ECONOMIC RESEARCH FORUM
منتدى البحوث الاقتصادية
2010

working paper series

A QUIZ ON THE NET BENEFITS OF TRADE CREATION AND TRADE DIVERSION IN THE QIZS OF JORDAN AND EGYPT

Jeffrey Nugent and Abla Abdel-Latif

Working Paper No. 514

A QUIZ ON THE NET BENEFITS OF TRADE CREATION AND TRADE DIVERSION IN THE QIZS OF JORDAN AND EGYPT

Jeffrey B. Nugent and Abla M. Abdel-Latif

Working Paper 514

April 2010

The authors express their appreciation to Saurabh Singhal, Arian Farshbaf, Mohamed Ismail, Dina Abdel Fattah and Heba Abdel Sattar for their excellent assistance in the research for this paper. They also appreciate the help of Dr. Taher Kanaan in getting access to the QIZ Statistics for Jordan and Dr Ali Awny, the head of the Egyptian QIZ Unit in the Ministry of Trade and Industry for providing all needed QIZ statistics for Egypt. They finally thank Mr Mohamed Kassem, the prominent Egyptian garment exporter (chairman of WTC), for comments and insights on QIZ from a practical angle.

Send correspondence to:
Jeffrey B. Nugent
Professor of Economics, University of Southern California
Email: nugent@usc.edu

First published in 2010 by
The Economic Research Forum (ERF)
7 Boulos Hanna Street
Dokki, Cairo
Egypt
www.erf.org.eg

Abstract

The main objectives of this study are: (1) to quantify the amounts of both trade creation and trade diversion in each of the countries involved, (2) to explain why the effects especially in Jordan have been much larger than one might have expected and seemingly larger than those in Egypt even though Egypt may have had a stronger comparative advantage in such exports than Jordan, and (3) to identify and explain those effects other than on trade, such as in attracting FDI, developing local entrepreneurship, encouraging female labor force participation, developing linkages to firms outside the QIZ and on broader trade and industrial policies. We shall also try to identify policy and other changes that might have allowed these effects to be more positive and stronger than they actually were. Because of the longer experience with the Jordanian QIZs, somewhat more emphasis is placed on the Jordanian data and more detailed statistical analysis were possible. But the Egyptian case is also illustrative, especially for looking at the differential benefits on firms of different size, diversity and sophistication of product lines and benefits accruing to Egypt from attracting Turkish investments.

ملخص

تتلخص الأهداف الرئيسية لهذه الدراسة في الأتي: تحديد كميات كلا من الخلق و التحول التجاري في كلا من الدول المعنية محل الدراسة. تعليل لماذا كانت التأثيرات، خاصة في الأردن، أكثر من المتوقع، بل أنها كانت، إلي حد ما، أكثر منها في مصر، علي الرغم من أن مصر لها أفضلية نوعية في هذا النوع من التصدير إذا ما قورنت بالأردن. تحديد مدى هذه التأثيرات علي مجالات أخرى غير التجارة مثل: مجال جذب الاستثمارات الأجنبية المباشرة، و النهوض بأعمال المقاولات علي الصعيد المحلي، بالإضافة إلي تشجيع مشاركة القوة العاملة النسائية و تعزيز الترابط مع شركات من خارج اتفاقية (الكويز) إلي جانب تبنى سياسات تجارية و صناعية علي نطاق أوسع. و سنحاول في هذه الدراسة أن نحدد السياسة و التغييرات الأخرى التي من شأنها أن تجعل هذه التأثيرات أكثر ايجابية و قوة مما هي عليه ألان. و نظرا للخبرة الطويلة التي تتمتع بها المناطق الصناعية المؤهلة الأردنية فإننا سنركز إلي حد ما علي البيانات الأردنية ونقوم بتحليلها إحصائيا. لكن الحالة المصرية تعتبر حالة توضيحية، خاصة بالنظر إلي الفوائد المختلفة التي تحققها الشركات التي تختلف في الحجم و النوع و مدى تطور خطوط الإنتاج، بالإضافة إلي المكاسب التي تحققها مصر من خلال جذب الاستثمارات التركية.

1. Introduction

MENA countries have engaged in a large number of Free Trade Agreements (FTAs) either with each other (the former Arab Common Market, the Council of Arab Economic Unity, the Regional Cooperation for Development (involving Turkey, Iran), the Arab Maghreb Union, the Gulf Cooperation Council, and more recently the Agadir Agreement, and the Greater Arab Free Trade Agreement (GAFTA) and of two country FTAs (Turkey-Morocco, Turkey-Egypt, Turkey-Palestinian Territories, Turkey-Syria and Turkey-Tunisia) or with developed countries (the Association Agreements of individual MENA countries (Algeria, Egypt, Jordan, Lebanon, Morocco, Palestinian Territories and Tunisia) with the EU, and except for Algeria also with EFTA. More recently, a few MENA countries (Bahrain, Jordan, Morocco and Oman) have also concluded FTAs with the U.S. Although some of these trade agreements are too new to properly evaluate, there is little if any evidence that they have had much of an effect on subsequent trade flows (Konan and Maskus, 2000; Miniesy, Nugent and Yousef 2005, Peridy, 2005, Hoekman and Sekkat, 2008; Abedini and Peridy 2008; World Bank, 2008). Several analysts (Kehoe 2003; Estevadeordal, Freund and Ornelas 2008) have noted that these rather disappointing assessments of the effects of Free Trade Areas involving not only MENA countries, but also various other agreements such as MERCOSUR, the Andean group, CARIFTA in Latin America and COMESA in Southern Africa contrast rather sharply with the more significant trade and development effects observed in the case of the EEC, NAFTA and ASEAN. Taking into consideration some of the contributions to economic integration theory, Hoekman and Sekkat (2008) have suggested that the objectives of FTAs may go well beyond economic effects into those of reducing tensions of conflict and increasing cooperation among countries and indeed that this could be especially important in the MENA region given its history of political tensions and conflict.

Since the Qualified Industrial Zones (QIZs) of Jordan established in 1999 and subsequently those of Egypt in 2005[1] are merely simple extensions of the US-Israel FTA of 1985, one could hardly imagine that the effects of these QIZ arrangements would be even as noticeable as the other full-fledged arrangements involving MENA countries. This is especially true for each of the following reasons. (1) In contrast to FTAs which apply to the whole country and provide discriminatory access to a wide variety of products, the QIZs are limited to small amounts of territory in each of these countries and apply to only a narrow range of products in which for a temporary period (prior to 2005) US imports were limited by quotas. (2) In each case, the benefits would apply only if specified minimal percentages of the final product value would be supplied by Israel, a country which was both a high cost supplier of such inputs and had been an enemy for much of the period since the creation of the country in 1947. Indeed, both the Egyptian and Jordanian governments and their general citizenry were very reluctant to have anything to do with Israel. (3) In Jordan, the textile and garments sector had hardly existed before the QIZ and the country was producing none of the raw materials that might have given it some comparative advantage. On the other hand, in Egypt, there already existed a large textile and garments sector which was already exporting to the United States. (4) In both countries the private sector was subject to regulation by bureaucratic government institutions which were not always business-friendly. In the case of Egypt, moreover, the textiles component of the textiles and clothing sector was dominated by large state enterprises. (5) While world-wide, the workers in these labor-intensive sectors are largely women who are generally more nimble and more

[1] The actual Protocol was signed in December 2004 but practically operation started in 2005

willing to work for low wages than males, wage rates in Jordan and even Egypt were by no means low by international standards and the female labor force participation rate had been and still is extremely low. But, because of consideration (2) above, in examining the QIZ experience of Jordan and Egypt, attention must be given to the international cooperation, reduced political tensions aspect into consideration.

While in subsequent sections we point out that not all the effects of QIZs have been as positive on trade and development as the parties involved might have hoped and analysts believing in the benefits of openness to trade might have expected, the fact is that the QIZ involving Israel and Jordan has had the effect of raising trade between Israel and Jordan many fold between its beginning in 1999 and 2006 and allowed Jordan to increase its exports of textiles and garments to the United States from essentially zero in 1998 to well over $1 billion a year by 2006. As a result, textiles and garments exports now account for some 60 percent of total exports of manufactures and exports to the US account for almost a quarter of total exports. These industries have managed to attract at one time or another some 20,000 Jordanian women plus another 20,000 or so foreign women, and at least some men. While the QIZ involving Egypt and Israel is of much more recent vintage (2005), even in Egypt there is evidence of rapid growth of QIZ exports and in some commodity classes a doubling of Egypt's market share in the US market within three years of its inception.

Despite being trade creating in the sense identified above, the rather artificial features of the QIZ schemes requiring Jordan and Egypt to purchase percentages of the total value of output and exports from a high cost provider - Israel, also serve to distort the trade patterns of all countries involved in the scheme. Whereas in many trade arrangements because of the generally low rates of protection applied in the increasingly liberalized trade regimes around the world, trade diversion has been found to be relatively minor in magnitude, this is by no means the case with these QIZ schemes.

Objectives

The main objectives of this study are therefore (1) to quantify the amounts of both trade creation and trade diversion in each of the countries involved, (2) to explain why the effects especially in Jordan have been much larger than one might have expected and seemingly larger than those in Egypt even though Egypt may have had a stronger comparative advantage in such exports than Jordan, and (3) to identify and explain those effects other than on trade, such as in attracting FDI, developing local entrepreneurship, encouraging female labor force participation, developing linkages to firms outside the QIZ and on broader trade and industrial policies. We shall also try to identify policy and other changes that might have allowed these effects to be more positive and stronger than they actually were. Because of the longer experience with the Jordanian QIZs, somewhat more emphasis is placed on the Jordanian data and more detailed statistical analysis were possible. But the Egyptian case is also illustrative, especially for looking at the differential benefits on firms of different size, diversity and sophistication of product lines and benefits accruing to Egypt from attracting Turkish investments.

Organization of Paper

The remainder of the paper is organized as follows. Section II describes how the QIZ schemes came about and identifies both the differences between the schemes in Jordan and Egypt, and the various other trade arrangements which also affect the trade of the countries with the US and with each other. Section III identifies the data sources, provides a description of the evolution of the relevant trading patterns over time and arrives at quantitative estimates of the effects of the

QIZ scheme on their shares of the US market for imports of different types of garments, and a crude estimate of the partial equilibrium estimates of the net welfare gains from trade. Section IV is devoted to examining other effects of the QIZ schemes for Jordan and Egypt and even Israel. Section V attempts to explain the differences in these effects and assess the policy changes that might have allowed the benefits of the QIZ schemes to be greater than they have been or even to increase them in the future if the changes were made now. All tables and figures are presented in appendices A and B, respectively, in the same numbering and sequence of their reference in the text.

2. The Origin and Evolution of the QIZ Schemes and Other Arrangements that Affect Trade among the Countries Involved

The first bilateral FTA established by the US was the US-Israel FTA of 1985. This treaty provided for a gradual reduction in tariffs by both countries, a process that was completed in 1995. It covered all commodities, except for some sensitive agricultural products which were to be subject to quotas and other restrictions. In contrast to many other FTAs world-wide, it removed not only tariffs but also non quantitative barriers to imports like quotas which were important in certain sectors like textiles and garments, luggage and footwear. An exception in this regard was the aforementioned quotas on some agricultural goods. It also did not prohibit the imposition of certain fees, port fees and taxes but these were of minor importance. It was signed and implemented within a little over a year after the beginning of negotiations, reflecting the fact that it was an easy treaty to negotiate for the US given the small size of the Israeli economy compared to the US and the close political and security relations between the two countries.

The next FTA established by the US was that with Canada in 1989, followed by one with Mexico and then the three countries together in the North American Free Trade Agreement (NAFTA) in 1994. This was the first somewhat "deeper" FTA, with supplemental accords dealing with not only dispute settlement procedures and agricultural products as in the US-Israel FTA but also separate accords on environmental issues and labor issues. This was one of the first examples of an FTA combining highly developed countries with a middle income developing country, something that was viewed as quite risky for Mexico. It is generally believed that Mexico did so mainly as a commitment device, locking Mexico into liberalization policies and therefore serving as a means of attracting FDI to the country so as to export to Canada and the US. Well before the creation of NAFTA, there were various maquila industry zones near the US border which, while making use of low cost Mexican labor, tried to take advantage of US raw materials and intermediate goods, thereby avoiding customs duties in the U.S.

Meanwhile, Jordan and especially Egypt had been developing a fair amount of industry but under fairly high tariffs and other barriers to trade. Egypt had signed a peace treaty with Israel back in 1979 but paid something of a price for this in terms of isolation from several other MENA countries in the years immediately following that. The Iran-Iraq War and other events leading up to the Gulf War of 1990-91 and the war itself had important influences on the two countries. Notably, Egypt and Jordan emerged from these events in quite different circumstances.

Jordan lost both its major export market (Iraq) and the ability to get paid back by its major debtor (again Iraq) due to the Gulf War and subsequent trade sanctions imposed on Iraq after the war. Because of its support for Iraq, many of its businessmen and technicians living in Kuwait and other Gulf countries were expelled, implying that Jordan was no longer able to benefit from the substantial remittances they had been sending home. Indeed, as a heavily indebted country itself,

Jordan found itself unable to meet its international obligations. As a result, it was forced to undergo debt rescheduling and sign a rather strict stabilization program with the IMF that called for substantial constraints on the public sector and a number of reforms (Kanaan, 1999). Having not been among the "Coalition of the Willing" in the war it was not particularly favored by the U.S. But, the Oslo Accords raised hopes for peace in the region and King Hussein led Jordan into peace negotiations with Israel, culminating in the 1994 Peace Treaty between these two countries. Jordanians had hoped that this peace treaty would lead to a number of institutional developments such as the Middle East Bank for Reconstruction and Development and large infrastructural projects such as a canal connecting the Red Sea with the Dead Sea, a large gas line project from Qatar to Aqaba and Israel, and the Jordan Rift Valley Development Project (Al-Khouri 2000). But, when the peace prospects dampened again and these projects failed to come into fruition, Jordanians had become quite disenchanted with the limited benefits that had arisen from peace with Israel.

Given the aforementioned constraints imposed on its public sector by the IMF, and its high and rising unemployment and poverty rates, however, Jordan was anxious to take advantage of opportunities for its private sector. To this end, it initiated a number of reforms to improve the business climate and promoted privatization (Kanaan, 1999). Some Jordanian businessmen made investments in Israel and some with Israeli partners established plants in industrial zones in Jordan.

Egypt, meanwhile, had made its peace with Israel well over a decade earlier (1979). Although a significant amount of trade had arisen between the two countries Egypt, too, felt quite disappointed by the benefits accruing from that treaty. The continuing difficulties between Israel and Palestinians in the occupied territories created political problems for the Egyptian government. The Egyptian economy, however, had not been affected by the same extent as Jordan by Iraq's demise. Indeed, since it had been an important part of the "Coalition of the Willing", it was rewarded for its efforts with debt relief and increased aid. In any case, its better off position, meant that it was less anxious to jump into further cooperation with Israel.

As Yadav (2007) noted, in general Israel's objectives in trade arrangements with Egypt and Jordan were largely political, i.e., viewing any such agreements as means of obtaining greater legitimacy in the eyes of not only the international community but also the populations of these neighboring countries. But, Israel was also going through its own economic problems. As pointed out by Mansour and Destreman (1997) and Saif (2007), although rapidly transforming itself into a high-tech success in exporting, by joining the WTO in 1995 it became committed to substantial tariff reductions and the cessation of subsidies to industries in trouble. One such industry was its textile and clothing industry. Trade liberalization made its well developed textile industry much less viable economically, given the high and rapidly rising wages in Israel and even in the occupied territories to which Israeli firms were subcontracting some of their labor intensive operations. Israeli wages were several times those in the Palestinian territories, and many times those in Jordan and especially Egypt. Intifada in the territories and generally greater tension and security problems between Israel and the territories made these subcontracting relations more difficult and less reliable. At the same time, environmental regulations in Israel were forcing some Israeli firms to out-source their dyeing operations, an important component of textiles and clothing operations. Hence, to Israeli businessmen, Egypt and Jordan became increasingly attractive as potential sites for subcontracting relations, thereby raising the importance of economic incentives for trade arrangements with Jordan and Egypt.

In March 1996, cognizant of the need to contribute further to peace in the Middle East and at the same time ways of providing economic benefits to Palestinians, Egyptians and Jordanians, U.S. Congressman Philip Craine introduced a bill to amend the US-Israel FTA Implementation Act of 1985 to provide the US President with the authority to extend the US-Israel FTA "to cover articles grown, produced, or manufactured in the West Bank, the Gaza Strip, or a QIZ between Israel and Jordan or Israel and Egypt." Within a few months the proposed amendment to the US-Israel FTA of 1985 had been passed by the US House and Senate and the authority given to the President who in turn delegated this power to the US Trade Representative. The proclamation set no deadlines, time limits or renewal requirements, implementation being at the President's discretion. While Israeli's private sector interest in it, especially in the textiles and clothing industry, was natural, to come into effect anywhere, it required the desire for this on the part of the Palestinian territories, Egypt or Jordan.

Because of the aforementioned difficulties, there was little enthusiasm for this in either Egypt or the Palestinian territories, and Egypt did not accept President Clinton's offer of establishing QIZs in Egypt under an Israel-Egypt agreement. Egypt's refusal was based on the view that economic normalization with Israel should not proceed prior to a full and comprehensive political settlement of the Middle East conflict.

However, due in large part to a couple of key entrepreneurs in Jordan (especially Omar Salah of Palestinian heritage), the response in Jordan was more positive. Indeed, these entrepreneurs went so far as to lobby for the creation of a QIZ involving Israel and Jordan. Despite the enthusiastic support of these entrepreneurs, even in Jordan general public opinion was fairly negative inasmuch as anyone seen as cooperating with Israel could earn some public disfavor. Yet, because of its high unemployment rate and low female labor force participation rate, the government saw potential economic benefits. Nevertheless, because of its potential for stirring up opposition to the government and the QIZ arrangement, all negotiations on the QIZ were conducted behind closed doors. Indeed, it was outside of the country, at a conference in Qatar in 1997, where the written agreement to establish a QIZ in Irbid (Northern Jordan) was signed.

As in the original US-Israel FTA, the QIZ exempted exporters from quotas as well as tariffs subject to the rules of origin provision that 35% of the appraised value of such articles imported into the US would have to be produced within Israel but now supplemented by the Palestinian territories and the QIZ in Jordan. Of this 35%, at least one third would have to come from Israel, another one third from the QIZ in Jordan and the remaining one-third from either of these locations or from the US or Palestinian territories. While the transformation activity would have to be meaningful, more than simply cosmetic, the 35% total could be made easier to attain by the inclusion of any imported cloth that was transformed twice, for example, with both cutting and sewing operations, could be counted as part of the 35%. A joint technical committee was established consisting of three representatives, one each from Israel and Jordan, and the third from the Office of the US trade Representative. While the agreement was ratified by a Royal Decree in Jordan, it was treated as a trade protocol (as opposed to a trade treaty), thereby avoiding the need to be ratified by Jordan's parliament. It is generally believed that this was in order to avoid the considerable negative criticism that would have arisen had the parliament engaged in a debate or even had the press been invited to discuss it freely.

In March 1998, the first QIZ was established in the Al-Hassan Industrial Estate in Irbid. The Jordanian entrepreneurs found the costs of the required Israeli components to be very high and complained of this. Even the Israeli entrepreneurs whose main interest was in taking advantage of lower wages in Jordan could not disagree with this criticism. As a result, in 1999 the two

countries renegotiated the agreement, with Israel agreeing to lower the required Israeli component from the original minimum of 11.7% of the value added to a new minimum of only 8%. This was accepted by the US and reflected the rather strong bargaining position that Jordan was in, with no competing QIZ offers from Egypt.

Over time, many more QIZs (to a total of 15) were created in different parts of Jordan, including on its border with Israel. Each company has to apply for eligibility each year, and each shipment has to be authorized as in compliance by the respective QIZ representatives (one from each of the respective Ministries of Industry and Trade before the export takes place. At first, these procedures could be very lengthy. Over time, however, the time required for such approvals is reported to have been reduced from days to about an hour (Gaffney, 2005). As noted above, the QIZ Agreement provides exemption not only from tariffs but also from quotas which in the case of the US had been imposed on textiles, clothing, luggage and some other products. But, according to the 1995 International Agreement on Textiles and Clothing, WTO members (including the US) were required to eliminate all such quotas by 2005. Hence, the quota exemption advantage of QIZ production and export to the US disappeared in 2005.

In 2000, based on the seeming success of the Israel-Jordan QIZ Agreement and increasingly close relations between the US and Jordan, and again motivated in large part to support the peace process, the US began to negotiate an FTA with Jordan. This process was encouraged by the increasingly strong support for private sector development and for the role of trade in that process by Jordan's new king, King Abdullah, as well as the continuing desire of Jordanian entrepreneurs to avoid the costly requirement of the minimum 8% Israeli content in QIZs. The US-Jordan FTA was no doubt stimulated by the prior existence of the QIZ Agreement between Israel and Jordan as well as the desire by Jordanians to take advantage of preferential trade with the US without the need for "cooperating with Israel". It came into force at the end of 2001 and called for a gradual phasing out of tariffs between the countries by 2010. It was the first of several FTAs signed between the US and Arab countries of the MENA region, others being Morocco, Bahrain and Oman, which the US government under President George W. Bush hoped would form the basis of a more comprehensive Middle East FTA (MEFTA). MEFTA, however, never got very far, and is not currently being discussed. One complication that USFTAs have created with those countries signing FTAs with each other or with the EU is the use of quite different and more generous rules of origin (Hoekman and Sekkat, 2008; World Bank, 2009).

Given the demonstrated effect of the Israel-Jordan QIZ on growth of Jordan's textile and clothing sector and also on the creation of the US-Jordan FTA, Egyptian interest in a possible QIZ agreement with Israel picked up. While cooperation with Israel was still quite unpopular generally, certain members of Egypt's business community and labor unions came out in support. In view of the expiration of the ATC quotas, increasing competition from China and elsewhere, the labor unions saw a QIZ as a means of saving jobs that otherwise might be lost. The fact that textiles and clothing constituted as much as 27% of industrial production, 25% of manufacturing employment and 10% of non-oil exports in Egypt no doubt contributed to this growing interest. The potential for substantial opposition was large, however, prompting President Mubarak to personally vouch for it and the Grand Mufti to declare such an agreement consistent with Islamic law. While this was going on in Egypt, foreign entrepreneurs operating in Jordan were finding themselves increasingly squeezed by competitors in countries with much lower labor costs than in Jordan and facing the removal of the quota exemption advantage of QIZ production on the horizon, A number of these entrepreneurs visited Egypt where they expressed interest in taking advantage of wages that were lower than those in Jordan. Additional important

reasons for the Egyptian government's interest may have included (1) the QIZ being seen as a stepping stone to the desired FTA with the US, and (2) that it constituted a less risky means of expanding exports since it did not require liberalization of Egypt's tariffs. Its demonstrated anxiousness to accomplish this rather quickly may have weakened Egypt's bargaining power vis-a-vis Israel and thereby contributed to Egypt's failure to obtain in its agreement signed in 2004 the same more favorable terms that Jordan had obtained in 1999 (when the minimum Israeli content of 11.7% was reduced to 8%).

Meanwhile, it was reported that US interest in the bilateral FTA with Egypt cooled significantly after Egypt reneged on a prior earlier commitment to support the US in a dispute with the EU at the WTO (e.g., Alden 2003, Yadav, 2007). Egypt's greater size, lower wages and allegedly weak unions, and other institutional conditions would probably in any case have made the conclusion of such a treaty much more complicated than it had been with Jordan. Not surprisingly, the US-Egypt FTA has still not been completed and "fast-track" authority of the US President has run out, making it less likely that such an agreement will be arrived at any time soon.

Notably, the starting points for the two QIZ agreements with Israel were quite different between Jordan and Egypt in several respects. First, at the beginning, Jordan's textile and clothing industry hardly existed whereas Egypt's was extremely large and well developed. Second, whereas Jordan had almost no experience in exporting to US markets, Egypt had quite a lot of experience, even in the textile sector itself. Third, outside of mining and its defense industry, Jordan's industrial firms were almost exclusively private whereas Egypt's textile sector (though not its clothing sector) was dominated by public sector firms, some of them quite large. Fourth, according to various commentators, at least until perhaps very recently, Egypt's bureaucracy is slower and less business-friendly than Jordan's. (This is reflected in the generally lower scores that Egypt was and still is receiving on most of the World Bank's Doing Business Surveys).

Fifth, although similar in essence, there is actually a major difference between the Egyptian and Jordanian QIZ arrangements. While in the Jordanian QIZ, the Israeli content has to be satisfied in every product shipment through filing a qualified product report, in the Egyptian case the reports are filed every quarter (three months) and thus cover all shipments during that quarter. This means that the Israeli content can vary from one shipment to the other as long as it is satisfied for the quarter as a whole. It follows from this that the products imported from Israel also need not be linked to a specific product exported by Egypt through QIZ but need only be linked to the line of production of the enterprise as a whole as long as proof of actual purchase from Israel is available (stamped invoices etc.). This new feature in Egyptian QIZ protocol has an important implication on the assessment of the whole experience.

Finally, given that a major advantage of production in a QIZ as far as exports to the US are concerned, is exemption from quotas, the fact that Egypt's QIZ program with Israel started only at the time quotas were being eliminated implied that, ceteris paribus, the impact of Egypt's QIZ with Israel would be smaller than Jordan's in the first several years after its creation. In the subsequent analysis we shall devote some attention also to differences in the effects over time of the QIZ experience on some of these initial differences as well as on other constraints on trade and development in these countries.

It is also important to consider that the US has continued to sign FTAs with other countries and regions, implying that trade preferences to the early movers like Israel, Canada, Mexico and Jordan would be gradually disappearing. Indeed, the US initiated FTAs with Chile and Singapore

in 2004, Australia in 2005, Morocco and Bahrain in 2006, each of the Central American countries including also the Dominican Republic in 2007-9 and Oman and Peru in 2009.[2] Most recently in May 2009 there are talks that big East Asian exporters like Pakistan, Bangladesh and Sri Lanka are to benefit from such preferential arrangements[3]. On the other hand, in recent years the US has not been lowering its relatively high MFN tariff rates on textiles and garments imports, implying that relative to countries without FTAs with the US, the advantage to countries with FTAs with the US has not diminished. Within four digit trade classification categories, the averages range from a low of about 6% to a high of about 16%, but at greater levels of disaggregation ranging up to 26 percent. .

Finally, as stated in the introduction, it should be recalled that both Jordan and Egypt have signed other FTAs with Turkey, the European Union, and EFTA. Jordan's Association Agreement with the EU came into effect in 2002 and Egypt's in 2004, hence, their trade objectives are clearly not exclusively focused on the US market and as will be demonstrated below, their interest in trade with Europe has been influenced by exchange rate changes and other factors. But all of these other agreements were more recent than Jordan's QIZ protocol with Israel and the US.

3. Trading Patterns over Time and the Role of the QIZ Schemes in those Patterns

A. Jordan

As stated in the introduction, Jordanian exports to the U.S. virtually exploded subsequent to the initiation of the QIZ Agreement with Israel in 1998 when products produced in Jordan satisfying the QIZ protocol could first be exported to the US without being subject to either tariffs or non tariff barriers. As shown in Table 1, Jordan's exports to the US had stagnated between 1992 and 1998 before exploding from $16.4million in 1998 to $1.422 billion in 2006, and then declining slightly after that. Note that this period of explosive growth in Jordanian exports to the US contrasted with the exports of Egypt to the US which enjoyed only very modest growth all through the period 1998-2004 before increasing fairly sharply when its own QIZ protocol came into effect in 2005. As a result, Jordanian exports to the US grew from less than 2.5% of the value of Egyptian exports to the US in 1998 to about 60% of them in 2006. While jewelry accounts for significant percentages of US imports from Jordan, ranging from 6.5 percent to about 8.5 percent in recent years, and foodstuffs, chemicals, minerals, pharmaceuticals and sporting goods, collectively account for another 2-3%, most of the rest is accounted for by textiles and garments (some 85-91% of the total since 2003). Since jewelry exports also qualify for GSP preferences which are of longer standing than the QIZ protocol, one might expect their share in exports to the US to have been much larger before the QIZ and to have increased somewhat more slowly than for Jordan's textiles and garment exports which were of course non-existent prior to the QIZ. The share of QIZ exports in total exports of Jordan rose from negligible percentages in 1999 and 2000 to almost 5% in 2001, about 10% in 2002, approximately 15% in 2003 and 25% by 2005.

In principle, by the rules of the QIZ agreement that Jordan has with Israel and the US, Jordan's QIZ exports should be entirely to the US. Our source of QIZ statistics (Jordan's QIZ unit), however, may include some exports from firms which may operate in the same industrial estates but not with QIZ qualification. Some of these exports of similar products as the QIZ exports to

[2] In the Central American case, however, the US had earlier established a number of free trade provisions as part of its efforts to preserve peace and dampen the incentives for civil war in that region.

[3] Based on Egyptian Commercial Authorities Bulletin in July 2009

the US may be exported to Israel. Some of the exports destined for the US may also be delivered to Israel for packaging (one of the important inputs usually contributing to the Israeli share of the exported value) may be recorded as exported to Israel even though they are eventually going to the US. These possibilities may explain why considerably less than 100 percent of QIZ exports are reported as going to the US as seen in Table 2, and also why significant though declining shares are reported as going to Israel.

Not having any textile raw materials locally, Jordan's QIZ production and exports are quite naturally heavily dependent on imports. Table 3 shows the shares of QIZ imports of raw materials and intermediates by country of origin over the same 2003-2008 period. Note the large and rising share of China since 2003 and the relatively important but declining shares of Israel, Hong Kong, Taiwan and Pakistan. Turkey also has a modest but increasing share of these QIZ imports.

Since Jordan's textile and garments exports to the US virtually did not exist before the QIZ, it is certainly not the case that these exports would have arisen from the diversion of Jordan's exports of these commodities from other countries to the US. The most important source of trade diversion arising from the QIZ protocol would be among different sources of imports of garments into the US and secondarily among imported inputs into Jordanian and Israeli textile and clothing industries. Table 4 presents time series data on various different categories of garments of relevance to Jordan over the period 1992-2008. Since U.S. tariffs for all these items are among the highest of all trade classification categories, ranging from a low of about 5% to highs of over 28%, and until 2005 also quotas, one could expect the pattern of such imports to be substantially affected by these discriminatory barriers to imports favoring Israel, Jordan and eventually Egypt as a result of the Israel-US FTA and the Jordan-Israel and Egypt-Israel QIZ protocols and the Jordan US FTA beginning in 2002. Table 5 examines Jordanian and Israeli imports of inputs into these industries.

The country/region shares of US imports of men's and boy's clothing (other than knitted) over the period 1989-2008 are given in Table 4A, those for women and girls in Table 4B. Similarly, the country/region shares of US imports for men and boys knitted clothing and for women and girls knitted clothing are presented in Tables 4C and 4D, respectively. The corresponding shares for other textile apparel are given in Table 4E and those for gold and silver jewelry in Table 4F. In each table, the $US value of imports of that class of goods is given in the first column followed by the percentages of US imports of that class coming from Egypt, Israel, Jordan, other countries of the Middle East, Central America NAFTA (i.e., Canada and Mexico), China, Other Asia, Europe, and Others, respectively.

Turning first to Table 4A for US imports of men's and boys' non-knitted clothing, the second through the fourth columns for Egypt, Israel and Jordan, show the changing shares of US imports coming from those countries most directly affected by the Israel-US FTA of 1985, the Jordan-Israel QIZ of 1998, the US-Jordan FTA of 2002, and the Egypt-Israel QIZ of 2005. Note that Egypt's share rose quite rapidly from 1989 to the mid-1990s, a period of substantial trade and other reform in Egypt. Egypt's share then remained rather constant until 2005 when Egypt's QIZ came into being after which it virtually doubled by 2008. By contrast, Israel's share remained fairly constant until 2005 when its QIZ with Egypt came into being, after which it declined sharply. For Jordan on the other hand, its share rose quickly following the creation of its QIZ with Israel in 1999, though tapering off somewhat after 2006. While the shares of other Middle Eastern countries rose moderately until 1998, they then declined to their original levels in the last three years, perhaps due to competition from Jordan and Egypt. This is not surprising given that

there were various newspaper as well as more scholarly reports about firms that had been set up in the UAE and elsewhere in the Gulf with foreign labor that were in the process of shifting their operations to Jordan to take advantage of their more advantageous access to the US market. Note that both Central America and NAFTA has sharply rising shares during the period of maquila expansion in Central America and Mexico prior to NAFTA and then NAFTA's share (primarily Mexico's) rising further until the commencement of the QIZ with Jordan and the continuous rise in the shares of low-wage Other Asia and subsequently China again after 2002. As to the interesting reversal of trends in China (its share of US imports falling steadily from 1989 to 2001 but then rising fairly sharply after that), several analysts have pointed to the importance of government reforms. Namely, as Chinese textile and clothing firms began to run larger deficits, the government started to harden their budget constraints causing these firms to become more competitive, helping them to upgrade technology and often to become more vertically integrated. The success of these reforms, therefore is generally credited with the turnaround in their export success to the US despite not being advantaged by trade preferences in the same way as firms from Israel, Jordan and eventually Egypt and some other countries.

Somewhat similar patterns can be observed in Table 4B for women's and girls' non-knitted clothing. Some minor differences are (a) that the rise in Jordan's share after the initiation of the QIZ in 1999 is quite a bit sharper, its share rising from essentially 0% in 1999 to 1.57% by 2006, (b) the rise and subsequent fall in the shares of Other Middle Eastern countries, Central America and especially NAFTA were also sharper, (c) the fall and subsequent rise in China's share was also sharper and (d) the secular rise in the Other Asian share was less pronounced.

Table 4C for knitted men's and boys' clothing reveals similar patterns overall but again with some interesting differences. In this case, the upward trend for Israel in the years immediately after the creation of its FTA with the US was stronger than in the preceding tables but then the subsequent decline in its share started earlier (1996). Whereas for the other products, Europe's share had declined only slightly, for men's and boys' knitted clothing the decline over the period was quite a bit sharper.

The sharpest growth in any of the product classes for Jordan after the creation of the QIZ with Israel can be seen in Table 4D for women and girls' knitted clothing in which Jordan's share reached well over 4% in 2005 before dropping off noticeably after that. Other differences in this table are (a) that Egypt's share changed very little over the whole period, (b) Israel's share rose more sharply until 2000 before dropping after that, (c) Other Asia's pattern was more like that of China, declining until about 2001 and then rising after that, and (d) as with men's and boys' knitted clothing, Europe's share in US imports declined quite significantly over the entire period.

Table 4E for other clothing made from other textile materials again reflects many of the same patterns, but also with some differences. In particular, Central America's share did not decline significantly after 2000 (even though NAFTA's did), and the trend reversals in China were somewhat less sharp than in the other commodity classes.

Finally, since the preferences with respect to jewelry were more driven by GSP preferences applied by the US and were of longer standing, the patterns revealed in Table 4F are quite different. In particular, (a) there is no upward trend whatsoever for Egypt out of its very minimal share of 0.01%, (b) there is very little change over time in the Central American share, (c) the share of NAFTA is unusually low but rising until tapering off in the last few years, (d) China's share increased steadily over the whole period, and (e) Europe's share was much higher than for the other products over the whole period, but again was declining rather steadily.

Focusing on the QIZ and FTA experience, the expected patterns are largely confirmed. In particular, Israel may have benefitted early on from its early FTA with the US but then experienced declining shares of US imports in every product class due to (1) the labor intensity of these sectors, (2) rapidly rising wage rates in Israel and (3) the ability of its firms to engage in subcontracts and other QIZ activities with Jordanian and later Egyptian firms. By the same token, Jordan's shares in US imports increased in every one of these products after its QIZ with Israel was created in 1999, though in each case there has also been at least a modest decline after 2005 or 2006 by which time the quota exemption benefit of its QIZ and FTA with the US had disappeared as a result of the elimination of quotas on textiles and Egypt's QIZ had commenced. Egypt's share in US imports generally in the aftermath of the various liberalization measures it introduced in the early 1990s, but either stagnated or even declined after Jordan's QIZ protocol was introduced but then increased fairly sharply after its own QIZ was established in 2005. Notably, an important exception was jewelry where it was GSP preferences not QIZ ones that operated and thus in which there was no increase in Egypt's shares whatsoever. Especially for Jordan which started with virtually no textile industry at all, these effects of the FTA and QIZ were trade-creating.

Given the small size of Egypt, Jordan and Israel in the overall world market for these products, and even that of the US alone, these influences were relatively minor overall. Indeed, even with these trade-distorting factors operating in the US in these products subject to high tariffs and originally also quotas, the important trends in these tables are the continuing upward trends in all these product classes for the low labor cost countries of Other Asia and the sharp reversal of previously declining shares in US imports for China. Indeed, the fact that the early upward trend of Egypt, the upward trend in Jordan while it was entering the WTO around 2000 and the trend reversal in China during the late 1990s all coincided with important reforms also underscores the sometimes critical role of trade-related reforms in these changing shares of US imports of these rather special classes of goods.

Finally, it should be pointed out that despite the appearance of trade creation emanating from the discriminatory trade arrangements with the US for Israel, Jordan and Egypt, there is also evidence that these influences are eventually likely to weaken. This has been observed in both Israel and more recently Jordan. There is also plenty of anecdotal evidence of the short-run character of these trade creation benefits for Jordan. As Saif (2006) and others have noted, early on there were some firms in Jordan's QIZs that were attempting to manufacture and export luggage to the US but when the quotas on imports of these goods were phased out in 2002, these firms immediately closed up. In January 2009 after the elimination of the quotas on textiles and clothing and the appearance of ever increasing competition from lower wage countries in world textile markets, one of the early Israeli entrepreneurs located in Jordan left Jordan abandoning his 170 workers (mostly from Bangladesh without paying their salaries (Jordan Times March 14 2009). Unless the generally rather efficient and highly rated Jordan Investment Board is uncharacteristically behind in positing its statistics on numbers of QIZ firms, the number of factories and capital invested would seem to have declined in 2008 and 2009 by more than would seem to be implied by the economic downturn in the US.

The same eventual tapering off of the increases and eventual declining shares has not yet been observed for Egypt. But this may well be simply attributable to its QIZ arrangement being of such recent vintage. Note that the tapering off has also been reflected in the declines in the shares of Canada and Mexico in US imports and in some cases also those of the Central American countries a number of years after the creation of these rather special discriminatory trade

arrangements with the US. Even more importantly, one should be cognizant of the narrow range of productive activities that have been stimulated by the QIZs.

On the QIZ import side, the main trade diversion would be in the form of imports from Israel and the US. Table 5 identifies the top seven commodities imported by QIZ firms from each of these countries. The top section of the table shows the ranking of these commodities by importance and their evolution over the years 2003 -2008. The bottom section does the same for the imports from the US. Imports from both countries can count towards the overall requirement of extra value added. The larger figures are for Israel and count toward the 8% minimum required to the Jordanian exports to qualify as QIZ. Notice that the top import in each case is the same, namely "other knitted or crocheted fabrics," as other textile materials not elsewhere specified. Since natural fibers like cotton and wool are in fact specified elsewhere, this category would be likely to include synthetic materials. The third most important product, parts of garments, is also common to both countries. The others are not common.

To help quantify some of the effects mentioned in connection with Table 4 for purposes of calculating the benefits of trade creation and costs of trade diversion for Jordan and Egypt, we attempt to use some regression analysis. We report the application of two types of analysis, first for Jordan the application of a somewhat generalized gravity model at the aggregate level, and then for the particular commodities under study here, a simple regression procedure attempting to trace changes in trade shares and trends therein due to dummy variables representing the factors identified above.

Gravity Model Simulation Exercise

For our gravity model application, we started with a rather standard model of bilateral trade designed primarily to measure the amount of trade (*Ln(Xijt*) that would be predicted between and two countries based on standard and not- so -standard gravity model considerations. The standard variables are:

$$\begin{aligned} Ln(X_{ijt}) = \beta_0 + \beta_1 Ln(Y_i Y_j)_t + \beta_2 Ln(Y_i Y_j / Pop_i Pop_j) + \beta_3 LnD_{ij} + \beta_4 Cont_{ij} + \beta_5 Lang_{ij} \\ + \beta_6 FTA_{ijt} + \beta_7 ComNat_{ij} + \beta_8 ComCol_{ij} + \beta_9 Colony_{ij} + \gamma Cu_{ijt} + \delta V(e_{ij})_t + \varepsilon_{ijt} \end{aligned} \quad (1)$$

where i and j denote countries, t denotes time, and the variables are defined as follows:

- X_{ij} denotes the value of bilateral trade between i and j,
- Y is real GDP,
- Pop is population,
- D_{ij} or DIST is the distance between i and j,
- $Cont_{ij}$ is a binary variable which is 1 if i and j share a border,
- $Lang_{ij}$ is a binary variable which is 1 if i and j share an official language,
- FTA_{ij} is a binary variable which is 1 if i and j belong to a FTA
- $ComNat_{ij}$ is a binary variable which is 1 if i and j are part of the same nation,
- $ComCol_{ij}$ is a binary variable which is 1 if i and j share the same colonizer after 1945,
- $Colony_{ij}$ is a binary variable which is 1 if i colonized j or vice versa,
- Cu_{ijt} is a binary variable if i and j use the same currency at time t, and
- $V(e_{ij})_t$ is the volatility of the bilateral of the exchange rate between i and j in period t.

The additional variables beyond those included in standard gravity models included Distance squared (D2ij or DISTSQ), Landlocked (LL), sum of the areas (SAREA), an index of telecommunications infrastructure (OUTTRAFFIC)4, dummy variables if one of the partners is an oil exporter (ONEOIL), or if both partners are oil exporters (BOTHOIL), the trade-diverting effects of both FTAs and currency unions, captured by dummy variables if only one partner is a member (ONEFTA), and ONECU), OILPRICE and its interaction with the ONEOIL and BOTHOIL dummies to reflect the relevance of real oil prices, Time dummies and for subsequent diagnostic purposes dummy variables for specific regions or countries. The details of this analysis including the data sources and estimation procedure are presented in Miniesy, Nugent and Yousef (2003). It was based on observations taken at 5 year intervals from 1970 - 2000 for all variables. Then Nugent and de Alencar Loiola (2005) used various specification of this model to predict the levels of bilateral trade that Jordan (and other MENA countries) would have with its various trading partners. Comparing the trade predicted by the model (with our preferred specification of the model) with the actual trade, the general finding was that Jordan (and most other MENA countries) did not trade as much as would be predicted by the model. In particular, Jordan traded only 57% as much with the rest of the world in the base year 1997 as would be predicted. It was especially low in its trade with the EU and the United States (about 30% of predicted). But, when the model was simulated for the year 2004 (but still not modeling either the FTA or QIZ effects), the actual amount of trade between Jordan and the US in 2004 was shown to exceed what would be predicted by the model without these effects. Hence, the combined effect of the after implementation of both the QIZ and FTA with the US seems to have more than eliminated the earlier shortfall relative to what would be predicted based on normal gravity model considerations. Hence, at least crudely it would appear that the combination of Jordan's QIZ protocol and its FTA with the US may have raised the bilateral trade flows between these two countries to somewhat more than would be expected to be on the basis of a somewhat extended gravity model and well above what it was before the QIZ and FTTA.5. The fact that the estimated coefficients for ONEFTA were consistently negative and significant while those for FTA (indicating that both trading partners were members of the same FTA) were consistently positive and significant supports the hypothesis that, in general, FTAs give rise to both positive trade creation and negative trade diversion effects on bilateral trade volumes, but with the former generally outweighing the latter.

A Regression Approach to Changing Shares in US Imports of Selected Textiles and Garments

Next we turn to regressions for the 10 country/region shares shown in Table 4 for each commodity identified in these tables as well as for disaggregates thereof. The explanatory variables defined in such a way as to allow us to capture the above verbal discussion of the changing shares over time, but in this case in a more quantitative way. Our base model is of the following form:

$$\Delta S_{ijt} = \alpha S_{ijt-2} + \beta_{1j} CHTR_t + \beta_{2j} IFTA*(t-T_{1)} + \beta_{3j} JQIZ*(t-T_{2)} + \beta_{4j} EQIZ*(t-T_{3)} +$$

$$\beta_{5j} NAFTA*(t-T_{4)} + \beta_{6} OMEFTA*(t-T_5) + \beta_7 EQUOTA* JEQIZD2 + \beta_8 CAFTA*(t-T_6) + \beta_9 LW$$

$$+ \varepsilon_{ijt}$$

[4] This is defined as the number of minutes of outgoing telephone calls per capita.

[5] Note, however, that this was without introducing the Jordan-US FTA into the gravity model, an action that would be likely to raise the predicted value still further.

Where ΔS_{ijt} represents the change in the share of country i in commodity class j in time period t, S_{ijt-2} is the level of that share lagged two periods, CHTR is a Chinese textile reform variable, IFTA, NAFTA, OMEFTA and CAFTA are dummy variables representing FTAs between the US and Israel, North America, Other Middle East (Bahrain, Morocco and Oman) and Central America, respectively, JQIZ and EQIZ are dummy for Jordan and Egypt, respectively, in each case multiplied by the number of years since the FTA or QIZ came into effect (indicated by the T variables), EQUOTA is a dummy variable for all years since import quotas were eliminated (2005) and the variable JEQIZ2 is a special set of dummies set equal to -1 for countries which had been subject to binding quotas prior to their elimination, +1 for all FTAs or QIZ which exempted them from quotas and 0 for all countries which did not face binding quotas. Finally, LW is a dummy variable for those countries or regions with especially low wage rates which may be deemed the locus of long term comparative advantage in these labor intensive products. We also introduce square terms for the terms involving years since the introduction of the FTA or QIZ, to capture the diminishing returns or tapering off of benefits that were observable in the different panels of Table 4.

The results are given in Table 6 for the three-digit SITC code 843, Knitted Clothing for Men and Boys. The effect of the double lagged share is negative and significant, implying a tendency for countries with low initial shares to catch up and those with large initial shares to fall prey to increasing competition from latecomers which often make use of new plants with modern technology. The effect of the 2005 elimination of quotas which, prior to that date, were preferentially beneficial for some countries with QIZs or FTAs with the US. The fact that the coefficient is negative and significant (at the 10 percent level at least) shows that the removal of the quotas just like their imposition had asymmetric effects on different countries. This shows that Jordan for example was hurt by this removal but China helped. While Israel's FTA with the US seems to have had a negative but not significant effect on its direct exports to the US, it would still benefit indirectly by way of its exports to Jordanian QIZ firms. Note, also that the other Middle East countries with FTAs with the US (Bahrain, Morocco and Oman) also do not seem to have enjoyed any benefits from their FTAs (perhaps because they are too recent). But the coefficients of the dummy variables representing the other members of NAFTA and the Central American countries with FTAs show positive and significant linear effect but negative effects of the square term. Of central importance to our analysis are the effects of JQIZYRS and EQIZYRS showing the effect of the number of years of experience of both Jordan and Egypt with their respective QIZs. In the case of Jordan, the coefficient is positive and significant and that of the square term negative and significant, reflecting the eventual tapering off of the effect as time goes on. In the case of Egypt the estimate of the coefficient is positive but not significant, no doubt reflecting both the short duration of that experience and the fact that Egypt was much less successful in knitted goods than in woven goods, an issue to which we will return later on and was already observable in Table 4 above. Finally, notice that the China textile reform of the late 1990s has a positive and highly significant effect.

Similar parameter estimates have been obtained for each of the other commodity groups presented in Table 4. They are not yet incorporated into the paper for lack of time. These estimates are all OLS estimates. We have also started to obtain Tobit estimates of the same equations as would seem preferable given that the dependent variables are percentages (with upper and lower bounds at 100 and 0, respectively). Thus far we have seen very little difference in the results. We also plan to estimate these various equations simultaneously within a SURE framework which would allow for the errors across equations to be correlated. Further

corroboration could be obtained by using ore highly disaggregated and therefore more homogeneous commodity groups (those at the five or six digit SITC level).

Tentatively, therefore, our results would seem supportive of our interpretations of the Data in Table 4 and the effects that would be hypothesized from the theory of economic integration in which both trade creating and trade diversion effects will be present.

B. Egypt

The changing shares of Egypt in US textiles and garments imports of different product classes have already been shown in Tables 4A-4F and some econometric estimates attempted in Table 6. Since Egypt has more raw materials, especially cotton grown locally and a well developed textile sector producing cloth and other intermediate goods of various kinds it is much less dependent on imports than Jordan. Trade with Israel is an integral and mandatory part of the QIZ Protocol. For this reason, one point of interest for long term assessment of the QIZ impact is to observe (1) the extent of change in the composition of the imports from Israel due to the QIZ and (2) the extent to which trade with Israel has been affected by the QIZ Protocol. According to QIZ unit data in Figure 1, 55% of Egypt's imports from Israel consist of intermediary goods particularly fabrics, with chemicals, packaging material and accessories representing the rest. There has been little change in this composition over the four year period. Since Chinese fabrics and accessories are cheaper than Israel's, it is clear that this trade diversion involves a cost to Egypt to be balanced against the trade creation benefits of the QIZ. The fact that private investors choose to engage in these QIZ activities implies that they believe that the trade creation benefits outweigh the trade diversion losses at present. Since they would be free to find lower cost suppliers if the scheme were believed to be no longer beneficial on balance, this trade diversion is of a short term and not a long run term character. The more interesting issue would be to examine whether or not Egypt's overall trade with Israel has grown beyond the minimum that would be required to satisfy the QIZ rules is difficult to assess in the absence of detailed and correct data.

The short term significance of the increase in Egyptian exports due to QIZ Protocol gains a long term dimension if it leads to improvement in Egypt's competitive positioning. Figures 2 to 4 attempt to see if such an improvement has taken place. Figure 2 compares the rates of growth of exports in the first quarter of the years 2006, 2007, 2008 and 2009. It is observed that the highest rate of growth existed for 2006/2007 (42%), it decreased the next year as part of shifting towards the EU market, the reasons for which will be discussed in the next section. The most important observation though is that exports in the first quarter of 2009 are 12.4% higher than exports in the previous year in spite of the pressure of the financial crisis and the global recession. This increase comes in contrast to the poor performance of most major exporters, all witnessing serious decreases in their exports (such as in the cases of Bangladesh, Vietnam, Sri Lanka, Colombia). The Egyptian export increase comes at a time a time when US apparel imports decreased by 16% (emerging textiles). This may suggest that Egypt is gaining status in the US market for some products. In keeping with this interpretation, according to the same source identified above, Egypt has climbed to the second position among all countries exporting male jeans and to the fourth in exporting female jeans to the US market. On the other hand, this could simply represent the result of past investments induced by the initiation of the QIZ which may be only temporarily pushing Egypt ahead. The latter would be an interpretation that might follow from the regression results presented above wherein usually the initial positive effect of a QIZ or FTA diminishes after a few years (the square terms for the years since initiation being negative.

Figures 3a, 3b, 3c, 3d and 3e compare Egypt's QIZ exports to the US of specific product groups in 2005, 2006, 2007 and 2008 to its neighboring competitors, namely: Morocco, Jordan and Turkey. In each product group, Morocco's exports to the US are insignificant but those of both Turkey and Jordan are significant. Egypt seems to have a stronger relative positioning in product categories 338 and 347 than in 339, 348 and 352. However, its stronger position seems to have existed before QIZ for the case of category 347 because exports were high even in 2005 when QIZ impact was still minimal. In the case of 338 the impact of QIZ is visible as the increase in exports can be observed only beginning in 2006. What is interesting to observe though is that the high levels of Egyptian exports are not only maintained throughout the four years but are also increasing while those for the same commodity groups are decreasing in the cases of Jordan and Turkey, indicating an improved positioning for Egypt in the US market. However, as seen in Figures 4a, 4b, 4c, 4d and 4e comparing Egypt for the same product groups to India, Pakistan and Bangladesh (generally lower wage countries), Egypt's competitive position has not improved in spite of increases in QIZ exports.

In view of the potential importance of trade diversion in various dimensions of the QIZ schemes, and that in contrast to the Jordan case, Egypt was a major producer and exporter of textiles and apparel prior to its QIZ with Israel and the US, we deem it relevant to see if there has been diversion of Egypt's textiles and apparel from EU markets to the US. "Has QIZ protocol diverted the interest of Egyptian exporters away from the EU market?" The question is of importance for long term assessments of the QIZ impact because based on proximity and other gravity model considerations the EU might be considered the more natural market for Egypt, especially considering its Association Agreement with the EU signed well in advance of the QIZ. Egyptian exporters informed us that woven garments, which represent the vast majority of exports to the US are generally easier to export to the US than to the EU under the present circumstances mainly because the EU rules of origin are stricter, requiring the use of Egyptian fabrics which are not available in the required quantities or qualities. On the other hand, knitted garments represent the majority of exports to the EU because the rules of origin are easily met because the relevant raw materials and intermediates are produced in Egypt. Other factors related to competitiveness are listed in Table 9.

Another factor of impact on the choice of market is the exchange rate of the dollar and euro. The QIZ Unit under the Ministry of Trade and Industry has studied the correlation of the cross exchange rate linking Euro for dollar and the Exports to the EU and US markets found high correlation between the two sides. This means that exporters lean towards the market that is more profitable. Surely enough there has been a shift of trend away from the US and towards the EU market in 2007 and 2008 as already indicated above.

While the above argument tends to deny the trade diversion claim, the fact remains that supporting factors that could encourage woven garment exporters penetrate the EU market whether by exporters associations or the government did not receive serious attention because the US market was booming and exporters managed in spite of Israeli constraint to increase exports.

4. Other Effects Including Longer Term Effects of the QIZ Experience

This section examines several other effects and issues relevant to the QIZ experience for the cases of Jordan and Egypt. Although there are common issues addressed between the two countries such as employment, technology transfer and policy linkages, most other issues are different because of the considerably different starting points and structures of the textile and

garment industries. We start with the case of Jordan where the issues of employment, product quality and customer niche, managerial expertise in QIZ and Free Zone Management, Foreign Direct Investment (FDI), linkages to other activities and peace and cooperation with Israelis are addressed.

A. Jordan

Employment Effects

We begin with employment. The QIZ sector seems to have contributed about one-third of all industrial jobs. But at least in Jordan, the major issue is employment for whom? As in much of the world much of the employment in the garments sector is of females with relatively low wage rates relative to workers in other industries. Given the historically low female labor force participation rates in Jordan, the generation of employment for Jordanian women, even if at relatively low wage rates, could be regarded as an economically as well as socially important effect of the QIZ experience. There may be some benefits of employing foreign labor as well, such as gaining skills and discipline. But, since in this sector most such workers are relatively low-skilled, and foreign workers often try to remit to their countries of origin as much of their salaries as they can, the benefits to the Jordanian economy and society of employing foreign workers would seem quite small. They also involve extra costs to their employers in terms of travel, housing and recruitment costs.

Reliable up to date data on QIZ employment by foreign and domestic is unavailable. Figures from different sources tend to diverge. Data available from the Ministry of Labor for any given year tend to be larger than those from the Ministry of Trade and Industry. The likelihood would seem to be that QIZ employment grew steadily along with production and export up through 2006 and perhaps 2007 but may have declined somewhat since then. Employment probably grew from 0 in 1997 to 20,000 by 2001, 45,000 by 1994 and perhaps as much as 55,000 now. They are employed in some 55 different QIZ factories located in some 13 different QIZs. What seems quite clear is that the proportion of domestic workers has changed quite significantly over time, perhaps rising in the very early years of QIZ but then falling rather sharply since 2001 when the share was estimated to be 70%. While in absolute numbers the number of domestic workers may have increased until 2004, according to what would seem to be the only quantitative survey of QIZ workers (Sayegh and Dababneh, 2007), there has been rather massive substitution of foreign for domestic workers since then, suggesting that the share of domestic workers may now be down to about 30%. This raises the question of the reason for that.

Employers say that domestic workers are cheaper due to the extra travel and housing costs for foreign workers and the need for government permits (typically several hundred $US depending on the length of the contract), explaining why employers focused on domestic workers in the early years. Yet, they state that the turnover rates of domestic workers to be many times as high as those for foreign workers, contributing to higher training costs and lower productivity. While some have argued that this problem could be overcome with better training, something that the Jordanian government has tried to help with, the employers feel that the problem is more fundamental, a very weak work ethic on the part of the Jordanian women. (One should bear in mind that Jordanian women are becoming better and better educated and may aspire to higher paying jobs in higher tech industries). A surprisingly high 68% of the employers interviewed in the aforementioned 1997 survey estimated the productivity of a domestic worker to be less than half that of a foreign worker. There is also some difference in the relative importance of domestic and foreign workers across different types of firms within the industry in the QIZs,

especially between prime contractors and subcontractors. There is generally a somewhat higher percentage of domestic workers among prime contractors which are on average quite a bit larger than the subcontractors. Because of the importance of delivery time of garments to their wholesale and retail outlets in the US, flexibility in work schedules and hours would seem to be important to employers. One can certainly understand why the foreign workers who are there without their families can be much more flexible than Jordanian women living within households and communities where they may have some responsibilities that would make them less willing to be flexible in the work hours. Yet, the employers also complained about the difficulties and delays in being able to obtain their foreign workers, mainly due to slow government procedures (Sayegh and Dababneh, 2007). Naturally, any attempt to increase the wage rates for Jordanian workers is not likely to encourage the employment of Jordanian workers. For example when the minimum wage for Jordanian workers but not foreign workers because of their long term contracts was raised by almost 40% in early 2008, employment of Jordanian began to fall sharply.

In any case, unless the QIZ firms become successful in moving up the quality chain where styling and other skills would become more important, or to attract more high tech industries to QIZ or more generally to industrial parks, the prospects for attracting more domestic workers would not seem bright. Indeed, the pressures, especially in recent years, to compete in this extremely competitive labor intensive industry in the US market with firms in lower wage countries has pushed some QIZ firms to violate the labor laws and the contracts of the workers. This led to investigations and reports of such misconduct by both the ILO and the EU.

Product Quality, Upgrading and Pricing

Naturally, just as there are important differences between prime contractors and subcontractors, there are also important differences in the types of products made and exported. There are a few firms which have developed their own brands and styling. For example, according to the interviews reported in Gaffney (2005) the El Zay Readywear Manufacturing Company has developed its own product lines which sell also in Denmark. Among the products it produces there are some high value items like formal suits for men, and sportswear.[6] Yet, for the most part, Jordan's QIZ exports are characterized as being at the low quality, price competitiveness end of the market. Many of its products are distributed in the US by mass market, low price stores like Target, Costco, and WallMart (Ben Amor, 2002; Saif, 2006, Gaffney, 2005). Clearly, moving up from the present relatively low end to higher quality lines would represent a way in which the industry could be more sustainable and able to attract more domestic workers. This is exactly the strategy that has been recommended by many analysts (Nordas, Ben Amor, Sayegh and 2007, Kardoosh (2009)). Are there any signs of this that can be detected?

One way of investigating this is to investigate trends in the unit price (defined in terms of value divided by weight) of specific classes of exports. Table 6 presents the results of our computation of unit prices from values and quantities of QIZ exports for each of the top 15 5 digit SITC codes. These are ranked by order of importance, from most important at the top to the 15th most importance. One should bear in mind that even within a single 5 digit classification number, there are in fact many products and different product lines. Quite naturally, this limits the meaningfulness of comparisons over time. Nevertheless, one would think that, if there were a trend in Jordan's QIZ exports toward higher priced and valued items over time, that this would

[6] El Zay is also somewhat unique in being a Jordanian owned company which , at least in 2005, employed only Jordanian workers.

be reflected in the movements over time in the unit values in this table. Given that world prices also trended upward over the period covered, 2003-2008, to be convincing, any such trend should be fairly sharp.

Yet, by comparing the patterns of unit values along the different rows in the table it is certainly not obvious that distinct upward trends are the rule. Indeed, of the top three export categories in the table, there would seem to be no trend in the first (61142), a slight upward trend in the second (61149), and a downward trend in the third (62045). While there might be upward trends discernible in the fourth (61069), sixth (62046), eighth (61099), and fourteenth (61052), none of these is very strong and there would seem virtually no evidence of moving up in unit values in any of the other classes of goods. It is worthy to recognize that an EU study comparing Jordan with Tunisia, a very substantial exporter of both textiles and garments to the EU, noted that even in recent years Jordan seemed to lag way behind other MENA exporters in the quality niche it was aiming at (Ben Amor, 2002, Sayegh and Dababneh 2007).

Foreign Direct Investment

Prior to the QIZ, Jordan had very little foreign investment in industry. What investment it had was mostly in the form of small private family enterprises. Its only large establishments were in mining and mineral processing dominated by public enterprise. Yet, the QIZ protocol coincided with the new strategy advocated by King Abdullah of privatization of public enterprises and the encouragement of foreign direct investment (FDI). It also came close on the heals of Jordan's New Foreign Investment Law of 1996, welcoming foreign investment in all but a very few sectors and providing full repatriation of profits, exemptions from income taxes associated with export activities, and so on. But foreign investors had little experience in the country and quite naturally could be skeptical about the credibility of government announcements, even those coming from the king.

While the special quota exemption benefit of QIZ in US markets was known to be only temporary, activities like garments that were not capital intensive were more mobile than many other more capital intensive ones, earning the label of "footloose" industries. Distributors of garment imports in the US were anxious to find ways to avoid paying the relatively high tariffs on imports from the mostly Asian countries which had captured fairly large shares of the US market for garments. Israel was already a supplier and as indicated above was also making use of subcontracting relations with Palestinian firms in some labor-intensive operations. The Asian firms whose responsibility it was to pay for the licenses on the quotas they could obtain were also anxious to find ways around these trade barriers. Hence, soon after the pioneer Israeli-Jordanian investors began their QIZ activities, came rather numerous investors from Asian countries to take advantage of the liberal foreign investment laws and the additional tax advantages for investments in the QIZs. The relatively small amounts of capital to start relatively small garment plants within QIZs meant that the risks for these investors were relatively small. Given the lack of local skilled labor and managers, these investors were also allowed to import their own managers and work force. Except for rare cases like the El Zay firm mentioned above and some offshoots from it (wherein workers in that plant subsequently started their own firms in the QIZ), Jordanians lacked the technical knowledge and experience to succeed in these industries. Most of the investments in the QIZs were therefore foreign and almost all of them were concentrated in the footloose garments sector.

For the most part, they brought their own capital, and invested in new machinery. But, being free to repatriate their profits and being exempt from virtually all taxes, meant that the returns to

profits did not necessarily remain in, and contribute to, the Jordanian economy. Whether it would or not would depended largely on whether or not these entrepreneurs would subsequently decide to increase their investments in Jordan.

In any case there can be no doubt that the QIZ protocol gave a rather crucial boost to FDI in Jordan, as did the Jordan-US FTA in 2003. Both these jumps are demonstrated rather clearly in Table 8 showing the pattern of net FDI inflows and as ratios of GDP over the period 1985-2007. Whereas previous to the initiation of the QIZ in 1997, FDI inflows into Jordan had never exceeded 1 percent of GDP, suddenly they exploded well above 1 % of GDP every year after that, except for the world recession and Iraq War year of 2002. In several of the years these ratios exceeded 10% of GDP, although in the years 2004 these flows were also boosted by the sharply rising prices for oil and hence interest of GCC and other countries to invest in Egypt. Note also that beginning in 1997 the FDI-GDP ratios of Jordan consistently exceeded those of Egypt whereas before that they were always well below those of Egypt.

Technology Transfer

Since the factories established in the Jordanian QIZs were all new investments, the new investments incorporated quite up to date technology. This may well account for why Jordan's garment plants were found to have considerably higher productivity than Egypt's (Saif 2006). But, since the head offices were back in their home countries, especially given the short planning horizons of these investors, they did not transfer much technology other than that embedded in the capital equipment and the relatively few foreign workers who were skilled (Gaffney, 2005).

Linkages

The QIZ requirements, the activities involving relatively minor transformations of the raw materials imported largely from China and other Asian countries and of course the required amounts from Israel, meant that from the beginning there was little linkage to other activities. This was especially true given the virtual absence of other textile related industries in Jordan and the absence of cotton, flax, wool or other raw materials that some other countries in the MENA region (such as Egypt, Syria, Iran and Turkey) had. As mentioned earlier, the rules of Mexico's maquila industry were eventually relaxed to allow them to buy inputs and sell their products in the rest of the economy. But this has not happened in Jordan and with so little other industrial or other complementary activities in the country, it probably would not have made much difference.

For evidence we present in Table 8 the ratio of the cost of imports to the value of exports. If indeed linkages were growing over time, one would expect to find a downward trend in these ratios. Naturally, in the first couple of years after the QIZ protocol was signed, imports would be coming into the QIZs even without exports, in the form of equipment and building up stocks of intermediate goods, materials for maintenance etc. Hence, there would inevitably be very high ratios for these years. But Table 7 shows that after abstracting from the earliest years, there has been no significant downward trend in these import-to-export ratios. In fact, these ratios have remained high, though fluctuating somewhat from year to year.

Given the absence of anything substantial in the way of interindustry linkages and the absence of taxation, the only linkages that are possible are the returns on profits, depreciation, wages, rent, utilities, finance, insurance and transport. Must of these activities have not required much in the way of insurance or finance. While the proportions of the remaining items vary from firm to firm, it is generally believed that wages are believed to constitute about 40 percent of the total, and profits and depreciation another 25 percent, and rent, utilities and transport the rest. Given

the fact that the owners are largely foreign and a large and increasing share of the workers are foreign as well, this means that these forms of linkages are unusually small in Jordan's QIZ activities.

Managerial and Marketing Expertise and Experience

Similarly, since most of the QIZ entrepreneurs have been foreign, much less of the managerial and marketing experience has been accruing to Jordanians than would otherwise have been the case. In the case of domestically owned and staffed firms like the El Zay company, however, there has indeed been an enormous amount of learning from experience. But Jordanians obtained and learned from QIZs experience in other ways. Among these, the most important is probably experience as owners and managers of the fifteen different QIZs themselves. These are all Jordanians. Since Jordanians had long been involved in real estate and property development, ownership and management of QIZs themselves was a rather natural outgrowth of what they had long been doing. Some QIZs are government owned and managed, a couple of others are quasi public but the rest are private. In either case the managers of these zones became deeply involved in trying to attract foreign investors to their QIZs. This meant interacting with government and other institutions to make the process as simple as possible to the foreign investors and to offer them a wide variety of services that would help them. While in some cases, these QIZ owners would merely sell or rent the investor space in the zone, increasingly in many other cases they offered a wide variety of services, making it possible for the foreigner to simply move in and start operating with equipment installed by these QIZ entrepreneurs and in buildings constructed by them. They would also arrange for the utilities and transportation of imports into the QIZs and for shipping all the products out of the QIZs to the United States through Haifa Israel or Aqaba Jordan. This experience could contribute to the further expansion of QIZs as well as to any other exporters or to any firms operating in Jordan's several free zones and industrial parks.

One Jordanian entrepreneur is quoted by Saif (2006 p. 31) as saying:

"We learned what are the international best practice and standards. There are new strict standards and specifications which we must adhere to. We also improved our understanding on how to deal with the employees inside the factory. New skills have been acquired and developed over the last five years. In addition there are some mistakes, which as time elapsed could be avoided….Now we should think about how to move forward to the value added products and also deepen the vertical integration by establishing direct contact with the suppliers."

Whereas initially the QIZ producers may have been dependent on Israeli's for their contacts with distributers in the US, over time QIZ producers and QIZ entrepreneurs became fully aware of these distributers and could make their arrangements independently. This may account for why in the early years of QIZ fairly substantial percentages of the exports were being shipped to Israel which in turn would ship them to the US whereas more recently recorded exports to Israel have been very modest. But, as Saif (2006) noted, there seems to have been little progress in developing a "Made in Jordan" trade mark that could be identified with high quality.

Transportation

As indicated above, expenditures on transportation services of various kinds were one of the most important sources of linkages between QIZ enclaves and the rest of the Jordanian economy. Saif (2006) estimated these costs to constitute about 15 percent of the value added of QIZ activities. Transport is needed for getting the imports from points of entry in Aqaba or Haifa or even over land boundaries to the QIZ firms inside the various QIZs. It is also needed for moving

the goods out to the relevant ports. In the latter case, whether to Jordan's Aqaba or Israel's Haifa, there is considerable trucking involved. But, clearly, the extent to which the choice is Aqaba or Haifa and then the shipper, will have a big impact on the extent to which the potential linkages leak out to Israel.

The port services in Aqaba are reported to be much cheaper than those in Haifa where the various activities are highly unionized. The Jordanian highways are also in good shape and with services available for truck and road maintenance. This also is a favorable factor. But from time to time the relatively small Aqaba port can become heavily congested causing ships to have to wait to be unloaded or to pick up cargo. The shipping distance is also greater to the US from Aqaba and as a result the ships take considerably (at least ten days) longer to arrive in the US, an important consideration in such a time-sensitive business as garments in the US (Gaffney, 2005).

Policy Linkages

Another kind of linkage not usually discussed in this context is the link to policy reforms of the type that are friendly to private sector producers and especially to exporters. Yet, in our opinion this may be one of the most important linkages of all, at least in the Jordanian case. From this perspective, all the limiting features of the QIZ protocol, such as the rather temporary nature of the QIZ advantages, the footloose character of the investors, the need to incorporate the specified minimal percentage of high cost inputs from Israel, the continuous squeeze that Jordanian QIZ investors found themselves in as a result of the much lower wage rates in many Asian countries, and the restructuring reforms that proved so successful in China and which allowed Chinese firms to more than recover the US market share that they had enjoyed prior to the mid 1990s, were all factors that served to strengthen these linkages. These businesses were always in a position to either not choose to invest in the QIZs or, once there, to close down their operations in the QIZs if they could not be helped in some way by the local authorities.

Some apparent examples of the results of these pressures would seem to be the following:

1. The progressive improvement of the services provided by the Jordan Investment Board to make it easier for foreign investors to get the various approvals needed for their investments as rapidly and as simply as possible. One of the innovations was the introduction of the "one stop shop" approach wherein the Jordan Investment Board serves as the sole government agency with which the investor has to deal.
2. Improving and broadening the portfolio of services available either from the QIZ zone managers or other institutions in the country. Both Jordanian and Israeli consulting firms associated with these QIZs offer the services for "Turn-Key" investment projects. This caters to the potentially temporary character of the garments firms from Asia and elsewhere investing in QIZs.
3. Removing discriminatory policies between the publicly owned QIZs and the private QIZs. (For example, the tax exemption benefits of QIZs were originally provided only to the firms in the public zones. But the firms in the private zones who found themselves at a disadvantage (perhaps without originally understanding that) complained and as a result managed to receive the same exemptions.
4. When some of the QIZ firms were found to be violating the labor laws, giving rise to bad publicity in the press (e.g., Glantz, 2003) and investigations by the ILO and various labor rights organizations and giving Jordan a bad reputation for such abuses, the government imposed some additional regulations introducing minimum wages and applied them to

the QIZ as well. When the minimum wage was raised by almost 40% some years later, QIZ employers reduced the number of Jordanian women sharply. To mitigate further reductions and recognizing the difficult situation that the QIZ exporters were in given the sharp reductions in US imports in 2008 and early 2009, the government then exempted the QIZ firms from these increases. When this action was criticized by the Union of Textile Workers, the Ministry of Labor induced the members of the garments, accessories and textiles exporters association to sign a memorandum of understanding with the Ministry to raise wages, a somewhat softer commitment than the mandatory increase in the minimum wages, and one to which the exporters were alleged to have not fully complied (Jordan Times March 7, 2009). But again under union pressure, Parliament passed a law requiring foreign workers to more fully come under the Labor Law of Jordan in order to reduce abuses by the employers of these foreign workers not allowed to join unions (www.undp-jordan.org/Portals/O/Labor dated January 2009).

5. The objections of the Jordanian QIZ owners to the high cost of the required Israeli inputs which managed to convince the Israelis to accept the 1999 revision in the QIZ to accept a lower Israeli content in QIZ exports.
6. Partly as a result of QIZ entrepreneur complaints, customs clearance procedures, though still far from ideal, have been streamlined, putting into effect UNCTAD's Automated System for Customs Data.
7. The objections by QIZ producers to time consuming delays and excessive paperwork that allowed in a 2007 revision of the QIZ Protocol for the Israeli minimum content to be monitored only on a quarterly basis instead of on a per shipment or monthly basis as it was earlier the more
8. The king and Jordanian business leaders have long been pushing for attracting higher tech businesses to the QIZs and other industrial parks. One such project to receive heavy support from USAID (through the REACH project) has been Cyber City QIZ at the University of Science and Technology. Over time the authorities have learned how to deal at least partially with the additional difficulties to attract these businesses and to help them excel in exporting despite the absence of protection against such imports in the US and other markets. Indeed, recently this company has reported substantial exports. Although certainly there is need for much more work in this area, as Kardoosh, 2009 remarked, it is vital for the QIZs to have a coherent export and investment promotion strategy behind them.
9. Because of these pressures to make for an overall more consistent policy encouraging investment for exports, and its continuing commitments to the WTO, Jordan reduced its average MFN tariff rates from 24% in 1997 (prior to the QIZ protocol to 11.7% in 2007 (World Bank, 2009, p. 41) and according to the WTO (2008) 10.8% in 2008. It has also liberalized many of its services as part of its commitments to the GATS as part of WTO accession. One mechanism for this is the inclusion of representatives from the private sector on various standing as well as ad hoc committees of the Ministry of Industry and Trade, the government agency responsible for the formulation and implementation of Jordan's trade policy.
10. As a result of pressures from QIZ exporters and other exporters, the government has committed itself to modernization of the port of Aqaba and encouraging foreign ships to

serve as Jordanian flag carriers, again potentially increasing the QIZ and other linkages to transportation (WTO, 2008, p. ix).

B. Egypt

In addition to the issues of employment, technology transfer and policy linkages, the focus for the case of Egypt is on the impact of QIZs on the distinguishing features of the Egyptian industry, its problems, differences that may be relevant for different sized firms and the size, nature and benefits accruing to Egypt from Turkish investments, which had been much investigated in Jordan but which never materialized there but which have in Egypt.

Character, Ownership and Problems

Egypt's textile and garments sector is well developed and already was so even before the QIZ. As of 2008 it is comprised of 4535 enterprises (27 of which are public and 4508 private). These firms employ 1.5 million workers, and produce about $ 3.2 billion of output accounting for 3.5% of GDP. The public enterprises are huge, and capital intensive. They are concentrated largely in spinning and weaving operations that at present are in need of extensive restructuring and technical upgrading. The clothing industry, on the other hand, is dominated by the private sector. It consists of a wide spectrum of companies, mostly small enterprises with only a limited number of large enterprises. Their facilities vary from small shops with simple primitive sewing machines operating in the informal sector to sophisticated ones with state of the art technology. The vast majority of small sized enterprises direct their production to satisfying the needs of the long protected local market, with only occasional involvement in export.

The private sector accounts for 62% of total exports (46% garment and 16% carpets and other made-ups); 80% of the imports are actually fibers, yarns and fabrics which are the core products of the public sector.

The main problems faced by the sector at the present time can be summarized as follows[7]:

1. The Egyptian private sector activities are severely hindered by obligatory backward linkages to public enterprises dominating the most important "upstream" stages in the supply chain. Private producers/exporters constantly suffer from bottlenecks that seriously impede their production and export obligations or rely on importing fabrics from East Asia. Private local and foreign investments in the upstream part, and particularly in woven fabric mills, are too limited to solve the problem.
2. There is a clear mismatch between the needs of the "downstream" stages of the value chain in terms of quality, quantity and price and those currently provided by the "upstream" stages.
3. Man-made fibers and synthetic fibers are of very limited supply despite the country's richness in natural gas.
4. Absence of design capabilities and short production runs are hindering the progress of the garment industry
5. There is limited skilled Egyptian labor across the whole value chain especially at the middle management level. High turnover rates are observed by all companies as a result

[7] The problems of the sector are in essence the same as the ones described previously in (Kassem and Abdel-Latif, 2005), and (Abdel-latif, 2006). The list has been updated through interviews with producers and exporters.

of competition over the limited pool and the reliance of industry on employment of females especially in garments.

6. There is hardly any integration within the supply chain despite the existence of all its components in the country.
7. Although it is of no relevance to the focus of this paper, it is important to indicate that Egypt is wrongly confined to the production of extra fine varieties even though 96% of present and future demand of the TC industry worldwide is for medium and coarse yarns which require short and medium staple cotton, currently not produced in Egypt.

Employment, technology transfer and impact on public enterprises upstream

On the basis of interviews with exporters and QIZ officials, the main impact of the Protocol has been in significantly increasing garment exports to the US market and on creating jobs proportional to such increase. QIZs have also had a positive technology transfer and know-how impact on Egyptian garment producers because of the increase in sophistication of US buyers and the more demanding technical requirements that come along with it. However, QIZs have contributed very little to the solution of the structural problems threatening the long term survival of the sector. The continuing struggle of private sector producers and exporters with the poor performance of the public sector companies upstream is still forcing the garment exporting companies to rely primarily on imported fabrics from China, India and even from Israel (as part of QIZ obligation) which reduces the benefit from the Protocol. The increase in exports to the US triggered by QIZs did not trigger an improvement in the performance of public companies dominating the upstream portion of the value chain. The responsibility here is obviously that of the government.

Trends and Differences in Effects by Size of Firm

As seen in Figures 5 QIZ exports increased from $285 million in 2005 to $ 744 million by the end of 2008. The total cumulative QIZ exports up to and including the first quarter of 2009 were $2.54 billion. Most of the increase in exports took place in 2006. The annual rate of growth of exports for that year was 123% as opposed to 8.4% and 7.9% for 2007 and 2008 respectively. The decreasing rate of growth is associated with changes in the $ exchange rate making the EU market more attractive.

The geographical coverage of QIZ eligibility has expanded significantly from only 7 industrial zones in Egypt to 16 in 2009. However, it is noticeable that six of these zones alone account for 80% of all QIZ exports, and five of them are among the original seven at the beginning of the implementation of QIZ protocol, namely: Port Said, Alexandria, South Giza, 10th of Ramadan, and 15th of May; the sixth zone of significance, Ismailia, joined QIZs in 2006. All the others involve registered companies but with hardly any export activity. The export distribution among the top six industrial zones remains more or less unchanged through the whole period as seen in figure 6 below presenting the situation in 2009. This indicates that there is very little change in the composition of QIZs. The same zones and companies that started off making the majority of exports from QIZs remain the same big players with very few new comers just as predicted in early assessment of QIZ in (Abdel-Latif, 2006). This is also confirmed by the fact that out of the registered 800 companies only a little over 200 are actually exporting.

Figure 7 presenting the percentage distribution of exports by size of enterprise further indicates that this concentration of exports is not only in specific zones but also by a small number of large

companies. 88% of exports originate in companies exceeding 500 workers, that is, large companies. Small (less than 200 workers) and medium (between 200 and 500 workers) companies represent no more than 5.2% and 6.8% of total exports respectively. Within the group of large companies the bias leans even more towards larger and larger companies. Almost half of all exports come from companies with over 2000 workers and about a quarter comes from huge companies with over 3000 workers.

This means that there is very little benefit accruing to small and medium enterprises from QIZs. While larger sized companies success in exports is expected -because larger companies have the export and marketing experience and the means for large scale purchase of Israeli products to save on costs- the fact that this situation remains unchanged from 2005 to date means that the textile and garment industrial base, and specifically the garment base, saw very little benefit from QIZs. This is further confirmed by the absence of any sub contracting agreements between big companies and small companies which would have significantly improved the capabilities of small enterprises over time. In fact the same large companies simply became larger to meet higher exports.

QIZs exports- Evolution of product structure

Woven garments represent 78.8% of total QIZ exports leaving no more than 16.2%, 4.6% and 0.47% for knitted products, home textiles and yarn and fabrics respectively. Six products all in all account for 85% of all QIZ exports. They are led by pants which represent alone 52% of all exports followed by shorts, Tshirts and shirts.

More is revealed about the product structure of Egyptian QIZ exports in figure 8, presenting the trend of specific product categories. Two main observations can be made: 1) a confirmation from mirror image data that pants (specifically categories 347 and 348) represent the majority of Egyptian garment exports followed by male and female shirts (categories 347 and 348); 2) Even though there is an increase in some manmade items, the predominance of cotton products (the 300 categories) over manmade fiber products (the 6oo categories) is very clear. It shows that there are lots of unexploited opportunities for Egypt as manmade fiber products involve higher value added and are subject to higher tariffs than cotton products thus more benefit for Egyptian exporters from the QIZ arrangement.

Turkish investments in Egypt

A combination of factors have triggered the interest of Turkish investments in Egypt particularly for the case of textiles and garments: 1) The removal of textile quotas on the January 1st 2005 and the destructive effect of the South-Eastern Asian export flood on the Turkish textiles and clothing manufacturers; 2) Egypt's unique position as the gateway to the EU as well as the African and GAFTA countries with both preferential trade agreements and geographical proximity; 3) Egypt's access to the US market through QIZ arrangement; and 4) Egypt's advantages for Turkish investors in labor and other infrastructure costs allowing, on top of benefiting of preferential agreements, also for exporting goods they produce in their plants in Egypt to Turkey through duty free access to this market. Egypt, appeared to be the most convenient place for the Turkish textiles and garment industry to maintain its distinguished positioning in the world market. The signing up of the Free Trade Agreement between Turkey and Egypt in 2005 has put the legal framework in place for the migration of Turkish industries to Egypt.

On the Egyptian side and looking at things from a long term perspective, the new Turkish investments are most useful if they strengthen the weak upstream portion of the value chain, improve the skills and working habits of Egyptian labor, upgrade the functioning of the Egyptian textile and garment industry through the know-how brought into the market by the increased numbers of Turkish textiles and clothing factories. Exploring to what extent these objectives have been fulfilled is the objective of this section.

As seen in table 10, Turkish investments became tangible in Egypt starting from 2004. Total investments to date are around L.E 762 million, 54% of which are in textiles and garments. It is observable though that half of these investments took place in only one year, 2006, the year following the FTA agreement, reflecting a rush of Turkish investments in the sector to Egypt. Investments in the couple of years to follow, however, seem to show less Turkish interest in this sector although they remain a significant portion of Turkish total yearly investments in Egypt. For example 59% of total Turkish investments in all sectors in 2008 was in textiles and garments, yet these account for only 14% of total Turkish investments in textiles and garments throughout the period 2004-2008, decreasing from 26% in 2007 and the impressive 51% of 2006.

It is hard to tell what the case will be by the end of 2009 but if the pattern of the first quarter is replicated, total investments in textiles and garments for that year will be half of those of 2008. It is important to note though that the financial crisis and global recession witnessed in the last quarter of 2008 and all of 2009 discouraged investments generally and so it is difficult to have an objective assessment of Turkish interest in investing in Egypt or anywhere else. The fact remains, however, that interviews with Turkish investors in Egypt confirmed the slowdown in the migration boom of Turkish investments to Egypt in the textile and garments industries. Investors complained of problems related to shortages of Egyptian skilled labor and high turnover rates.

It is also observed that most Turkish investments in textiles and garments are in garment production with only a small percentage, no more than 20% in the more critical areas of dying and processing and accessories where Egypt is particularly weak. Only one or two are in the critical areas of spinning and fabrics production and preparation. These attempts are rather new in 2008 and 2009. It could indicate the beginning of a trend of new investments in the areas most critical to the Egyptian textile and garment industry. It could also indicate that the increase in garment exports through QIZs is approaching the critical mass or volume that makes investments in the upstream portion of the value chain economical. The future of Turkish investments, however, remains unpredictable because only few years have elapsed and also given the nature of the problems faced by the investors.

Policy linkages

The beginning of implementation of QIZ Protocol in 2005 coincided with a number of policy and institutional changes to support the garment industry; some of which were also of positive impact on other sectors as well such as:

The creation of a QIZ Unit allowed not only for enforcement of compliance with QIZ Protocol rules of origin but, and more importantly, it also allowed for a slow yet consistent building of a new correct database on exporting enterprises not to mention enforcing proper book keeping by these enterprises. Such a database is important for monitoring the performance of enterprises in a technical way that is not blurred or distorted by tax concerns. The Unit also has the additional function of helping the new Turkish investors establish themselves in Egypt and benefit from QIZs.

Interest in the continuation of the increase of QIZ exports, and hopes to use QIZ advantage to attract new investments in the weak upstream portion of the value chain, brought together private and public key players in the textile and garment business community to produce a future plan (Vision 2020) where specific targets are set and a detailed plan of action on how to face problems are presented in detail. The government, however, did not show the proper response for supporting the sector or adopting the policy recommendations of the plan.

The transformation of the old commodity councils, for a number of products including textile and garments, into active export councils with membership of active private sector producers and exporters. The councils act as forums for passing the private sector concerns to the government.

The Industrial Modernization Center, originally an EU donor Program, came under the supervision of the Ministry of Trade and Industry and gave significant support to QIZ exporters by sharing in cost of needed expat technical experts for limited periods and also providing enterprises with opportunities for enhancing their physical capital base. While this is being done for other sectors as well the garment industry is estimated to have benefited from the opportunity more than the others.

The Industrial Modernization Center also created a special division for providing training of employees for all sectors but the biggest beneficiaries again were the QIZ garment exporters.

The years 2005 through 2008 witnessed a number of policy changes towards improving the investment climate such as introducing the competition law, consumer protection law among others.

It is important to note that these changes are not due to QIZ as such as much as they are due to a new improved relation between the government and the business community as business community members occupied governmental positions for the first time in Egypt since 1952. A number of successful sectoral alliances mostly at the informal level also emerged as a result of this new friendly relation between the two sides (Abdel-latif and Schmitz, 2009). QIZ itself is the outcome of such a successful public private alliance in the textile and garment industry.

5.Conclusions and Policy implications

Free of both tariff and non-tariff barriers, **t**he zones have been established by the US government as part of its efforts to promote economic cooperation among previous adversaries in the Middle East. The QIZ Protocols signed in 1998 and 2004 for Jordan and Egypt respectively, have been highly controversial with arguments wildly oscillating between enthusiastic support by some on grounds of observed increases in garment exports from Jordan and Egypt to the US following QIZ, extreme opposition by others on grounds of resentment of economic cooperation with Israel, and finally doubts by a third group on the extent of welfare benefits accruing to the two countries from QIZs in spite of the direct benefits of increases in garment exports to the US market by the two countries. Very little assessment has been done for the two experiences and this is where this paper comes in.

The Jordan–Israeli QIZ has generated enormous growth in Jordanian exports to the US, the experience of which contributed to the interest in Egypt in adopting a similar arrangement with Israel and the US. For example, the exports of Jordan to the US rose from $15 million (of which garments and textiles constituted only $3.7 million) in 1997 to over $1 billion in 2004 and well over that by 2006. At the same time, Israeli exports to Jordan of inputs to QIZ production surged from negligible levels in 1997 to several hundred million dollars by 2008.

Since 2006, however, Jordan's QIZ exports to the US have stagnated. They seem to have remained in the same product lines and without much if any increases in unit prices or otherwise moving up into higher quality and value added items that would be desirable. Yet, even so, the QIZ has attracted much FDI and even lots of foreign labor, both skilled and unskilled. Jordanian firms have learned a lot about foreign markets and marketing channels so that they are much less dependent on Israeli or foreign entrepreneurs than they once were. The dependence on foreign capital, foreign labor and imports from China, Israel and other countries (mostly Asian), and the strict QIZ rules, however, have limited the linkages to non-QIZ economic activities in Jordan. The fact that QIZ exports have remained in the low price, highly competitive end of US markets, moreover, has brought QIZ entrepreneurs into conflict with labor laws and as a result abuses of labor have been observed from time to time.

Even if Jordan's QIZ–induced export growth is running out of steam, there have been numerous broader benefits of the QIZ experience. Among these are: increased labor force participation by Jordanian women, increased experience in working with people from different cultures, greater exposure to the whims of foreign consumers and market niches, and possibly the willingness to cooperate with Israelis and thereby contribute to better prospects for peace. The latter benefit is very hard to determine, however, since it is difficult to know how much worse relations between Israel and Jordan and their citizens would have been in the absence of QIZ. Certainly, despite the difficulties, mutual economic benefits for Jordanian and Israeli entrepreneurs and perhaps consumers have been created. In our opinion, however, the most important effects have been the many influences on trade and other policies to which this experience has given rise. The fact that the investors were foreign, and mainly rather small, meant that they were excellent guinea pigs for applying Jordan's liberal new foreign investment law. When they faced problems, usually delays due to either excessive regulations or slow-moving bureaucracy, they threatened to withhold their investments or, if already made, to pull out from these footloose industries. The indirect result was the inauguration of a one-stop shop via the Jordan Investment Board and increasingly various other business friendly policies, regulations and more efficient bureaucratic procedures.

The pressures from both foreign and domestic investors and even their Israeli counterparts also resulted in a mutual agreement to lower the Israeli minimum share requirement which was also accepted by the US. Within the QIZs, the owners came to offer an ever wider variety of the services desired by different types of investors, and to even the playing field in terms of tax exemptions between those in publicly owned and privately owned QIZs. We know of no conflicts within the QIZ units (that monitor the transactions with Israelis and the accounts of the various parties), and there is evidence that these units have progressively simplified the processes involved and reduced delays in getting the required authorizations to the bare minimum. The dramatic rise of Jordan's industrial sector, the rapid growth of its exports and its greatly improved business environment have brought many investors and foreign distributors to Jordan to investigate opportunities there. Earlier, Jordan was virtually unknown to outside investors and distributers and believed (with good reason) to be dominated by the public sector and excessively regulated. The government has learned the importance of credibility in its policy announcements and has continued to liberalize its external tariffs and regulations. At the same time, by encouraging high tech investment possibilities it has at least begun to make the QIZ and other industrial parks somewhat less narrow and distorting than they were at the beginning.

The success of Jordan in QIZ activities has also contributed to Egypt's eventual change of mind on QIZs, entering into its own QIZ Protocol with Israel and the US in 2005. Despite its late start,

and only after one of the major benefits of QIZ, namely providing exemption from quotas, was no longer in effect, Egypt's QIZ experience seems to have been positive in a number of respects, especially in raising its exports of woven cotton garments in general and boys' and girls' clothing in particular, improve know-how, and in encouraging foreign investment from Turkey. However, the structural problems of the textile and clothing industry in Egypt remain and the benefit to small enterprises is limited.

Although the social and other policy change benefits in Egypt have not yet seemed as deep or as strong as those in Jordan, many feel that, because of Egypt's longer experience in the garments and textiles sector, the much larger numbers of firms, managers and skilled workers and its labor cost advantage relative to that of Jordanian workers, the Egyptian QIZ has greater long term potential than Jordan's. Some feel that existence and success of the Egyptian QIZ threatens the future of Jordan's QIZ which in late 2008 and early 2009 has shown definite signs of decline.[8] Notably, the QIZ induced rapid growth of Egyptian exports seems still to be going strong, even in the current unfavorable world market situation, which is a sign of strength. Jordan's QIZ export growth on the other hand has dropped off.

The requirement to purchase specified minimal percentages of relatively high priced goods from Israel continues to constitute an important trade diversion cost to Jordan and especially Egypt. It also may have imposed a cost in terms of actual or threatened hostile social sanctions on those in both countries who might be seen as "cooperating with Israel". But, on the other hand, despite the continuing frictions between countries, and especially the lack of resolution of the Palestinian–Israeli conflict, and the unfavorable popular opinion about Israel and Israelis, it may be something of a success that these relations have not gotten worse than they are at present. These disadvantages to the investors, moreover, seem to have been more than offset by the profitability created for the QIZ investments in both Jordan and Egypt due to the trade distorting effects of the scheme with respect to US imports and the effects thereof in reducing unemployment rates. As far as we have been able to tell, the QIZ agreements have been respected continuously due to the constant monitoring by the QIZ units and cooperation among the different country representatives to these units. While Israeli exports to both countries have also increased beyond the confines of the QIZ, the exports of Jordan and Egypt to Israel have grown much more. At least some of this growth would seem to be attributable to the contacts, contractual relationships and market knowledge built up from the QIZ experience.

Neither Jordan nor Egypt has probably taken maximum advantage of their QIZ arrangements. In large part this has been due to the narrow range of products that seem to have benefited from the preferences offered as a result of relatively high tariff rates (and previously quotas). In the case of Egypt it has largely been only very large firms that have benefited. The longer term benefits in Egypt and Jordan will no doubt depend to a large extent on how successful these countries will prove to be in mitigating the effects of the initial distortions by providing more general and balanced encouragement to exports, opening their own firms to greater competition from imports, developing further their product, services and factor markets and encouraging transaction-intensive behavior, for example between large and small firms and firms in different stages of the supply chain. In the longer term, with any progress in multilateral talks at the WTO,

8 Indeed, in an apparent effort to save its QIZ, the Jordanian government exempted QIZ factories from having to pay the increase in minimum wages allotted to all other workers in the country. This has further decreased the interest of Jordanians in employment in QIZ factories, increasing further their already heavy reliance on workers from China, India, Bangladesh and other countries.

the US is likely to reduce its currently high tariffs on garments and textiles and other items, implying that both Egypt and Jordan should prepare themselves for that day.

References

A. Abdel-Latif. 2006. "The Qualified Industrial Zones: A Blessing or a Curse to Egyptian Industry?". Paper presented to *MEEA 5th Annual Conference*. 10-12 March 2006. Sousse, Tunisia.

A. Abdel-Latif and H. Schmitz 2009. "The Political Economy of Private Investment in Egypt: Insights from Old and New Sectors". IDS Research Report. Forthcoming in September 2009.

Al-Atrash, Hasan and Tarik Yousef. 2000. "Intra-Arab Trade: Is it Too Little?" Washington, D.C., USA: IMF Working Paper 00/10.

Al-Khouri, Riad. 2000. "Regional Economic Cooperation: A Jordanian Perspective". *Palestine-Israel Journal* 7 (1-2), 1-4.

Al-Khouri, Riad and Alfred Tovias. 2002. "Qualifying Industrial Zones as a Model for Industrial Development: the Case of Jordan and Its Implications for the Mediterranean Region". *Paper presented to the Third Mediterranean Social and Political Research Meeting*. Montecatini and Florence. 20-24 March 2002.

Al-Khouri, Riad and M. Kardoosh. 2004. *Economic Research Forum 11th Annual Conference*: "*Qualifying Industrial Zones and Sustainable Development in Jordan in Post Conflict Reconstruction*". Cairo, Egypt: Economic Research Forum.

AlanV. Deardorff. 1998. "Determinants of BilateralTrade: Does Gravity Work in a Neoclassical World?" .In "*The Regionalization of the World Economy"*, ed. Jeffrey A. Frankel. Chicago: University of Chicago Press for the National Bureau of Economic Research 7-32.

Alden, Edward. 2003. "US Retaliation against Egypt Hits Trade Plans". *Financial Times* June 29.

Amara, Jomana. 2007. "Military Industrialization and Economic Development: Jordan's Defense Industry". *Review of Financial Economics* 17, (2), 130-145.

Anderson, James E. and Eric van Wincoop. 2001. "*Gravity with Gravitas: A Solution to the Border Puzzle*". National Bureau of Economic Research Working Paper 8079.

Bashar H. Malkawi. 2005. "Securing Peace Through Trade Dividends: Qualifying Industrial Zones between the U.S., Israel, Jordan and Egypt". *International Trade Journal*.

Ben Amor, Tahar. 2002. "*Strategy and Action Plan to Enhance the Competitiveness of the Garment Industry in Jordan: Final Report*".

Bergsten, C. Fred.1996. "Globalizing Free Trade". *Foreign Affairs* (May/June), 105-120.

Bergstrand, Jeffrey.1985. "The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence". *Review of Economics and Statistics* 67 (August), 474-81.

Bhagwati, Jagdish, P. Krishna, and Arvind Panagariya. 1999. "*Trading Blocs"*. Cambridge: MIT Press. Council of Economic Advisors. 2001. *Economic Report of the President*. Washington, D.C.: Government Printing Office.

Bolle, Mary Jane. 2004. "The US-Jordan Free Trade Agreement". In "*Free Trade Current Issues and Prospects",* ed. Arnold S. Miller. NOVA Publications 91-110.

Bolle, Mary Jane, Alfred B. Prados, and Jeremy Sharp. 2006. "*Qualifying Industrial Zones in Jordan and Egypt*". Congressional Research Service. Library of Commerce.

Dasgupta, Dipak, Jennifer Keller and T.G. Srinivasan. 2003. "Reform and Elusive Growth in the Middle East – What Has Happened in the 1990s?" .In "*Trade Policy and Economic Integration in the Middle East and North Africa*", eds. H. Hakimian and J.B. Nugent. London: Routledge.

El-Naggar, Said, ed. 1992. "*Foreign and Intratrade Policies of the Arab Countries".* Washington: International Monetary Fund.

Ekholm, Karolina, Johan Torstensson and Rasha Torstensson. 1996. "The Economics of the Middle East Peace Process: Are There Prospects for Trade and Growth*?" .The World Economy* 555-574.

Fischer, Stanley.1993. "Prospects for Regional Integration in the Middle East." In "*New Dimensions in Regional Integration",* eds. Jaime De Melo and Arvind Panagariya. Cambridge: Cambridge University Press.

Frankel, Jeffrey A. and David Romer. 1999. "Does Trade Cause Growth?" .*American Economic Review* 89 (3), 379-396.

Frankel, Jeffrey and Andrew Rose. 2000. "*Estimating the Effect of Currency Unions on Trade and Output*". National Bureau of Economic Research Working Paper W7857.

Gaffney, Joseph Patrick. 2005. "Jordan's Qualified Industrial Zones: A Qualified Success?". Philadelphia: Unpublished MA Thesis, University of Pennsylvania.

Glantz, Aaron. 2003. "Jordan's Sweatshops: The Carrot or the Stick of US Policy". *CorpWatch* Feb 23, 2003.

Havrylyshyn, Oleh. 1997. "*A Global Integration Strategy for the Mediterranean Countries: Open Trade and Market Reforms".* Washington, D.C., USA: International Monetary Fund, Middle Eastern Department.

Hoekman, Bernard and Patrick Messerlin. 2002. "Harnessing Trade for Development and Growth in the Middle East". Report by the Council on Foreign Relations Study Group on Middle East Trade Options.

Hoekman, Bernard and Denise Konan. 2001. "Deep Integration, Nondiscrimination and Euro-Mediterranean Free Trade". In "*Regionalism in Europe: Geometries and Strategies After 2000"*, eds. J. von Hagen and M. Widgren. Dordrecht: Kluwer Academic Publishers.

Hoekman, Bernard and Khalid Sekkat. 2008. "*Deeper Integration of MENA Goods, Services and Labor Markets: What is the Policy Research Agenda?*" .Paper presented to the *Economic Research Forum Workshop on "Inequality and Regional Integration in the Arab World"* November 21-22, 2008.

International Labour Office. 2002. "*Women Workers in the Textiles and Garments Industries in Jordan*". Geneva: ILO.

J.H. Bergstrand. 1989. "The Generalized Gravity Equation, Monopolistic Competition and the Factor Proportions Theory in International Trade". *Review of Economics and Statistics* 71, 143-153.

James E. Anderson. 1979. "A Theoretical Foundation for the Gravity Equation". *American Economic Review* 69, 106-116.

Jeffrey B. Nugent. 2001. "Explaining the Paradox: Generous Foreign Investment Laws but Little Foreign Investment in Arab Countries – The Role of Legal Shortcomings". In "*Arab Legal Systems in Transition",* ed. Tarik M. Yousef.

Jeffrey B. Nugent. 2002. "Dispute Resolution and Firms' Competitiveness in the MENA Region" .In "*Globalization and Firm Competitiveness in the Middle East and North Africa",* ed. Samiha Fawzy. Washington, D.C., USA: World Bank, 76-115.

Jeffrey B. Nugent. 2002. "*Why Does MENA Trade So Little?*" .World Bank Background Paper.

Khalid Sekkat. 1996. "Regional Integration among the Magreb Countries and Free Trade with the European Union: A Challenge for Both Sides of the Mediterranean". *Journal of Economic Integration* 11(4), pp. 421-452.

Kanaan, Taher. 1999. "The Business Environment in Jordan". In "*Patterns for Development: New Roles for Government and Private Sector in the Middle East and North Africa",* eds. Samiha Fawzy and Ahmed Galal. Washington, D.C., USA: World Bank Institute 57-82.

Kardoosh, Marwan. 2004. "*Qualifying Industrial Zones and the Jordanian Quest for Sustainable Development*".

Kardoosh, Marwan. 2009. "Jordan's Qualifying Industrial Zones: Lessons and Opportunities for Egypt" .*Arab Banker*. July 10, 2009.

Kassem M. and Abdel-Latif, Abla. "The Egyptian Textile and Clothing Industry: Strategy and Broadlines for a Comprehensive Action Plan". *Document prepared for the Chamber of Textiles, Federation of Egyptian Industries*. October 2005.

Kemp, Murray and Henry Wan 1976. "An Elementary Proposition Concerning the Formation of Customs Unions." *Journal of International Economics* 6: 95-97.

Konan, Denise and Keith Maskus. 2000. "Bilateral Trade Patterns and Welfare: An Egypt-EU Preferential Trade Agreement".

Leamer, Edward E. and James Levinsohn. 1995. "International Trade Theory: The Evidence" .In "The *Handbook of International Economics"* .vol. III, eds. G. Grossman and K. Rogoff. Amsterdam: Elsevier-North Holland.

Manneh, Jane .2003. "*Qualifying Industrial Zones*" .Amman, Jordan: IBU Research, Export, and Finance Bank.

Manneh, Jane. 2003. "*Qualifying Industrial Zones*". Amman, Jordan: IBU Research, Export, and Finance Bank.

Mansour, Antione and Blandine Destreman. 1997. "*Palestine and Israel: Subcontracting in the Garment Industry*" Ramallah: Palestine Economic Policy Research Institute.

Mansur, Yusuf. 2007. "Lessons from the QIZs in Jordan". *Tharwa Review* 5 (20, May 24, 2007).

McCallum, John. 1995. "National Borders Matter: Canada-U.S. Regional Trade Patterns". *American Economic Review* 85(3), 615-623.

Miniesy, Rania S., Jeffrey B. Nugent and Tarik M. Yousef. 2003. "Globalize or Regionalize: How Has MENA Performed?" .In "*Trade Policy and Economic Integration in the Middle East and North Africa",* eds. H. Hakimian and J.B. Nugent. London: Routledge .

Miniesy, Rania S., Jeffrey B. Nugent and Tarik M. Yousef . 2003. "Globalize or Regionalize: How Has MENA Performed?" .In "*Trade Policy and Economic Integration in the Middle East and North Africa",* eds. H. Hakimian and J.B. Nugent. London: Routledge.

Nabli, Mustapha K. and Marie-Ange Veganzones-Varoudakis. 2001. "Exchange Rate Regime and Competitiveness of Manufactured Exports: The Case of MENA Countries" .In "*Trade Policy and Economic Integration in the Middle East and North Africa",* eds. H. Hakimian and J.B. Nugent. London: Routledge.

Nordas, Hildegunn Kyvik. 2004. "*The Global Textile and Clothing Industry Post the Agreement on Textiles and Clothing*". Geneva: WTO Discussion Paper No 5.

Nugent, Jeffrey B. and Tarik M. Yousef. 2002. "Does MENA Defy Gravity? How MENA has Performed in Its Intraregional, EU and Other Trade". In "*Trade Policy and Economic Integration in the Middle East and North Africa",* eds. H. Hakimian and J.B. Nugent. London: Routledge.

Nugent, Jeffrey B. and Fahyre De Alencar Loiola. 2005. "Jordan's Patterns and Prospects of Trade and FDI: Some Implications of Euro-Med, GAFTA and the QIZ". In "*The Jordanian Economy in a Changing Environment",* ed. Ibrahin Saif. Amman: University of Jordan Center for Strategic Studies 273-297.

Panagariya, Arvind. 2000. "Preferential Trade Liberalization: The Traditional Theory and New Developments". *Journal of Economic Literature* 38 287-331.

Peridy, Nicolas. 2005. "Toward a Pan-Arab Free Trade Area: Assessing Trade Potential Effects of the Agadir Agreement". *The Developing Economies* 43 (September), 329-345.

Poot, Huib and Khaloud Khaldi. 2001. "*Jordan-Foreign Direct Investment Opportunities and Constraints"*. Amman: Euro-Jordan Business Service Team.

Rania A. Al-Mashat. 2000. "*An Empirical Assessment of NAFTA: The Gravity Model Revisited*". University of Maryland.

Robert C. Feenstra. 2000. "*World Trade Flows, 1980-1997"*. Davis, CA: Center for International Data, Institute of Governmental Affairs.

Robert C. Feenstra, Robert Lipsey and Harry Bowen. 1997. "*World Trade Flows, 1970-1992"*. Cambridge: National Bureau of Economics Working Paper 5910.

Robert Z. Lawrence. 2006. "A US-Middle East Free Trade Agreement: A Circle of Opportunity? " .*Policy Analysis in International Economics* No. 81. Washington, D.C., USA: Peterson Institute.

Rose, Andrew K. 2000. "One Money, One Market: Estimating the Effect of Common Currencies on Trade". *Economic Policy*. April 2000.

Saif, Ibrahim. 2006. "*The Socio-Economic Implications of the Qualified Industrial Zones in Jordan*" Amman: University of Jordan, Center for Strategic Studies.

Sayegh, Lutfi and Rana Dababneh. 2007. "*A Rapid Diagnostic of the Garment Sector: Final Report*". Amman: Prepared for USAID.

Timothy J. Kehoe. 2005. "*An Evaluation of the Performance of Applied General Equilibrium Models of the Impact of NAFTA*".

United Nations Conference on Trade and Development (UNCTAD) 2002.

United States International Trade Commission. 2000. "Economic Impact on the United States of a US-Jordan Free Trade Agreement".

World Bank, "*Economic Developments and Prospects: Regional Integration for Global Competitiveness*". 2009. Washington, D.C., USA: World Bank.

World Trade Organization. 2008. "*Trade Policy Review: Report of the Secretariat: Jordan*": (Summary). Geneva: WTO (WT/TPR/S/206).

Yadav, Vikash. 2007. "The Political Economy of the Egyptian-Israeli QIZ Agreement". The Middle East Review of International Affairs (MERIA) 11 (1).

Zarrouk, Jamal Eddine. 1992. "Intra-Arab Trade: Determinants and Prospects for Expansion" .In "*Foreign and Intratrade Policies of the Arab Countries",* ed. Said El-Naggar. Washington, D.C., USA: International Monetary Fund.

nam

Appendix A:

Table 1: Trade of Jordan and Egypt with the US, 1992-2009

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Jordan's Exports to U.U																		
January	0.6	1.3	4.5	1	1.5	2.3	0.9	1.1	3.1	15.9	29	44	71	116	101	96	108	90
February	1.6	1.2	1.6	2.7	1.5	1.3	0.5	1.8	3.1	17	25.1	41	74	81	104	109	90	79
March	1.4	0.9	3	1.7	1.9	0.9	1.4	1.3	4.6	15.2	20.9	49	85	116	121	111	90	74
April	0.8	1.2	1.4	3.2	1.9	2.3	1	0.7	3.1	14.6	24.6	47	64	85	109	109	95	70
May	0.4	1.5	1.6	3.6	1.8	11.6	1.4	9.5	4.3	14.9	25.2	41	69	84	111	96	69	62
June	1.7	1	1.7	2.4	3.3	0.5	1.4	2.5	5.9	15	21.1	45	84	94	104	101	88	
July	1.4	1.1	2.1	2.4	2.2	0.8	0.8	1.7	5.8	20.5	46	64	92	105	138	114	101	
August	0.7	2	3.8	2.4	2.6	0.8	1.4	3.4	7	28.7	51.9	69	76	123	133	137	116	
September	1.4	2.7	3.8	3.2	2.7	1.1	1.1	0.9	7.7	23	45.8	83	142	137	145	146	104	
October	3.1	2.7	2.4	2.4	2.1	1	2.9	3.3	9.1	23	45	67	120	117	126	132	123	
November	1.8	1.5	2.1	2	2	1.7	1.5	2.5	8.9	17.3	35.5	57	119	104	113	88	71	
December	3.2	1.7	1.1	1.9	1.7	1	2.1	2	10.7	24.1		67	99	103	117	90	81	
TOTAL	18.1	18.7	29	28.8	25.2	25.3	16.4	30.9	73.3	229	370	674	1093	1267	1422	1329	1138	375*
U.S. Exports to Jordan																		
TOTAL	258	361	287	335	345	402	353	276	317	339	404	492	552	644	650	856	940	499*
Egypt's Exports to the US																		
TOTAL	613	549	606	680	658	661	618	888	882	1356	1143	1284	2091	2396	2377	2370	764*	
U.S. Exports to Egypt																		
TOTAL	2768	2855	2951	3153	3835	3059	3001	3341	3564	2868	2607	3078	3159	4029	5259	6002	2112*	

Note: All figures are in millions of U.S. dollars; * Indicates January-May only
Source: http://www.census.gov/foreign-trade/balance/c5110.html

Table 2: Country Shares in Jordan's QIZ Exports

cc	Country	2003	2004	2005	2006	2007	2008
1	Algeria	0.02	0.08	0.07	0.09	0.12	0.17
2	Australia	0.01	0.00	0.00	0.00	0.00	0.00
3	Bahrain	0.00	0.02	0.02	0.00	0.03	0.00
4	Belgium	0.04	0.02	0.01	0.03	0.01	0.03
5	Benin	0.00	0.00	0.00	0.00	0.00	0.02
6	Canada	0.35	0.23	0.33	0.49	0.75	0.68
7	Chile	0.01	0.01	0.00	0.01	0.00	0.00
8	China	0.00	0.00	0.01	0.02	0.01	0.01
9	Egypt	0.03	0.13	0.07	0.10	0.15	0.31
10	Ethiopia	0.00	0.00	0.00	0.00	0.00	0.01
11	France	0.00	0.01	0.01	0.01	0.00	0.01
12	Free zone	0.04	0.05	0.09	0.13	0.11	0.21
13	Germany	0.07	0.01	0.02	0.00	0.00	0.04
14	Ghana	0.00	0.01	0.01	0.01	0.01	0.04
15	Hong Kong	0.02	0.01	0.03	0.03	0.02	0.02
16	Iraq	0.55	0.40	0.34	0.13	0.18	0.24
17	Israel	8.62	5.14	4.29	4.34	4.67	4.12
18	Italy	0.04	0.01	0.00	0.00	0.00	0.01
19	Japan	0.03	0.03	0.03	0.06	0.07	0.17
20	Kuwait	0.01	0.02	0.01	0.02	0.02	0.03
21	Lebanon	0.01	0.04	0.00	0.08	0.02	0.00
22	Libya	0.01	0.01	0.05	0.04	0.15	0.02
23	Malaysia	0.00	0.00	0.01	0.03	0.01	0.02
24	Mexico	0.04	0.03	0.10	0.14	0.09	0.07
25	Moldova	0.00	0.00	0.00	0.01	0.01	0.00
26	Morocco	0.00	0.00	0.02	0.00	0.00	0.00
27	Netherlands	0.08	0.08	0.00	0.04	0.01	0.04
28	Niger	0.00	0.00	0.00	0.00	0.01	0.00
29	Nigeria	0.00	0.00	0.00	0.00	0.00	0.05
30	Oman	0.02	0.01	0.01	0.01	0.01	0.01
31	Pakistan	0.01	0.01	0.00	0.00	0.00	0.01
32	Palestinian	0.00	0.00	0.00	0.00	0.00	0.01
33	Panama	0.00	0.02	0.05	0.04	0.13	0.31
34	Paraguay	0.00	0.00	0.01	0.00	0.00	0.00
35	Saudi Arabia	0.63	0.33	0.29	0.30	0.25	0.32
36	Singapore	0.00	0.00	0.00	0.00	0.01	0.02
37	Slovakia	0.00	0.00	0.00	0.00	0.00	0.01
38	Somalia	0.00	0.00	0.00	0.00	0.00	0.01
39	South africa	0.00	0.01	0.00	0.00	0.00	0.00
40	South korea	0.01	0.01	0.00	0.00	0.01	0.02
41	Spain	0.04	0.00	0.05	0.09	0.09	0.09
42	Sudan	0.05	0.02	0.03	0.06	0.03	0.06
43	Switzerland	0.01	0.00	0.00	0.00	0.00	0.00
44	Syria	0.00	0.03	0.01	0.01	0.00	0.00
45	Taiwan	0.05	0.02	0.01	0.02	0.01	0.00
46	Tunisia	0.00	0.00	0.00	0.02	0.01	0.06
47	Turkey	0.00	0.17	0.02	0.01	0.04	0.13
48	UAE	0.05	0.55	0.06	0.03	0.06	0.11
49	UK	0.13	0.17	0.11	0.16	0.43	0.70
50	USA.	88.94	92.27	93.74	93.43	92.40	91.79
51	Ukraine	0.00	0.00	0.01	0.00	0.00	0.00
52	Yemen	0.07	0.03	0.03	0.03	0.04	0.02

Table 3: Country Shares in Jordan's QIZ Imports

cc	Country	2003	2004	2005	2006	2007	2008
1	Argentina	0.00	0.00	0.00	0.00	0.01	0.00
2	Australia	0.00	0.00	0.00	0.00	0.00	0.05
3	Austria	0.00	0.03	0.01	0.00	0.06	0.02
4	Bahrain	0.00	0.00	0.01	0.00	0.00	0.00
5	Bangladesh	0.02	0.00	0.02	0.00	0.02	0.00
6	Belgium	0.04	0.11	0.06	0.04	0.02	0.02
7	Brazil	0.00	0.06	0.00	0.01	0.04	0.00
8	Bulgaria	0.01	0.00	0.00	0.00	0.01	0.00
9	Canada	0.01	0.01	0.02	0.20	0.91	0.47
10	Chile	0.00	0.00	0.00	0.00	0.07	0.02
11	China	39.17	46.93	47.56	50.76	51.82	48.18
12	Cyprus	0.00	0.00	0.00	0.00	0.03	0.01
13	Czech Republic	0.00	0.02	0.00	0.00	0.00	0.00
14	Denmark	0.04	0.00	0.00	0.00	0.01	0.01
15	Egypt	0.23	0.25	0.47	0.61	0.54	0.47
16	Finland	0.01	0.00	0.00	0.00	0.01	0.00
17	France	0.06	0.06	0.08	0.20	0.37	0.07
18	Free Zone	0.01	0.02	0.04	0.03	0.02	0.04
19	Germany	0.45	0.77	0.22	0.30	0.29	0.20
20	Greece	0.00	0.00	0.00	0.01	0.02	0.01
21	Guatemala	0.00	0.00	0.00	0.00	0.00	0.01
22	Hong Kong	10.01	7.12	9.31	9.25	6.19	7.42
23	Hungary	0.01	0.00	0.00	0.00	0.00	0.00
24	India	1.28	0.53	0.31	0.45	0.70	0.71
25	Indonesia	0.15	0.31	0.06	0.24	0.11	0.09
26	Iran	0.01	0.01	0.01	0.01	0.00	0.02
27	Ireland	0.02	0.00	0.01	0.00	0.00	0.00
28	Israel	16.29	14.06	7.33	5.93	7.76	10.98
29	Italy	1.14	0.98	0.75	0.62	0.93	0.43
30	Japan	0.71	0.99	0.20	0.32	0.46	0.20
31	Kampuchea	0.00	0.00	0.00	0.00	0.00	0.01
32	Kenya	0.02	0.01	0.00	0.00	0.00	0.00
33	Kuwait	0.00	0.05	0.00	0.00	0.00	0.00
34	Lebanon	0.06	0.12	0.06	0.05	0.04	0.04
35	Malaysia	0.10	0.01	0.01	0.00	0.01	0.04
36	Mauritius	0.03	0.00	0.00	0.00	0.00	0.00
37	Mexico	0.00	0.00	0.01	0.00	0.08	0.18
38	Morocco	0.00	0.00	0.00	0.00	0.00	0.02
39	Netherlands	0.07	0.04	0.00	0.04	0.08	0.06
40	New Zealand	0.00	0.00	0.13	0.00	0.00	0.00

Table 3: Continued

cc	Country	2003	2004	2005	2006	2007	2008
41	North Korea	0.00	0.03	0.03	0.04	0.00	0.00
42	Oman	0.02	0.07	0.16	0.15	0.09	0.04
43	Pakistan	4.28	3.14	2.76	2.02	1.73	2.04
44	Philippines	0.09	0.00	0.01	0.00	0.00	0.00
45	Poland	0.01	0.01	0.00	0.00	0.00	0.00
46	Portugal	0.09	0.14	0.12	0.01	0.07	0.07
47	Romania	0.00	0.00	0.00	0.12	0.61	0.22
48	Russian Fed.	0.00	0.00	0.00	0.01	0.09	0.00
49	Saudi Arabia	0.37	0.29	0.02	0.01	0.08	0.05
50	Singapore	0.36	0.52	0.11	0.06	0.09	0.02
51	South Africa	0.03	0.04	0.20	0.16	0.04	0.23
52	South Korea	1.18	0.69	2.64	2.84	1.74	1.61
53	Spain	0.04	0.07	0.12	0.09	0.03	0.03
54	Sri Lanka	0.06	0.06	0.18	0.21	0.22	0.13
55	Sweden	0.01	0.05	0.02	0.02	0.11	0.01
56	Switzerland	0.02	0.03	0.02	0.02	0.03	0.06
57	Syria	0.01	0.00	0.01	0.01	0.00	0.00
58	Taiwan	20.05	17.39	17.67	15.39	17.08	18.76
59	Thailand	0.06	0.01	0.02	0.01	0.02	0.14
60	Tunisia	0.00	0.00	0.00	0.00	0.00	0.01
61	Turkey	1.88	2.81	4.99	6.49	5.38	5.27
62	Turkmenistan	0.00	0.00	0.01	0.01	0.00	0.00
63	U.A. Emirates	0.77	1.24	3.45	2.47	1.19	1.02
64	U.K.	0.29	0.20	0.14	0.11	0.13	0.03
65	U.S.A.	0.38	0.66	0.50	0.64	0.57	0.46
66	Ukraine	0.00	0.00	0.06	0.02	0.00	0.00
67	Uruguay	0.00	0.00	0.00	0.00	0.03	0.00
68	Vietnam	0.01	0.08	0.08	0.03	0.05	0.05

Source: QIZ Unit, Jordan

Table 4A: Country Shares (in Percent) of Total US Imports of SITC 841 Men, Boys, and Women Clothing

Period	Total Imports	Egypt	Israel	Jordan	Other Middle East	Central America	NAFTA	China	Other Asia	Europe	Others
1989	5244021301	0.15	0.22	0.01	0.20	9.05	5.01	24.74	14.02	7.14	39.48
1990	5528430214	0.24	0.18	0.09	0.30	9.46	4.31	28.28	14.65	6.85	35.66
1991	5765360093	0.24	0.05	0.01	0.37	12.16	5.82	28.79	14.66	6.42	31.45
1992	7162139718	0.29	0.11	0.12	0.83	13.81	6.55	28.19	16.14	5.51	28.45
1993	7914874910	0.60	0.11	0.07	0.64	15.19	7.21	27.01	15.92	5.26	28.01
1994	8657898495	0.86	0.21	0.15	0.77	16.74	8.26	24.29	15.96	5.69	27.07
1995	9481673728	0.96	0.20	0.06	0.85	18.08	10.99	20.67	16.39	6.34	25.47
1996	9543891801	0.85	0.14	0.05	0.70	17.50	13.92	19.68	16.14	6.95	24.07
1997	11004684539	0.80	0.12	0.01	0.71	19.21	15.50	18.89	16.12	6.15	22.51
1998	12069783614	0.94	0.18	0.01	0.87	17.66	17.60	17.22	15.75	6.31	23.38
1999	12359087352	0.92	0.21	0.01	0.65	17.18	20.06	16.04	15.23	5.69	23.90
2000	13862970635	0.94	0.16	0.09	0.77	16.01	20.11	15.72	16.07	5.17	24.88
2001	12797887198	0.89	0.20	0.16	0.74	16.62	19.35	15.15	16.98	5.18	24.72
2002	12229825910	0.87	0.18	0.22	0.79	16.75	20.70	15.27	17.13	5.15	23.03
2003	13119892488	0.96	0.16	0.34	0.77	15.42	19.65	15.87	18.99	5.37	22.54
2004	13559405616	0.90	0.11	0.63	0.83	13.78	18.46	17.43	20.75	5.17	21.84
2005	14270786243	1.02	0.04	0.80	0.39	12.15	17.22	22.40	21.85	4.83	19.24
2006	14229886119	1.45	0.02	0.84	0.28	10.63	15.81	23.77	24.64	4.55	18.09
2007	14145906144	1.69	0.01	0.57	0.32	9.29	14.38	26.47	26.05	5.07	16.27
2008	13355958634	1.94	0.01	0.66	0.30	7.47	14.24	26.76	28.52	5.09	14.88

Table 4B: Country Shares (in Percent) of Total US Imports of SITC 842 Women and Girls Clothing

Period	Total Imports	Egypt prop	Israel prop	Jordan prop	Middle East prop	Central America prop	Other NAFTA prop	China prop	Asia prop	Europe prop	Others prop
1989	7084750150	0.10	0.29	0.02	0.32	5.01	2.51	35.75	15.49	5.68	34.81
1990	7725171822	0.19	0.24	0.02	0.68	4.92	2.51	36.28	16.10	5.82	33.24
1991	7850379033	0.24	0.14	0.00	0.59	7.03	3.32	36.76	15.81	6.47	29.64
1992	9210208411	0.35	0.07	0.02	0.74	7.58	3.58	37.72	17.78	5.71	26.44
1993	10074014270	0.45	0.12	0.06	0.72	8.87	3.56	37.67	18.01	5.22	25.32
1994	10166014138	0.52	0.26	0.05	0.94	9.00	4.76	35.17	18.80	5.51	24.99
1995	10164252672	0.56	0.25	0.03	1.09	9.12	6.85	33.67	17.86	6.36	24.22
1996	10777178987	0.67	0.13	0.01	0.84	10.08	9.01	32.96	17.18	6.72	22.40
1997	12263974507	0.59	0.10	0.01	0.84	10.40	11.63	31.42	17.21	6.15	21.64
1998	13204867809	0.62	0.19	0.01	1.02	10.30	13.82	28.37	17.41	6.10	22.17
1999	13299140391	0.61	0.21	0.00	1.26	9.13	14.80	27.61	17.72	5.48	23.17
2000	15431333311	0.82	0.31	0.10	1.43	8.93	15.56	25.57	18.11	4.74	24.43
2001	15271423221	0.91	0.38	0.27	1.60	8.66	14.08	25.86	17.00	5.38	25.86
2002	15239963905	0.76	0.35	0.53	1.47	7.23	13.21	27.27	19.04	5.38	24.75
2003	16710484781	0.71	0.39	0.89	1.35	6.44	10.38	28.55	20.76	5.25	25.29
2004	17889453742	0.76	0.23	1.17	1.05	6.11	9.99	31.08	19.81	5.16	24.66
2005	19148503062	0.65	0.12	1.32	0.72	4.42	7.64	38.78	21.64	4.59	20.13
2006	19165082322	0.77	0.06	1.57	0.61	3.26	5.66	43.05	22.00	4.67	18.34
2007	18790961975	0.90	0.03	1.39	0.47	2.79	4.59	46.79	21.82	5.02	16.19
2008	17544126171	1.03	0.03	1.15	0.58	2.84	3.70	47.53	23.15	4.86	15.13

Table 4C: Country Shares (in Percent) of Total US Imports of SITC 843 Men and Boys knitted Clothing

Period	Total Imports	Egypt prop	Israel prop	Jordan prop	Middle East prop	Central America prop	Other NAFTA prop	China prop	Asia prop	Europe prop	Others prop
1989	847478529	0.72	0.44	0.01	0.05	8.61	1.43	23.03	18.12	3.81	43.78
1990	786926567	0.75	0.80	0.00	0.13	10.76	1.50	22.51	19.84	3.56	40.16
1991	894278327	0.84	0.79	0.00	0.03	11.87	1.30	23.51	21.40	2.36	37.90
1992	1180531266	1.19	0.69	0.00	0.10	16.32	1.49	19.51	23.97	1.84	34.90
1993	1271382934	0.97	1.13	0.00	0.17	17.28	2.17	19.16	24.65	1.70	32.77
1994	1563931953	0.88	1.19	0.01	0.24	15.69	2.43	19.62	28.40	2.45	29.08
1995	2216931584	1.11	1.32	0.04	0.41	17.28	3.73	15.27	30.41	2.19	28.24
1996	2575018180	1.43	0.91	0.01	1.16	20.93	6.05	11.47	29.97	2.08	25.99
1997	3074559391	1.45	0.53	0.00	0.90	22.76	8.27	10.57	28.56	1.68	25.29
1998	3411519617	1.30	0.59	0.01	0.57	23.67	10.02	9.15	27.21	1.81	25.67
1999	3386992339	1.23	0.60	0.00	0.41	25.69	12.99	8.76	24.49	1.67	24.17
2000	3514613671	1.06	0.61	0.05	0.38	25.90	14.36	7.37	24.96	1.66	23.66
2001	3530399510	1.06	0.79	0.55	0.58	26.78	13.10	6.61	24.93	1.66	23.96
2002	3820304954	0.94	0.38	1.25	0.43	25.55	10.44	7.91	26.15	1.41	25.53
2003	4089178967	1.09	0.29	1.78	0.20	23.70	8.31	6.94	28.89	1.44	27.37
2004	4070779849	1.24	0.43	2.92	0.16	19.81	8.23	7.75	31.23	1.24	27.01
2005	4477564212	1.08	0.34	2.45	0.06	18.02	6.67	12.78	33.55	0.90	24.13
2006	4994156140	1.77	0.23	2.79	0.04	14.27	4.91	16.16	35.01	0.73	24.10
2007	5591113633	1.84	0.14	2.83	0.08	12.97	4.03	21.48	34.22	0.64	21.79
2008	5395648190	1.88	0.07	2.35	0.05	14.39	2.62	22.45	35.02	0.55	20.62

Table 4D: Country Shares (in Percent) of Total US Imports of SITC 844 Women and Girls knitted clothing

Period	Total Imports	Egypt prop	Israel prop	Jordan prop	Middle East prop	Central America prop	Other NAFTA prop	China prop	Asia prop	Europe prop	Others prop
1989	2043141128	0.38	1.20	0.00	0.03	4.99	3.41	33.27	15.20	6.26	35.25
1990	2217510399	0.39	1.68	0.02	0.12	5.99	3.45	31.50	15.86	6.58	34.42
1991	2215472211	0.54	1.80	0.00	0.18	8.63	4.41	30.05	16.08	5.22	33.08
1992	2578113022	0.62	2.43	0.00	0.21	10.31	4.91	27.64	15.71	3.83	34.34
1993	2586171518	0.54	2.59	0.01	0.48	12.12	6.01	26.30	14.31	3.39	34.25
1994	2949442783	0.68	2.54	0.05	0.63	14.21	7.45	26.17	12.77	3.68	31.82
1995	3358627328	0.75	2.65	0.05	0.57	15.29	9.61	23.67	12.16	3.30	31.95
1996	3434199051	0.64	3.07	0.02	0.61	15.92	12.77	21.61	12.21	3.39	29.75
1997	4119253363	0.60	2.54	0.00	0.50	18.73	14.36	20.48	11.51	3.19	28.09
1998	4604953122	0.73	2.84	0.00	0.66	17.38	17.23	18.32	11.56	3.01	28.28
1999	4935481856	0.64	3.29	0.00	0.51	18.66	17.34	16.51	11.22	3.03	28.79
2000	5090794602	0.66	3.91	0.08	0.43	19.04	16.63	14.99	11.66	3.27	29.32
2001	5173709071	0.57	3.13	0.48	0.61	19.23	14.51	16.83	11.44	3.30	29.90
2002	5661977367	0.48	3.05	1.14	0.59	18.20	12.87	16.81	13.97	2.55	30.34
2003	6228982692	0.37	2.46	2.10	0.49	17.01	10.76	17.06	16.60	2.24	30.89
2004	6554803363	0.54	1.82	3.98	0.55	17.59	9.71	18.58	17.21	1.99	28.02
2005	6854509944	0.67	1.51	4.13	0.29	14.42	7.32	24.71	19.44	1.68	25.82
2006	7645846020	0.63	1.39	3.60	0.25	11.90	5.64	26.97	21.14	1.71	26.77
2007	8674110594	0.61	1.01	2.62	0.12	9.50	4.06	33.31	23.22	1.82	23.72
2008	8539907604	0.64	0.87	2.25	0.06	8.61	3.12	34.31	25.43	1.82	22.88

Table 4E: Country Shares (in Percent) of Total US Imports of SITC 845 Other Textile Apparel

Period	Total Imports	Egypt prop	Israel prop	Jordan prop	Middle East prop	Central America prop	Other NAFTA prop	China prop	Asia prop	Europe prop	Others prop
1989	7153854629	0.20	0.68	0.00	0.05	3.35	2.13	34.87	9.95	6.30	42.48
1990	7192173122	0.31	0.94	0.00	0.19	4.61	3.93	35.49	11.33	6.54	36.65
1991	7456687477	0.35	1.15	0.00	0.15	5.85	4.71	35.71	12.85	4.79	34.45
1992	8848610070	0.39	1.26	0.00	0.20	7.22	5.70	36.14	14.27	4.10	30.72
1993	9333117004	0.39	1.29	0.01	0.40	8.20	6.96	34.98	14.11	3.65	30.01
1994	10523062996	0.37	1.36	0.02	0.32	8.79	8.53	34.33	14.28	3.72	28.29
1995	11329499136	0.41	1.36	0.04	0.31	11.07	11.94	30.37	14.43	3.79	26.28
1996	11887891705	0.45	1.28	0.03	0.28	12.62	14.12	29.24	13.36	4.08	24.53
1997	14296969105	0.63	1.01	0.01	0.22	14.54	15.67	27.85	12.93	3.86	23.28
1998	16568882761	0.60	1.04	0.01	0.24	14.80	16.80	26.01	13.22	3.89	23.38
1999	18675407424	0.42	1.03	0.00	0.33	16.02	17.60	24.38	13.21	3.66	23.34
2000	21662907389	0.45	0.93	0.06	0.29	16.29	16.22	22.65	14.66	3.62	24.83
2001	21930956041	0.38	0.83	0.40	0.28	16.45	15.69	22.19	14.70	3.68	25.41
2002	22202665444	0.38	0.71	0.84	0.14	17.42	14.46	22.62	15.21	3.50	24.73
2003	23160408879	0.40	0.67	0.93	0.11	17.17	13.22	23.84	16.02	3.20	24.43
2004	24909061852	0.43	0.60	1.33	0.12	17.95	11.49	25.47	15.79	2.86	23.95
2005	26261961729	0.41	0.54	1.41	0.09	17.62	9.81	33.08	15.52	2.38	19.15
2006	27706140814	0.63	0.40	1.74	0.14	16.52	8.67	33.87	16.48	2.01	19.55
2007	28446536198	0.61	0.29	1.64	0.10	15.60	6.77	36.31	17.81	1.99	18.90
2008	28091112075	0.66	0.29	1.44	0.11	16.05	6.03	35.85	20.14	1.76	17.67

Table 4F: Country Shares (in Percent) of Total US Imports of SITC 897 Gold and Silver Jewelery

Period	Total Imports	Egypt prop	Israel prop	Jordan prop	MiddleEast prop	Central America prop	Other NAFTA prop	China prop	Asia prop	Europe prop	Others prop
1989	3196367166	0.01	5.12	0.02	0.02	3.72	0.02	13.60	11.61	42.76	20.41
1990	3138611240	0.01	5.21	0.07	0.01	2.78	0.07	14.00	12.65	40.01	22.71
1991	3144229061	0.01	6.85	0.07	0.01	3.44	0.07	13.07	13.40	38.72	21.48
1992	3485495671	0.01	7.62	0.06	0.01	3.53	0.06	12.12	14.46	37.24	21.71
1993	3984849052	0.02	6.62	0.05	0.09	3.87	0.05	12.03	15.42	36.89	20.96
1994	4529020274	0.02	5.59	0.04	0.11	4.25	0.04	11.83	15.33	33.55	25.18
1995	4363229696	0.02	6.41	0.06	0.07	4.20	0.06	13.29	16.76	35.10	19.08
1996	4421544829	0.01	6.87	0.06	0.22	4.55	0.06	14.29	17.39	36.28	14.46
1997	4649620503	0.02	5.42	0.05	0.67	4.22	0.05	14.22	17.69	35.42	15.73
1998	5340316356	0.01	4.53	0.05	0.72	3.91	0.05	14.29	16.98	34.88	17.99
1999	5772016833	0.01	4.24	0.08	0.96	3.82	0.08	17.28	20.05	31.70	15.56
2000	6552723230	0.01	3.71	0.14	0.74	2.90	0.14	19.68	21.94	29.26	14.92
2001	6358696607	0.01	3.79	0.13	0.61	3.38	0.13	20.54	21.33	29.28	14.62
2002	7220778343	0.01	3.84	0.16	0.41	3.68	0.16	23.33	23.46	27.66	11.91
2003	7614528674	0.01	2.86	0.66	0.53	3.25	0.66	24.85	27.51	23.49	11.96
2004	8677450430	0.01	2.72	1.04	0.54	3.16	1.04	25.69	28.93	18.98	12.93
2005	9858147481	0.01	2.58	1.20	0.59	3.08	1.20	26.67	28.87	17.62	12.67
2006	11372956459	0.00	2.19	0.96	0.54	2.94	0.96	25.81	32.27	16.13	13.59
2007	11401884849	0.01	2.03	0.90	0.67	3.14	0.90	27.97	31.75	16.50	11.54
2008	9808425909	0.01	1.62	0.76	0.68	3.71	0.76	29.03	26.06	20.62	12.85

Note on Formation of Regions:

Egypt	
Israel	
Jordan	
Other NAFTA	Canada, Mexico
Asia	India, Pakistan, Bangladesh, Sri Lanka, Malaysia, Viet Nam, Thailand, Singapore
Middle East	Oman, Morocco, Bahrain

Europe	Countries Members of EU or EFTA as of 07/09; Austria, Belgium, France, Germany, Luxembourg, Netherlands, Switzerland, Spain, Slovenia, Portugal, Italy, Greece, Cyprus, United Kingdom, Sweden, Norway, Lithuania, Latvia, Ireland, Iceland, Finland, Estonia, Denmark, Slovakia, Poland, Romania, Hungary, Czech Rep., Bulgaria
Central America	Costa Rica, El Salvador, Honduras, Guatemala, Nicaragua, Dominican Rep.
China	China, Hong Kong, Macao
Others	All other countries not included above

Note on Commodity Code

841	MENS,BOYS CLOTHNG,X-KNIT
842	WOMEN,GIRL CLOTHNG,XKNIT
843	MENS,BOYS CLOTHING,KNIT
844	WOMEN,GIRLS CLOTHNG.KNIT
845	OTHR.TEXTILE APPAREL,NES
897	GOLD,SILVERWARE,JEWL NES

Table 5: The Top 7 Commodities Imported by Jordan QIZ Firms from Israel and the US 2003-2008

SUCODE	HSLTXT	Value of Imports from Israel					
		2003	2004	2005	2006	2007	2008
600690000	OTHER KNITTED OR CROCHETED FABRICS, OF OTHER TEXTILE MATERIALS NOT ELSEWHERE SPECIFIED	21720673	24452130	18469729	20618011	10516665	8654781
392690999	OTHER ARTICLES OF PLASTIC NOT ELSEWHERE SPECIFIED			2457412	2162483	4832531	6476298
621790100	PARTS OF GARMENT OR OF CLOTHING ACCESSORIES	991206					6673862
710813000	NON - MONETARY GOLD IN SEMI - MANUFACTURED FORMS						7625086
481920900	OTHER FOLDING CARTONS, BOXES AND CASES, OF NON-CORRUGATED PAPER OR PAPERBOARD			1050675		3267974	
481950000	OTHER PACKING CONTAINERS, INCLUDING RECORD SLEEVES, OF PAPER OR PAPERBOARD						4044207
611790900	PARTS OF GARMENTS OR OF CLOTHING ACCESSORIES, KNITTED OF CROCHETED					3814798	

Table 5: Continued

SUCODE	HSLTXT	Value of Imports from United States					
		2003	2004	2005	2006	2007	2008
600690000	OTHER KNITTED OR CROCHETED FABRICS, OF OTHER TEXTILE MATERIALS NOT ELSEWHERE SPECIFIED				806054	400479	269407
960719000	SLIDE FASTENERS, AND ITS PARTS, OTHER THAN THOSE FITTED WITH CHAIN SCOOPS OF BASE METAL .	170374		399081	243130		
621790900	PARTS OF GARMENTS OR OF CLOTHING ACCESSORIES, OTHER THAN THOSE OF HEADING NO . 62.12			347514			248013
845290000	OTHER PARTS OF SEWING MACHINES, OTHER THAN NEEDLES, FURNITURE, BASES AND COVERS	74633	137398			252842	
620990000	BABIES' GARMENTS AND CLOTHING ACCESSORIES,OF OTHER TEXTILE MATERIALS,NOT KNITTED		433500				
482190900	PAPER OR PAPERBOARD LABELS OF ALL KINDS						388728
960820000	FELT TIPPED AND OTHER POROUS-TIPPED PENS AND MARKERS		388171				

Table 6: Determinants of The Change in Share of US Imports of Garments SITC 843

Explanatory Variable	Coef.	Std.	t	P>|t|	[95% Conf. Interval]	
Slag2	-0.045258	0.010856	-4.17	0	-0.06669	-0.02382
EQUOTA*QIZ2	-0.643378	0.374344	-1.72	0.088	-1.3825	0.095744
DLW	1.146455	0.318569	3.6	0	0.517458	1.775451
IFTAYRS	-0.057578	0.096097	-0.6	0.55	-0.24732	0.13216
CAFTAYRS	0.4085323	0.103878	3.93	0	0.20343	0.613634
MEFTAYRS	0.2140893	0.373737	0.57	0.568	-0.52383	0.952012
NAFTAYRS	0.3412628	0.151713	2.25	0.026	0.041714	0.640812
IFTAYRSQ	0.0047533	0.005585	0.85	0.396	-0.00627	0.01578
CAFTAYRSQ	-0.023632	0.006482	-3.65	0	-0.03643	-0.01083
NAFTAYRSQ	-0.030216	0.01278	-2.36	0.019	-0.05545	-0.00498
JQIZYRS2	0.5217687	0.223459	2.33	0.021	0.08056	0.962977
EQIZYRS2	0.3099369	0.287403	1.08	0.282	-0.25752	0.877398
JQIZYRS2SQ	-0.064588	0.029171	-2.21	0.028	-0.12218	-0.00699
CHTR	1.788483	0.420324	4.26	0	0.958576	2.61839
CONSTANT	0.141198	0.157881	0.89	0.372	-0.17053	0.452926
Source	SS	df	MS	Number of Obs	=	180
Model	132.11471	14	9.4368	F(14,165)	=	5.88
Residual	264.68797	165	1.6042	Prob>F	=	0
Total	396.80268	179	2.2168	R-squared	=	0.3329
				Adj R-squared	=	0.2763
				Root MSE	=	1.2666

Table 7A: Ratios of Imports (at c.i.f. prices) of QIZs to the (f.o.b.) Value of QIZ Exports

Year	Excluding Re-exports	Including Re-exports
2003	0.4832	0.4744
2004	0.3698	0.3632
2005	0.5402	0.5307
2006	0.5360	0.5134
2007	0.4982	0.4815
2008	0.5458	0.5279

Computed from Exports Aggregating Imports and Export Transactions of Jordanian QIZs Reported by Jordan's QIZ Unit

Table 7B: Unit Prices of Top 15 QIZ Exports at 5 Digit Level

Rank	SUCODE	5-dig	HSLTXT (*)	2003	2004	2005	2006	2007	2008
1	611420000	61142	OTHER GARMENTS,OF COTTON,KNITTED	9.23	7.88	10.28	9.57	8.60	9.86
2	611490000	61149	OTHER GARMENTS, OF OTHER TEXTILE MATERIALS, KNITTED OR CROCHETED.	9.73	7.17	8.32	9.56	10.79	11.55
3	620459000	62045	WOMEN'S OR GIRLS' SKIRTS AND DIVIDED SKIRTS,OF OTHER TEXTILE MATERIALS,NOT KNITTED	14.64	11.74	10.75	9.05	9.57	10.26
4	610690000	61069	WOMEN'S OR GIRLS' BLOUSES,SHIRTS AND SHIRT-BLOUSES, OF OTHER TEXTILE MATERIALS,KNITTED	7.85	9.69	10.59	11.93	11.99	12.59
5	611020000	61102	JERSEYS,PULLOVERS,CARDIGANS,WAIST-COATS AND SIMILAR ARTICLES,OF COTTON,KNITTED	11.36	12.02	13.18	11.16	14.35	12.87
6	620469000	62046	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS, OF OTHER TEXTILE MATERIALS, NOT KNITTED OR CROCHETED.	7.88	8.72	9.09	11.80	12.76	10.70
7	620510000	62051	MEN'S OR BOYS' SHIRTS, OF WOOL OR FINE ANIMAL HAIR, NOT KNITTED OR CROCHETED.	10.34	11.53	7.47	11.06	-	-
8	610990000	61099	T-SHIRTS, SINGLETS AND OTHER VESTS, OF OTHER TEXTILE MATERIALS, KNITTED OR CROCHETED.	6.95	10.72	10.39	11.96	11.67	12.79
9	610469000	61046	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS, OF OTHER TEXTILE MATERIALS, NOT KNITTED OR CROCHETED.	8.17	8.44	7.89	9.18	10.89	8.71
10	620439000	62043	WOMEN'S OR GIRLS' JACKETS AND BLAZERS,OF OTHER TEXTILE MATERIALS,NOT KNITTED	9.16	10.45	9.57	12.14	14.47	7.45
11	610910000	61091	T-SHIRTS, SINGLETS AND OTHER VESTS, OF COTTON, KNITTED OR CROCHETED.	8.35	12.25	8.46	8.05	10.26	11.43
12	610610000	61061	WOMEN'S OR GIRLS' BLOUSES, SHIRTS AND SHIRT-BLOUSES, OF COTTON KNITTED OR CROCHETED.	9.10	9.90	11.10	11.47	17.63	10.48
13	621143000	62114	OTHER GARMENTS, WOMEN'S OR GIRLS', OF MAN-MADE FIBRES, NOT KNITTED OR CROCHETED.	9.36	7.05	9.25	2.24	2.84	17.33
14	610520000	61052	MEN'S OR BOYS' SHIRTS OF MAN-MADE FIBRES, KNITTED OR CROCHETED.	-	9.01	8.58	8.98	10.61	11.30
15	620349000	62034	MEN'S OR BOYS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS, OF OTHER TEXTILE MATERIALS, NOT KNITTED OR CROCHETED.	9.51	7.76	7.71	12.42	12.97	8.51

Source: QIZ Unit, Jordan

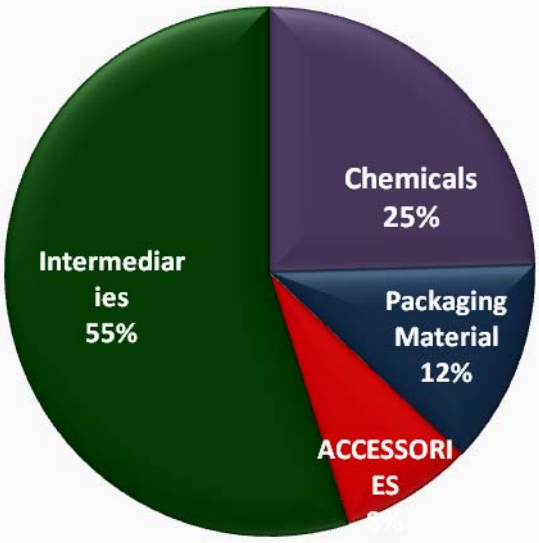
(*) NOTE: Commoditiy Descriptions can be different for different 5-digit commodities. The one shown is just one of a few possible descriptions.

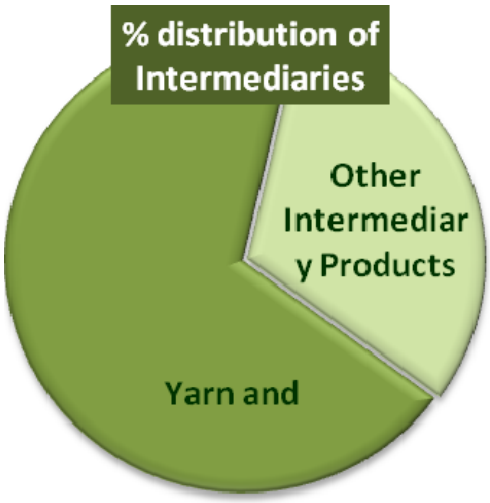
Table 8: FDI Inflow in Millions of US Dollars and as % of GDP

	Jordan		Egypt	
	FDI	**FDI/GDP in %**	**FDI**	**FDI/GDP in %**
1985	24.9	0.49	1177	3.39
1986	22.8	0.37	1217	3.39
1987	39.5	0.61	948	2.34
1988	23.7	0.39	1190	3.4
1989	-1.3	-0.03	1250	3.15
1990	37.6	0.94	734	1.7
1991	-11.9	-0.28	253	0.68
1992	40.7	0.77	459	1.1
1993	-33.5	-0.6	493	1.04
1994	2.9	0.05	1256	2.42
1995	13.3	0.2	598	0.99
1996	15.5	0.22	636	0.94
1997	360.9	4.98	890	1.17
1998	310	3.92	1076	1.31
1999	158	1.94	1065	1.2
2000	783.5	9.25	1235	1.24
2001	96.5	1.09	510	0.52
2002	30.6	0.33	650	0.72
2003	440.2	4.05	237	0.29
2004	811	7.96	1235	1.24
2005	1762	15.97	5376	5.99
2006	3245	26.1	10043	10.27
2007	1835	11.6	11578	8.87

Appendix B[9]

Figure (1) % distribution of QIZ Imports by Product groups
Up to and including the 1st Quarter of 2009





[9] All figures are based on statistical data provided by the Egyptian QIZ Unit

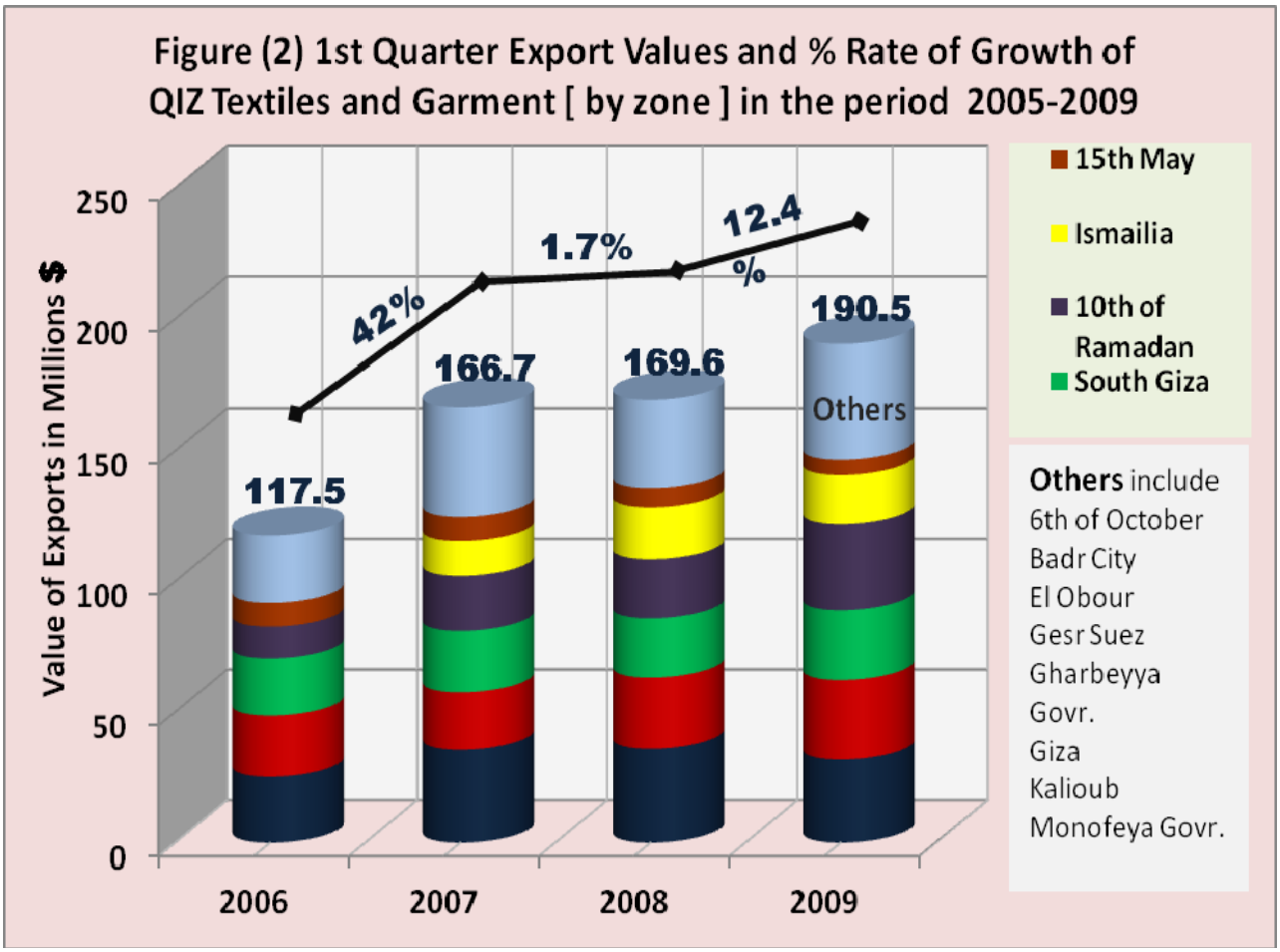


Figure (2) 1st Quarter Export Values and % Rate of Growth of QIZ Textiles and Garment [by zone] in the period 2005-2009
Value of Exports in Millions $
250
200
150
100
50
0
117.5
166.7
169.6
190.5
42%
1.7%
12.4 %
2006
2007
2008
2009
Others
15th May
Ismailia
10th of Ramadan
South Giza
Others include
6th of October
Badr City
El Obour
Gesr Suez
Gharbeyya
Govr.
Giza
Kalioub
Monofeya Govr.

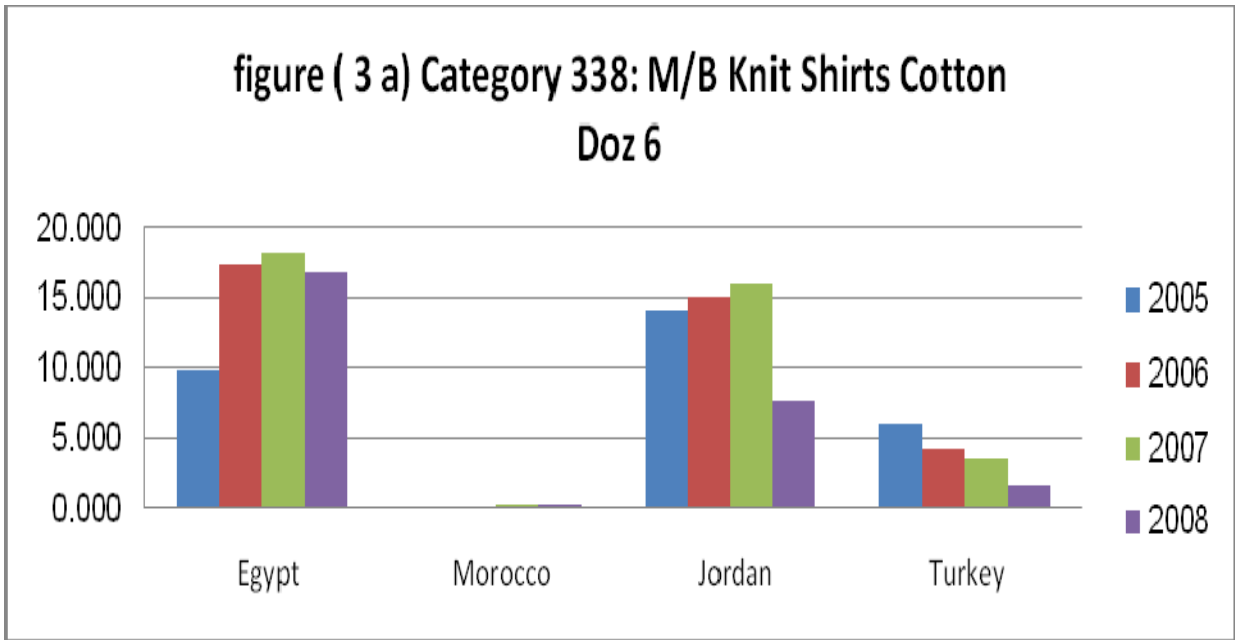


figure (3 a) Category 338: M/B Knit Shirts Cotton
Doz 6
20.000
15.000
10.000
5.000
0.000
Egypt
Morocco
Jordan
Turkey
2005
2006
2007
2008

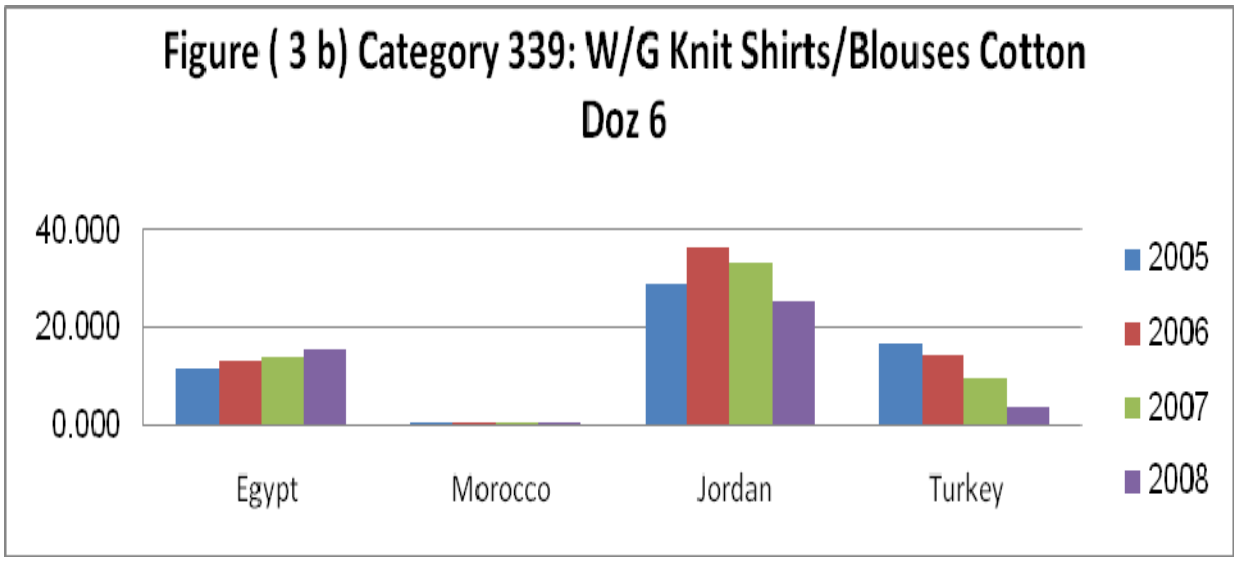


Figure (3 b) Category 339: W/G Knit Shirts/Blouses Cotton
Doz 6
40.000
20.000
0.000
Egypt
Morocco
Jordan
Turkey
2005
2006
2007
2008

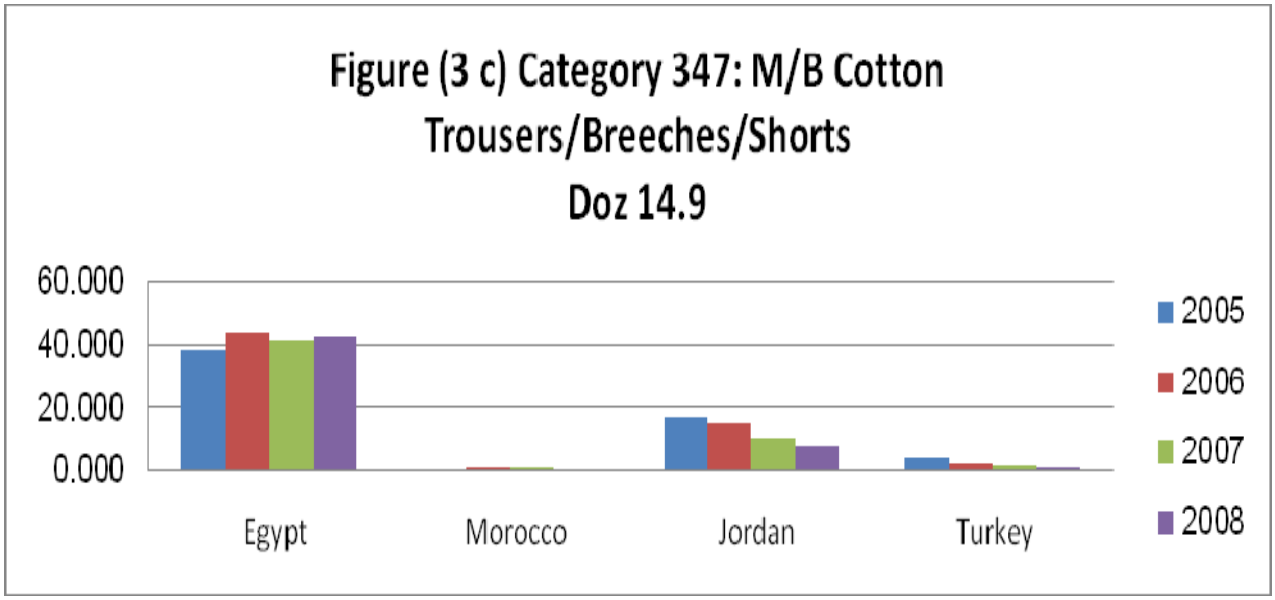


Figure (3 c) Category 347: M/B Cotton Trousers/Breeches/Shorts
Doz 14.9
60.000
40.000
20.000
0.000
Egypt
Morocco
Jordan
Turkey
2005
2006
2007
2008

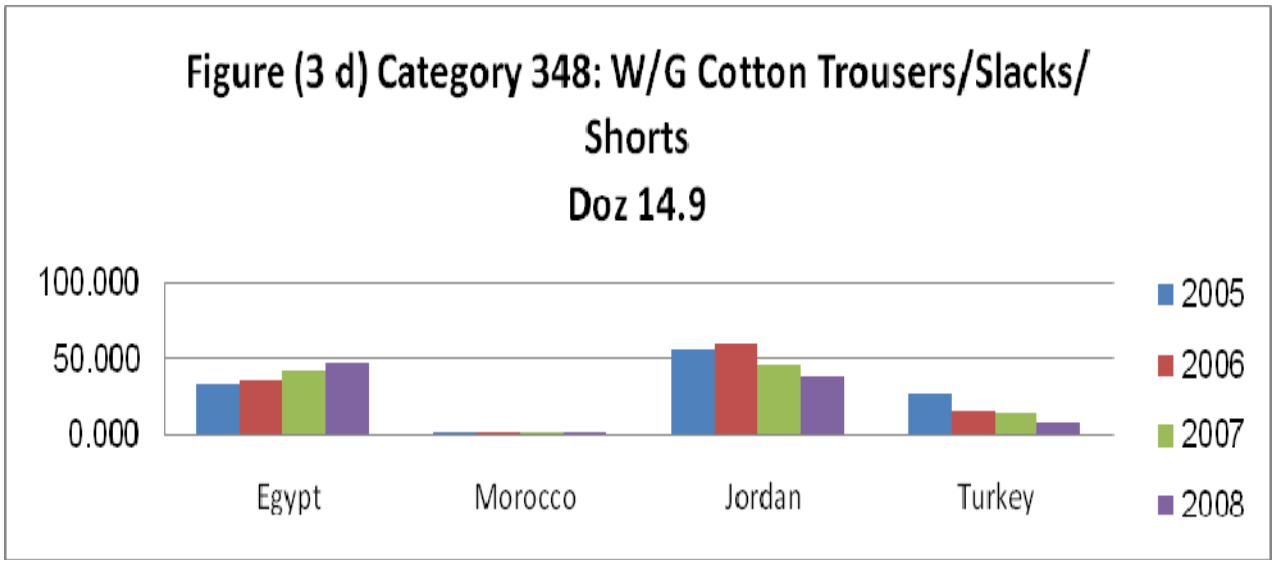


Figure (3 d) Category 348: W/G Cotton Trousers/Slacks/ Shorts
Doz 14.9
100.000
50.000
0.000
Egypt
Morocco
Jordan
Turkey
2005
2006
2007
2008

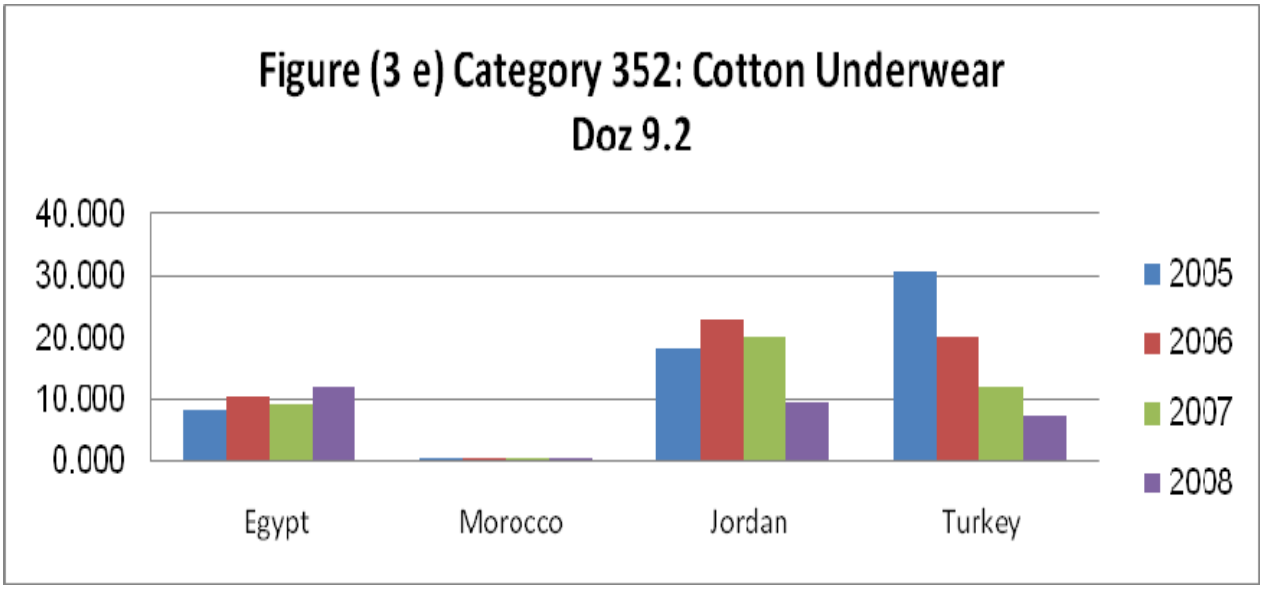


Figure (3 e) Category 352: Cotton Underwear
Doz 9.2
40.000
30.000
20.000
10.000
0.000
Egypt
Morocco
Jordan
Turkey
2005
2006
2007
2008

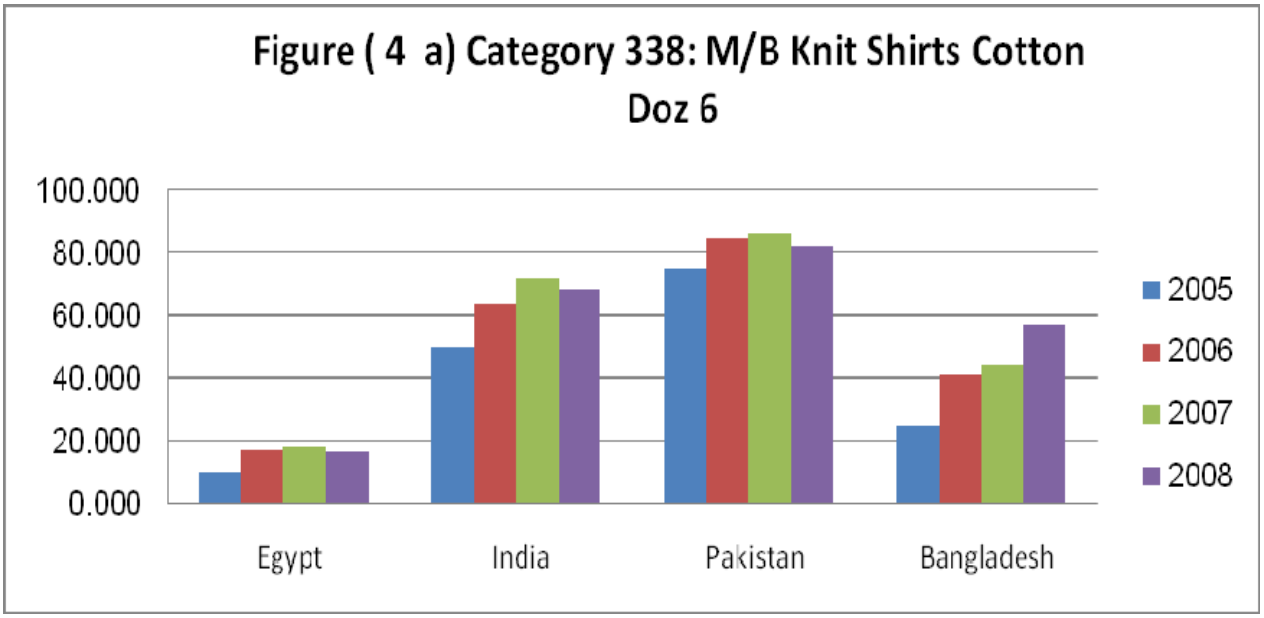


Figure (4 a) Category 338: M/B Knit Shirts Cotton
Doz 6
100.000
80.000
60.000
40.000
20.000
0.000
Egypt
India
Pakistan
Bangladesh
2005
2006
2007
2008

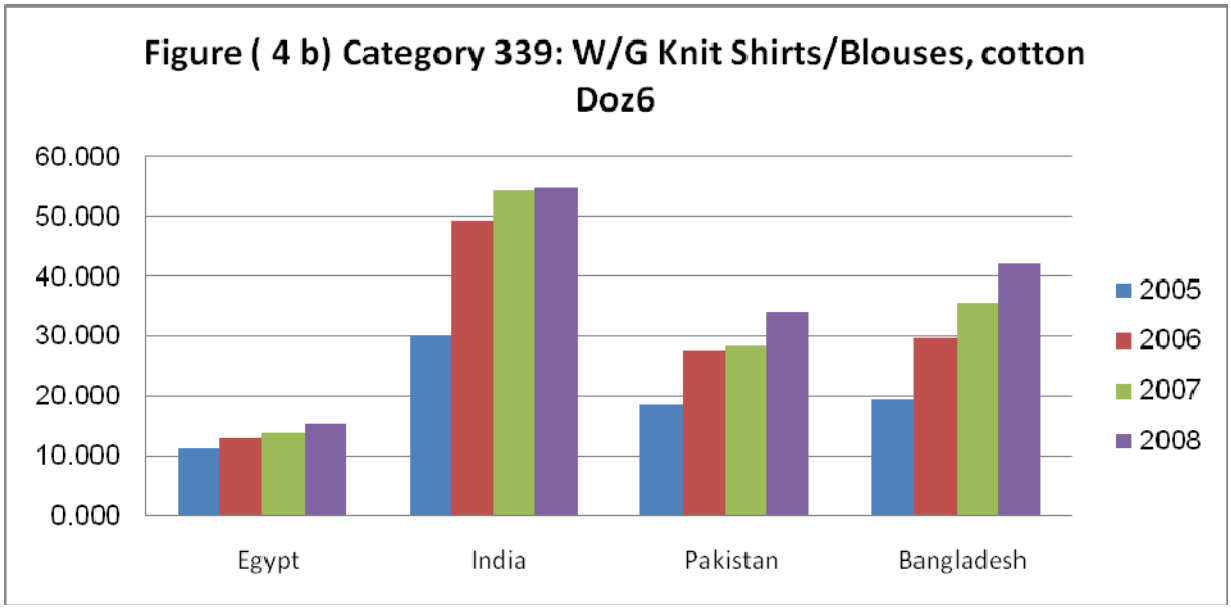


Figure (4 b) Category 339: W/G Knit Shirts/Blouses, cotton
Doz6
60.000
50.000
40.000
30.000
20.000
10.000
0.000
Egypt
India
Pakistan
Bangladesh
2005
2006
2007
2008

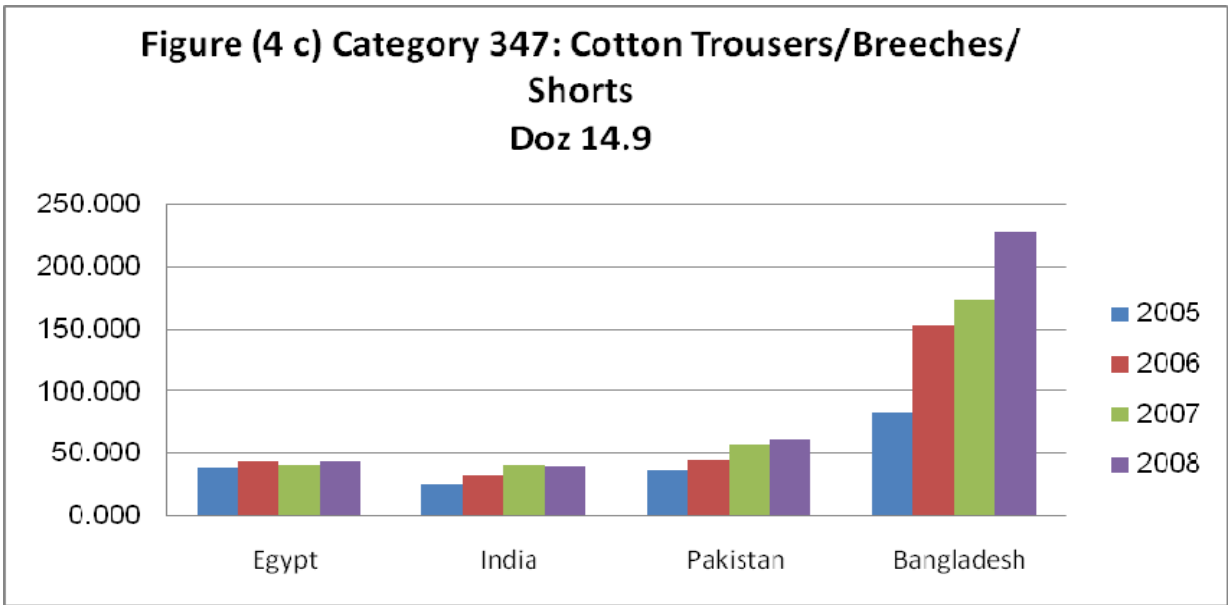


Figure (4 c) Category 347: Cotton Trousers/Breeches/
Shorts
Doz 14.9
250.000
200.000
150.000
100.000
50.000
0.000
Egypt
India
Pakistan
Bangladesh
2005
2006
2007
2008

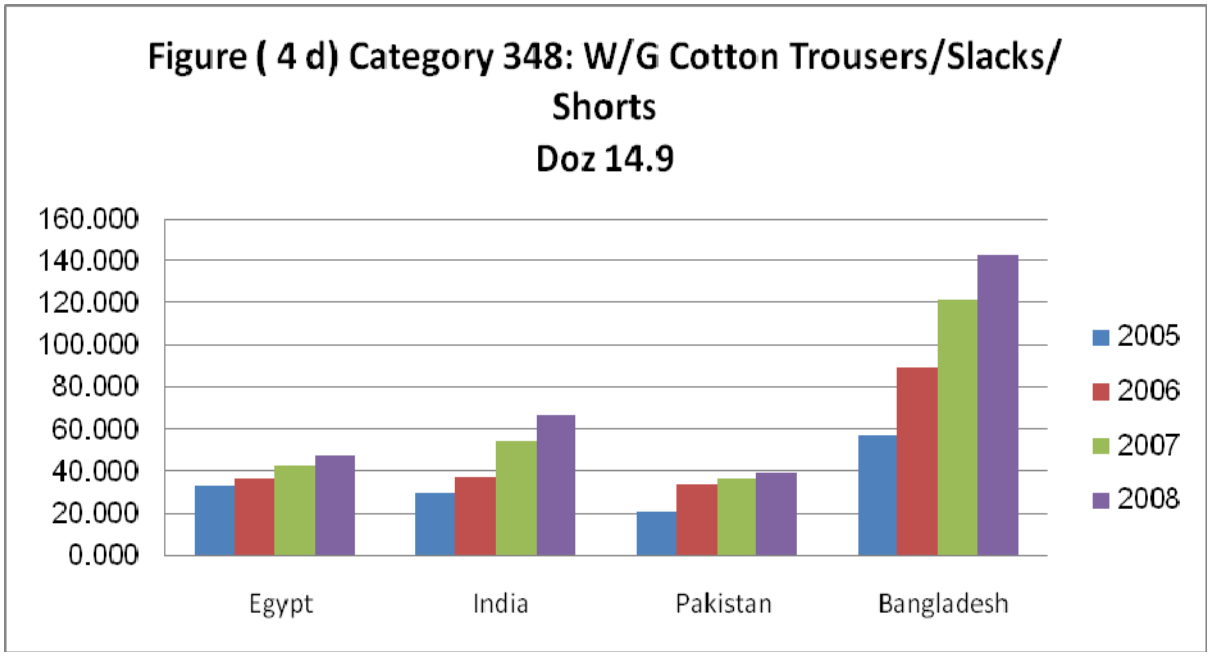


Figure (4 d) Category 348: W/G Cotton Trousers/Slacks/ Shorts
Doz 14.9
160.000
140.000
120.000
100.000
80.000
60.000
40.000
20.000
0.000
Egypt
India
Pakistan
Bangladesh
2005
2006
2007
2008

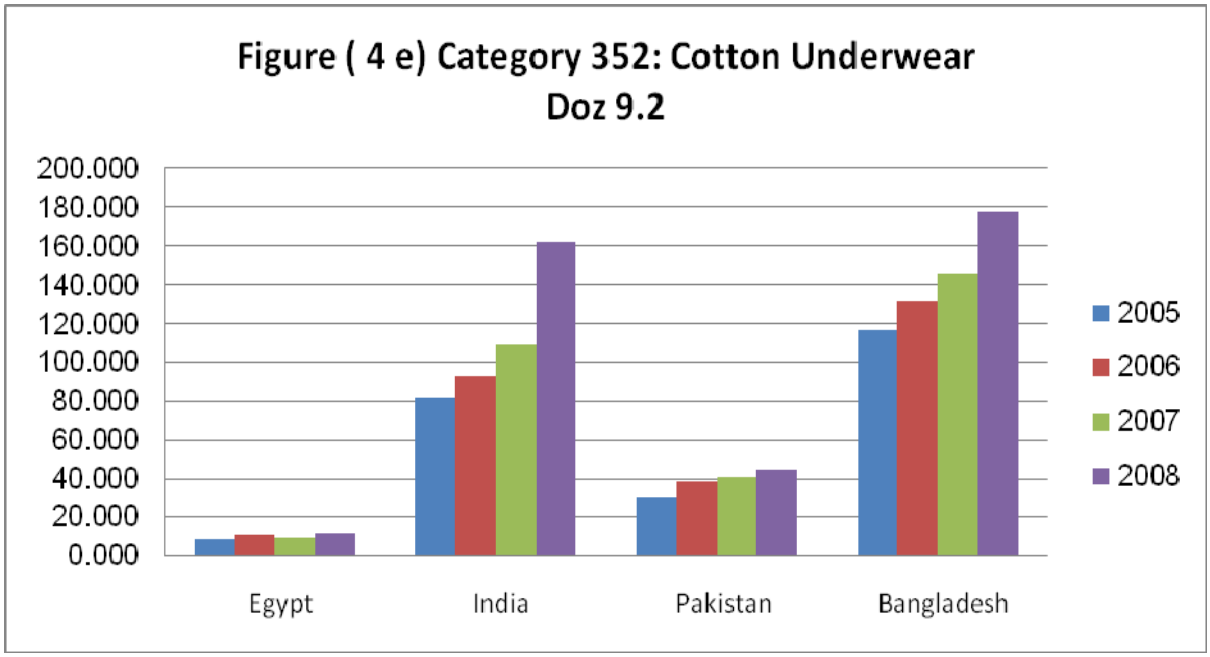


Figure (4 e) Category 352: Cotton Underwear
Doz 9.2
200.000
180.000
160.000
140.000
120.000
100.000
80.000
60.000
40.000
20.000
0.000
Egypt
India
Pakistan
Bangladesh
2005
2006
2007
2008

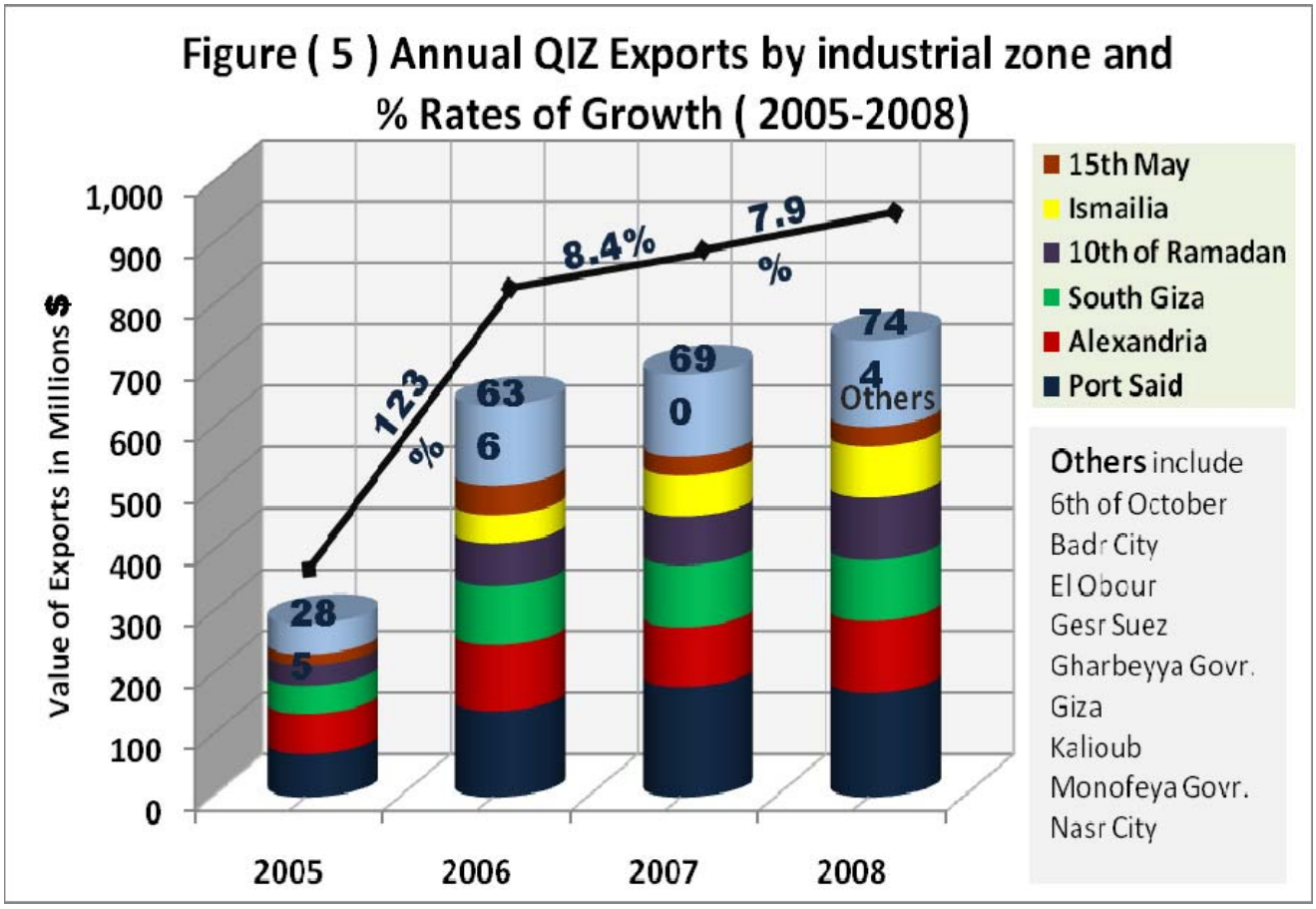
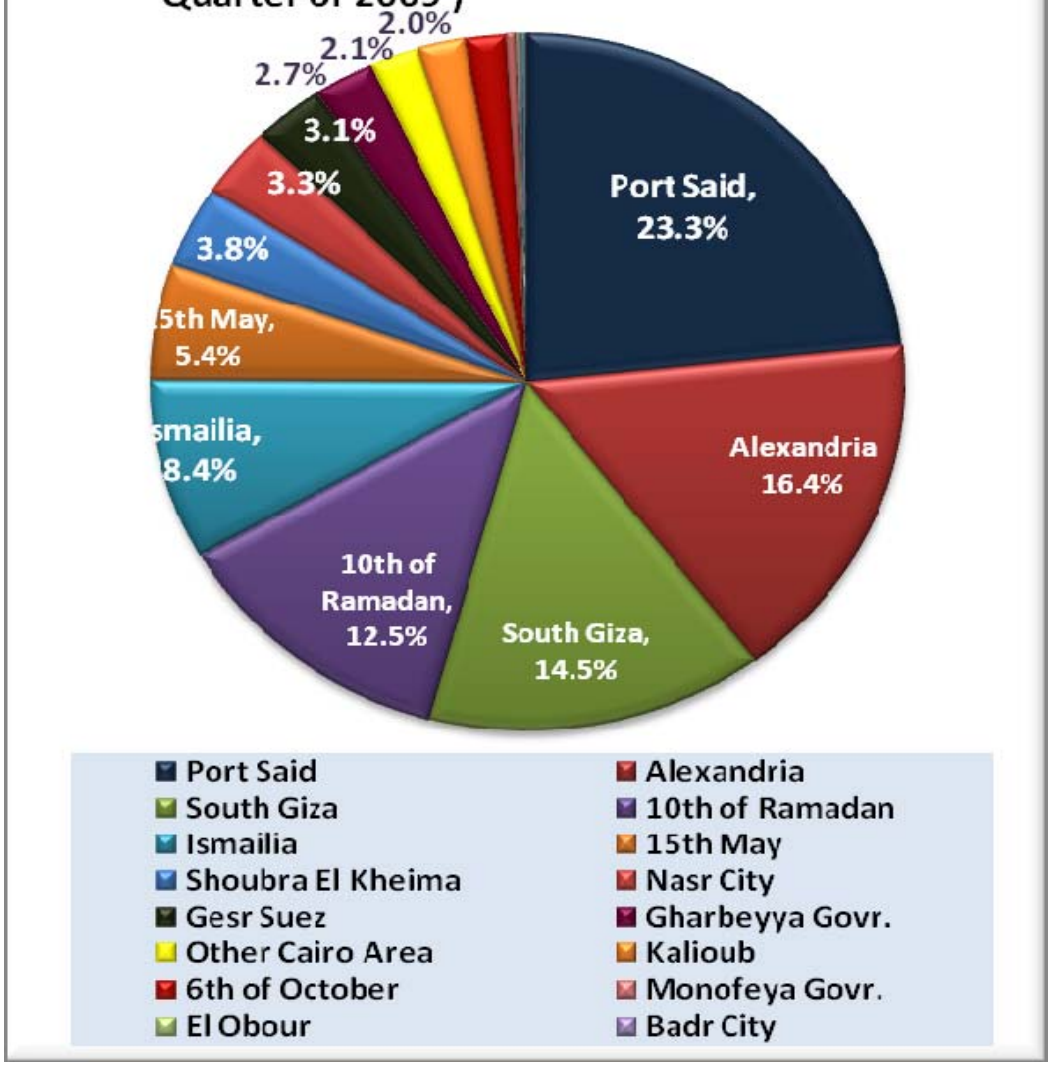


Figure (5) Annual QIZ Exports by industrial zone and % Rates of Growth (2005-2008)
Value of Exports in Millions $
1,000
900
800
700
600
500
400
300
200
100
0
2005
2006
2007
2008
123 %
8.4%
7.9 %
28 5
63 6
69 0
74 4
Others
15th May
Ismailia
10th of Ramadan
South Giza
Alexandria
Port Said
Others include
6th of October
Badr City
El Obour
Gesr Suez
Gharbeyya Govr.
Giza
Kalioub
Monofeya Govr.
Nasr City

Figure (6) % distribution of QIZ Export by industrial Zone (2005 up and including the 1st Quarter of 2009)



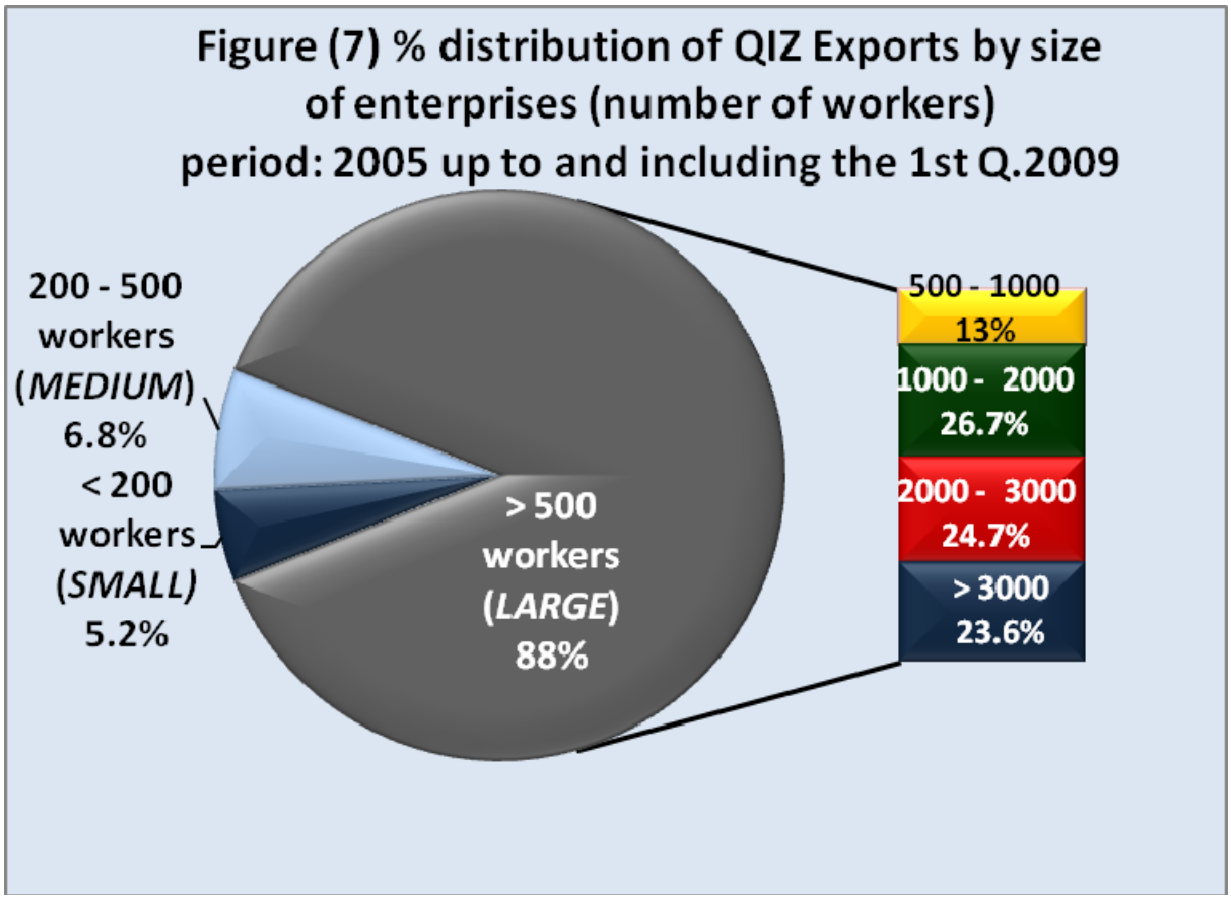


Figure (7) % distribution of QIZ Exports by size of enterprises (number of workers) period: 2005 up to and including the 1st Q.2009
200 - 500 workers (MEDIUM) 6.8%
< 200 workers (SMALL) 5.2%
> 500 workers (LARGE) 88%
500 - 1000 13%
1000 - 2000 26.7%
2000 - 3000 24.7%
> 3000 23.6%

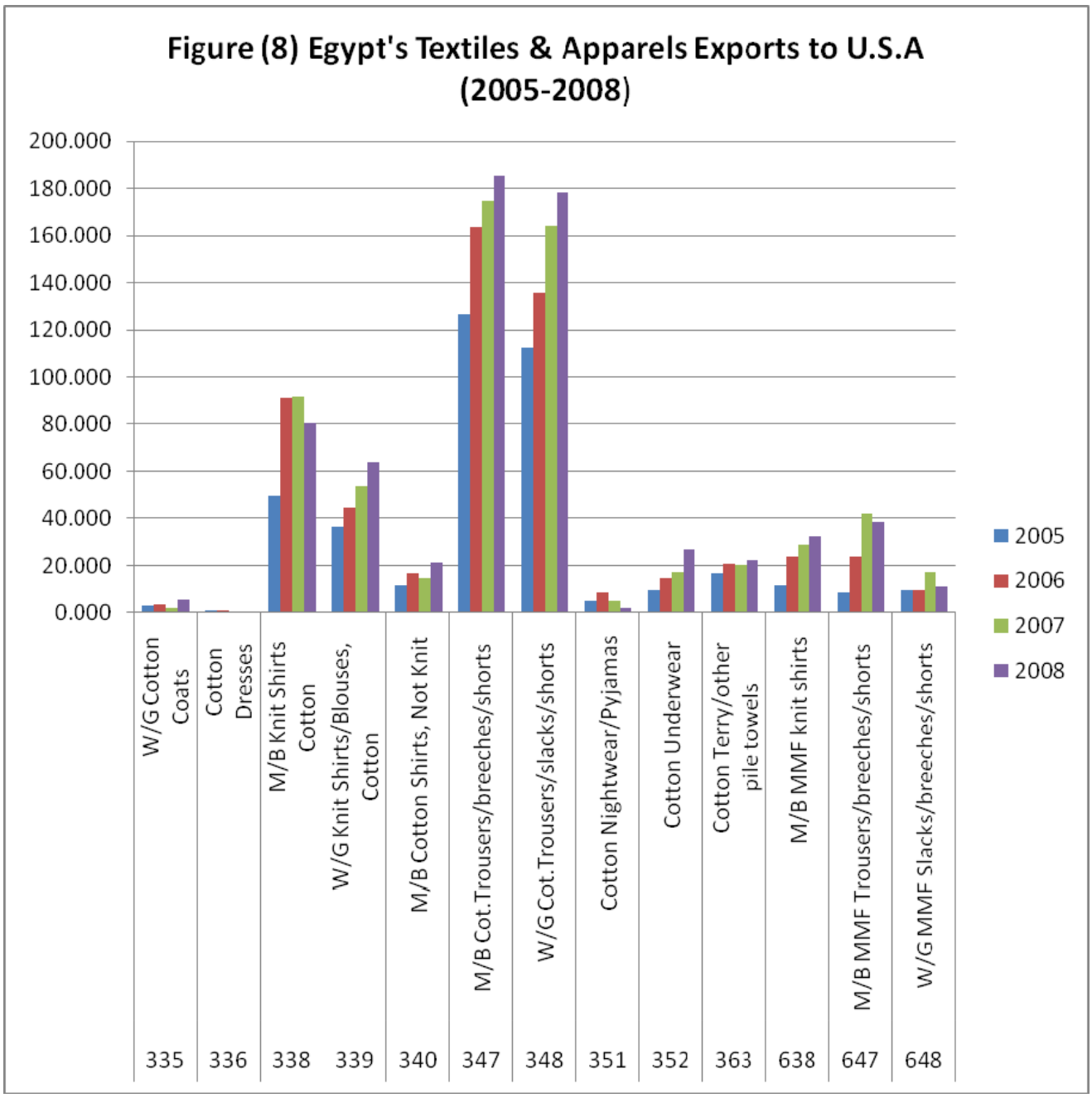


Figure (8) Egypt's Textiles & Apparels Exports to U.S.A (2005-2008)
200.000
180.000
160.000
140.000
120.000
100.000
80.000
60.000
40.000
20.000
0.000
W/G Cotton Coats
Cotton Dresses
M/B Knit Shirts Cotton
W/G Knit Shirts/Blouses, Cotton
M/B Cotton Shirts, Not Knit
M/B Cot.Trousers/breeches/shorts
W/G Cot.Trousers/slacks/shorts
Cotton Nightwear/Pyjamas
Cotton Underwear
Cotton Terry/other pile towels
M/B MMF knit shirts
M/B MMF Trousers/breeches/shorts
W/G MMF Slacks/breeches/shorts
335
336
338
339
340
347
348
351
352
363
638
647
648
2005
2006
2007
2008