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Moving toward the EU or the Middle East? An assessment of alternative Turkish foreign policies utilizing the GTAP framework

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ABSTRACT

This paper assesses the new orientation in Turkish foreign policy towards the Arab world by analyzing the potential impact of Turkey's membership in either the European Union (EU) or the Greater Arab Free Trade Area (GAFTA). We utilize the most recent version of the Global Trade Analysis Project (GTAP) database, its global Computable General Equilibrium (CGE) model, and the gravity border effect approach to estimate the ad-valorem tariff equivalents (AVEs) of non-tariff barriers (NTBs). In our overall analysis, we account for 24 various sectors. However, in our evaluation, we focus primarily on the food and agricultural sectors because this sector is characterized by high tariff and non-tariff protection. In the CGE simulation analysis, we consider the removal of tariffs and NTBs simultaneously. After projecting the GTAP framework to 2020, we conclude that Turkey would gain unambiguously from EU membership, whereas Turkey's gains from GAFTA membership would be more limited. The paper also presents that the welfare gains from the removal of NTBs are of considerable importance and would generally be greater than the gains stemming from the elimination of import tariffs.

Introduction

Whether Turkey should be referred to as a European, a Middle Eastern or an Asian country has always been a crucial question. In recent years, this ongoing debate has attracted even more attention. The long-standing membership negotiations with the European Union (EU) and Turkey's so-called "axis shift" toward the Middle East have underscored the importance of this issue. There appears to be a trend in which Turkey is loosening its ties with the West and tightening its ties with the East.

The first step toward the integration of Turkey into the European community occurred in 1963 with the Ankara Association Agreement. The 1995 Customs Union Agreement continued this process with Turkey becoming an EU candidate country in 1999 and beginning its accession negotiations in 2005. Up until now the EU has always been Turkey's most important trading partner, accounting for 42% of Turkey's total trade in 2012 (Turkstat, 2013). Meanwhile, the EU continued to expand growing to its current size of 28 member countries. Since 2002, the Turkish government has restructured the direction of its foreign policy strategy becoming more politically aligned with the Arab world. The literature on Turkey's recent foreign policy seems to confirm this political shift and increasing involvement with the Middle East (e.g., Adam, 2012; Babacan, 2011; Candar, 2009; Ciftci and Ertugay, 2011; Evin et al., 2010; Sanberk, 2010). Turkey's Islamic roots, cultural and historical ties with the Arab world as well as its legacy to Ottoman Empire are identified as main triggers for this "axis shift" (e.g., Alessandri, 2010; Aybar, 2012; Habibi and Walker, 2011; Taspinar, 2008; Walker, 2011). This political realignment has directly affected the country's trade strategy. Although, the Turkish government claims that no exclusive policies are set for the Middle East and implementation of consistent foreign policies for different parts of the world are intended (Foreign Policy, 2010; Kara, 2011), the evidence clearly shows the opposite. Free trade agreements (FTAs) signed by Turkey in the last 10 years have mainly included countries in the Arab world. Currently, Turkey has eight FTAs with Middle Eastern countries.

Against this backdrop, we compare two options of the Turkish foreign policies by employing a global Computable General Equilibrium (CGE) model enriched with econometrically estimated ad-valorem tariff equivalents (AVEs) of non-tariff barriers (NTBs). Our aim is to contribute to the debate regarding whether Turkey will gain more from its political realignment toward the Middle

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East (e.g., through a potential membership in the Greater Arab Free Trade Area (GAFTA)[1]) over its potential EU membership.

There is an extensive body of literature assessing the potential impacts of Turkey's EU membership using CGE analyses (e.g., Acar et al., 2007; Eruygur and Cakmak, 2008; Philippidis and Karaca, 2009). However, only a small number of studies evaluate Turkey in terms of its FTAs as well as its integration with the Arab world (e.g., Acar and Aydin, 2011; Onthman et al., 2010; Sonmez et al., 2007). Recent literature indicates it is becoming more common to conduct a two-stage analysis by estimating the effects of NTBs and then implementing them in CGE models (e.g., Chang and Hayakawa, 2010; Fugazza and Maur, 2008; Philippidis and Sanjuán, 2006, 2007; Winchester, 2009). However, to the best of our knowledge, only Lejour and Mooij (2004) have utilized this approach to examine Turkey's potential EU membership. Zahariadis (2005) also considers technical barriers, although he does not use a gravity model to estimate the effects of NTBs. Moreover, none of the aforementioned studies reflect the economic effects of Turkey's relationship with Middle Eastern states. Therefore, this paper adds to the existing studies by assessing the impact of Turkey's relationship with its Eastern and Western neighbors and by simultaneously analyzing the removal of import tariffs and NTBs. We particularly focus on the food and agricultural sector, because in general this sector is characterized by high tariff and non-tariff protection, has therefore proven to be highly sensitive in negotiations of FTAs and is often left out when concluding an agreement of an FTA. The food and agricultural sector is also known for its heterogeneity in the tariff and non-tariff protection. We therefore work at the most disaggregated sector level to avoid aggregation bias in tariffs and NTBs (Brockmeier and Bektasoglu, 2014). Utilizing the gravity border effect approach and the Global Trade Analysis Project (GTAP) framework (Version 8), we compare Turkey's potential accession to the EU with its potential membership in GAFTA.

Our analysis is divided into two parts. In Section 'Introduction', we use the gravity border effect approach to estimate the effects of NTBs on the Turkey-EU and Turkey-GAFTA trade flows and convert the resulting effects into AVEs. In Section 'Overview of the Turkish trade structure and agreements', we incorporate these AVEs into the GTAP framework and derive economy-wide results for the enlargement of the EU and GAFTA to include Turkey. Accordingly, this paper is organized as follows. Following this introduction, we include a brief overview of the trade structure, focusing on the trade flows between Turkey and both the EU and GAFTA. We also consider Turkey's protection structure and its FTAs. In Section 'Econometric estimation with the gravity approach', we provide the theoretical and empirical framework that can be utilized to estimate AVEs of NTBs. In Section 'Simulations with the Global Trade Analysis Project (GTAP) framework', we explain how we integrate our results into the GTAP framework and present our final results. We conclude with Section 'Qualification of results'.

Overview of the Turkish trade structure and agreements

Turkey was ranked 32nd in world merchandise exports and 20th in world merchandise imports in 2011 (WTO, 2013). The most important destination for Turkish exports was the EU (46% of total Turkish exports), followed by Iraq, Russia, the United States and the United Arab Emirates. The majority of Turkish imports also originated from the EU (38% of total Turkish imports). Other important import markets for Turkey were Russia, China, the United States, and Iran (European Commission, 2013a). Although the EU share of Turkey's total trade has decreased since 1990, it has never fallen below 40%, and the EU remains a major trade partner of Turkey. Additionally, Turkey's trade share with other Middle Eastern countries in the last two decades hovered around the 10% mark; however, this share has increased in the last 5 years, reaching 22% in 2012, due to FTAs that came into effect in 2007 (Turkstat, 2013).

In Tables 1 and 2 below, we provide an overview of the commodity specific trade shares as well as source and destination specific trade shares between Turkey and its trading partners. Though we use data from 2007, the trade and protection structure of Turkey have predominantly remained unchanged. What has changed is the volume of trade from 2007 to 2013. The greatest shares of Turkey's exports to the EU and GAFTA are attributed to the light and heavy manufacturing sectors as well as services in the case of Rest of the World (ROW) (compare Table 1). Accounting for 71.47%, extraction ranks first in Turkey's imports from GAFTA. Heavy manufacturing contributes the most to Turkey's imports from the EU (58.92%).

Turkey's food and agricultural exports to the EU account for 6.03% of Turkey's total export to the EU, whereas the share of Turkish agro-food exports to GAFTA is equal to 11.13% of Turkey's total export to GAFTA. However, as shown in Table 2, the share of Turkey's agro-food imports from GAFTA (2.80%) is also not as high as the proportion of imports from the EU (30.42%). Moreover, the amount of food and agricultural exports, that is shipped to the EU, composes 44.21% of Turkey's total agro-food exports to the world, but this share is only equal to 17.45% for the Turkish agro-food exports to the GAFTA member countries (GTAP database, Version 8).

Table 3 presents the commodity-specific trade shares and applied tariff rates in the food and agricultural sector between Turkey and its trading partners. The italicized rows exhibit the sectors, in which exporters report where they most frequently face NTBs (European Commission, 2013b; Teknikengel, 2013; Önen, 2008; Özdemir, 2008). Vegetables and fruits (2.68%) and other food products (2.30%) compose the greatest share of Turkey's total exports to the EU within the agro-food sector, whereas other animal products (0.33%), other food products (0.89%) and beverages and tobacco (0.62%) comprise the largest groups of commodities imported by Turkey from the EU. In addition to the numbers given in Table 3, it is worthwhile to emphasize that Turkey already ships 52.97% of its vegetable and fruit exports and 43.55% of other food product exports to the EU. Also, 80.30% of Turkey's beverages and tobacco imports, 61.05% of other animal product imports and 56.46% of other food product imports are originating from the EU. These shares exhibit the importance of agro-food trade between Turkey and the EU.

The greatest agro-food share of Turkey's total exports to the GAFTA member countries is given for vegetables and fruits (1.74%), vegetable oils and fats (1.13%), and other food products (6.09%). Other animal products (0.15%), processed rice (0.44%) and other food products (0.15%) are the most important agro-food products in total imports from GAFTA to Turkey. Not shown in Table 3, but nevertheless important, is that Turkey ships nearly half of its other animal products and dairy exports to the GAFTA member countries. Turkey receives 65.04% of its processed rice imports and 45.26% of its sugar imports from GAFTA, whereas the shares of other animal products and other food products imports from GAFTA in total Turkish imports within these sectors are negligible (GTAP database, Version 8).

The Customs Union Agreement between the EU and Turkey provides for the free circulation of industrial goods but does not cover the food and agricultural products listed in Annex I of the Amsterdam Treaty.[2] The Turkish agro-food sector is moderately protected;

[1] GAFTA was established in 1957 and signed in 1997. It currently has 17 members, including Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, West Bank and Gaza, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen.

[2] See http://.ec.europa.eu.