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Merve Mavuş and Arif Oduncu and Didem Güneş

Central Bank of the Republic of Turkey

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The Possible Effects of Transatlantic Trade and Investment Partnership (TTIP) on Turkish Economy*

Merve Mavuş

Central Bank of the Republic of Turkey
merve.mavus@tcmb.gov.tr

Arif Oduncu

Central Bank of the Republic of Turkey
arif.oduncu@tcmb.gov.tr

Didem Güneş

Central Bank of the Republic of Turkey
didem.gunes@tcmb.gov.tr

Abstract. Due to the World Trade Organization's (WTO) deadlocked multilateral trade negotiations, many countries have started to establish Free Trade Agreements (FTA). In this context, the European Union (EU) and the United States (US) have decided to establish bilateral Transatlantic Trade and Investment Partnership (TTIP). This note focuses on the impacts of this partnership on Turkish economy. To the best of our knowledge, we are the first to analytically analyze the economic impacts of the TTIP on Turkey by differentiating according to Turkey's inclusion in and exclusion from the TTIP. By using Global Trade Analysis Project (GTAP) database and a general equilibrium model, the effects of various scenarios on GDP is studied within the framework of four-regional-consolidation, the EU, the U.S., Turkey and rest of the world. Obtained results show that Turkey could be in a gain of 35 billion USD if Turkey is included in TTIP compared to if she is excluded from the TTIP. Moreover, Turkey's inclusion in TTIP is not only in favor of Turkey but also in favor of the EU and the USA in terms of higher GDP growth rates.

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1. Introduction

As well as political, social and cultural integration, important economic integration steps have been observed especially in trade liberalization which goes back to the World War II and gains popularity in the 1980s (Şanlı, 2004). It is argued that as trade barriers in the world trade are eliminated, international trade has played an important role in development and industrialization of countries. Despite the developments in international trade, there are still many trade barriers between countries as a result of WTO Doha Round's deadlocked multilateral trade negotiations. Therefore, countries have attempted to establish bilateral Free Trade Agreements (FTA) in order to create trade opportunities in advance of partner countries by eliminating tariffs and non-tariff barriers which affect trade costs among partner countries. In this context, the European Union (EU) and the United States (US) have decided to establish bilateral trade and investment partnership. Considering trade volume between the EU and the US and their shares on world trade, it is widely expected that the EU-US FTA creates worldwide spill-over effects.

In the current trade relations between the EU and the USA, it is observed that the custom tariff rates especially in industrial goods are quite low; on the other hand, non-tariff barriers, legal regulations and protectionist policies have remarkable distinguished features. Therefore, this partnership is expected to be a comprehensive cooperation focusing mainly on non-tariff issues beyond tariffs and establishing new rules in international trade (European Commission, 2013). By the virtue of this agreement, positive acceleration on growth and employment, which have become main issues in the EU and the USA especially during global financial crisis, is anticipated. Furthermore, topics which are not covered in WTO agenda, namely WTO-x standards such as competition policy, labor force and environment standards, child labor, human rights, visa and migration are considered to be included in this FTA (Akman, 2013).

In this paper, potential impacts of the EU-US FTA on Turkish economy are analyzed. As far as we know, any analytic research which aims to examine the potential effects of this agreement on Turkish economy by differentiating scenarios according to Turkey's inclusion in and exclusion from this partnership does not exist. Results show that inclusion of Turkey within the FTA could increase GDP up to 4.6%. Moreover, Turkey's inclusion in FTA is not only in favor of Turkey but also in favor of the EU and the US in terms of higher GDP growth rates.

The remainder of the paper is organized as follows. The next section presents the brief review of the literature. Section 3 summarizes the trade relation between EU, US and Turkey. Section 4 gives details about the methodology and empirical results. Section 5 concludes the paper.

2. Literature Review

The Global Trade Analysis Project (GTAP) network and its related models are widely used in studies which present impacts of FTAs on partner countries and third countries since it is useful for conducting quantitative analysis of change in international trade as a result of policy changes. Among analyses which utilize GTAP, Breuss and Francois (2011) find that there is an increase in the EU and South Korea real GDP by 0.05% and 1.56%, respectively, as a result of the FTA between the EU and South Korea. Similarly, Estrada and et al. (2013) show increments in the real GDP of China and ASEAN¹ by 0.57% and 0.65% through the China-ASEAN FTA. In

¹ASEAN: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam.

the same paper, it is argued that China and Japan may have 0.03% and 0.98% real GDP gains by means of the China-Japan FTA; and also, it is estimated that the real GDPs of China and South Korea increase by 0.32% and 2.70%, respectively, through the China-South Korea FTA. Kinnman and Hagberg (2012) analyze the EU-US FTA and they calculate that there are increases in national incomes in the range of 0.01% to 0.18% in Sweden, 0.02% to 0.22% in the EU, 0.02% to 0.51% in the US. Francois and Pindyuk (2013) examine the impacts of EU-US FTA on Austrian economy and find that there is a 5.5 billion US Dollar increase in Austrian GDP. Moreover, growth in GDPs in the range of 0.10% to 0.48% for the EU and 0.04% and 0.39% for the US are calculated by Francois et al. (2013) in different scenarios to assess the effects of the EU-US FTA.

Furthermore, the study of Felbermayr and Larch (2013), which assesses the possible effects of the EU-US trade partnership on the EU, the US and third countries, reveals welfare gains in the range of 2.6% to 9.7% for the EU members and of 13.4% for the US without using GTAP Model. These gains are considerably high compared to other studies about EU-US FTA. They also analyze the possible economic impacts of this FTA on third countries and estimate welfare loss of 9.5% for Canada, 7.2% for Mexico, 3.8% for Switzerland and 2.5% for Turkey.

3. Trade Relations between EU-US and Turkey

Regarding the EU-US FTA, certain impacts on Turkish economy will arise on the grounds that Turkey has potent political and economic relations with the EU and the US. (Kirişçi, 2013). The EU and the US are among major trade partners of Turkey as shown Table 1. Moreover, Turkey has Customs Union Agreement with EU since 1995. Turkey has to adopt its trade policy according to the EU’s trade policy because of Customs Union Agreement. As the Decision entered into force on 31 December 1995, Turkey had to sign several FTAs, which EU had already established with third countries, within 5 years because of the legal obligation related to the adaption of trade policy. Moreover, customs union brings another obligation which compels Turkey to make FTAs with third countries which sign FTAs with the EU.

Table 1: Trade Statistics of Turkey

	Export shares of related regions in Turkey’s total export (%)		Import shares of related regions in Turkey’s total import (%)	
	2004	Average of 2005-2012	2004	Average of 2005-2012
EU	58.1	49.5	49.3	39.9
US	7.7	4.2	4.9	5.6

Main risks of Turkey because of Customs Union Agreement with EU are as follows:

- i. Turkey does not own any right to comment about continuing FTA negotiations of the EU with third countries.
- ii. Turkey does not own any right to make FTAs with third countries independent from the EU.

- iii. Turkey becomes a vulnerable market for all countries which signs FTA with the EU. In other words, goods originating in these countries might enter to Turkish markets easily; however, market access of Turkish goods in these countries without any trade barriers is not feasible given that FTA requires the rules of origin.
- iv. The countries already made FTAs with the EU are reluctant to establish FTA with Turkey.
- v. The trade between the EU and Turkey becomes more disadvantageous for Turkey as the EU makes this kind of agreements with third countries since Turkey lose its comparative advantage in more competitive EU markets (Yeşilyurt & Paul, 2013).

In this framework, the impacts of a comprehensive trade agreement made by the EU and the US on Turkish economy are analyzed; it is observed that the degree of the impact depends on Turkey's involvement in this agreement. In the case of Turkey's exclusion from this FTA; Turkey will become an attractive market for the American goods but Turkish goods will lose their comparative advantages in the EU markets as a result of the structural difference between customs union and FTA. To put it another way, the US goods in the EU will get easy access to Turkey due to custom union; on the other hand, Turkish goods will not enter to the US via EU due to the rule of origin implied by FTA. It is considered that this situation will cause trade deflection to the detriment of Turkey.

4. Methodology and Empirical Results

In order to analyze the impacts of the EU-US FTA on the EU, the US and Turkey, GTAP network and Standard GTAP General Equilibrium Model set under the assumptions of perfect competition and constant returns to scale have been used. The dataset for the general equilibrium model has been obtained by GTAP-7 data base covering 113 regions and 57 sectors and also related bilateral trade information, transport and protection linkages with reference year of 2004. Fourfold regional aggregation -the EU, the US, Turkey and rest of the world-, threefold sectorial aggregation -agriculture, manufacture, services- and fivefold input aggregation -land, skilled and unskilled labor, capital and natural resources- have been utilized in GTAP-7 data base for the analysis.

In this context, two main scenarios based on the assumptions of Turkey's inclusion² and exclusion are developed in order to analyze the impacts of this FTA on the EU, the US and Turkey. Furthermore, the possible agreement has been deepened by differentiating scenarios using various shocks and the impacts on the EU, the US and Turkey

4.1 The Impacts on the EU and the US

First, the impacts of this FTA on reel GDP values of the EU and the US have been investigated according to Turkey's inclusion in and exclusion from this agreement. In this context, the scenario of the exclusion of Turkey is primarily introduced and sub-scenarios have been obtained by four different shocks.

²Turkey's inclusion refers either Turkey's involvement to EU-US FTA or signing an independent FTA with the US.

In this first sub-scenario, whole custom tariffs including tariff equivalents and quotas between the EU and the US have been removed as a result of the EU and the US partnership. Results displayed in Table 2 show a rise in real GDP by %0,009 in the EU and %0,004 in the US.

On the grounds that the custom tariff rates between the EU and the US are still in quite low levels, it is considered that the EU and the US FTA will not cover only removal of custom tariffs but also will cover reduction in non-tariff barriers in the sectors of food, manufacture and services. Furthermore, the method of reduction in trade costs between the EU and the US is adopted since it is expected that there would be easing in international trade due to cuts in non-tariff barriers and so reduction in costs would be observed in international trade. In this context, non-tariff barriers have been reduced by 5% in services and 2% in other sectors similar to the study of Breuss and Francois (2011). As an alternative, 5% reduction of non-tariff barriers in all sectors has also been applied. The effects of these shocks on the countries' real GDPs are shown in Table 2. According to the results of the model, it is found that the EU and the US have 0.092% and 0.105% real GDP gains in case of removal of custom tariffs between two countries and limited cuts in non-tariff barriers. In the case of further cuts in non-tariff barriers, higher increases in real GDP in the EU (0,151%) and the US (0,185%) have been obtained.

Finally, non-tariff barriers in the exports of third countries to the FTA partners have been reduced according to the approach of direct spill-over effect of Francois et al., 2013 which introduces a cost reduction in exports to these two countries as a result of harmonization of regulations. Given 5% cost reduction in all sectors to cut non-tariff barriers and 20% of direct spill-over effect, it is assumed that 1% cost reduction would arise in the exports of third countries to the EU and the US. The results, in the event of removal of tariffs and reduction in non-tariff barriers between two countries by taking into account of direct-spillover effects, are shown in Table 2. In this most comprehensive case, real GDP gains of 0.264% for the EU and 0.300% for the US are obtained.

As mentioned above, custom tariffs between the EU and the US are still in quite low levels; hence, the most important effects are expected to be highly derived from the reduction of non-tariff barriers. As the results summarized in Table 2, reduction of non-tariff barriers brings important impacts on the EU and the US economies, and also, the degree of reduction in non-tariff barriers determines the size of gains of these economies. Hence, the more liberalization in trade provided by the EU-US FTA is, the more benefits these countries attain.

Table 2: The impacts on the EU and the US if Turkey is excluded

Applied Shocks	Real GDP (% Change)	
	EU	US
Removal of tariffs	0.009	0.004
Removal of tariffs and limited reduction in non-tariff barriers	0.092	0.105

Removal of tariffs and reduction in non-tariff barriers	0.151	0.185
Removal of tariffs, reduction in non-tariff barriers, and direct spill-over effects	0.264	0.300

The second scenario is based on Turkey's inclusion in the EU-US FTA. The economic results which represent the case of Turkey's involvement in this FTA by applying the same shocks in the first scenario are shown in Table 3. According to obtained results, the real GDP gains of the EU and the US could be up to 0.280% and 0.304% which are observed as 0.264% for the EU and 0.300 for the US in the first scenario. Furthermore, for all scenarios Turkey's inclusion in this process is in favor of the EU and the US in terms of growth rates.

Table 3: The impacts on the EU and the US if Turkey is included

Applied Shocks	Real GDP (% Change)	
	EU	US
Removal of tariffs	0.009	0.006
Removal of tariffs and limited reduction in non-tariff barriers	0.102	0.108
Removal of tariffs and reduction in non-tariff barriers	0.171	0.190
Removal of tariffs, reduction in non-tariff barriers, and direct spill-over effects	0.280	0.304

4.2 The Impacts on Turkey

In this part the possible impacts of this FTA on Turkey are analyzed and two main scenarios have been studied based on the assumptions of Turkey's inclusion in and exclusion from this agreement. Also, this FTA is deepened by applying different shocks mentioned above section.

The GDP and export changes in the case of Turkey's exclusion from this FTA are shown in Table 4. According to first shock, the case of removal of whole custom tariffs including tariff equivalents and quotas between the EU and the US, the GDP of Turkey could decrease by 0.132%. And also, Turkey could face a 0.359% GDP loss in case of removal of custom tariffs between two countries and limited cuts in non-tariff barriers. In the event of further cuts in non-tariff barriers, higher GDP loss $-(0.591\%)$ in Turkey has been obtained. In case of last shock including spillover effects, GDP loss by 0.191% for Turkey could be occurred. When this first scenario is analyzed in terms of exports of goods by applying different shocks, it is observed that Turkey's loss of exports could be up to 0.450%.

Table.4: The impacts on the Turkey if Turkey is excluded

Applied Shock	GDP (% change)	Export (% change)
Removal of tariffs	-0.132	-0.114
Removal of tariffs and limited reduction in non-tariff barriers	-0.359	-0.268
Removal of tariffs and reduction in non-tariff barriers	-0.561	-0.450
Removal of tariffs, reduction in non-tariff barriers, and direct spill-over effects	-0.191	0.129

The economic results which represent the case of Turkey's involvement in this FTA by applying the same shocks in the first scenario are shown in Table 5. Along with Turkey's inclusion in this agreement, higher and positive GDP changes -in the range of 0.460% to 4.001%- are observed for Turkey. Similarly, the export values of Turkey increase in the range of 1.303% to 6.974% depending on the deepness of this agreement.

Table 5: The impacts on the Turkey if Turkey is included

Applied Shock	GDP (% change)	Export (% change)
Removal of tariffs	0.460	1.303
Removal of tariffs and limited reduction in non-tariff barriers	2.046	3.809
Removal of tariffs and reduction in non-tariff barriers	4.001	6.974
Removal of tariffs, reduction in non-tariff barriers, and direct spill-over effects	3.793	6.846

According to obtained results, Turkey's inclusion in this partnership creates important economic gains for Turkey. However, on the grounds that the EU and the US attain higher real

GDPs, this situation is advantageous not only for Turkey but also for the EU and the US. The real GDP gains of the EU and the US could be up to 0.280% and 0.304% instead of the values observed as 0.264% for the EU and 0.300% for the US in the first scenario.

5. Conclusion

The world liberalization target concentrated after the end of 20th century has caused an increase in popularity of economic integration among countries as well as a rise in the phenomena of free market economy and competitiveness. This economic integration process is expected to gain new dimensions by the EU-US FTA. Considering trade capacities of the EU and the US, leaders of world economy and among primary trade partners of almost all countries, it is estimated that this agreement will create worldwide spill-over effect and important impacts on emerging economies.

This study focuses on the impacts of EU-US FTA on Turkish economy. It is found that the depth and scale of economic impacts have shown great variations related to the involvement of Turkey in this FTA. Results show that the difference between GDP changes in the situations of inclusion and exclusion of Turkey can be up to 4.6%. Moreover, Turkey's inclusion in the FTA is not only in favor of Turkey but also in favor of the EU and the US in terms of higher GDP growth rates.

Finally, besides of the reduction of tariff and non-tariff trade barriers, it is considered that this FTA will provide crucial steps on structural reforms and direct foreign investments. On the grounds that GTAP General Equilibrium Model covers only the elimination of tariff and non-tariff trade barriers, it is thought that obtained results show minimum economic gains for the EU, the US and Turkey; and it is assumed that economic gains of these parts will be increased by widening the scale and depth of this partnership.

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