Competence Center money trade finance and development

Berlin Working Papers on Money, Finance, Trade and Development

Working Paper No. 01/2011

Jordan's Strategy of Trade Liberalization: The Case of the Free Trade Agreement with Turkey

Taleb Awad

April 2011

In cooperation with

DAAD partnership on economic development studies

Hochschule für Technik und Wirtschaft Berlin
University of Applied Sciences

Jordan's Strategy of Trade Liberalization:

The Case of the Free Trade Agreement with Turkey

By:

Taleb Awad[1]

ABSTRACT

This study examines the strategy of trade liberalization followed by Jordan during the last three decades. It provides an overall assessment of the impact of trade openness on economic growth. As a case study of such policy of trade liberalization, the new free trade agreement (FTA) between Jordan and Turkey (the most recent one) is brought into focus. It provides a comparative analysis of selected indicators of the two economies and a comprehensive analysis of the two countries' trade structures and directions. The current trade flows between the two countries are examined and the results used to predict expected effects of the FTA on the Jordanian economy. The study concludes with the analysis of the trade potential between the two countries.

1. Introduction

The recent shift in Turkey's policy towards its neighbors has strengthened its economic and political ties with many Arab countries, and has also contributed to its growing prominence within the region. With regard to its economic policies, it has worked to build and enhance cooperation –even to the extent of fostering economic integration – with a number of its neighbors. One of the most noteworthy examples of Turkey's accomplishments to this end in recent years was the singing of its free trade agreement (FTA) with Jordan on 1 December 2009. The product of several rounds of intense negotiation, the agreement allows for a negative list and the postponement of tariff reductions on select commodities for a period of three years. After this period, tariffs on these select commodities are to be reduced over the course of an additional twelve years. The gradual phasing out of tariffs is aimed at protecting domestic industries in both countries by enabling them to adapt to new competitive pressure over time.

Given the clear differences between Turkey and Jordan in terms of size and comparative advantage, the real question that the FTA poses is whether Jordanian industries will be able to withstand the increased competition that is expected when the agreement comes into force. Intense debates in economic and political spheres have taken place over the possible effects of the agreement on the Jordanian economy in general, particularly on its implications for the public sector and public debt. Opponents have voiced a number of concerns, which are primarily leveled at the agreement's impact on Jordan's small

---

[1]Dr. Taleb Awad is a Professor of Economics at the University of Jordan, located in Amman. This paper was prepared during the author's research fellowship at HTW University in Berlin in summer of 2010. The author would like to acknowledge the support provided by HTW University and DAAD. The valuable comments and suggestions made by Professor Jan Priewe, Professor Sebastian Dullien and PhD candidate Alejandro Márquez-Velázquez from HTW-Berlin, University of Applied Sciences, Dr. Meeta Mehra from Jawaharlal Nehru University, New Delhi/India, and Dr. Sergey Mazol from Belarus State Economics University were very stimulating and contributed to the completion of this paper.

businesses, trade deficit and labor market. They argue that the expected surge in Jordanian imports from Turkey would expose small firms to fierce and unfair competition, which would force the shutdown of marginal businesses and exacerbate unemployment. Further, they argue that the reduction of import tariffs will accelerate imports from Turkey, thus contributing to the further deterioration of the trade balance and fiscal deficits.

Supporters of the agreement, by contrast, argue that trade liberalization will enhance welfare by expanding trade based on comparative advantage, thereby fostering economic growth. They point out that cheaper imports from Turkey would benefit both consumers and producers in Jordan. Consumers benefit from having more diversified final goods at lower prices, while producers have access to cheaper intermediate goods. Thus, domestic producers will benefit in the long-run from the expanding markets by accumulating larger economies of scale over time. Like many of their opponents, supporters of the FTA also use mercantilist arguments to support their claims. However, their view is that Jordan will benefit from the expansion of its exports to Turkey by way of domestic job creation.

As the Jordanian-Turkish FTA is very recent, no scholarly literature specifically addressing the subject exists as of this writing[2]. However, numerous studies on the economic integration between Jordan and Turkey individually with third parties have been published during the past decade. Notable among these is a study by Ince and Demir (2005), in which the competitiveness of the Turkish economy and its trade patterns with Germany are examined. The authors use a comparative advantage analysis to assess the benefits of the customs union agreement between Turkey and European Union (EU). The study finds that Turkey has a comparative advantage in textile and apparel products, but also has a comparative disadvantage in high-tech products compared to Germany. Another study, conducted by Serin and Civan (2008), uses revealed comparative advantage (RCA) and the comparative export performance (CEP) index to study Turkey's competitiveness. Therein, they estimate the import demand functions of the EU's rival countries. They find that Turkey has a significant comparative advantage over the EU in the olive oil and fruit juice markets, but not in the tomato market.

Al Nasa'a et al. (2008) analyze the economic and social implications of the Jordan-U.S. Free Trade Agreement (JUSFTA). JUSFTA was both groundbreaking and controversial when signed – and it remains so today. The analysis provided in Al Nasa'a et al. argues that the economic gains to Jordan attributed to the FTA are smaller than officials and experts often suggest. Firstly, it asserts that the surge in U.S. imports of Jordanian produced apparel after 2001 resulted in a benefit that was primarily captured by foreign companies and workers, not Jordanian ones. Second, the benefits of the agreement have still failed to prevent many Jordanian apparel firms from relocating to Egypt, where Qualified Industrial Zones (QIZs) have been introduced following the expiration of the Multi-Fiber Agreement (MFA). Third, that JUSFTA may stifle the growth of Jordan's information technology sector through its provisions on intellectual property rights pro-

[2] The literature available on the subject is limited to reports on the agreement in the Turkish, Jordanian and international press.

tection. Fourth, that the growth in Jordan's pharmaceutical industry resulting from JUSFTA has been limited, offering no substantial benefit to the country's economic performance overall.

While Al Nasa'a et al.'s analysis does highlight some areas of strong and sustainable growth – specifically in the areas of tourism, information technology and pharmaceuticals – the collective contribution to the Jordanian economy is not regarded as large enough for JUFSTA to have a positive net effect for Jordan. The authors conclude that JUSFTA offers little in terms of the advantages needed to develop its most promising sectors, with non-tariff barriers and limited human capital development remaining as the agreement's unaddressed problems.

Chomo (2002) offers a different perspective on JUSFTA by comparing Mexico's experience under NAFTA with Jordan's under JUSFTA. Her work provides evidence that trade liberalization with industrialized nations does not necessarily slow economic development in less-developed countries. Her results also imply that NAFTA contributed to a greater rate of FDI inflows to Mexico following NAFTA implementation, taking into account changes in the real exchange rate. She concludes that JUSFTA is expected to help the economic development of Jordan by boosting its exports and FDI inflows.

Beyond her assertion that Jordan will benefit from JUSFTA, Chomo (2002) also argues that there is indeed a greater potential for welfare gains for Jordan than there were for Mexico in the case of NAFTA. This argument is based on the observation that the effective tariff rate on imports from Jordan is more than double the effective rate on Mexican imports pre-NAFTA. However, she also points out that Jordan's chief exports to the U.S. are apparel and jewelry. As a consequence, the increase in exports is unlikely to spur greater industrialization without a concerted effort to diversify its exports towards such industries as electrical machinery and pharmaceuticals.

This study provides the first in-depth analysis of the FTA between Jordan and Turkey. Its first assess the current trade situation between the two countries, and then estimates the expected effect of the FTA on the Jordanian economy. It also seeks to identify opportunities for expanding trade between the two countries based on the results of comparative advantage analysis. The study is divided into a series sections, which proceed as follows: Section 2 covers Jordan's trade environment; Section 3 provides a brief comparative analysis of selected indicators of the two economies; Section 4 provides an in-depth analysis of the overall trade structures and directions of the two countries; Section 5 analyses bilateral trade between the two countries; Section 6 provides a comparison of tariff structures for the two countries; Section 7 analyzes trade potential between the two economies; and the study ends with its main conclusions.

2. Jordan's Trade Liberalization Strategy

For a small economy with limited natural resources like Jordan, bilateral and regional trade agreements can play a vital role in enhancing competitiveness, achieving economies of scales, and compensating for supply shortages and small size market. The per-

ceived benefits of trade openness have pushed policymakers toward adopting a strategy of trade liberalization and economic integration at both the regional and global levels. To set the stage for implementing this strategy, Jordan implemented major economic and legislative reforms aimed at dealing with domestic market distortions. These efforts include the modernization of investment and trade legislation, as well as privatization and liberalization of both telecommunications and financial services. This reform process has resulted in Jordan having some of the most well-developed intellectual property rights protection legislation in its region (ASEZA 2011). The process also set the stage for engaging in multilateral trade negotiations with the World Trade Organization (WTO), and eventually led to it accession on 11 April 2000.

The liberalization of Jordan's foreign trade was further achieved through its engagement in several regional and extra-regional trade arrangements. At the regional level, Jordan was among the founding members of the Great Arab Free Trade Area (GAFTA), which was declared within the Social and Economic Council of the Arab League as an executive program to activate trade facilitation and development (ECSEI 2011). The agreement has been in force since 1 January 1998. GAFTA includes 17 Arab countries as members, which are as follows: Jordan, United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar, Morocco, Syria, Lebanon, Iraq, Egypt, Palestine, Kuwait, Tunisia, Libya, Sudan and Yemen (ibid.). Beginning on 1 January 2005, the full liberalization of trade in goods was achieved through the elimination of customs duties and charges among all members, with the exception of Yemen and Sudan (ibid.).

On the same regional level, the Agadir Agreement was signed in 2004. The agreement was pursuant to the Agadir Declaration, which was signed by Jordan, Egypt, Tunisia and Morocco in 2001. The Agadir Agreement, which entered into force in 2006, adopts the Pan-Euro-Med Rules of Origin (European Commission 2010). The adoption of these rules allows for the diagonal cumulation of origin amongst the member countries by using production input components originating in any of the member countries of the Agadir Agreement, the EU, or the European Free Trade Association (EFTA) (ibid.). This choice was made in order to comply with the rules of origin requirements for exporting their products to the EU markets, which are exempted from customs duties under their Association Agreements with the EU[3] (ibid.).

The Agadir Agreement provides for full liberalization of trade in industrial and agricultural goods as of its date of entry into force. Moreover, member countries are committed under the agreement to eliminate all non-tariff barriers including quantitative restrictions, financial, administrative and technical barriers that may be imposed on imports[4].

[3]Full details of the system and its membership can be found at: http://ec.europa.eu/taxation_customs/customs/customs_duties/rules_origin/preferential/article_783_en.htm.

[4] The full text of the two agreements can be found at the Jordanian Ministry of Industry & Trade website: http://www.mit.gov.jo/Default.aspx?tabid=732

At the international level, efforts to liberalize Jordan's foreign trade with the rest of the world have resulted in the signing of several bilateral FTAs. The first was the 1999 Jordanian-EU Association Agreement, which entered into force in 2002 (Ministry of Planning and Financial Cooperation 2011). The agreement seeks to gradually establish a Free Trade Area between Jordan and the EU by 2014 (ibid.). Indeed, this free trade area will be the finalization of the Euro-Mediterranean Association Agreements, which provide for mutual trade preferences between the EU and its Mediterranean partners (ibid.). The purpose of these agreements it to eliminate the unilateral trade preferences implied in cooperation agreements signed during the 1970s. Since 1998, the following countries have entered into the Euro-Mediterranean Association Agreements: Tunisia, Israel, Algeria, Morocco, Egypt, Jordan, Lebanon, the Palestinian Authority and Syria (European Commission 2011). The objective of the agreement is to develop and create a comprehensive framework for economic and political cooperation (ASEZA 2011).

Jordan's second extra-regional FTA was the aforementioned JUSFTA, which entered into force on 17 December 2001. The agreement was unique for Jordan, as it included provisions on matters such as electronic commerce, labor and the environment. Other noteworthy provisions of the agreement address dispute settlement, property rights protection, and balance of payment. Ultimately, the agreement will break down nearly all former tariffs within a decade of its coming into force. Tariff cuts under the agreement are broken into four phases. The first phase spans two years, during which tariffs under 5 percent are eliminated. The second phase spans the first four years, during which tariffs set between 5 and 10 per cent are eliminated. The third phase encompasses the first five years, and it requires the elimination of tariffs set between 10 and 20 percent within that timeframe. The fourth phase involves the elimination of tariffs set at over 20 percent, which must be eliminated within 10 years.

In a related and complementary agreement, the two countries agreed to establish Qualified Industrial Zones (QIZs). Thirteen QIZs have been designated by the United States in Jordan, the first of which was established in Irbid[5] in 1998 (Bar et al. 2009). The function of these QIZs is to allow select Jordanian manufacturers operating therein access to U.S. markets without quota restrictions. To qualify for QIZ status, the agreement stipulates that a minimum of 35 percent of the appraised value must go to either Israeli or Jordanian producers; a portion of the inputs may also originate from Palestine or the U.S (ibid.).

In addition to JUSFTA, Jordan has also signed two other FTAs of lesser influence. The first of these was signed with the EFTA states (Iceland, Liechtenstein, Norway and Switzerland) on 21 Jun 2001. The agreement was signed in the interest of fostering economic and commercial cooperation, promoting the diversification of trade, and helping to create conditions favorable to development (Bar et al. 2009). In order to achieve these goals, the EFTA country Switzerland will provide Jordan with assistance in the areas of customs, technical regulations, and intellectual property rights (ibid.). Over a period of

[5] Irbid represents a special case, as it is the first QIZ ever to be established (Bar et al. 2009).

twelve years, the agreement will be implemented gradually until full liberalization is achieved. The specific areas of trade covered include agricultural goods, industrial products, and fish and marine products (ibid.). Upon the agreement entering into force, duties and import charges on industrial goods originating from Jordan will be abolished in EFTA countries. However, Jordan's liberalization process will be carried out slowly. Duties on relevant EFTA products will be gradually phased out according to two different plans; the first of these plans spans four years, the second spans twelve. Tariffs will remain on a small number of product categories, and will be subject to negotiation four years after the agreement enters into force (ibid.).

The second of these lesser extra-regional FTAs was signed with Singapore[6] on 16 May 2004. It aims at strengthening economic and trade ties between the two countries, encouraging business ties between private enterprises, and fostering an environment conducive to investment (Chomo 2002). Further, the agreement guaranteed that Jordanian products would be duty-free upon its entry into force. It also stipulated that duties on Singaporean products be gradually reduced. Notable features of the agreement include clearly defined mechanisms for anti-dumping, countervailing measures, and safeguards (ibid.).

Table 1: Jordan's trade by Free Trade Agreements in 2008 (in millions of JD)

Agreement	Imports	Exports	Balance
GAFTA	3993.6	1722.9	- 2270.7
JOR-US	549.1	736.2	187.1
JOR-EU	2504.7	182.1	- 2322.6
JOR-EFTA	198.3	4.04	- 194.3
JOR-SING	36.5	1.2	- 35.3

Source: Foreign Trade Statistics, Jordan's Ministry of Industry and Trade's website (http://www.mit.gov.jo/Default.aspx?tabid=1356).

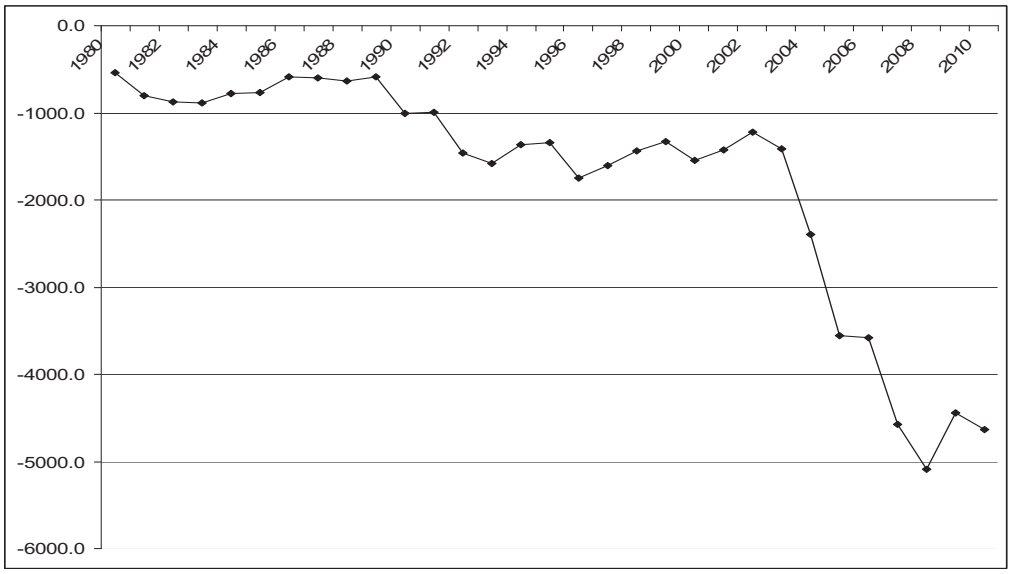
Jordan's FTAs have contributed significantly to the expansion of its external trade, though to varying degrees. As Table 1 shows, the values of imports exceeded the values of exports for all FTAs, with the exception of JOR-US. In this case, Jordan archived a small trade surplus of JD187.1 million[7]. The highest Jordanian trade deficit came through the Jordan-EU cooperation, reaching roughly to JD2.3 billion in 2008; this was followed by the GAFTA at JD2.27 billion in the same year. The highest Jordanian imports came through GAFTA, totaling at roughly JD4 billion in 2008. This was followed by the Jordanian-European cooperation, with total value equal to roughly JD2.5 billion in the same year. Most Jordanian exports went to Arab countries through GAFTA (JD1.7 billion), followed by exports to the US at a value close to JD736 million. The EFTA and Singapore FTAs contributions to Jordanian trade remained modest with total trade values of JD202.34 million and JD37.7 million, respectively.

[6] Details of all Jordan's trade agreements can be found at the Ministry of Planning and International Cooperation website, available at: http://www.mop.gov.jo/pages.php?menu_id=228

[7] The Jordanian Dinar (JD) has been pegged to the U.S. Dollar at $1.41 since 1990.

The above analysis suggests that Jordanian trade liberalization via FTAs has contributed more to import than to export expansion. For this reason, some politicians and economists in Jordan have related the domestic trade deficit to liberalization. However, its limited natural resource base and underdeveloped manufacturing sector placed Jordan in a trade deficit long before entering FTAs. Figure 1 clearly illustrates the presence of this long-standing deficit, though at a size much smaller than after the passage of FTAs.

Figure 1: Jordan's Trade Balance from 1980 – 2010 (million JD)



Source: Central Bank of Jordan (http://statisticaldb.cbj.gov.jo/index?lang=en)

Despite the perception of many economists in Jordan that FTAs have exacerbated Jordan's pre-existing trade deficit problem, policymakers are not keen on their reversal. The predominant view is that trade liberalization is a strategic objective that should remain permanently. Recently, another two FTAs have been signed. The first of these was signed with Canada on 28 June 2009, and the second with Turkey on 2 December 2009**.** Both of these agreements are yet to take effect. FTAs have already impacted on Jordan's economy, and are likely shape its future development significantly. As stated earlier, the focus of this study is on the potential bilateral trade between Jordan and Turkey in light of this latter free trade agreement. However, it is first worth considering the relationship between trade liberalization and economic growth in the case of Jordan.

2.1 Measuring the Impact of Trade Liberalization

To gain initial insight into the possible effects of FTAs, we use a model based on neoclassical growth theory in which output is determined mainly by factors of production and technology. We assume a standard Cobb-Douglas technology in which production is a

non-linear function of capital, labor and technology[8]. The problem with this sort of model is that labor and capital are collinear, as more capital requires less labor to keep output fixed at certain point of time. To estimate this model using traditional econometric methods, we first converted all variables to per-labor unit and then linearized them by taking the log of both sides of the production function. The resulting model is as follows:

$$\ln y = b0 + b1*\ln k + b2* T + b3* i + e \qquad (1)$$

In the model, y is per laborer income, T represents trade openness, i represent the level of technology, and e is the standard error term.

The model variables are defined as follows: y is real gross domestic product per unit of labor, k is real capital-labor ratio, T is the sum of exports and imports divided by GDP, the technology i is measured by a simple time trend. The e term is added to account for random error in the model specification.

A sample of annual data covering the period of 1970-2009 has been prepared using the databases of the Central Bank of Jordan and United States Department of Agriculture (USDA). To set the stage for appropriate model estimation, all the model variables were tested for unit root and the results indicated a non-stationarity problem. Hence, a co-integration test between the model variables is conducted, and the result is as follows:

Table 2: Unrestricted Co-integration Rank Test (Trace)

No. of coint. equations	Eigenvalue	Trace Statistic
None *	0.404382	32.68369
At most 1	0.234080	12.99379
At most 2	0.072502	2.860057

* Denotes rejection of the hypothesis at the 0.05 level

The test result rejects the hypothesis of no co-integration at the 5% significant level, and suggests the existence of a single co-integration equation. This means that the long-run relationship between the variable is valid and stable, and therefore, the model can be estimated by OLS. However, due to the variables' non-stationarity, the model must be estimated with a fully modified OLS (FMOLS), first suggested by Phillips and Hansen (1990)in order to deal with both serial correlation and the endogeneity of regressors arising from the cointegration. Furthermore, the estimates of FMOLS will have the standard statistical properties; thus, normal inferences can be used. The result of applying FMOLS is shown in Table 3. All estimated coefficients carry the correct expected signs and are statically significant at more than the 1% level, except for the trade openness coefficient, which is significant at only the 10% level[9]. The model fit is acceptable, as shown by the adjusted R-squared.

[8] The standard Cobb-Douglas production function was first used to model economic growth by Robert Solow. It became very popular formulation since after particularly in the neoclassical economic school. The same standard model is used in this study augmented by the trade openness variable.

[9]Many economists believe that more trade openness is positively related to real economic growth and welfare based on the main theme of the standard trade theory that trade liberalization is welfare enhancing for small economy with no market failures.

Table 3: Long-run Covariance Estimates Using FMOLS, 1970-2009

Variables *	Coefficient	Std. Error	t-Statistic
LCAPLAB	0.980030	0.060716	16.14132
LTRADO	0.758603	0.448583	1.691111
TECH	0.027504	0.011542	2.382883
Adjusted R-squared		92%	

*The variables Lcaptlab and ltrado refer to capital labor ratio and trade openness in logarithm form, and tech refers technological progress.

If one accepts the 10% level of significance, then the coefficient of trade openness means that, holding everything else constant, a 1% increase in trade openness will increase growth of real GDP per unit of labor by 0.76%. This may be taken as an indicator of the limited positive effect of trade liberalization on real economic growth in the case of Jordan. Our result is in line with Karras' (2003) findings; that the effect of trade openness on economic growth is positive, permanent and economically sizable. The result is also in line with Billmier and Tannicini's (2007) findings of positive effect of trade liberalization on the growth of Middle Eastern counties, including Jordan.

3. Jordan-Turkey Free Trade Agreement

In 2005, Jordan and Turkey entered into a series of negotiations aimed at establishing an FTA between them. Many Jordanian businesspersons and investors objected to Turkish demands to be granted to those from the EU, specifically with regard to the list of goods and the tariff schedule. However, after seven rounds of negotiations the two countries signed the long awaited FTA in December 2009[10]. The agreement included concessions that excluded goods that were of great importance to the national economy (negative list); the 110 goods on this list included textiles, shoes, carpets, jewelries, iron and furniture. The two countries have agreed to postpone tariff reduction on these sensitive goods until after three years have passed. These sensitive goods will then be subject to a gradual reduction in tariffs over a transition period of twelve years starting in 2011, when the agreement is expected to enter into force. Three different tariff schedules will be applied to Jordan's imports from Turkey over different time periods ending in 2018. The agreement generally covers both industrial and agricultural commodities, with exception for some agricultural and manufactured food commodities. Jordan was allowed to use quotas to restrict the imports of four agricultural categories including commodities such as certain types of vegetables, fruits, cheese, eggs, date, ketchup, certain pasta and sugar products, biscuits and chocolates. Similarly, Turkey was allowed to limit tariff reduction to only 20% (rather than 100%) on certain Jordanian exports including certain types of vegetables and fruits, honey, nuts, pasta, sugar products, biscuits, jams and chocolates.

The agreement will allow Jordanian manufactured goods to enter into the Turkish market duty free from its effective date, while Turkish manufactured goods will be allowed to enter the Jordanian market on the bases of a gradual tariff phase out. The transition period will last eight years, and will begin in 2011. Since both Jordan and Turkey have

[10] See http://www.mit.gov.jo/Default.aspx?tabid=1339

trade agreements with Europe that include similar rules of origin (Jordan via the Association Agreement and Turkey via the EFTA), they are entitled to use the Pan-European diagonal cumulative rule of origin. This rule of origin allows members in the preferential area(s) to use the raw materials and resources or member countries in calculating the value added by each member. Gasiorek et al. (2008) provided empirical evidence that the introduction of diagonal accumulation significantly impacted trade flows between cumulating countries. Their results suggest that participation in the Pan-Euro-Mediterranean rules of origin is likely to increase the degree of intraregional integration, and is likely to enhance the positive welfare effects of integration both with themselves and the EU.

To assess the potential of bilateral trade in light of the FTA, we start with a brief comparison of the two economies. We then move to the analysis of trade structure and direction of the two countries in general. This is followed by an analysis of trade flows between the two countries in particular.

3.1 A Comparative Analysis of the Two Economies

As shown in Table 4, the Turkish economy is much larger than the Jordanian economy. With a gross domestic product (GDP) equal to $735 billion for the fiscal year 2008, its economy nearly 36 times larger than that of Jordan. However, the ratio between the two economies in terms of GPD per capita is roughly 2.7 ($13,562 for Turkey vs. $5,022 for Jordan). The significant difference in size of the two economies indicates a potential relative advantage of the Turkish economy in terms of greater opportunities for economies of scales. Turkey's unemployment and inflation rates are both close to 10 percent, while Jordan's are slightly higher at 13 percent and 15 percent for unemployment and inflation, respectively. The fact that the Jordanian economy grew at a much faster pace in 2008 may explain why the ratio of the current account deficit to GDP of Jordan (12 percent) was almost double that of Turkey's (5.7%).

Partly in response to addressing its long-standing trade deficit, Jordan underwent a process of economic reform that lasted from 1990 until 2003. This process included the modernization of its investment environment, which intended to attract more FDI inflows. Although many argued that the reform efforts have succeeded at attracting FDI, inflows remain highly volatile with net effects that remain contentious. In 2008, FDI inflows constituted roughly 2.5 percent of GDP in Jordan, as compared to 11 percent in Turkey.

Table 4: Selected economic indicators for Jordan and Turkey (2008)

Indicator	Jordan	Turkey
GDP, Billion $	20	734.9
GDP per capita, $	5022	13526
Annual growth in real GDP, %	6.2	1.1
Annual inflation rate, CPI %	14.9	10.4
Unemployment rate %	12.7	10.6
Labor force, millions	1.34	24.1
Current account to GDP %	-12.1	-5.7
FDI inflows, billion $, % GDP	14.6 2.5	145.6 11

Source: Adapted from IMD 2007.

3.2 Competitiveness and Business Environment

To compare the relative competitiveness of the Jordanian and Turkish economies, this study makes use of IMD's International Competitiveness Index[11]. Annually produced, this index provides a ranking of countries according to their economic competitiveness, which is assessed using four criteria: government efficiency, infrastructure, business efficiency and economic performance. However, recent events have made the comparison of Jordan and Turkey difficult. As Table 5 shows, Jordan had a notably higher competitiveness ranking than Turkey in 2009. Also of note is the rapid decline in Jordan's ranking in 2010, which slipped to 50th place. While Turkey's ranking also fell during the same year, it still holds a higher competitiveness ranking overall for 2010 – albeit, a slight one. Behind Jordan's rapid decline in the 2010 Index was the substantial deterioration of its ratings on the government efficiency and infrastructure evaluation criteria[12] (IMD 2011). While Jordan's ranking may rebound in the future, at present time it and Turkey are close to parity with respect to competitiveness. However, Jordan's competitiveness ranking slipped noticeably in 2010.

Table 5: IMD's Overall Competitiveness Index and Doing Business, 2009-2010

Ranking according to Overall Competitiveness Index, 2009-2010		
Country	2009	2010
Jordan	41	50
Turkey	47	48
Doing Business, 2009-2010.		
Jordan	100	104
Turkey	63	73

Sources: Adapted from Schwab 2010; Doing Business 2010

With respect to business environment, the Turkish economy has a sizable advantage over Jordan's at present time. In the World Bank's *Doing Business Index for 2009-2010*[13],

[11]Additional information on IMD's Overall World Competitiveness Index and its ranking criteria is available at: www.worldcompetitiveness.com/Online/App/Index.htm

[12]Jordan's rating for government efficiency fell from 32 in 2009 to 39 in 2010. Its rating for infrastructure fell from 40 in 2009 to 52 in 2010 (IMD 2011).

[13] The World Bank's Doing Business Report for 2011 ranks countries based on how easily business can be conducted within it. There are 183 countries listed, with 1 signifying the country with the best regulatory environ-

which ranks countries according to the quality of their business environments, Turkey placed 63rd in 2009; Jordan placed 100th in the same year. As Table 5 shows, both countries did score lower in the 2010 rankings. While Turkey's fall to 73rd place was noteworthy, Jordan's rank remains significantly lower at 104th. According to the report, the Turkish business environment was more favorable in several dimensions, which are listed in order of importance as follows: enforcing contracts, registering property, protecting investors, and ease of starting a new business (Doing Business 2010).

Regarding Turkey's advantages in business environment, it is worth noting that the country is world class in terms of the ease with which it allows new businesses to be created. In this regard it has a clear advantage over most other regions and countries in the world. As shown in Table 6, it takes an average of 49.5 days (19.5 procedures) to establish a new business in Jordan; it takes only 14 days (9.5 procedures) on average in Turkey. The cost of establishing a new project in Turkey, measured as the percentage of per capita income, is only 6 percent, as compared to 13 percent in Jordan, and 13 percent in the OECD region. Indeed, its per capita cost of establishing a new business is the lowest compared to all other world regions. This helps to explain the huge FDI inflows to Turkey, and also suggests that Jordan should conduct further reforms to similarly attract foreign investors. Specifically, it should do so by improving its business environment by lowering its cost establishing and operating businesses.

Table 6: The Cost of Establishing a New Business by Region/Country, 2010

Region/country	Cost(% of income per capita)	Time (days)	# of procedures
East Asia & Pacific	41	25.8	21.3
Eastern Europe & Central Asia	17.4	8.3	21.5
Latin America & Caribbean	61.7	36.6	2.9
Middle East & North Africa	20.7	34.1	129.7
OECD	13	4.7	15.5
South Asia	28.1	27	26.9
Sub-Saharan Africa	45.6	99.7	144.7
Jordan	13	49.5	19.9
Turkey	6	14.2	9.5

Source: Adapted from Doing Business 2010

4. Foreign Trade of the Two Countries

4.1 Jordan's Foreign Trade

Jordan's economy is highly open and dependent on foreign trade, following a mixed economic system that generally allows the market to determine prices. The role of government in Jordan's economic affairs is primarily to provide supervisory oversight, regu-

ment for starting and maintaining a firm at the local level. Countries are evaluated and ranked based on nine separate indicators, each of which is given equal weight (Doing Business 2011). More information about the rankings can be found at: http://www.doingbusiness.org/rankings.

late, pursue fiscal and monetary policies, and to maintain national security and stability. The government also occasionally intervenes in markets to correct acute market failures such as monopolies, health and environmental threats, public enterprise diseconomies, and private enterprise economies. As Jordan is a small economy with limited natural resources, it has no choice but to be increasingly dependent on external sources of trade, investments, remittances and aid. As previously discussed, this circumstance has contributed over years to the development of chronic external imbalances in the forms of a large trade deficit and sizable external debt.

Jordan's foreign trade policy has generally been considered favorable towards economic openness and integration into the rapidly expanding global economy. This policy is based on principles of trust and appreciation of economic partnership, which are viewed as necessary to achieve both mutual benefits and fair dividends. Jordan has made good progress on the path of economic integration and trade liberalization, while simultaneously working to reinforce the mechanisms and functioning of a market-oriented economy built on a private sector active in managing economic activities. This was made possible through an intensive reform process that brought about a modern regulatory environment conducive to domestic and international investment.

Jordan has managed a significant expansion of its external trade through the establishment of strong economic and trade ties, both in its region and around the world. At the regional level, it has succeeded in strengthening its economic relationships with most of its Arab neighbors. Indeed, this has led to Jordan becoming the most active country in intra-Arab trade. At the global level, it has succeeded in liberalizing through the signing of bilateral and multilateral FTAs, and through participation in international organizations. Most notable among its successes have been the Association Agreement it signed with the European Union, JUSTA, and its accession to the WTO in 2000. Additionally, Jordan has also signed free trade agreements with the European Free Trade Association countries, Singapore, and most recently with Canada and Turkey. With its policies of trade liberalization at the regional and global levels in mind, this section analyzes the structure, pattern and direction of Jordan's foreign trade.

4.1.1 Jordan's Exports' Structure

Given its limited natural resources, especially oil and gas, Jordan has concentrated on upgrading human capital and export promotion as development strategies. To this end, two policy objectives have been emphasized repeatedly over the last three decades. The first of these objectives emphasizes Jordan's location in the heart of the Middle East, and its highly skilled and educated labor force. It seeks to utilize these advantages in order to transform Jordan into a major supplier of three main services: tourism, higher education and healthcare. The second policy objective involves compensating for Jordan's lack of natural resources by expanding its manufacturing sector, thus achieving economies of scale. Judging of the country's success in achieving these policy objectives is beyond of

the scope of this study; however, this section provides some evidence on the second policy objective related to export diversification.

As shown in Table A1 in the Appendix, Jordanian total commodity exports approached roughly US$8 billion in 2008. Exports of fertilizers ranked first with a share of about 17 percent of total commodity exports, followed by the apparel and clothing industry with share equal to 10 percent, and various construction materials with a share of 7.3 percent. Other exports with slightly less importance include pharmaceuticals, electrical-electronic, chemicals, and edible vegetables, respectively. Table A1 also clearly shows a high degree of exports diversification; the three degree concentration ratio of exports is equal to 35 percent, which is indeed indicates a low degree of concentration[14]. According to the Lafay Index of specialization[15], Jordan has a comparative advantage in the following industries: fertilizers, apparel and clothing, salt, sculpture-earth, stone, chemicals, edible vegetables and pharmaceutical products.

4.1.2 Jordan's Imports' Structure

As shown in Table A2 in the Appendix, total Jordanian commodity imports amounted to roughly US$17 billion in 2008. Its imports were nearly double that of exports, which has translated into a substantial trade deficit. Jordan's imports are well diversified, as are its exports. The three-degree concentration ratio for imports is slightly higher than that of exports (38%), indicating to a high degree of import diversification. Mineral fuels and oil imports had the highest share (22%), followed by boilers and machinery (8.5%), electrical-electronic products (7.5%), vehicles (7%), cereals (5.3%), and iron and steel (4.7%). The analysis shows a relatively high degree of dependence on imports of two strategic categories of products: the first is fuel, which is mainly crude oil, and the second is cereals including mainly grain and rice. Insuring better food and energy security calls for other policy options regarding alternative energy sources and domestic agricultural production.

4.1.3 Jordan's Directions of Exports

Table (A3) in the Appendix shows the main Jordanian exports markets for the period of 2004-2008. The Iraqi and Indian markets were the most important with an equal share of (16.5%), followed by the US (13.5%), Saudi Arabia (7%), UAE (4.7%), Syria (3.2%), Israel (2.1%) and Lebanon, Japan, and Egypt with an equal share of 2% for each. The Turkish market receives a very small fraction of Jordanian exports equal to only 0.4%. In terms of growth, total Jordanian exports grew at an average of 18 percent during the period of 2004-2008. Exports to Japan achieved the highest rate of growth (72%), fol-

[14] Refers to the share of the largest three export industries out of total exports

[15] This is an index of specialization or revealed comparative advantage that takes account of both exports and imports (developed by Lafay 1992 and Deardoff 2010).

lowed by exports to Egypt (45%), India (42%), Saudi Arabia (28%) and Lebanon (27%). Jordan's exports to Turkey grew at modest rate of 13 percent during the same period.

4.1.4 Jordan's Directions of Imports

The largest supplier of goods to Jordan was Saudi Arabia with market share equal to roughly (22%), followed by China (10.4%), Germany (6%), US (4.6%), Egypt (4.3%), Ukraine (4.1%), South Korea (3.3%), Italy (3.2%), India (2.9%), and Japan (2.6%) (See Table (A4) in the appendix). Turkey ranked eleventh in importance with a market share equal to 2.4%. In terms of growth rates, total imports grew slightly faster than exports at an average of (19%) during the period 2004-2008. The highest growth rate was for imports from Russia (67%), followed by imports from India (38%), Ukraine (26%), Egypt (25%), and China and Turkey with equal growth rates of (24%) for both.

4.2 Turkey's Foreign Trade

Turkey has a liberal economic system that is largely driven by market forces with little government intervention. The economy is highly dependent on foreign trade as the engine of its development, and has long been active in liberalizing its trade through FTAs; it was also one of the first countries to join the WTO. In 1992, Turkey joined with eleven of its neighbors to form the Black Sea Economic Council[16], an organization intended to increase trade and deepen economic cooperation in the region (Istanbul Chamber of Commerce 2011). The process of liberalization continued in 1996 when Turkey joined the EU Customs Union, thus promoting greater trade with that bloc. Turkey also deepened bilateral economic relations with the U.S. in 1999 with the creation of the Trade and Investment Framework, as well as the 2002 Economic Partnership Commission (ibid.). Most recently, Turkey has signed free trade agreements with several Arab countries including Lebanon, Tunisia, and Morocco (ibid.). The focus in the rest of this section is on Turkish foreign trade structure, pattern and direction.

4.2.1 Turkey's Exports' Structure

Table A5 in the Appendix shows Turkish exports by industry for 2008, the most recent available year. Total Turkish exports amounted to approximately US$132 billion, with vehicles being the largest export industry, constituting about (14%) of total exports. The second largest export industry was iron and steel with a market share of about (11%), followed by boilers-machinery (7.8%), electrical-electronic (6%), apparel (5.9%), fuels-oils (5.7%), other articles of iron and steel (4.4%) and pearls and other articles of apparel with equal shares (4%). The three degree concentration ratio is only 32.9% indicating a good exports diversification. The Lafay specialization index indicates that Tur-

[16]The 12 BSEC Member States are comprised of Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Ukraine which have a littoral in the Black Sea, as well as Albania, Armenia, Azerbaijan, Greece, Moldova and Serbia (Istanbul Chamber of Commerce 2011, http://www.us-istanbul.com/economies.php?c=turkey&p=foreign-trade-policy).

key has a comparative advantage in the following industries: vehicles, articles of apparel, articles of iron and steel and edible fruits and nuts, respectively (Table A5). In comparison to Jordan, the Lafay index values are much smaller for the Turkish exports which indicate a stronger comparative advantage for Jordan.

4.2.2 Turkey's Imports' Structure

The total value of Turkish imports reached roughly US$202 billion in 2008. The highest share was for fuels-oils at 16%, followed by iron and steel (11.5%), other commodities (8.1%), electrical-electronic equipment (6.8%), vehicles (6.2%), and plastic products (4.65%) (Table (A6) in the appendix). The three degree concentration ratio for imports is about 39 percent, indicating the diversity of Turkish imports. Compared to exports, imports are one and half times larger and this creates a significant trade deficit. In spite of the fact that Turkey and Jordan seem to have different comparative advantages, their import structures are similar to some extent.

4.2.3 Turkey's Exports' Directions

Countries of the European Union are the main trading partners for Turkey; more than (40%) of Turkish exports outflow to European markets. The largest European Union country importer of Turkish goods is Germany with a share of roughly (10%) of total Turkish exports, followed by UK with share equal to (6.2%), UAE (6%), Italy (5.9%), France (5%), Russia (4.9%), and US (3.3%) (Table A7 in the Appendix). Three Arab countries; UAE, Iraq and Saudi Arabia imported about 11% of total Turkish exports. Total exports grew at an average rate of 20 percent during the period 2004-2008. The highest rate of export growth was recorded by exports to UAE (58%), followed by exports to Switzerland (53%), Ukraine (39%), and Russia (38%). The exports direction of Turkey is highly diversified; the three degree concentration ratio was very low at 22 percent.

4.2.4 Turkey's Directions of Imports

The largest imports share in the period 2004-2008 was recorded for Russia (15.5%), followed by Germany (9.3%), China (7.8%), US (5.9%), Italy (5.5%), France (4.5%), Iran (4.1%) and Ukraine (3%). The average rate of growth in imports was equal to that of exports at 20% during the period of 2004-2008. The highest rate of growth of imports was recorded from Iran (42%), followed by those from China (37%), Russia (36%), Ukraine (26%), Saudi Arabia and US (both at 25%). The directions of Turkish imports are also diversified, but to a lesser extent compared to exports; the three degree concentration ratio was 32.6 percent.

5. Jordanian-Turkish Bilateral Trade

As previously mentioned, the FTA between Turkey and Jordan is not the only manifestation of deepening economic ties among countries in the Middle East. In July 2010, the governments of Turkey, Lebanon, Jordan and Syria agreed to establish a free-trade zone between their countries. Once it has taken effect, citizens of the four countries will be allowed to travel visa-free throughout the area. Indeed, the free flow of persons and trade across these borders will help to establish economic integration heretofore unseen

in the region. In order for this area to be established, however, Turkey and Lebanon must first establish a bilateral arrangement (LebanonWire 2010**)**.

Regarding trade with its closest neighbors, Turkey's collective annual trade with Syria, Lebanon and Jordan is valued at approximately US$3 billion (Lipschutz 2010). Of these three, Syria current stands as Turkey's largest export market. With respect to the region overall, this amounts to roughly 10 percent of its trade with all Arab states (ibid.). It is, however, worth noting that Turkey's trade with the Arab world remains limited. Indeed, exports to the Arab world make up less than 25 percent of the total volume (ibid.). Far stronger is Turkey's economic relationship with Europe, which receives approximately 50 percent of all Turkish exports; it is also the source of 90 percent of FDI inflows into Turkey (ibid.).

5.1 Jordan's Imports from Turkey

Jordan imports from Turkey reached a value of US$437.4 million in 2008, which constituted only 2.6% of total imports. Imports of mineral fuels and oils were the largest in terms of absolute value at US$79.7 million, followed by imports of machinery and boilers at US$34.3 million, of articles of iron and steel at US$26 million, of electrical-electronic equipment at US$25.6 million, of iron and steel at $21.7 million, of articles of apparel and accessories at $21.3 million, of plastics $16.5 million, and imports of tobacco products at $16.1 million. Jordan imports from Turkey of tobacco products and salt, earth, lime and cement constituted about one quarter of total imports of these two categories. During the period 2004-2008, Jordanian imports from Turkey grew at an annual average 24%. The fastest growing imports from Turkey were tobacco products at an annual average rate of 384%, followed by mineral fuels and oils (201%), wood (90%), apparel (48%), furniture (40%) and edible vegetables (37%).

5.2 Jordan's Exports to Turkey

In comparison to imports, Jordan exports to Turkey were very small with a value of US$33 million in 2008. Exports of inorganic chemicals and precious metal compound were the largest (US$5.2 million), followed by exports of beverages and spirits (US$4.1 million), tobacco (US$3.6 million), electrical-electronic equipment (US$3.6million), and raw hides and skins (US$3.5million). Other exports with smaller magnitude were vehicles, aluminum, articles of apparel, wadding-yarns-etc., fruits, articles of iron and steel, and fertilizers (Table A10 in the appendix).

Jordan exports to Turkey grew much slower than imports at an annual average rate of only 13 percent (almost half the growth rate of imports) during the period of 2004-2008. The highest annual average growth was recorded by exports of tobacco (208%), followed by electrical-electronic equipment (126%), vehicles (109%), plastic products (107%), and articles of iron and steel (99%). Jordan exports of the two categories: raw hides –skins and wool-animal hair, to Turkey accounted for about 40% of total exports of these two categories).

5.3 The Jordanian-Turkish Trade Balance

Jordan's substantial trade deficit with Turkey grew from US$108 million in 2001 to US$404 million in 2008[17]. Indeed, Jordan currently suffers from a comprehensive deficit that encompasses all categories of tradable good[18]. The presence of this absolute trade deficit clearly indicates the dominant role of imports in Jordan's trade with Turkey, which further implies that Jordanian exports are unable to compete in the Turkish market; this may result from either a lack of comparative advantage, market access obstacles, or a combination of the two.

6. Comparing the Tariff Structures Jordan and Turkey

Applied tariff rates on imports from Turkey vary by product; the highest was about 65% imposed on tobacco products. The second highest tariff was imposed on furniture and prefabricated buildings at a rate of 26.1%, followed by tariff on articles of apparel (23%), cereal and other food products (21.8%), stone-earth plaster etc. (21%), articles of iron and steel (19.7%) and edible vegetables (17.8%)[19]. Tariffs on imported fuels and oils, which were the largest in terms of value, were only 14%. When the FTA between the two countries becomes effective in 2011, these tariff rates will be cut gradually and therefore, a surge of imports from Turkey is expected.

Similarly, Jordanian goods are subject to tariffs when exported to Turkey. The highest tariff rate is imposed on exports of fruits, nuts and peel (66.5%), followed by exports of beverages and spirits (31.4%), exports of tobacco products (24%), and articles of apparels (9.4%). All other Jordanian goods exported to Turkey are subject to low tariff rates below 5%. In comparison to Jordanian tariffs imposed on Turkish goods, it is clear from the above analysis that Jordanian tariff rates are generally higher than those imposed by Turkey. Two important conclusions can thus be arrived at. First, Jordan's imports from Turkey are expected to grow at a faster rate than to Turkey. Second, Jordan is expected to lose more government revenue from the foregone tariffs. This is due to the fact that Jordan currently imports more goods at higher tariff rates than does Turkey.

To augment the above industry-level tariff analysis, Table 7 shows a comparison of both bounding and applied rates at the aggregate level for the two countries[20]. Although the overall applied rates in the two countries are close to each other (10.8% in Jordan and 9.7% in Turkey), the average bounding rate for Turkey (28.3%) is higher than for Jordan (16.3%). When distinguishing agricultural products from non-agricultural products, an interesting observation arises. Namely, tariff rates applied by Turkey to agricultural products are much higher than those applied by Jordan (42.2% in Turkey, as opposed to

---

[17] See http://www.us-istanbul.com/economies.php?c=turkey&p=foreign-trade-policy

[18] This category of goods that proved the exception from 2001 – 2004 was construction materials, which includes such goods as salt, earth, stone, plaster, lime and cement. However, in 2005 this category slipped into a deficit from which it is yet to recover.

[19] See http://www.us-istanbul.com/economies.php?c=turkey&p=foreign-trade-policy

[20] Bounding tariff rate refers to the maximum rate allowed by WTO. Usually the rates by a country are lower than the bounding rates for most commodities.

18.1% in Jordan). The opposite occurs with tariffs applied to non-agricultural products (9.8% for Jordan and 4.8% in Turkey. Taking into account that most of the current trade between the two countries is in non-agricultural products, the higher Jordanian tariff rates on non-agricultural products implies higher loss of tariff revenues per unit of trade for Jordan (almost double than that of Turkey).

Table 7: Bounding and Applied Tariff Rates for Jordan and Turkey, 2008

Tariffs	Jordan			Turkey		
	Agricultural	Non-Agr.	Total	Agricultural	Non-Agr.	Total
Average Bounding rates %	23.7	15.2	16.3	60.1	16.9	28.3
Applied rates %	18.1	9.8	10.8	42.2	4.8	9.7

Source: Adapted from WTO 2009.

Table 8: Basic Trade Patterns by Main Industry for Jordan and Turkey (2009)

Industry	Jordan	Turkey
Fertilizers	X	X
Articles of apparel, accessories, knit or crochet	X	M
Salt, sculpture, earth, stone, plaster, lime and cement	X	M
Pharmaceutical products	X	M
Inorganic chemicals, precious metal compound, isotopes	X	X
Edible vegetables and certain roots and tubers	M	XM
Mineral fuels, oils, distillation products, etc.	XM	XM
Boilers, machinery; nuclear reactors, etc.	XM	XM
Electrical, electronic equipment	XM	XM
Vehicles other than railway, tramway	M	XM
Cereals	M	XM
Iron and steel	M	X

Source: based on data taken from http://www.intracen.org

7. Trade Potentials between the Two Countries

This section further builds upon the analysis of trade patterns and structures for the two countries provided in the previous few sections. The aim is to use the information on structures of exports and imports together with the revealed competitive advantages for the two countries in order to assess the trade potential between them. Table 8 summarizes trade patterns for the two countries using the most recent available data for the year 2009. The table was built using the relative importance and the revealed competitive advantages indices published by International Trade Center (ITC) for the two countries[21]. The symbol X indicates that a country is a relatively important exporter of the good or group of goods, while the symbol M indicates that a country is a relatively im-

[21] See http://www.intracen.org

portant importer of the good or group of goods. If the symbol XM appears, it means that the country is relatively important importer and exporter of the good or group of goods. Trade of the type XM represent what is known as intra-industry trade, while trade of either type X or M represents inter-industry traditional trade.

As shown in Table 8, both countries import and export relatively significant quantities of machinery-boilers, electrical-electronic equipment, and mineral fuels, oils, and distillation products. This indicates to the possibility of expanding intra-industry trade between the two counties when tariff and other forms of trade protection will be eliminated by the two countries when the FTA takes effect. Besides these three industries, Turkey also is relatively important in the import and export of vehicles, cereals and edible vegetables, and certain roots and tubers. This may indicate that Turkey will be a net exporter of such inter-industry trade goods with Jordan. Other sectors are candidates for one directional trade between the two countries, since for each of them the comparative advantages are exclusive. For Jordan, the major potential export industries are fertilizers, building materials, pharmaceutical products, and inorganic chemicals. For Turkey, however, the export potential is less clear, since its major export industries like articles of apparel, vegetable, machinery, and electric-electronic equipment are also important exports for Jordan. Nevertheless, the export potential for Turkey is concentrated in certain important industries like mineral fuels and oils, cereals, iron and steel and vehicles.

8. Assessing the Potential Impact of the FTA

According to the basic theory of international trade, and under certain assumptions (basically a lack of market failures), the net welfare effect of an FTA between Jordan and Turkey‘s expected to be positive for both. However, this neither implies that the gains for each country will be equal, nor that all people in each country will gain from expanding trade. In light of the analysis in Section 2.1, the net impact of trade liberalization on real GDP pre-labor unit was found to be small and weak in the case of Jordan. In both countries there will be those who gain and those who lose, resulting from the redistribution effects of trade. Jordanian small businesses are likely to face difficulties in the short-run from increased competition. As the cost comparison in Table 6 showed, Turkish firms are generally more experienced and enjoy greater economies of scales due to the larger market size they enjoy compared to Jordanian firms. However, Jordanian businesses are likely to gain in the long run by moving to a more efficient scale of operation, and by adjusting to the new larger markets and more competitive environment. On the other hand, the elimination of tariffs is expected to reduce government revenues by an estimated US$56 million annually[22]. The big gainers from expanding trade with Turkey are Jordanian consumers. First, they will benefit from the expected decreases in prices due to tariff elimination and to an increased level of competition. Second, consumers will have access to more varieties of goods and services, especially in the tourism sector.

[22] Calculated based on value of Jordan imports from Turkey which was $437 million in 2008, and Jordan average tariff rate on Turkish imported goods which was roughly 10%, taking into account that imports from Turkey is growing at an average annual rate of 24%.

These consumers gains are expected to be large enough to outweigh any losses that may occurred to both businesses and government. Hence the predicted net welfare effect of the agreement could be positive. However, since the agreement is expected to enter into force in 2011, and tariff elimination will be gradual and based on an exceptions list, it is impossible to predict precisely the size of distributional effects and hence the net effect of the FTA.

9. Conclusion

This study has evaluated the trade potential between Jordan and Turkey in light of their recent FTA. Both countries have well-diversified trade structures and directions. An analysis of revealed comparative advantages, current tariff structures, and trade patterns indicate two possible types of trade expansion. First, the potential for the creation and/or expansion of intra-industry trade appears good in the following sectors: machinery-boilers, electrical-electronic equipment and vehicles. Second, there is the potential for the creation and/or expansion of inter-industry trade flows, which are as follows: flows from Jordan to Turkey in fertilizers, building materials, pharmaceutical products, and inorganic chemicals; and flows from Turkey to Jordan in mineral fuels and oils, cereals, iron and steel and vehicles.

The expansion of trade between the two countries as a result of the FTA is expected to have a positive impact on the net welfare of both countries. However, in light of the small and weak coefficient of trade liberalization found in Section 2.1, and given the small size of Jordan's trade with Turkey, the net effect on real economic growth is expected to be of minor importance. Furthermore, differences in market size, tariff structure and industry experience will likely produce unequal welfare benefits and asymmetric distributional effects within both countries. Furthermore, due to differences in market size, tariff structure and industry experience between the two countries, neither the FTA's potential effects on the overall welfare of the two countries is expected to be equal, nor the distributional effects inside each country is expected to be symmetric.

Two limitations of the study must be mentioned. First, the lack of *ex-post* data after the effective application of the FTA limits the use of econometric analysis for inside sample predictions. Second, a lack of data on trade of services, especially tourism and investment, made the analysis focused entirely on trade in goods.

References

Al Nasa'a, M, Chin, J, Leonard, S, Munoz, C, & Reilly, B. (2008). *The Jordan-U.S. Free Trade Agreement: Eight Years Later*. Retrieved from: www.umich.edu/~ipolicy/Policy%20Papers/jordanusfta.pdf

ASEZA (2011). *Trade agreements*. Aqaba Special Economic Zone Authority. Retrieved from: http://www.aseza.jo/?q=node/254

Bar, G., Azulay, D., & Ophir, G. (2009). *Qualifying Industrial Zones.* Retrieved from: http://www.moital.gov.il/NR/rdonlyres/E5A19318-95E0-49D6-B553A5E8369584A5/0/QualifyingIndustrialZones.pdf

Billmier, A., & Tannicini, T. (2007). Trade Openness and Growth: Pursuing Empirical Glasnost. *IMF Working Paper, 07/156*. Retrieved from: http://www.imf.org/external/pubs/ft/wp/2007/wp07156.pdf

Chomo, G. (2002). Free Trade Agreements between Developing and Industrialized Countries: Comparing the U.S.-Jordan FTA with Mexico's Experience under NAFTA. *Office of Economics Working Paper, U.S. International Trade Commission, No. 2002-01-B*. Retrieved from: http://www.usitc.gov/publications/332/working_papers/ec200201b.pdf

Deardoff, A. (2010). *Deardorffs' Glossary of International Economics*. Retrieved from: http://www-personal.umich.edu/~alandear/glossary/l.html

Ince, M., & Demir, M. (2004). Comparative Advantage and Competitiveness: Case of Turkey and Germany. *Review of Social, Economic & Business Studies, Vol.5/6, pp. 149 – 171.* Retrieved from: http://fbe.emu.edu.tr/journal/doc/56/56Article07.pdf

ECSEI (2011). *The Greater Arab Free Trade Area (GAFTA)*. Retrieved from: http://www.ecsei-eg.com/GAFTA.pdf

European Commission (2010). *System of Pan-Euro-Mediterranean cumulation*. Retrieved from: http://ec.europa.eu/taxation_customs/customs/customs_duties/rules_origin/preferential/article_783_en.htm

European Commission (2011). *A User's Handbook to the Rules of Preferential Origin used in trade between the European Community, other European Countries and the countries participating to the Euro-Mediterranean Partnership*. Retrieved from: http://ec.europa.eu/taxation_customs/resources/documents/handbook_en.pdf

Foreign Trade Statistics, Ministry of Industry and Trade, several issues. Retrieved from: http://www.mit.gov.jo/Default.aspx?tabid=1356

Gasiorek, M., Augier, P., Lai-Tong, C., & Magdy, N. (2008). The Impact of Diagonal Cumulation Rules of Origin in the Context of Euro-Med Integration. *FemiseResearch Program, 2007-2008, no FEM31-11*. Retrieved from: http://www.femise.org/PDF/ci2006/FEM31-13.pdf

IMD (2007). *World Competitiveness Year Book 2007*. Retrieved from: http://www.imd.org/about/pressroom/pressreleases/IMD-World-Competitiveness-Yearbook-2007.cfm

IMD (2011). *World Competitiveness Online*. Retrieved from: https://www.worldcompetitiveness.com/OnLine/App/Index.htm

International Trade Center ITC (2011). *Trade Map*. Retrieved from: http://www.trademap.org/

Istanbul Chamber of Commerce (2011). *Foreign Trade Policy*. Retrieved from: http://www.us-istanbul.com/economies.php?c=turkey&p=foreign-trade-policy

Karras, G. (2003). Trade Openness and Economic Growth: Can We Estimate the Precise Effect? *Applied Econometrics and International Development*, 3(1).

Lafay, G. (1992). The Measurement of Revealed Comparative Advantages. In: Dagenais, M., & Muet, P. (eds.), *International Trade Modeling*. London: Chapman & Hill.

LebanonWire (2010, June 11). Turkey, Syria, Lebanon and Jordan agree to set up a free trade zone. *LebanonWire*. Retrieved from: http://www.lebanonwire.com/1006MLN/10061109AGC.asp

Lipschutz, K. (2010, June 28). Global Insider: Turkey's Trade Relations with Arab Neighbors. *World Politics Review*. Retrieved from: http://www.worldpoliticsreview.com/trend-lines/5910/global-insider-turkeys-trade-relations-with-arab-neighbors

Mackinnon, J.G., Haug, A.A., & Michelis, L. (1999). Numerical distribution functions of likelihood ratio tests for cointegration. *Journal of Applied Econometrics, 14*.

Ministry of Planning and Financial Cooperation (2011). *Jordan-EU Association Agreement Overview*. Retrieved from: http://www.mop.gov.jo/pages.php?menu_id=228

Ministry of Industry and Trade (2011). *Greater Arab Free Trade Area (GAFTA)*. Retrieved from: http://www.mit.gov.jo/Default.aspx?tabid=732

Ministry of Planning and International Cooperation (2011). *Jordan-EU association agreement*. Retrieved from: http://www.mop.gov.jo/pages.php?menu_id=228

Phillips, P., & Hansen, B. E. (1990). Statistical Inference in Instrumental Variables Regressions with I(1) Processes. *Review of Economic Studies, 57*, 99-125.

Schwab, K. (Ed.) (2009). The Global Competitiveness Report 2009-2010. *World Economic Forum*. Retrieved from: https://members.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf

Serin, V., & Civan, A. (2008). Revealed Comparative Advantage and Competitiveness: A Case Study for Turkey towards the EU. *Journal of Economic and Social Research 10(2)*, pp. 25-41.

Solow, R.M. (1957). Technical Change and Aggregate Production Function. *Review of Economics and Statistics, (39)*, pp. 312-20.

Doing Business (2009). *Doing Business 2010: Reforming through difficult times*. Retrieved from: http://www.doingbusiness.org/reports/doing-business/doing-business-2010

Doing Business (2010). *Doing Business Report 2011*. Retrieved from: http://www.doingbusiness.org/reports/doing-business/doing-business-2011

Doing Business (2011). *Doing Business: Economy Rankings*. Retrieved from: http://www.doingbusiness.org/rankings

WTO (2009). *World Tariff Profiles 2009*. Retrieved from: http://www.wto.org/english/res_e/booksp_e/tariff_profiles09_e.pdf

Publisher: Competence Center "Money, Finance, Trade and Development "
HTW-Berlin – Treskowallee 8, 10318 Berlin
Prof. Dr. Sebastian Dullien, Prof. Dr. Jan Priewe

http://finance-and-trade.htw-berlin.de

Hochschule für Technik
und Wirtschaft Berlin
University of Applied Sciences

ISSN: 2192-7790