cent (EU) and 0,03 per cent (USA); for (c) they vary between 0,02 per cent (EU) and 0,01 per cent (USA). The results of the two ambitious scenarios (d, e), suggest increased GDP growth of between 0,27 per cent-0,48 per cent (EU) and 0,21 per cent-0,39 per cent (USA). Both scenarios also suggest yearly welfare gains for a 4-person household in the EU of €306-€545 and €336-€655 for the USA. That would translate to €119 billion a year for the EU and €95 billion a year for the USA in total economic gains. According to CEPR, these figures are, to a large extent, the result of increased export activities between the EU (6 per cent) and the USA (8 per cent). The study suggests that the labour market will be benefited and that there will only be negligible effects on labour displacement. Moreover, the effects of this free-trade area would result in an increase of global income by roughly €100 billion. A possible reason for this is the assumed spill-over effects on third countries - such as a 20 per cent decrease of NTBs.

In March 2017, the CEPR presented a final ECORYS study to the European Commission (Bouman et al., 2017). The study refers to the CEPR Framework of 2013, as being ‘the most suitable approach to date for analysing the potential impact of TTIP’. The authors have, therefore, updated the database of the old framework and extended it from 2027 to 2030. Nevertheless, two major changes in their approach are noteworthy:

First, they provide the expected effects of TTIP on various national macro-economic variables (wage inequality, labour displacement and consumer prices), as well as on sectorial employment. This is particularly interesting, as they admit for the first time (indirectly) that TTIP not only creates ‘winners’, but also many ‘losers’. E.g., the study predicts that the electrical machinery and metal production sectors in the EU, and the motor vehicle and the tobacco/ beverages sectors in the US will suffer.

Second, the authors seem to comprehend the extensive criticism many of their controversial assumptions have created. Large parts of the updated study try to carefully explain, defend and soften their initial argumentation. Not only do they provide an extensive overview of competing studies, they even emphasise issues such as ‘human rights’ and intensively address other limitations of their approach.

## **2.2 The Felbermayr Studies**

The Felbermayr studies (Felbermayr et al. 2013a, Felbermayr, Heid & Lehwald, 2013b, Gabriel Felbermayr et al., 2015) have probably received the most attention from all of the economic impact studies. The reason for this is that the studies predict very large economic gains arising from the TTIP agreement - e.g. 25 times higher GDP growth rates than those predicted by the CEPR studies. Unlike the CEPR studies, the Felbermayr studies do not entirely rely on the ECORYS/GTAP dataset and instead use a combination of three different methods to calculate the effects of TTIP (Bekkers and Rojas-Romagosa, 2016). One of the major differences to the CEPR and CEPII studies is, that they do not try to assess the effects of a reduction of trade costs on trade flows, but try to evaluate what reduction in trade costs can result in beforehand estimated levels of trade flows (Raza et al., 2014a). In addition, a ‘New-New’ Trade theory model is chosen to allow predictions of aggregated productivity change due to the inclusion of heterogeneous firms in the model (Melitz, 2003). As they

include frictional/search unemployment in their model, this approach enables the estimation of employment changes.

In the more optimistic IFO study (Felbermayr et al., 2013a) Felbermayr provides three different scenarios ('Tariff Scenario' (I); 'NTB Scenario' (II) and 'Common Market' (III)). In the earlier Bertelsmann study (Felbermayr, Heid & Lehwald, 2013b) he provides two scenarios ('Tariff Scenario' (IV) and 'Comprehensive Liberalisation Scenario' (V)), which are partially overlapping. Whereas studies I and IV only consider the removal of tariff barriers, study III practically assumes that the United States would become a part of the European Union.

The effects for the first two scenarios (I/II) are mostly insignificant (e.g. for Germany a 0,13 per cent (I) / 1,6 per cent (II) increase of real income and a decrease of unemployment of 2 100 (I)/25 220 (II) people) (Felbermayr, Heid & Lehwald, 2013b). The more optimistic IFO study even suggests that in Germany there will be an increase in income of 0,54 per cent (IV) and an addition of 45 000 new jobs. For the common market scenario (III), the Felbermayr calculations are very optimistic as they assume (due to the TTIP) an increase of the trade flows between the EU and the USA by 80 per cent (for exports from Germany to USA - 262 per cent) (Felbermayr et al., 2013a). Depending on the scenario, the authors forecast the creation of up to 2 million new jobs or a 13,4 per cent increase of real income per capita for the USA and 5 per cent for the EU. Nevertheless, Prof. Felbermayr has stated in Monitor/WDR (2014) that the TTIP is not mainly about job gains - as these effects are minimal even in the 'most ambitious scenario'. Felbermayr stresses further, that these studies are of an academic nature, and tries to emphasise that the general effects of the TTIP are positive. He considers misinterpretations of the findings as a matter of the information policy of various political decision makers and institutions.

### **2.3 The Fontagne (CEPII) study**

The Fontagné, Gourdon, & Jean (2013) study is not based on the ECORYS study, but chooses to measure the NTBs by ad-valorem equivalent (AVE) estimation. As the service sector is not subject to tariffs, the study relies on the data from Fontagné, Guillin, & Mitaritonna (2011) for nine service sectors in 65 countries. For the merchandise trade, Fontagne relies on the estimates provided by Kee, Nicita, and Olarreaga (2009). This dataset is often criticised, as being outdated and was entirely collected before the Global Financial Crisis. This results in different estimations of costs of NTBs for EU-US trade as compared to the ECORYS study. Whereas the agricultural sector is seen for both regions as being more protected, the NTBs for manufacturing and particularly services are estimated to be significantly lower.

Fontagné, Gourdon, and Jean (2013) provide four different scenarios, varying by the degree of reduction in trade restrictiveness of NTBs by sector, tariff liberalisation, and the relationship with third party countries. In addition, a fifth 'Reference Scenario' was included as a robustness check. All of the scenarios indicate a positive impact on exports and GDP growth of a TTIP. However, the results differ significantly between scenarios. In general, it can be said that the removal of NTBs is more important than tariff cuts, and that the USA benefits in each scenario significantly more than the European Union. The sector which is expected to benefit (grow) most from a trade agreement is the agricultural one, while the service sector will be affected much less. The Fontagne study also estimates changes in real income and, depending on the scenario, the results indicate a marginal increase somewhere from 0,0 per cent up to 0,3 per cent until 2025. The study also shows negative effects of the trade treaty - e.g. it estimates a 1,6 per cent decrease of real income in the EU Agricultural sector

as a result of the TTIP agreement. Moreover, it also predicts negative spill-over effects on third party countries.

## **2.4 Capaldo study**

In contrast to the previous studies, a study by Capaldo (2015) uses a Keynesian model to show that TTIP would lead to a fall in many economic indicators within the EU. Capaldo (2015) uses the United Nations Global Policy Model (GPM), which differs from CGE models mainly by adding Keynesian assumptions. This is perhaps not surprising as it was originally developed at Cambridge University, the home of John Maynard Keynes (Cripps & Izurieta, 2014). These Keynesian features include sticky prices, unemployment, and income inequality affecting spending - which are assumptions not included in CGE models. The GPM consists of historical time series data combined with a computational model, which generates scenarios and estimates model parameters. Countries or country group behaviour is assumed to be homogenous and countries interact with each other over the medium/long term through dynamic trade and financial structures programmed into the model. Capaldo (2015) claims that the GPM is superior to previous CGE models because the full employment assumption is replaced with the Keynesian idea of effective demand. In addition, the GPM explicitly models the macroeconomic processes of different world regions, while earlier CGE models had simplified by implicitly using observed data (e.g. the percentage of national income spent on imports).

Capaldo (2015) employs the GPM to test the impact of TTIP in the context of extended periods of austerity and slow growth in the EU and the US. In this gloomy scenario, any crisis experienced in one trade bloc will lead to a decrease in net exports → decrease in GDP → decrease in labour income and employment → increase in inequality and decrease in governmental spending. In response to a crisis, countries will not coordinate fiscal policies but are predicted to engage in competitive currency devaluations. The model ultimately predicts that 600 000 jobs will be lost in the EU combined with increasing income inequality, lower wages for workers, and higher financial instability. In addition, the model finds that net exports will decline in all of the EU. For example, by 2025, exports will decrease by 2.07 per cent in northern Europe. The logic provided by the author is that stagnation in the EU, fostered by austerity, will lead to declining demand for high value European goods, pushing manufactures towards producing lower value-added products. Since a high percentage of European exports are currently high value-added goods, the crowding out effect will lower European exports.

## **3. Criticism of TTIP studies**

Several opinion papers warning about the risks of the TTIP have been published in the last decade. Most of them focus on the problems of harmonizing the US and the EU, particularly when it comes to health, consumer protection, and social and legal issues. This has raised ongoing concerns by NGO's and consumer protection groups. The existing academic studies, on the other hand, try to focus on the economic consequences such trade agreements might have on households. Their findings have suggested conflicting results, leading to a growing debate about the degree to which the TTIP will affect both economies. Many opponents of the TTIP use these inconsistencies to question the overall benefits of the suggested trade liberalisation. The studies are criticized from two different camps. Some of the criticism concentrates on the interpretation of the findings and the intentions, others on unrealistic assumptions and limitations of the models.

One of the more famous examples for the first case involves the former EU Commissioner Karel De Gucht, who mistakenly believed that the GDP growth numbers of the CEPR Study are calculated on

an annual basis - and not the total for a period of 10 years (Monitor/WDR, 2014). Beckert (2013) suggests that such studies represent an important exercise in the ‘management of fictional expectations’. The creation of overly optimistic simulations, relying on the ability of the two entities to reduce regulatory barriers, serves as a tool for pro-liberalisation advocates to pursue their agenda (De Ville & Siles-Brügge, 2015). This idea is closely linked to the ‘institutional hypothesis’, suggesting that powerful groups in society may influence economic institutions to pursue their interests (North, 1991). Unlike in the case of TPP, national and transnational business leaders were far more united in the TTIP negotiations, allowing them to speak with a common voice (Ravenhill, 2017).

Other critics, such as Dean Baker (2014) question the conclusions made by some of the academic studies: ‘Implying that a deal that raises GDP by 0.4 per cent or 0.5 per cent 13 years out means job-creating opportunities for workers on both continents is just dishonest. The increment to annual growth is on the order of 0.03 per cent points. Good luck finding that in the data.’ According to Baker, the study should never have been used to suggest that TTIP creates jobs. In fact, the authors of the CEPR study clearly state that it will not lead to an increase of employment, as the CGE model chosen assumes full employment. In general, the model makes overly optimistic predictions about the ability to implement the ‘full package’, in order to serve the pro-liberalisation agenda of the advocates of TTIP (De Ville & Siles-Brügge, 2015).

When it comes to the criticism to the assumptions and limitations, it may be helpful to separate the various methodologies used. As mentioned before, the CEPR, the Felbermayr Studies as well as the CEPII studies are using CGE/SG models for their simulations. The main difference among the CGE models is that the first one applies the GTPA model, the second and the third one the MIRAGE model. Both methods are in principle very similar to each other and the differences are rather marginal (Raza et al., 2014a). Both models basically assume that in all regions there is a single representative composite household (eg. Francois et al. (2015) assume in their model each and every household in the US and the EU consists of 4 people). Moreover, all firms employ only domestic production factors and perfect competition is assumed in all agricultural sectors. Eventually, all prices on goods and factors adjust until all markets are simultaneously in equilibrium and real wages will fall until full employment is obtained. Surprisingly, the models assume the government does effectively not exist (subsumed into representative households) and the budget deficit is set as constant. Saving rates of the representative households are constant; capital cannot move between sectors or countries (MIRAGE model).

The key differences which appear to result in very different outcomes are the assumptions made about trade costs (reduction of NTBs), elasticities of substitution and the scenarios chosen. Despite assuming different degrees of removability of NTB, the CEPR and the CEPII basically rely on the estimates of external studies, specifically the quantification of NTBs when it comes to the trade costs (Berden et al., 2009b). This is problematic in many ways. First of all, the ECORYS (used for the CEPR) method defines NTBs very differently than standard approaches which are commonly applied (Raza et al., 2014a). For instance, it excludes quotas as NTBs but includes domestic regulations and laws. Second, the entire ECORYS dataset is based on a single survey (questionnaire) which was sent to corporations, with 5 500 replies received. The dataset faces substantial self-selection bias due to the data gathering protocol. For example, respondents were asked to: ‘Consider exporting to the US (EU), keeping in mind you are in the domestic market. If 0 represents a completely ‘free trade’ environment, and 100 represents an entirely closed market due to NTBs, what value between 0 – 100 would you use to describe the overall level of restrictiveness of the US (EU) market to your export product (service) in

this sector?'. Despite the question of whether these corporate respondents are in fact qualified and experienced enough to make comparative judgements (business perceptions on trade restrictions vs. actual trade costs), it also raises the issue of representativeness. Most likely only companies which are engaged heavily in EU-US trade took the time to respond. To assume that each and every company in Europe and the US faces the same NTBs, is highly dubious. Raza et al. (2014a) suggests that firms actually might have misunderstood some of the questions, making the entire survey questionable. Moreover, the conceptualization might introduce an upward bias (the higher firms estimate the NTBs, the higher are the potential benefits from its reduction). The CEPII study on the other hand, relies on NTBs by ad-valorem equivalent (AVE) estimation, taken from Kee et al. (2009) and Fontagné, Gourdon, & Jean (2013)). The estimations of the NTBs (based on the UNCTAD-TRAINS NTM database) are much higher than the one from the ECPORYS, but cover more sectors (Bekkers and Rojas-Romagosa, 2016).

When it comes to the question of elasticities of substitution, it is interesting to note that the ones that are used in these CGE models are higher than reasonable macroeconomic elasticities. In other words, the gains of reducing the NTBs are too optimistic and unlikely to obtain.

Besides the reliance on the ECORYS data, the scenario time frame of 2027 seems to be randomly chosen and poorly justified. Pelkmans et al. (2014) suggest that the CEPR assumes that the negotiations were already finished by 2017 and will be fully implemented by 2027. Francois et al. (2015) explains his decision in the following way: 'The results are reported with respect to an economic benchmark projected out to the year 2027, which implies that they capture the impact of the agreement a full ten years after the implementation, providing insights into the longer-term impact of policy changes'. Another criticism of the CEPR study by Raza et al. (2014a) is that the model does not consider negative scenarios involving economic growth (e.g. due to an increase of prices). Moreover, the CEPR study indicates that in the ambitious scenario the job displacement of workers in the European Union would be a minimum of 1,3 million people. However, as the model assumes full employment, flexible prices, and high mobility of the workforce, all the dismissed workers would be immediately absorbed into the economy.

The Felbermayr studies use a different approach and assume that the creation of a EU-US trade agreement would create large trade creation effects, welfare gains and would reduce trade barriers dramatically (Pelkmans et al., 2014). Despite the assumption of an 80 per cent increase in trade, the possible effects also seem implausible. For example, as the US gets only 3,5 per cent of its GDP from exports to the EU (at very low tariffs already), a 13 per cent increase in US GDP is improbable. One of the reasons for overly optimistic expected outcomes may be found in the very generous definition of trade barriers which are subject to removability (Raza et al., 2014a). The Felbermayr studies also fail to take firm heterogeneity into account, randomly sets substitution elasticity at 8 (without estimating it) and use a top-down approach for estimating the NTBs that is too simplistic and generic (Bekkers and Rojas-Romagosa, 2016). In other words, Felbermayr assumes that the effects of TTIP will be very similar to other free trade agreements of the past. In general, studies using this top-down estimation of NTBs arrive at higher cost reductions than studies with bottom-up approaches (such as CEPR or CEPII). The assumption that NTBs reductions of about 30% are neither reliable nor in line with the average trade cost calculations of the CEPR study of around 3%. Pelkmans et al. (2014) reject the projections that Canada might face a negative spill-over effect of 9 per cent of its GDP. Such dramatic changes seem very unlikely, particularly as Canada is a part of NAFTA. The projections of labour gains are in doubt as well, as it is based on data for only 28 OECD countries.

Capaldo (2015) heavily criticises the reliance on the full employment assumption, which he questions by the observation that unemployment levels in Europe have remained high during the last decade. In addition, the idea that workers who lose their jobs in one sector may quickly transition to work in other sectors is challenged by Polaski (2006). Even if workers displaced from one sector find employment in another, they may suffer from lower wages due to skill-set mismatch, which would make the entire economy worse off. Capaldo (2015) criticises the CGE models' assumptions that countries have fixed trade shares with one another. He argues that the CGE models have incorporated trade shares too simplistically and have not included 'trade diversion' whereby changes in trade between two trading partners affect trade shares of other countries or regions as well. In addition, the CEPR study predicts positive spill-over effects to third party countries, while other sources see very likely negative effects on third party countries (Felbermayr, Heid & Lehwald, 2013b; Capaldo 2015). There are several issues with the Capaldo (2015) study. First, the outcome of the model strongly rests on the dubious assumption that any negative shock from the US to the EU will result in a downward economic spiral for the EU because of their lack of a central fiscal authority to engage in deficit spending, and the Maastricht treaty spending limitations. Contrary to this claim, there is ample evidence that countries which implement austerity policies can have substantial economic recoveries (Staeher, 2013). A study by Mirdala (2009) which tests for the impact of expansionary fiscal policy in several central European countries finds that the effects of Keynesian stimulus were modest or non-existent. Thus, the strong Keynesian assumptions of the model as applied to Europe are at odds with some of the empiric cases. Furthermore, the Maastricht spending limitations have already been broken with impunity before.

Maria Persson (2015) claims that the Capaldo study lacks replicability due to the limited description of the methods used. He also claims that Capaldo completely ignores a key facet of what any TTIP study should be about, namely the effect of TTIP on trade volumes. A final issue with the Capaldo (2015) study is that the model is designed to include Keynesian assumptions, while also assuming that European countries will 'not reverse their commitments to fiscal austerity'. These assumptions practically guarantee that the model will produce results showing negative economic consequences, irrespective of the TTIP agreement.

#### **4. Are Economists to blame? A more heterodox approach as a solution?**

Many observers are puzzled why the TTIP-Negotiations have provoked such a strong opposition from civic groups. In some European Nations, it was the first time that hundreds of thousands of people protested on the streets against a possible new trade agreement. To some extent, the success of the BREXIT campaign, as well as the election of President Donald Trump, can be attributed to the free trade question. Young (2016) suggests that the main reason for the societal tension is that the ongoing TTIP negotiations have higher salience than other FTAs. In any case, society seems to be more divided than ever, being aware that corporate vested interests together with politicians and academics are willing to deliver favourable impact assessments. Therefore, we asked ourselves, are economists whose econometric studies are often based on unrealistic assumptions to blame? In this chapter we will firstly present supporters and opponents of free trade and globalization; and we will try to draft a more heterodox approach, which might be able to connect both sides. We will discuss to what extent the TTIP agreement is actually a FTA and finally, we will present our proposal for future TTIP negotiations.

In general, most economists suggest that free-trade largely benefits society (Prasch, 1996). This view is based on Ricardo's Theory of Competitive Advantage, the Heckscher-Ohlin Model (Heckscher &



Ohlin, 1933) and its extension, the Stolper–Samuelson theorem (1941), claiming that despite the fact that individual factors of production can lose out (capital vs. labour), the gains of trade will always compensate for these losses. Opponents of FTAs fear that unregulated trade may destabilise an economic system, which was once designed to balance the interests of various stakeholders. Institutionalists such as Friedrich List (1856) or John R. Commons (1934) suggested, that tariff and non-tariff barriers are a useful instrument to protect innovation and technology and, therefore, support the welfare of the nation. However, in a globalised world, the question of technology-transfer protection becomes less relevant, as multinational-corporations (MNCs) dominate trade flows. Technology spillovers occur mainly from subsidiaries of multinationals to domestic firms (Findlay, 1978; Ozturk, 2007). As a result, it turns more into a policy decision of the individual country as to what extent they decide to open themselves up to FDI. Of high interest for multinational enterprises is the host countries' protection of intellectual property rights (IPRs). In the case of weak IPR standards, FDI may not necessarily fail to materialise, however it may alter the composition of FDI flows at the industry, as well as the firm level (Saggi, 2002). MNCs lobby governments of their home countries to champion strict global IPR standards. Until the early 1990s, there was a widespread belief that Globalisation was going to benefit everyone. Today, many scholars challenge this myth by emphasizing the increasing gap between wealthier and poorer countries (Stiglitz 2002; 2007; Chase-Dunn, 1998). Robinson (1977) concluded that the analysis of Ricardo mainly aimed at creating a system which reflects the interest of the strongest competitor (at this time the United Kingdom), as this one does not have to fear competition in domestic markets. Free trade doctrine, in practice, is a subtler form of Mercantilism, helping the ones who wants to export. As suggested by the 'race to the bottom' concept, more expensive sets of regulations of advanced nations are considered as a cost disadvantage for investors (Raza et al., 2014b). Developing countries are, therefore, forced to reduce labour and environmental standards, in order to offer attractive conditions to maintain or attract capital.

Palley (2008) suggests a more mixed picture of the impact of trade agreements, and might therefore have the potential to converge the positions of neo-classical trade theory and institutionalist trade theory. On the one hand, some scholars strongly favour trade and base their analysis on the conventional microeconomic driven trade theory. On the other hand, many scholars question the neo-classical win-win assumption, emphasise the role of potential technology transfers by multi-national corporations and the negative outcome of increasing returns to scale on trade relationships. Eventually, they suggest that economic policy should focus on setting the right climate, conditions and institutions. This view is supported by many representatives of the new institutional economics school of thought, which link economic growth to the degree to which the potential hazards of trade are able to be controlled by institutions which are set up to stabilise the economic climate (Klein, 2000).

In principle, free trade-agreements are not inherently a danger to an economy, as no consumer can be against the free access of products (however, this rationale may be questioned by the current US-Administration). According to neoclassical economics, history has shown that countries which do have access to these benefits of free-trade, provide higher living standards to their citizens than other countries. Nevertheless, depending on the development stage, free-trade agreements may also have negative or zero effects on the wealth of a country (Sarkar, 2008; Gunnar, 1956). Neoclassical economists are convinced that trade will lead to convergence among trade partners, however Kaldor (1980) postulated instead that free trade can lead to a polarisation between successful and unsuccessful economies in which success in competitive performance feeds on itself and losers become immiserated by trade. Despite following the principle of free-trade, contemporary FTAs are as far

away from the principle of free trade, as a BB gun is from a smart bomb. In essence, free-trade is easy to define. There are no-tariff barriers, no non-tariff barriers, and there will be no discrimination for the products and services of trade partners. In reality however, each FTA is an extensive and detailed contract which has been negotiated between the trade partners for many years with thousands of exceptions. Thus, the debate should rather be about the question of to what extent the TTIP reflects the core idea of a FTA and/or does it already have elements of a Common Market or Customs Union. What makes the situation even more tricky—the main discussion is not about the general benefits of the TTIP for consumers (such as having easier access to a variety of products and services), rather policy decision makers try to focus on the effects specific changes of trade regulations have on economic variables such as unemployment, welfare, economic growth or even innovation. It is evident that FTAs will increase the flow of goods, but this does not automatically mean that the higher flow of goods will result in higher employment. Chasse (2015) argued that FTAs have not improved the positions of workers, but have helped to widen the income gap and resulted in concerns about free trade. To some degree, this seems unfounded, as one should rather blame the complexity of the ‘free-trade rules’ which were set up by the institutions in charge. Therefore, this does also not challenge Commons’ (1908) argument, that tariffs do not benefit workers of protected industries. Employment can only rise when consumption increases (Krugman, 2009). This is very unlikely in the case of the TTIP agreement, as consumers of both regions already have reasonable access to the products they need, and additional consumption will depend on the general level of economic development. In reply, TTIP proponents suggest that a reduction of tariff and non-tariff barriers will automatically create benefits (or that the benefits always exceed the costs), resulting in higher income and thus higher consumption. As already shown in the analysis above, such increases in income are only marginal - not justifying such enormous changes in regulations and safety standards.

Considering the entire new geopolitical situation, one may assume ‘TTIP is dead’. The authors, however, believe that in the long-run, a kind of TTIP 2.0 may be developed. According to the arguments discussed above, the authors suggest the following: (1) The TTIP 2.0 should be promoted as a strengthening of the ties between the two major trade blocks (the US and the EU), which share a common history, culture and have a similar understanding when it comes to the question of free-markets. The creation of a common trade zone will increase the power of the two blocks to set worldwide standards. Moreover, it might be the last time in history when the United States together with the European Union will have enough power to influence global standards. Particularly when it comes to the existing relatively high environmental, health and safety standards of both regions, the global impact might be significant. (2) The emphasis of any new treaty should be on the harmonisation of technical (industry) standards, reciprocity and the reduction of non-tariff barriers, where little conflict is present. Indeed, it makes little sense that there are different regulations and standards regarding the colour of rear blinker lights. However, the TTIP 2.0 should (at this stage) not focus on the harmonisation of the standards which involve regulations when it comes to food safety standards, investment protection and other areas of conflict. Newly established commissions should be established, which should work on harmonisation in the long run. (3) The communication strategy of the European Union and the USA should shift from solely promoting possible economic benefits of the transatlantic trade agreement, to the points listed above. The literature review has shown that the assumptions made in the CGE models are unrealistic and any impact on economic welfare cannot be predicted. One good example of a successful trade block/common market is the European Union.

## **5. Conclusions**

This article has critically reviewed the main studies which are used in the contemporary debate about

the Transatlantic Trade and Investment Partnership (TTIP) Agreement. In the first part, four of the main approaches (CEPR, Felbermayr, Fontagne and Capaldo) were presented and discussed. In the following part the criticisms of these studies were evaluated and presented. The article concludes with a request for a more heterodox view on the question of a possible TTIP 2.0 Agreement.

The aim of this paper was not to engage in an emotional debate on whether such a trade agreement will be a danger or a benefit for the societies of the participating countries. It is likely that less regulation will bring both regions closer together. However, the extent to which this is desired by its people or its decision makers is questionable.

TTIP proponents - such as the European Commission or the last US administration, have funded various studies to back their political decisions. Most of these emphasise the economic benefits of a FTA between the European Union and the United States of America. However, we have argued that, at this stage, it would be impossible to make any predictions on how a TTIP would impact the GDP of the United States or the European Union.

The analysis has shown that, due to its severe limitations and assumptions, the econometric models which are used in forecasting (CGE Models/SG Models) are not adequate. Particularly, the question of full employment and the ability of the markets to allocate production on a global scale is often questioned (Palley, 2003). One of the concerns raised in this paper is the scientific objectivity of the scholars who prepared the various econometric studies, which were sponsored by non-neutral institutions. In general, all studies on this topic will be biased, as scholars intentionally or non-intentionally opt for a methodology which is the most appreciated by their peers. Predicting the future has been tempting since the beginning mankind, and very few academic disciplines have been able to resist.

The focus on economic impact has to be interpreted as a PR/communication strategy of the European Commission. Most likely, it aims to override concerns of various stakeholder groups. Despite being emotional, many of these concerns have to be taken into account. Regarding regulations, it is very likely that in particular disputes, the lowest standard of one of the two entities will be considered the common standard. This would result in a decrease of standards indeed. Both regions are equally developed (unlike in the case of North-South Trade Agreements) and regulations are often considered as a way to balance the interests of all stakeholders. The political, economic and legal system of both regions has produced a unique system of regulations which are not inferior to one another. In particular, the European 'precautionary principle' collides with the US-American idea of the 'aftercare principle', where products can be placed on the market as long as they pose no scientifically proven danger. Openly acknowledging this problem - and not denying it - may be a first step of policy decision makers. Further works should try to emphasise more realistic assumptions (such as the existence of unemployment, exchange rate risks or trade imbalances) or at least try to apply more sophisticated models (eg. agent-based modelling).

<sup>1</sup>This paper was finalised after the British 'BREXIT' referendum. However, as no details are clear at this stage (e.g. if the UK would remain a part of the common market), the impact of this decision was not discussed

<sup>2</sup>For more details: <http://bpp.mit.edu/>

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