

Center for Strategic Studies
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The Socio-Economic Implications of the Qualified Industrial Zones in Jordan

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2006

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Executive Summary

Qualified Industrial Zones (QIZs) are production areas designated by the Jordanian and Israeli authorities and approved by the US government. Products originating from QIZs are granted duty-free and quota free access to the US market. As the objective of these zones is to promote peace and stability through economic integration in the region, Jordanian, Egyptian and Israeli goods originating in the QIZ's were granted un-reciprocal duty free access to US markets.. Such an arrangement was beneficial to both Jordan and Israel: Israel was able to utilize Jordan's low wage advantages, and Jordan was able to utilize Israel's existing market channel link in the USA, as well as its sophisticated technology and management. As a result, QIZs have been able to operate at a higher level of productivity than the rest of the industries in the region. QIZ exports have now risen to top all other Jordanian exports, making the USA Jordan's main export destination.

Despite these successes, QIZs have not produced the benefits that were originally expected. First, the Jordanian business community has not been enthusiastic about establishing a direct link with its Israeli counterpart. Second, Israeli business has limited direct investment, and has preferred instead to deal with the QIZs on a subcontracting basis. Most investment has thus originated from outside the region, and as a result the agreement has mainly benefited third-party countries such as the USA and East Asian investors. Similarly, the effects on the Jordanian labor market have been disappointing. While it is estimated that over 30,000 jobs have been created as a result of the QIZ initiative, a large number of those positions are filled by foreign workers, rendering the effect on Jordanian unemployment rates negligible. When asked why they hire foreign workers over local Jordanians, interviewed supervisors explained that foreign workers are often better trained and more committed than their Jordanian counterparts, factors that could be explained by the fact that Jordanians often have familial and social obligations. Furthermore, interviews indicated that the Jordanian labor force does not display an interest in working in the QIZs: work is low-paid, wage freezes and favoritism are common, and job security is lacking since Jordanians fear they could be replaced by foreigners accepting longer hours and lower pay. Finally, working conditions in the factories are often difficult, and workers often work ten-hour days.

Research has shown, however, that the QIZs have had positive effects on female employment rates in Jordan, as rural women now have an important means to contribute to their families' income and increase their participation in general

public life in Jordan, strengthening their overall power and self-confidence in society.. Nonetheless, the QIZs are not providing these women with the training and qualifications needed to move to higher paid skilled positions. Improved salaries, as well as a streamlined incentive and raise system, could be a step towards improving the overall reputation of textile factory work in the QIZs.

The effects of QIZs on other sectors of the Jordanian economy have been limited at best. Despite the fact that QIZs use infrastructure and electricity from Jordanian businesses, the lack of raw materials in the country limits possible backward or forward linkages. Furthermore, Israel has more competitive shipping prices, so goods are shipped from Haifa rather than Aqaba. Finally, since the contract stipulates that all products must be shipped to the US, there is no domestic competition, and few Jordanian companies/businesses have benefited from the existence of the QIZs.

The recent elimination of quotas set by the Multi-Fiber Agreement (MFA) may pose some problems for Jordan's QIZs in the near future. The elimination of the MFA will allow more competitive suppliers to increase their American market share and dominate the global market at the expense of less competitive countries. As a result, Jordan should expect to lose some of its market share as it gradually loses its preferential treatment. Moreover, since many of the QIZ investors are Asians whose home countries are facing quotas, we should expect to see a large outflow of investment funds from Jordan back to Asia. Nonetheless, while quotas have been eliminated, tariffs will remain intact. Jordan should thus focus more on high tariff products in order to maintain its comparative advantage over low tariff products.

Improving Jordan's QIZs should also involve an attempt to foster linkages between the QIZs firms and the rest of the economy. Where feasible, steps should be taken to encourage diversification, particularly in regards to high tariff products. Finally, as global and regional liberalization proceeds, QIZs must be seen as transitional building blocks in the trade liberalization process, rather than an end unto themselves.

I. Introduction

Qualified Industrial Zones (QIZs) are areas that have been specified by the US Government and designated by local authorities as enclaves where merchandise may enter the US Market without payment of duty or excise taxes, and without the requirement of any reciprocal benefit.

Few studies have investigated the QIZs in Jordan, the latest being study prepared by the Jordanian Center for Public Policy Research and Dialogue¹. There have also been several internal reports prepared by the Ministry of Planning aimed at analyzing the QIZs and their impact on the Jordanian economy. Much of the previous analysis has focused on examining the QIZ as a phenomenon, and on methods of promoting and sustaining the factories operating within the QIZs. Little emphasis has been placed on the internal dynamic, productivity indicators, and domestic value generated by the QIZs.

The QIZ is a phenomenon that deserves thorough investigation for several reasons. First, it is a new experience being referred to in the literature regarding the export processing zones (EPZ), not only in Jordan but worldwide. According to the QIZs provisions and regulations, several countries or territories are to combine their efforts in order to assemble a single product aimed at targeting the US market under a special US presidential proclamation. Second, the QIZ arrangements are based on extraterritorial engagement and their eligibility is designated by the USA, which is a third-party country that is not geographically attached to the region. Third, plants and factories within the QIZs territories are peculiar in the sense that they are based on temporary arrangements that might become irrelevant when the Free Trade Agreement between the USA and Jordan is fully enforced. Finally, the conclusion of the process of phasing-out the textile and clothing quotas under the WTO's multilateral fiber agreement (MFA) raises some doubts regarding the long term sustainability of textile exports from the QIZs and other similar export processing zones in Jordan. It is expected that competition from efficient textile and clothing producers such as India, Bangladesh, and particularly China will increase significantly over the next 10 years, significantly affecting the Jordanian QIZ production.

Moreover, regional integration agreements are often driven by foreign policy and national security considerations. Specific issues may be shared by only

¹ Kradoush Marwan (2004), "*Qualified Industrial Zones and the Jordanian Quest for Sustainable Development*", The Jordanian Center for Public Policy Research and Dialogue. Amman-Jordan.

limited, often neighboring countries, and therefore are better resolved on a regional basis rather than multilaterally as argued by (Hokeman et al. 349)².

The geographical dimension seems indispensable in an analysis of regional trading arrangements, but in the past it has been relatively neglected (Frankel 1997:12)³. Instead, the judgment on the desirability of regionalism, from a neo-classical perspective, hinges on whether regional agreements are more likely to build political support for liberalization or undermine it-- that is, whether trade blocks are building blocks or stumbling blocks in the pursuit of global free trade.

Clothing and other textile industries, which dominate the QIZs production, tend to constitute small firms that use large amounts of unskilled labor.⁴ Therefore, the industry has gradually migrated from high-wage to low-wage regions. In 1957, the United States sought to limit textile imports by persuading Japan to impose "Voluntary Export Restraints" (VERs) during the 1960s. In 1974, a comprehensive scheme covering all textiles, known as the Multifiber Arrangement (MFA), was introduced. Its stated objectives were to ensure the expansion of trade in textile products, particularly from developing countries, and to gradually achieve the reduction of trade barriers and the liberalization of world trade in textile products, while at the same time avoiding disruptive effects on individual markets and individual lines of production in both importing and exporting countries. (Kenen, 223, 2000)⁵.

This study hopes to complement the existing emerging literature on the effect of the QIZs on the Jordanian economy by revealing evidence and uncovering dimensions that previous work has not thoroughly investigated. The socio-economic implications of the QIZ's, for example, have not been focused on in the literature; with the exception of the ILO⁶ study, little attention has been paid to the deep socioeconomic consequences of female labor in the QIZs. Instead, earlier work has emphasized the employment structure and the fact that

² Hoekman M. B and Kostecki, 2001, "*The Political Economy of the World Trading System: The WTO and Beyond*", Oxford University Press. Second edition.

³ Frankel J. 1997, "*Regional Trade Blocks in The World Economic System*". Institute for International Economics. Washington.

⁴ Indeed QIZs arrangements are not only confined to the textile and clothing. However investors have selected this sector in order to exploit cheap labor in Jordan *visa- vie* Israel and other countries. Furthermore investors want to benefit from the duty free status granted to the QIZs product when entering the USA market.

⁵ Kenen P. 2000, "*The International Economy*", Cambridge University Press. 4th Ed.

⁶ ILO (2002), "*Women Workers in the Textiles and Garment Industries in Jordan: A Research on the Impact of Globalization*". Beirut-Geneva.

nearly half of the workers in the QIZs are non-Jordanians, while the Jordanian employees consist mostly of female workers⁷.

In the following sections the study will briefly describe the concept of the Qualified Industrial Zones (QIZs) and their inception, followed by the rationale behind the concept of this agreement.

The study will then investigate to what extent the QIZs function as an engine for growth in the Jordanian economy, and if they have any forward and/or backward linkages with the rest of the economy. In other words, the study will attempt to determine whether QIZs have been isolated islands of productivity or if they have been integrated within the rest of the economy. Socio-economic implications of these new investments will also be taken into consideration. The main parameter will be employment and in particular the female labor force. This study also intends to assess the QIZs contribution in fostering domestic exports, attracting foreign direct investment (FDI), and promoting transfer of technology. Finally, the study will attempt to investigate the future of the QIZs in light of the fact that the Multifiber Agreement (MFA) was abolished in 2005, and the Free Trade Agreement between Jordan and the USA will be effective by 2010.

⁷ Jordan Development Report, 2004, Ministry of Planning Amman-Jordan.



II. Details of the Qualified Industrial Zones

II.1 The Concept and Inception of the QIZs

The United States proposed the concept of QIZs in President Clinton's Proclamation No. 6955 of November 1996. The QIZs are areas designated by the Jordanian and Israeli authorities and approved by the U.S. government. Products originating in the Qualifying Industrial Zones are granted duty-free and quota free access to the US market. Therefore, the QIZ agreement represents an unprecedented opportunity for Jordan to gain duty-free access to the US market without the requirement for any reciprocal benefits. The agreement is available only to Jordan and, more recently, Egypt.

This agreement aims to support the peace process in the Middle East through economic development by fostering domestic exports of the concerned parties. Thus it can be said that the QIZ arrangement was created to promote peace through economic integration within the region.

The USA, acting in its capacity as the custodian of the peace process, sought to ensure the sustainability of that process by creating a direct link between the business communities in Jordan and Israel through the regulations and requirements of the QIZ agreement.

The agreement grants duty free access of products by extending the benefits of the US- Israeli free trade agreement to products originating in the QIZs. In October 1996, the U.S congress amended the US-Israeli Free Trade Area Implementation Act, authorizing the US president to proclaim elimination or modification of any existing duty under certain conditions. The president determines as necessary to exempt any article of the West Bank, Gaza strip or QIZs from duty. The Act defines a QIZ as an area that:

1. Encompasses a portion of the territory of Jordan and Israel, or Egypt and Israel;
2. Has been identified by local authorities as an enclave where merchandize may enter without payment of duty or excise taxes; and,
3. Has been specified by the president of the USA as a QIZ.

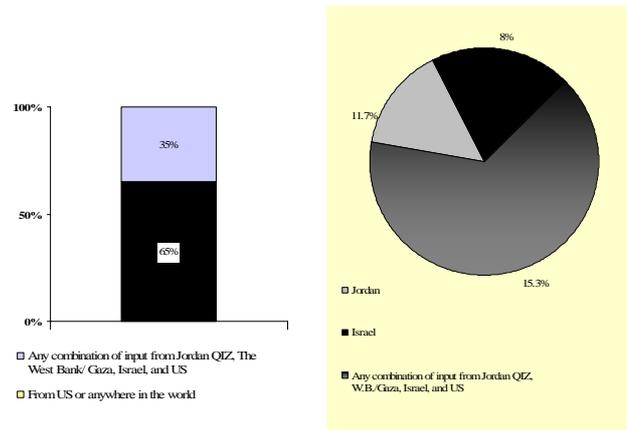
The QIZ must include territory in both Jordan and Israel or Egypt and Israel. It does not need to be contiguous, but rather can be designated as a zone in each

country⁸. There is no minimum zone size specified in the law, but there must be some economic activity present in both zones. In addition, each country must formally designate its respective zone as “an enclave where merchandise may enter without payment of duty or excise taxes”. Duty free status must be given not only to articles entering from the other country in the agreement but to articles entering from all countries.

II.2 Rules for Qualifying Products

In order for the QIZ products to gain duty free-entry into the US, certain requirements set by US law -- and a Jordanian - Israeli agreement -- must be met. US law requires that the article be a new and different article of commerce that has been grown, produced or manufactured in the Zone.

Figure (1): Qualifying a product under the QIZ



The original QIZ agreement signed in 1996 stipulated that both Jordan and Israel would: “contribute and maintain at least one-third of the minimum 35 percent value added. The remaining third of the minimum content requirement can come from any combination of input from Jordanian QIZs, Israel or the West Bank and Gaza. Alternatively, the Jordanian manufacturer in the QIZ and the Israeli manufacturer can both shoulder at least 20 percent of the total cost of production of goods eligible for duty-free treatment, excluding profit. Cost of production may include, among other things, wages and salaries, marketing expenses, or research and development. Figure 1 above illustrates the different combinations.

⁸ In the implementation stage, this stipulation was not adhered to and all QIZs were established on Jordanian territories, thus raising questions concerning the extent of Israeli desire to engage in such a regional initiative.

However, for various reasons related to the high prices of Israeli inputs⁹, Jordan and Israel decided to amend the agreement in February 1999. Hence, a five-year grace period was established in which minimum Israeli content was reduced to as little as 7 percent for high-tech products, and 8 percent for all other goods. The reductions period, which begins the day a business enters the QIZ, was designed to allow more Jordanian companies to benefit from the scheme during the initial stages of production.

In other words, in order to facilitate trade relations, the US has allowed for the accumulation of the use of materials or processes across countries with parallel or overlapping preferential agreements. Accumulation therefore exists in order to encourage the use of materials and processing within the preferential area(s), in this case the QIZs, while maintaining common standards for treating third country non-preferential inputs. In principal there are three types of accumulation identified in the literature. These are bilateral accumulation (between any pair of countries), diagonal accumulation (between three or more countries which have interlinked trading agreements), and full accumulation (again between three or more countries, but involving more flexibility than with diagonal accumulation). (Gasiorek 2002: 8)¹⁰ Diagonal accumulation has been enforced in the pursuant of the QIZs arrangement. Obviously, the QIZs could also be perceived politically as a reward for signing the peace treaty and an attempt to normalize Israel's position in the Middle East.

II.3 Motivations for the Involved States

Motivations for Jordan

One of late King Hussein's motivations in concluding a peace agreement with Israel was his hope for generous peace dividends in addition to ensuring political stability. However, it turned out that most government-driven cooperation projects were cancelled or did not progress beyond the planning stages. Such projects include *interalia*, the Middle East Bank for Reconstruction (MEBRD), the Red-Dead sea Canal and the Enron project, which aimed to export Qatari natural Gas via Aqaba to Israel.

⁹ In order to substantiate this claim the study has conducted a comparison between the prices of import items from Israel and the rest of the world using price indices for imports according to the HS codes as produced by the DOS. Our preliminary findings support the argument that inputs from Israel are more expensive than the rest of the world, hence undermining the product's competitiveness.

¹⁰ Gasiorek M., Lai-Tong CH, Holmes P. 2002, " *The EU and the South Mediterranean: the Impact of Rules of Origin*", Paper presented to the 9th ERF conference. Sharjah, UAE,

Focus and hopes were thus turned to the private sector. The QIZ's were the most significant initiative to further Jordanian-Israeli industrial cooperation. As a result, Jordan, Egypt and Israel became the only three countries in the world to obtain un-reciprocal duty free access to the US market provided that products originating in these areas meet conditions stipulated in the agreement.

Cooperation for Jordan meant theoretically securing access to the US market and benefiting from technology transfer from the most advanced Israeli manufacturing enterprises. Furthermore, the Israeli business community has very well established links in the US market, which Jordanian manufacturers could utilize to increase exports from the QIZ areas.

During the period 1994-1996 the Jordanian economy was almost stagnant, and annual real growth in GDP was less than 2 percent. Moreover, hopes and expectation were very high after signing the peace treaty, as its advocates equated peace with economic prosperity. Hence, the QIZ initiative came as a rescue and an attempt to re-ignite hopes that prosperity could be achieved through job creation and by generating foreign income from exports to the US market, a non-traditional source.

Motivation for Israel

Israeli motivations behind completing this agreement extended beyond enhancing regional cooperation to benefits arising from Israeli firms' subcontracting arrangements. Through these arrangements, the Israeli firms would benefit from utilizing Jordan's inexpensive labor force. They would also avoid freezing capital and coping with variations in demand, since most of the required capital would be provided either by Jordanians or foreign investors.

These motivations are clarified by a study completed by Mansour (1997)¹¹ which examines the factors that created difficulties for the Israeli textile and garment sector throughout the 1990s. First, the high labor cost: the labor cost in Israel is nine times the cost in Egypt, six times the Jordanian labor cost and three times its amount in the West Bank and Gaza. Second, there was a significant reduction in subcontracting offers with Palestinian firms due to the

¹¹ Mansour, Antoine, and Blandine Destreman (1997), " *Palestine and Israel: Subcontracting in the Garment Industry*". Palestine Economic Policy Research Institute (MAS). Ramallah-(Palestine).

deterioration of the political situation. Third, the reduction of Israeli government subsidies and incentives offered to the textile and garment sector instigated a drop in the investments directed to this sector. Fourth, Israel joined the World Trade Organization (WTO), which resulted in reduced customs duties, thus allowing competing countries and products to penetrate the Israeli market. Lastly, the adoption of environmental regulations in Israel forced most firms to transfer fabric dyeing to other countries, thus increasing the production cost in Israel.

As the table below shows, wage levels in Israel are far higher than those prevalent in Jordan. It is also clear that the value added per worker in the manufacturing sector in Israel is much larger than the values in Jordan or Egypt. Therefore, the kind of arrangement that was intended through the QIZs focused on combining the low wage advantages of Jordan with the sophisticated technology and management in Israel, as well as the already existing market channels and links that the Israeli side can provide.

Table (1): Comparing Wages and Productivity

\$ per year

Country	Labor Cost per Worker in the Manufacturing Sector (US\$)		Value Added per Worker in the Manufacturing Sector (US\$)		Wage Productivity US\$	
	1980-1984	1995-2000	1980-1984	1995-2000	1980-1984	1995-2000
Jordan	4643	2082	16337	11906	0.28	0.17
Israel	13541	26635	23459	35526	0.57	0.74
Egypt	2210	1863	3691	5976	0.59	0.31
United States	19103	28907	47276	81353	0.40	0.35

Source: World Development Indicators 2003, p 60.



III. Evolution of the QIZs- Macro Level

III.1 Investment

There are currently thirteen QIZs located throughout Jordan: three in publicly-run industrial estates, nine in privately-owned industrial estates, and one sub-zone. However, only seven QIZs are currently in operation. The QIZs have flourished in the Kingdom since their establishment, and by the middle of 2004 the total number of QIZ projects reached (97), while total investments in QIZs were estimated at a total of (JD492 million).

The QIZ initiative did not aim to focus on one particular sector, but rather to boost economic cooperation in as many sectors as possible. The nature of the

Table (2): Number of Projects and amount of investment in the Jordanian QIZs

QIZ Zone	Type	No. of Projects	Investment Capital (JD Million)
Al-Hassan Industrial Estate	Public	28	99
Al-Hussein Ibn Abdalla II Industrial Estate (Al Karak)	Public	6	68
Ad-Dulayl Industrial Park	Private	19	73
Al-Tajamouat Industrial City	Private	37	202
Cyber City	Private	4	19
Al-Qastal	Private	2	21
El-Zay Sub Zone	Private	1	10
Total		97	492

Source: Jordan Investment Board, as in July 2004.

arrangement that was stipulated in the agreement, however-- especially regarding quota and duty free access to the USA market-- directed attention towards the textile industry because of the MFA agreement.

The effects of the MFA agreement can be clearly observed when analyzing the types of projects located in the QIZs. Most of the projects operating in the QIZs are specialized in the production of garment products (92%), which by the rules of the agreement endure a high level of quota constraints. The rest of the projects are concentrated in Gold and Plastic molds, which account for less than 2 percent of the total projects. Although the garment industry dominates investments in the QIZs areas, spinning, weaving and knitting activities have been very limited.

This pattern of investment is expected since the garment industry is labor-intensive, whereas textile manufacturing is capital intensive. The garment industry is a logical choice considering the current state of the Jordanian economy, which lacks highly skilled labor and the necessary financial capital.

Although investment is concentrated in the garment sector, there are two QIZs --the Cyber City Park (University of Science and Technology) and the currently under construction Global Investment in Industrial Zones and Technology Parks (Hashemite University)-- which will develop different products by focusing on technology and software industry. These relatively new QIZs are still in their infancy stage. There are only 4 projects in the Cyber city and investments only total JD19 million.

III.2 The Quality of the FDI

Since the QIZs competitiveness is based on certain arrangements that may soon be lifted, there is an ongoing debate regarding the quality of the foreign direct investment that has flowed into the QIZs.

In this regard the World Bank (2001)¹² argues that investment in special economic zones such as the QIZs is useful so long as the investors are not just “tariff-hopping” or “quota-jumping foot-loose” firms. Long term commitments to green-field traded good sectors by transnational companies should be motivated by their desire to serve domestic and regional markets. In the case of the QIZs, the original goal was to promote regional cooperation between the business communities of Jordan and Israel in particular.

As far as regional cooperation is concerned, the outcome has been relatively disappointing. Business communities have not been active in creating joint

¹² World Bank (2001) “*The Hashemite Kingdom of Jordan Sources of Growth*”, Washington DC. (USA)

ventures in Jordan or Israel. Cooperation was to some extent limited to meet obligatory value added requirements as stipulated in the agreement. Moreover, the Jordanian business community has not been very enthusiastic about creating a direct link with their counterparts in Israel due to the politically charged atmosphere in the Occupied Territories and the lack of progress in the peace process.

The end result of these conditions was investment from other countries, particularly China and other Asian countries. At the end of 2003, the analysis of the investors' nationalities revealed a high percentage of Asian investors; Asian investors in the QIZs own a total of (31) out of the (59) companies working in the textile and garment sector.

Most of the foreign investments originating from the EU countries, Asian industrialized countries, and the USA have been moved due to increased delocalization of these countries' textile industries.. It is quite evident that the Israeli business community has engaged in very limited direct investment and has opted to base its transactions on a subcontract basis rather than on creating joint ventures with its Jordanian counterparts.

The agreement seems to mainly benefit companies from third-party countries, rather than enhancing Jordanian-Israeli cooperation directly. As expected, the effect of the Multifiber Agreement was evident in the type of products manufactured and exported from the QIZs. About (89%) of the products exported to the USA market (mainly from the QIZs) are concentrated in six product categories possessing high levels of quota constraints as shown in table 3. These products are characterized by tariff rates with a very low minimum tariff edge. We will elaborate on the structure of export to the USA when we deal with the ramifications of the MFA.

A prominent investor¹³ argues that foreign investors in the QIZs are more of the "contractor" type than the "Strategic Investor". This claim has been challenged by some government officials, who claim that investment in the QIZ areas is not footloose. They argue that there is still new capital being invested in the QIZs, despite the fact that the MFA has been lifted.¹⁴

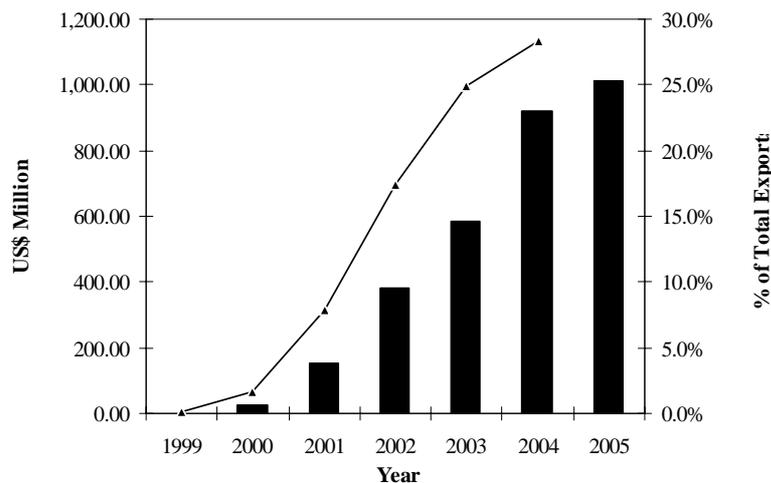
¹³ An interview with investor who prefers to stay anonymous conducted for the purpose of this study.

¹⁴ This point was made in a personal interview with the director of the Industrial Corporation Cities (*Sahab*) Eng. *Amer Al-Majali*

III.3 Nature of the QIZ Exports

Exports from the QIZs, shown in Figure 2, have increased fairly quickly to top all other exports from Jordan. During the period 1999-2003, their share of total Jordanian exports increased from 0.2% in 1999 to almost 28.3% in the year 2004. Due to the nature of the agreement, the USA market became the main export destination for the first time in Jordanian history, surpassing traditional trade partners such as Iraq and other Arab countries.

Figure (2): Development of the QIZ Exports.



Source: Ministry of Industry and Trade, QIZ Unit

QIZs have been successful in promoting exports to the USA market. Exports to the USA market increased from a level of US\$7.9 Million in 1998 to almost US\$925 Million by 2004. However, no diversification of the exports has occurred. During the above period, the share of the top ten commodities exported to the USA out of the total Jordanian exports to the USA increased from 85.6% in 1998 to reach 99.7% in 2004 as shown in table 4.

Table (3): Top Ten Jordanian Commodity Exports to the USA Market*JDs*

Commodity	1998	1999	2000	2001	2002	2003	2004
Articles of Apparel not Knitted or Crocheted	803,026	1,290,159	30,364,983	135,640,941	271,431,697	360,979,175	257,292,746
Articles of apparel and clothing accessories, knitted or crocheted			674,135	11,893,370	20,372,472	70,081,265	394,430,014
Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof; imitation jewellery; coin	2,099,810	2,566,974	2,133,789	1,091,806	4,610,030	28,507,318	61,783,652
Carpets and other textile floor coverings	716,863	671,876	345,278	403,980			
Aluminium and articles thereof	297,000	528,090	450,000				
Miscellaneous edible preparations	214,530	178,396	186,573	280,912	443,093	475,561	398,876
Pharmaceutical products	148,300	181,927	191,093		1,446,689	944,229	1,057,710
Furniture, bedding, mattresses, mattress supports, cushions and similar stuffed furnishing, lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like; prefabricated buildings	145,500					1,628,268	1,511,176
Plastics and articles thereof	140,085		287,892		412,512	421,436	
Coffee, tea, mate' and spices	122,188						
Works of art, collectors, pieces and antiques	106,300						
Articles of leather; saddlery and harness;		1,807,237	8,900,355	10,006,226	518,135		

travel goods, handbags, and similar containers; articles of animal gut (other than silk-worm gut)							
Nuclear reactors, boilers ,machinery and mechanical appliances; parts thereof		615,838		290,945	741,984	1,700,040	2,246,061
Essential oils and resinoids; perfumery, cosmetic or toilet preparations		220,121	299,631	744,376		659,615	267,125
Salt; sulphur; earths and stone; plastering materials, lime and cement		212,000		1,252,192	1,625,507		
Animal or vegetable fats and oil and their cleavage products; prepared edible fats; animal or vegetable waxes		188,972					
Knitted or crocheted fabrics				1,002,148			
Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans					512,126	628,263	374,766
Soap, organic surface-active agents washing preparations; lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, "dental waxes" and dental preparations with a basis of plaster							431755
Total	4,793,602	8,283,194	43,833,729	162,606,896	302,114,245	466,025,170	719,793,881
% out of Total Jordanian Exports to the US Market	85.6%	88.9%	97.7%	98.8%	99.3%	99.5%	99.7%

Moreover, table 4 clearly shows that apparel articles have dominated Jordanian exports in recent years, comprising about 90% of total exports in the years 2002, 2003 and 2004. Further, as a result of the Multifiber Agreement about (89%) of the products exported to the USA market (mainly from the QIZs) are concentrated in six product categories possessing high levels of quota constraints. These products are characterized by tariff rates with very low minimum tariff edges. This analysis reveals that the types of investors operating in the QIZs were mainly driven by quota levels restrictions that the tariff reductions granted through the QIZ agreement.

Table (4): The type of products exported to the USA market mainly from the QIZs

Category HS Code	Share of Category out of Garments Total Exports to USA (2002)	Product HS Code	Product Description	Product Share out of the Total Garments Exports to USA (2002)	American Normal Tariff Rate	No. of Countries Investing in the QIZ and Suffer from Binding Quotas in the Product
61	7%	6107.11	Men's or boys' underpants and briefs, of cotton, knitted or crocheted.	5.3%	7.4%	6
62	93%	6203.19	Men's or boys' suits, of other textile materials, not knitted or crocheted.	10.2%	4.2%-21%	10
		6203.39	Men's or boys' jackets and blazers, of other textile materials, not knitted or crocheted.	17.2%	1.6%-27.5%	5
		6203.49	Men's or boys' trousers, bib and brace overalls, breeches and shorts, of other textile materials, not knitted or crocheted.	28.1%	0.3%-28.1%	12
		6205.10	Men's or boys' shirts, of wool or fine animal hair, not knitted or crocheted.	14.0%	5.3%-17.8%	3
		6205.9	Men's or boys' shirts, of other textile materials, not knitted or crocheted.	14.5%	1.7%-7.1%	12
Total	JD291.8 Million			89.3%		

Source: Department of Statistics, US Customs Department



IV. Evolution of the QIZs- Domestic

IV.1 QIZ Performance Indicators

Table 5 below compares performance indicators for some of the QIZ factories¹⁵ to indicators for the rest of the economy and to the Jordanian manufacturing sector in particular.

Table (5): Basic Indicators Concerning QIZs

JDs 000

Indicator	QIZ*	Textile Industry**	Manufacturing sector (Excluding ISIC 17 +18)
Number of employees	2924	15632	93922
Compensation of Employees	4569	16844	276527
Average Wage JDs	1560	1077	2944.2
Intermediate Consumption	5304	59637	1972849
Gross Output	18166	107127	2919597
Value Added	12862	47489	946749
Intermediate Consumption/Gross Output	0.29	0.55	0.67
Value Added/ Gross output	0.70	0.44	0.32
Wage/ Value Added	0.35	0.35	0.29
Total Taxes	248	3286	201476
Value Added Per Employee JDs	4398	3037	1008
Taxes/Gross Output	0.019	0.03	0.069
Depreciation	740	3803	199227
Gross Capital Formation	1843	4500	380137

*Sources: *Unpublished Record: Department of Statistics ** The sum of the items ISIC 17 and 18 from the Industrial Survey 1999. Factories included in this sample are: Sari Corporation, El-Zai, Century, Al-harameen Factory, Crystal * Department of statistics, Industrial survey 1999.*

Our assessment will cover issues related to the productivity of the factories operating in the QIZs. Partial productivity measures shall be utilized to compare

¹⁵ These are the factories that report their data to the Department of Statistics (DOS).

the QIZ plants with other similar establishments in the textile and clothing industries. Our findings indicate that overall, the QIZs are more productive. Table (5) exhibits the main characteristics of the QIZs in contrast to the Textile industry and the Manufacturing sector at large. If data had been made available, the study would have estimated the total factor productivity (TFP) by employing Solow Residual techniques or any other relevant method. However, it must be remembered that adequate time has not elapsed to undertake such an endeavor. In addition, QIZ factories are reluctant to provide detailed data about their internal operations. The alternative is a descriptive analysis that will enable the study to respond to the scope of work outlined above.

There are several observations emerging from the table, which compares partial productivity measures in the QIZs with the rest of the textile industry and the manufacturing sector at large.

1. The average wage in the QIZ factories is estimated at JD1,560 annually. This average is higher than what prevails in the textile industry but below the average for the manufacturing sector. However, it should be mentioned that the average wage might disguise wide variations between the highest and lowest wage levels utilized within the firms. Data on the wage structure within each firm is difficult to obtain. Comparison with the textile sector is more applicable than the overall sector due to certain differences and the level of skill required in the other industries. It is worth mentioning that wage as a percentage of the value added, or what could be regarded as "*wage productivity*", has been estimated at 35% for the QIZ companies, which is identical to what was estimated for the textile industry but is higher than the figure for the manufacturing sector.
2. QIZ industries seem to be functioning at a higher level of productivity than the rest of the textile industries and the manufacturing sector in general. A proxy of productivity was obtained by estimating the generated value added with regard to the gross output. In the case of the QIZ factories, the value added share to the gross output was estimated on average at 0.70% indicating that 0.30% of the gross output is used as intermediate consumption. This percentage compares to 0.44% in the textile industry for the corresponding year, and 0.32% for the manufacturing sector as a whole.
3. Higher value added in proportion to the gross output meant that labor productivity in the QIZ factories in general is higher than that for the textile industry. Value added per worker in the QIZs factories was

estimated at JD4,398 compared to JD3,037 and JD1,008 for the textile and manufacturing sectors respectively. Higher value added could be ascribed to several factors. Firstly, the management of the QIZ factories, which is dedicated to penetrating the competitive US market and the special production arrangements. Secondly, the QIZ factories are all new and are therefore utilizing new technology. Most companies operating in the QIZs had marked experience before arriving in Jordan to set up their factories. Thirdly, foreign workers represent no less than 40% of the labor force and they occupy the key positions in the QIZ factories. Foreign workers seem to be better trained and more dedicated to their work than local employees, as noted by several managers of the factories operating within some of the QIZ areas.

4. As a result of the tax break given to the QIZ factories, taxes as a percentage of the total output are estimated at 0.019%, compared to 0.03% and 0.069% for the textile and the manufacturing sectors respectively. Higher value added coupled with lower taxes implies that QIZ factories should be more profitable than their counterparts in the sector.

IV.2 Value Added and the QIZ Linkage with the Rest of the Economy

The first part of this section will attempt to estimate the domestic value added, while the second part will investigate the link between the QIZs and the rest of the economy.

Estimation of the domestic value added is achieved through the following methodologies: first, the total exports of the QIZs over the last five years are calculated and compared to the level of intermediate imports, which are supposed to be used as inputs to the garment industry. The level of imports is then adjusted to account for the fact that not all imports are used by the QIZ factories; instead, they could be used by the rest of the textile sector that produces for the domestic market. The outcome of this exercise is expected to provide some proxy for the domestically generated value added in the sector.

The second approach will utilize data on the estimated levels of wages, profits, depreciation, and taxes, which are the main components of domestic value added. The results of the two approaches will be compared in order to reach a more precise estimate for the value added generated in the QIZ areas.

By utilizing the first approach, it is obvious that the value of imports that are supposed to be consumed by the garments and textile industry has increased substantially between 1999 and 2004. Measuring this increase against the level of exports from the QIZ areas indicates that what could be regarded as net exports from the QIZ areas is roughly estimated at an average of about US\$ 218.9 million over the period 1998-2004. This estimate accounts for the fact that imports from the items (51, 52, 58, 59 and 60) were nearly JD30 million (US\$42.3 million) before the commencement of the QIZ operations. The assumption is that imports utilized for the purpose of domestic production or consumption will represent the same proportion of the total imports during the subsequent years. Following the above methodology suggests that Jordan's net export from the QIZs could be in the range of US\$200-250 million over the period 2000-2004 as table 6 below demonstrates. Taking an average over five years helps avoid inaccuracy and discrepancies in the data.

Table (6): Estimated Net Exports from the QIZs

Statement	1998 US\$ Million	1999 US\$ Million	2000 US\$ Million	2001 US\$ Million	2002 US\$ Million	2003 US\$ Million	2004 US\$ Million	Average (2000- 2004) US\$ Million
Imports (items 51, 52, 58, 59, 60)	0	0	59.7	179.2	209.4	292.7	453.4	238.9
Exports from QIZs in addition to exports to Israel	0	11.1	51.2	195.7	445.4	621.2	975.4	457.8
Balance	0.0	11.1	-8.5	16.5	236	328.5	522.0	218.9

Source: Department of Statistics, Ministry of Industry and Trade/QIZ Unit

On average, the export coverage for imports, which is the level of exports divided by imports, reached a level of 177 percent. This ratio registered a level of 213%, 212% and 215% in the years 2002, 2003 and 2004 respectively.

We suggest that utilizing the second method depends on the decomposition of the value added. The agreement identified the value added required from Jordanian sources to be 11.7 percent, and the decomposition of this value added is summarized in table 7 below. It is quite obvious that depreciation, wages and salaries are the main components of the domestic value added as presented in the table. We have excluded gross operating surplus from this analysis since it accrues to owners who might repatriate income outside, and also because our main concern is the link with the rest of the economy.

Table (7): Decomposition of the Jordanian value added in the QIZ areas

Statement	Direct Labor Cost (40%)		Direct Processing Cost (60%)							
	Wages Locals	Wages Foreigners	Depreciation and Maintenance	Utilities	Rent	Transport	Workers Welfare	Government Expenses	Medical Insurance	Miscellaneous
Total Value Added (11.7%)	58%	42%	20%	11%	14%	21%	9%	6%	8%	11%

On the other hand, the linkage of the QIZ areas with the rest of the economy is dependent on how much their industry has backward or forward linkages. That is, how much the industry can utilize or acquire inputs from other domestic industries (backward linkages), and how much other industries use output from that industry as inputs into other industries (forward linkages). Normally these relations are investigated in the context of the input-output table, which is not available for Jordan. The most recent input-output tables are dated back to 1987 and were updated in 1992.

However, as a substitute we will investigate the existing industrial relations within the QIZ areas. The backward and forward linkages in the QIZ factories, which are concentrated in the textile and garments industries, are limited

because Jordan has no raw materials to cater to such industries. The textile sector is highly dependent on imported raw materials. Moreover, according to the QIZ agreement, there is a minimum Israeli percentage of the total value added that must be obtained from Israel. In many ways, the agreement put a ceiling on potential backward linkages since most of the imports from Israel are accessories and materials that could be obtained from local manufacturers.

The other links with the rest of the economy are export-related logistics, such as transportation, banking services and insurance services, in addition to utilities consumed by the QIZ factories such as electricity, water and usage of the available infrastructure.

As far as utilities are concerned, all QIZ areas are located in Jordan and use electricity and water along with other infrastructure facilities. Also, the QIZs rely on Jordanian products to construct their factories or to rent existing facilities.

Transportation and shipping are an essential part of the export process, including land and sea transport. However, Israel is very competitive in terms of sea transport as the cost of freight from Haifa to the USA is much cheaper than that from Aqaba to the US ports.

In a study conducted by the Ministry of Planning and International Cooperation (MOPIC), it was estimated that most of the shipments out of the QIZs were going through the Haifa Port. The time needed to ship via Aqaba is estimated to be between 30-33 days, compared to 17-22 days via Israel. The cost of trucking from the QIZs to Aqaba is in the range of US\$400-500 while it is about US\$700 to Haifa. The shipping cost to the US is cheaper via Aqaba than that of Haifa by about 25%. Despite this price advantage, most of the QIZs companies prefer to ship via Haifa for the following reasons: first, the shipping time from Haifa is shorter and more reliable according to exporters' experiences. Second, most of the international shipping lines have a well-established link in Israel, and overall, it is more profitable for them to ship via Haifa. Third, governmental procedures and burdensome bureaucratic measures in Jordan seem to hinder exports out of the country.¹⁶ Therefore, it is estimated that 80% of the total exports go through Haifa, while the remaining 20% are shipped via Aqaba.

¹⁶ Although trucking from Jordan is cheaper than in Israel exporters prefer to use Israeli trucking service due to the fact that in many cases Jordanian trucks failed to meet the Israeli technical standards and were therefore banned from entering Israel. This practice has led many to rely on the Israeli trucking service which can safely and easily enter Israel

On the land transportation side of the equation, trucking and local transportation commute workers to and from work. However, few factories rented apartments to accommodate expatriate workers.

Regarding banking and insurance linkages, it is difficult to estimate the real contribution to the economy. However, the financial sector in Jordan can cater to the QIZs needs, since export from the QIZ areas follow the same procedures as any other exports in terms of insurance, letters of credit and other financial arrangements..

Moreover, one would expect that there would be a spillover effect from the QIZ factories to the rest of the manufacturing sector in Jordan. However, the prevailing arrangements limit domestic competition and interaction between the QIZs and the rest of the manufacturing sector, because all of the QIZ output is exported directly to the USA market. Hence, no competition takes place in the domestic market. Notwithstanding this fact, few Jordanians acknowledge that they have benefited from the QIZ experience. Qustanitin Yaghnun from (Zai) group said that: *“We learned what are the international best practice and standards. There are new strict standards and specifications that we must adhere to. We also improve 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. He asserts that the process of learning by doing is important. Now we should think about how to move forward to the high value added products and also to deepen the vertical integration by establishing direct contact with the suppliers. Short time has been elapsed and the learning curve has been upward moving”.*

To summarize, the direct link between the QIZ and the rest of the economy is limited, especially since the Jordanian contribution to the inputs of the QIZ industries is very minimal in terms of raw materials. However, there are some indirect links with the rest of the economy pertaining to utilities and services. Nonetheless, the spillover effect and the expected gain in productivity and best practices have not been transmitted to the rest of the economy.

Moreover, the direct link with the US market is limited due to the fact that Israel, in many cases, utilizes its knowledge of the US market to promote the QIZ products as Israeli manufactured products. Furthermore, there is very little progress in developing a brand name for items produced in Jordan such as "made in Jordan" labeled products that could be an asset in future operations.



V. Socio-Economic Impact¹⁷

In this section we will evaluate the socioeconomic effect of the QIZ factories in Jordan. The study will focus on the QIZ's effect on the Jordanian labor market and unemployment rate as well as the changes the QIZ's have brought about in the lives of Jordanian women in particular. This element of the socioeconomic impact the QIZ factories have had on the labor market in some Jordanian communities was focused on because an influx of young female workers into the labor market could cause obvious shifts in the social patterns of rural Jordan. Many studies have highlighted the positive effects of the QIZ agreement on rural Jordanian women who now have a chance to work outside of the home. This section will explore this emerging phenomenon further by evaluating what motivates such women to work in the QIZ factories, what their work experiences have been and how their families have reacted. However, questions surrounding the large number of foreign workers in the factories, a sensitive topic considering the hope that the QIZ agreement would make a dent in Jordanian unemployment were explored as well as working conditions and salary issues in the factories. Interviews as well as the International Labor Organization's study on women workers in the Textiles and Garments Industries in Jordan were utilized for the report,¹⁸ as well as figures from the Jordanian Ministry of Labor and the Ministry of Industry and Trade regarding the number of workers in the QIZ's.

In order to attempt to explore the issues mentioned above, a few factories were chosen in two different industrial areas in Jordan: the Al Hassan factories in Irbid and the Tajamouat factories in Sahab near Amman. We interviewed a number of female workers and supervisors in several factories. We asked the workers similar questions relating to their experiences of working conditions in the factories, their salaries, raises and incentives during their time in the factories, as well as their monetary contribution to their families, their families' reaction to their working in the factories, and their plans for the future. We asked the supervisors about the systems the factories employ to determine salary, raises and incentives, the numbers of foreign and Jordanian workers employed and the reasons for importing so many foreigners to fill factory

¹⁷ This section was written with the valuable contribution by Nora Barakat, currently conducting her graduate study at Columbia University (USA).

¹⁸ Ministry of Labor and the International Labor Organization, "*Women Workers in the Textiles and Garment Industries in Jordan: A Research on the Impact of Globalization*", Amman, January 2002

positions, as well as their experiences with foreign versus Jordanian workers, and with male versus female workers.

V.1 Foreign Workers in the QIZ's

Generating job opportunities for Jordanians was one of the chief motivations for establishing QIZ factories in Jordan. The country suffers from a high level of unemployment and inadequate investment to absorb newcomers into the labor market. It was therefore expected that the QIZs would ease this unemployment problem.

It has been estimated that over 30,013 jobs had been created as a direct effect of the QIZ agreement by 2004. Further, nearly 95% of the Jordanian employees within the QIZs are females entering the labor market for the first time.

However, given the number of new opportunities that have been created, the official level of unemployment has not decreased. This is of course due to the large number of new workers that enter the Jordanian labor force every year. Also, the table below shows that over the last three years the number of foreign workers operating in the QIZs has risen substantially to a level of 41.2% of the total workforce in 2004, up from 30% in the year 2001.

Table (8): Labor Force in the QIZs

Year	Employment (000)			Employment (%)	
	Local	Foreign	Total	Local (%)	Foreign (%)
2001	13,300	5,700	19,000	70.1	30.0
2002	13,900	9,600	23,500	59.1	40.9
2003	15,214	11,339	26,553	57.3	42.7
2004	17,654	12,605	30,013	58.8	41.2

Source: Ministry of Trade and Industry. Industry, Trade and Investment Bulletin Feb. 2005

The high level of foreign labor in the QIZs has caused an extensive controversy between opponents and proponents of the QIZ initiative. Opponents claim that the existence of foreign labor is a pre-condition for the commencement of investment in Jordan. However, proponents and investors-- both local and foreign-- argue that the quality of Jordanian laborers is below the required

standards. They claim that many Jordanian workers lack the commitment and the adherence to industrial work ethics that such an industry requires.¹⁹

The Ministry of Labor (MOL) issues different estimates for the number of employees in the QIZ's than those published by the Ministry of Industry and Trade. The MOL, along with the textile trade union, confirms that the number of employees is roughly 44.5 thousand as shown in Table (9) below.

Table (9): The number of QIZ employees as estimated by the Ministry of Labor

QIZ Zone	No. of Companies	No. of Jordanian Employees	No. of Non-Jordanian Employees	Total
Al-Hasan Industrial City	37	11,321	6,824	18,145
Al-Tajamouat Industrial City	29	5,381	6,889	12,270
Ad-Dulayl Industrial City	15	3,274	4,867	8,123
Al-Rusayfeh Industrial City	2	855	25	880
Al-Karak Industrial City	3	2,245	2,001	4,246
Al-Jeezeh Industrial City	2	612	379	991
Total	88	23,688	20,985	44,655

Source: Ministry of Labor, unpublished data.

Regarding the relatively large number of foreign workers, all of the factory supervisors interviewed for this study noted that their foreign employees were better trained and more qualified for their work. This disparity stems from a variety of issues, including the fact that the garment industry is relatively new in Jordan. Also, some companies give foreign workers extensive training in their home countries before they travel to their jobs while giving Jordanian workers no onsite training. When asked why training is not a part of the workers' three-month evaluation period, supervisors noted the high costs of training programs. Two factories had piloted training programs in the past but found them to be net

¹⁹ This fact has led some of the large investors in the QIZ areas, such as (*Tajamuat*), to contemplate establishing an ethics center in order to qualify Jordanian employees not only professionally but ethically as well. They claim that because of lack of commitment, training has become a waste of time and money.

losses because of high costs and lack of commitment of trained Jordanian workers; many workers finished the training and then left for other factories.

Supervisors also complained of an overall lack of Jordanian labor force; all of them claimed to be committed to hiring Jordanians if they could find the workers. One female supervisor was committed to hiring only Jordanian women and would make frequent visits to villages near the factory in Irbid to recruit.

Although a number of reports and investors have cited the poor Jordanian ‘work ethic’ as the major reason for hiring foreign workers, only one of the interviewed supervisors noted a sharp difference in work ethic between his Jordanian and foreign employees which he attributed to cultural differences. However, the majority felt that if foreign workers were more committed to their work and more willing to work long hours, it was mainly because the Jordanians had family and social obligations while the foreigners were far from home and had nothing to do but work.

In an interview, the president of the textile employees union²⁰ claimed that the most reported complaint by employees working in the QIZs was the low salary and the wage freezes, especially amongst male workers. Over the past three years, there have been almost no pay raises or incentives for promotion. As discussed below, this statement mirrors findings in interviews with women workers; low salary and wage freeze are by far the most widespread complaints cited by Jordanian workers in QIZ zones, both male and female.

This problem is rooted in the fact that the kinds of jobs assigned to Jordanian workers require minimum skills, which make the workers vulnerable to replacement, especially by expatriate workers who accept lower wages and work longer hours. This state of affairs is one of the main reasons for the high turnover rate and lower productivity amongst the Jordanian workers. It has been reported that a QIZ worker remains in his/her job for an average of 19.4 months in comparison to an average of 81.7 months in a non—QIZ working place.²¹

The high turnover rate was reported as one of the most important challenges facing investors in Jordanian QIZs. This has led many investors in the QIZs to resort to employing foreigners who are supposedly more committed and travel for the sake of work. The estimated wage level for the expatriate worker is about USD120. Costs to the firm include these wages in addition to tickets,

²⁰ Interview with Fathallah Omrani, Chairman of the textile workers union.

²¹ M. Kardush (2004) *ibid.*

accommodation and two meals a day provided by the employing company. The textile labor union reported that only one expatriate worker complained about the living and working conditions in Jordan. However, foreign workers are not covered by the Jordanian Labor Law and thus can be exploited by their employers.

When asked about working conditions, salary, and working hours, interviewed supervisors all cited Jordanian labor laws to which they are bound when setting working hours, vacations and sick leave. However, we found that in some factories various methods have been employed to partially skirt these regulations. For example, in one factory workers reported that if the factory was low on orders, they would be put on forced leave which would be deducted from their vacation time. Moreover, although all supervisors stressed that overtime was officially optional, most of those interviewed noted that overtime was tied to incentives (workers who repeatedly rejected overtime would not receive incentives or bonuses to their salary), and one supervisor noted that he felt that the atmosphere in the factory made overtime “99% forced.” With overtime, workers generally work ten-hour days with two breaks, but from reports of supervisors of foreigners’ ‘willingness to work’ it seemed that on some days they could be working more than ten hours. Some factories occasionally work on Fridays, the only official day off, although one supervisor noted that American buyers were extremely strict about having days off, and would not put in orders to factories that did not apply this condition. However, we heard of this situation from one factory only and all of them have American buyers.

One report on working conditions in the QIZ’s notes widespread difficulty among workers in obtaining sick leave²², but the workers we spoke to did not support this complaint and did not claim any difficulty in obtaining permissions from the factory doctors.

Findings from trips to QIZ factories revealed that the working conditions, especially on cutting and tailoring floors of the factories, are extremely crowded. In mid- summer, no air conditioning was found in any factory, making them unbearable with all the machines working. Workers complained of the heat but said that otherwise working conditions in the factories were acceptable.

²² United Students Against Sweatshops, “*Report on International Internship in Jordan*”, p. 108, 2004.

Partial (although meager for beginning workers) health insurance is provided by the factory by law as well as social security. Of all of the interviewed workers only one had any experience with the textile union, and she noted that she complained about another factory she worked in and nothing happened. Others admitted having knowledge of union activities but not having time or interest to join. One cause for concern is that two interviewed women had never signed work contracts and had no idea of their rights as employees in textile factories in Jordan, such as vacation time, working hours, salaries, and benefits.

In addition to the challenge of the high turnover rate among Jordanian workers, the QIZs unit at the Ministry of Industry and Trade estimated the productivity of the expatriate labor at three and half times that of their Jordanian counterparts. This figure is undoubtedly related to the low level of training Jordanian workers receive and their extremely low salaries which provide little incentive to stay on the job. The high dependency on foreign laborers generated by these issues in QIZ sites could lead to the QIZ agreement having a minimal role in solving the unemployment problem in Jordan, and that the initiative to transmit skills and technologies to the local economy could fail, as expatriates will leave Jordan with all of their capacities and skills after their work in the QIZs comes to an end.

V.2 Women Workers

Most interviewed women give half of their salary to their family and keep the rest for personal expenses, although some give three quarters. In several cases the salary was one of only two salaries coming into the entire family. It seems that some women work out of a desire to work and their low salaries do not make much difference to their family's financial situation, while others work out of extreme need and feel that their families would be in dire financial straits without their salary. The ILO reports that the majority of women in their study were "either the only income earners...or one of two working members in the family...it seems that young women's work is fast becoming indispensable income at the family level"²³

Another element of the phenomenon of women working is that the vast majority of them are unmarried; only one interviewed woman was married and the supervisors all noted that most of the women working in their factories are unmarried and once they get married they expect them to quit. Many women were uncertain whether would quit once getting married but none of them

²³ Ibid, 17.

expressed a great desire to continue working. One supervisor assessed the situation, saying that the salaries were low and the work monotonous, so if a woman could choose to stay at home once married why wouldn't she?

On the flipside, many supervisors expressed a preference for female over male workers, and one went as far as not hiring any male workers. The ILO's findings concur, noting that "most of the QIZ factory owners emphasized that they prefer employing young, unmarried workers above men"²⁴ Supervisors noted experiences of young male workers coming to the factory to 'meet girls' as well as university students coming to work for the summer without informing anyone and simply quitting in the fall. Also, on a more practical note, they admitted that the low factory salaries are not enough to support a family in Jordan, and that any man who could find a better paying job would take it immediately. This pattern of women accepting lower salaries, a product of their low skill level and of gender discrimination, combined with the need for the type of unskilled, cheap labor demanded by the textile industry, is a worldwide phenomenon in workplaces such as the QIZ factories and one that deserves attention.²⁵ For many men working in factories these low salaries would make it impossible for them to get married and start families in the first place, whereas economically disadvantaged women will accept such salaries and in most cases have no other choice in where to work.

Several of the women interviewed expressed that their family either had no problem with their working or requested that they work because of severe financial need. All of them noted that other women from their communities, and many from their families, work in the factories. Of the women who met resistance from their families, in both cases this resistance was from brothers rather than parents, and that fathers intervened on their behalf and encouraged them to work.

By far the most widespread complaint among women workers, mirroring that of their male counterparts, regards low salaries and lack of raises over long periods of time, as well as the lack of a transparent system for incentives and raises. One woman expressed a desire to quit work at the factory and return to her studies after two years without a raise, and another woman, who had never signed a contract, was still working at the starting salary of 85 JD after three years at the same factory. A few of the women interviewed had not received any raises in the past three years. Some supervisors explained a loosely organized

²⁴ Ibid, 13.

²⁵ The ILO provides an interesting analysis of this phenomenon in their above mentioned report.

incentive system but few workers were aware of any system and felt that raises were distributed based on favoritism.

Interviews revealed variance between factories regarding this issue; one factory in particular had a very good reputation in terms of salary and its workers seemed more satisfied overall and were receiving higher salaries on average. All factories have the starting minimum wage salary of 85 JD, which, as noted earlier, is hardly enough to support a family in Jordan. The variance occurs, however, in terms of when salaries are raised and how incentives are given. The simplest step factories could take to improve worker satisfaction would be to institute a transparent system for raises, promotions, and incentives. Some interviewed workers were on the winning end of the current favoritism-based system in two factories, and their supervisors both admitted that they were promoted because “they liked them”, rather than due to any quantifiable indicators of production, efficiency, or commitment.

All supervisors, no matter how positive they were about improving the conditions and attitudes of their workers, admitted that at the end of the day factory work is extremely routine and the salaries are low, even by local standards. However, the factories are providing much needed employment for a large number of Jordanians. Small changes in conditions could cause a significant improvement both in terms of reducing the necessity for bringing foreign workers as well as in reducing unemployment in Jordan. Supervisors in several factories also noted that they feel the situation has improved over time and that their turnover rates were much higher in the first years of the factories’ institution (in the late 90’s). They feel that their systems are progressing and that they are finding ways to retain more of their workers. Yet with the exception of the one small factory included in this study where the supervisor was committed to only hiring Jordanian workers, the majority of workers in all included factories are foreign and the supervisors, of those who wish to, do not seem to have a comprehensive plan for dealing with this issue. Reasons for the alleged lack of Jordanian workforce go beyond the scope of this study, but improved salaries and a streamlined incentive and raise system could be a step towards improving the overall reputation of textile factory work in QIZ zones in Jordan,

By way of conclusion to the socioeconomic analysis section of this report, we wish to emphasize that although the working conditions, salaries and mobility provided by employment in the QIZ factories are not optimal for female workers, they have introduced an important means for women to contribute to their families’ incomes and increase their participation in general public life in

Jordan. The ILO, in their extensive semi formal interviews with female workers, concluded that “it can be assumed that this work opportunity has provided some of these women with self-fulfillment and new life experiences”²⁶ and emphasizes that despite the low skill, mobility lacking type of jobs women in the QIZ factories are doing, “the textile and garment industry is providing young, single, urban and rural women from poor families with new employment opportunities, which otherwise they would not have had”²⁷. However, despite these obvious gains the opportunities for women, and for Jordanian workers on the whole, would be greatly expanded if their horizons in the factories could extend beyond unskilled labor. Although the QIZ factories are providing poor women with jobs, they are not providing them with the training needed to move to higher salaried, skilled positions.

The issue of lack of training is also related to the question of work ethic and the reasons cited by factory owners for importing such a large number of foreign workers to fill the more skilled managerial and supervisory positions in most factories. Although training has been tested and has failed in many locations, it is difficult to expect unskilled Jordanians working in an industry relatively new to Jordan to compete with Chinese workers who have undergone six months of training before traveling to Jordan. Beyond the lack of skilled labor, the below par reputation of the factories in rural areas contributes to a shrunken labor force. As mentioned above, improving this reputation through improved salaries and more transparent incentive systems could provide the solution for the Jordanian ‘work ethic’ problem.

It is difficult to predict the long-term socioeconomic effects of the QIZ factories on the situation of women in rural and urban areas. Although the QIZ’s have succeeded in bringing a new class of Jordanian women into the labor market, their mobility in that market is extremely limited and the ‘skill transfer’ billed by the agreement is definitely missing as most women are performing rote work that they already knew how to do. Furthermore, if the trend of filling the production lines and managerial positions with foreign workers continues, the effect on overall Jordanian unemployment will continue to be minimal. However, if women are provided with training in order to raise their skill levels and move into higher paying posts with more responsibility, thereby reducing the need for so many foreign workers, the socioeconomic effect could be more noticeable.

²⁶ Ibid, 20

²⁷ Ibid, 2



VI. The Future

VI.1 QIZ and the Multi-fiber Agreement (MFA)

Due to the fact that most of the projects operating in the QIZ areas are specialized in the garment sector, it is of vital importance regarding the sustainability of these projects to study the effect of the abolishment of the Multifiber agreement on the future of the QIZ investments. In this section an analysis of the effect of the Multifiber agreement on the QIZ areas will be conducted.

International trade in apparel and textiles is regulated by the system of bilateral tariffs and quotas known as the Multifiber Arrangements or MFA. The (MFA) is a framework agreement that governs trade in textiles and clothing throughout most the world.

The MFA includes major industrial and developing countries and covers products made of cotton, synthetic fibers, wool, silk and ramie. Under the MFA, all exports are subject to quotas when total exports from an exporting country reach a certain share of total imports in the country of destination. This discriminatory trade distortion imposed by industrial countries severely affected exports from developing countries. As a result, in 1985 the International Textile and Clothing Bureau was formed to seek an end to the MFA and return trade in textiles and clothing to normal GATT rules.

However, given the long history of trade restrictions, ending the MFA was not an easy task, and compromises had to be made in the form of adopting a gradual liberalization approach. On 1 January 1995 the MFA was replaced by the World Trade Organization (WTO) Agreement on Textiles and Clothing (ATC), which sets out a transitional process for the ultimate removal of quotas and the full integration of textile and clothing products into GATT rules.

Under the MFA many Industrial countries, including the USA, the EU, Canada, Austria, Sweden, Finland, and Norway, restricted imports of textiles and clothing from developing countries. Japan and Switzerland never imposed such quotas. As of 1995, only the United States, the EU, Canada, and Norway continued to use quotas to restrict their imports of textiles, but these economies represented almost one-half of the global market. In 2000, the total trade in textiles and clothing stood at about US\$ 332 billion; US imports amounted to US\$63 billion, the EU's US\$65 billion, Japan's at US\$23 billion and Canada's

at about US\$6 billion. The EU and the US are the largest markets for textile and clothing and the two main users of the quota system.

Therefore, since January 2005 (state date) Jordanian exports from QIZs lost the preferential status they previously held, as the developing country quotas on textile and clothing imports ceased to exist. Abolition of these quotas will allow lowest cost producers such as China, India and Bangladesh to dominate the global market after 2005 and competition is unlikely to yield major opportunities for further expansion in clothing exports thereafter.

Table (10): Type of projects on the QIZs

Type of Product	No. of Companies	(%)
Knitted and Woven Garments	58	90.5%
Textiles	1	1.6%
Gold	2	3.1%
Plastic Molds	1	1.6%
Bed Sheets	1	1.6%
Printing	1	1.6%
Total	64	100%

Source: Jordan Investment Board

The impact of the Multifiber Agreement on the QIZs will depend largely on the kind of investors currently working in the Kingdom, and what motivates them to choose Jordan as an investment destination. One of the striking facts is that most of the investments are concentrated in products subject to quota constraints under the agreement. The analysis of the investors' nationalities reveals that Asian investors in the QIZ represent a majority.

Exports of textile and clothing products represent a high share of these investors' home countries' exports. The Asian garment companies have been subject to US quotas when they produce in their home countries. By investing in the Jordanian QIZs, the Asian investors locate their investment in a very attractive gateway and increase the accessibility of their products to the American market.

Table (11): Textiles and clothing exports in some Asian Countries

Country	T&C Exports as % of Total Exports
Bangladesh	84
Pakistan	72
Sri Lanka	54
India	28

Source: WTO Statistics.

The companies in the home countries open subsidiaries in the QIZs that are highly dependant on mother companies in terms of marketing and input supply.

It is quite evident that the effect of abolishing the agreement is more likely to have negative implications for investments currently operating in the Jordanian QIZs. The abolishment of the MFA may result in these investments moving back to their home countries, which could result in the following consequences:

- Reduction in the level of exports from the QIZs and accordingly the level of FDI associated with this industry. FDI is expected to slow down from countries that are now subject to quota restraints.
- In the event that some investors decide to leave Jordan and relocate their investments to some other country or back home, there will be negative repercussions in the labor market.

However, while quotas have been eliminated, tariffs will remain intact. Hence, Jordan should focus more on high tariff products in order to maintain its comparative advantage over low tariff products.

VI.2 The Future of the QIZs

In addition to the QIZ, a free trade agreement was signed between Jordan and the United States in October 2000. It was ratified by the American Congress in September 2001, and came into effect in December 2001. The agreement stipulates that a free trade area between the two countries will be attained following a gradual phasing out of import duties and other forms of trade barriers over a period of ten years. Free trade rules will not be applied solely to the trade of goods, but also to services. The agreement also incorporates labor and environmental provisions. Additionally, it incorporates the highest international standards for intellectual property rights.

Existing tariffs will be phased out according to the following schedule:

- Tariffs less than 5% will be phased out in 2 years.
- Tariffs between 5% and 10% will be phased out in 4 years.
- Tariffs between 10% and 20% will be phased out in 5 years.
- Tariffs greater than 20% will be phased out in 10 years.

Prior to signing this agreement, Jordan had been undergoing major economic reform. Many economic activities were liberalized in preparation for the country's accession to the WTO. The US-Jordan FTA, however, required that a number of services' sub-sectors be liberalized in some major areas. These included, among others, tourism, health, printing & publishing, distribution of energy, postal services, education, and transport services.

When comparing the two agreements it is obvious that the QIZ agreement grants immediate tariffs and quotas free access to the US market, whereas under the FTA tariffs and quotas are to be reduced gradually over time. Under the FTA rules of origin, products are required to have 35% Jordanian contents. This can be difficult to achieve. In contrast, under the QIZ the minimal requirement is 11.7%, and investors have to include contents from Israel.

For production under the QIZ, the area of production must be designated as such by the US government, whereas with the FTA the investors can choose to produce under the FTA or the QIZ provided that they meet the rules of origin conditions.

No reciprocity is required under the QIZ agreement, whereas Jordan must phase out its tariffs gradually in due time in accordance with reciprocity rules under the FTA. However, this might be considered part of Jordan's obligation in joining the WTO and Euro-Med partnerships.

Whether Jordanian investors or their foreign partners choose to maintain the kind of arrangements stipulated under the QIZ will depend on the sector and whether the stipulated conditions in the FTA and QIZs are easier or more difficult to adhere to.

However, it should be mentioned that Arab Investors have been very reluctant to invest in the QIZs projects directly. The major reason behind this is that no diplomatic relation exists between countries of origin of those investors and Israel.

In order to assess the effect of these agreements on the current projects operating under the QIZ, it is obvious that while quotas will be eliminated, tariffs will remain effective in accordance with the agreement's rules and conditions. Hence Jordan could focus more on the high tariff products, which will maintain a price advantage for Jordanian products compared to other exporting countries subject to the normal tariff schedule.

When quotas are removed, production cost will play a vital role in determining the FOB and CIF prices of the garment products. More important to the US consumer is the landed cost, which includes custom duties. Duties are paid on garments ranging between 16% and 32% depending on the fabric (16-20% on cotton and 32% on man made fibers).

An analysis of the cost of production in the textile and garment industry reveals that about 60% of the total cost is spent on fabric and accessories. The rest, about 40%, covers all other expenses. Fabric and accessories are internationally

traded commodities and prices are determined exogenously at an international level.

Nevertheless, covering the Israeli share has been one of the factors negatively affecting the competitiveness of the producers in the QIZs. Many argue that Israel, since it has a monopoly over its 8% share, imposed higher prices for its inputs than those prevailing internationally. This claim could be substantiated by estimating the unit price index of imports from Israel and comparing it to the average unit price of the same items imported from the rest of the world. There is one caveat associated with this approach, however, which is that the quality of the products will not be reflected in the price disparity. Nonetheless, several interviews conducted with entrepreneurs working in the QIZs support the findings of our study wherein we argue that Israeli exporters exploit the weak position of the QIZ producers by overpricing their inputs as compared with what could be imported from the rest of the world.

For the purpose of our analysis we ranked the top ten products imported from Israel over the period 1997-2002. The top 10 items represent more than 90% of the total imports from Israel over the period under investigation. We then estimated the average unit price of imports from Israel and compared it with the unit price from the rest of the world. In our findings, the unit price for most of the imported items from Israel was higher than that of the rest of the world.

In order to cover the Israeli share (8%), QIZ companies import most of the accessories from Israel, which covers items such as buttons, zippers, threads ...etc. Such accessories are extremely expensive compared to those that could be imported from South Asia or the rest of the world. In the case of garments that do not require accessories such as men's underwear, import is concentrated in some kinds of external-use accessories (cartoons, poly bags, and hanger).

It has been argued that the adherence to imports from Israel has deprived local producers of establishing links with the QIZs. This could change in light of the FTA and the potential of phasing out tariff barriers with Israel.

The other costs of production, which constitute 40%, vary between different countries. Out of this 40%, nearly 35% represents the labor cost, while 65% is in other expenses including electricity, water, depreciation, etc. It is within this range of 40% that the Jordanian producers can compete and adjust the cost of production.

It has been estimated that labor cost represents 14% of the cost of production in the garment industry. Wages in Jordan are almost double the wages paid in

many Asian countries, which presents a real challenge and positions Jordan in a weak competitive situation. Another additional cost incurred by Jordanian producers comes from transportation costs. Added to the transportation cost of the raw materials,, transportation costs are estimated at around 3%. Combining higher wages and transportation cost adds nearly 10% to the total cost when compared with potential competitors.²⁸

However, since the garments produced in Jordan will continue to enter the US market on a duty free basis after the abolishment of the Multifiber agreement and since duties on garment products vary between 16%-32% (average of 24%), Jordanian products which possess a price disadvantage of 10% will continue to enjoy a landing price advantage in the market. The landing price advantage will approximately equal the difference between the Jordanian price disadvantage of 10% and the effective average tariff of about 24%. Accordingly, on cotton garments Jordan's advantage varies between 6-10% and on man-made fiber garments Jordan's advantage will reach a level of 22%.²⁹

Clearly the new situation and variables in the garment industry necessitate serious and urgent steps in order to ensure the future competitiveness of Jordan and the Jordanian products manufactured in the QIZ areas.

²⁸ So far our analysis of the cost assumes equal labor productivity. That is wage productivity which measures as wage divided by the value added per employee is the same.

²⁹ Analysis is based on an interview and background information provided by Mr. Jack Khayyat, Chairman of the Dulail QIZ Area.

VII. Conclusion and Recommendations

It is difficult to regard the QIZs as successful regional cooperation initiatives. They depend on several exogenous factors and have not progressed beyond limited designated areas, with Israeli motivation clearly focusing on exploiting cheap labor in Jordan.

In regards to the contribution of the QIZs in boosting Jordanian garment exports, there is no doubt that the QIZs have functioned as engines for growth. However it is not clear how sustainable this performance will be in the future.

In order to increase Jordan's net exports it is essential to foster backward linkages between the QIZ firms and the rest of the economy. This does not seem to be the case currently or an issue high on the agenda.

Direct and indirect linkages with the rest of the economy have been limited thus far due to the fact that Jordan has little to offer in terms of raw materials while other services are more advanced in Israel. Since exporters seek efficiency, they prefer to utilize the Israeli facilities such as ports and land transportation. According to MiT estimates for 2004, QIZ's have created nearly 30,000 job opportunities that are scattered all over the country and benefit rural areas. However, the level of knowledge dissemination and training offered to the Jordanian employees is limited. Jordanians have been working in low skilled positions while key positions have been held by foreign workers, who represent nearly 42.7% of the total labor force in the QIZs.

We have not witnessed a spin off or knowledge transfer from the foreign companies operating in the QIZs. This is because the level of sophistication in the textile industries is not very advanced; furthermore, many foreign investors are not willing to spend time in training and transferring knowledge due to the temporary nature that governs their behavior mentioned earlier. However, there were some achievements regarding the process of learning some of the best practices that prevail at the international level.

Socio-economic implications of the QIZs are yet to be realized and need further investigation. However, there are undoubtedly behavioral changes towards female labor in conservative and rural areas. Persevering in efforts to provide on-the job-training for QIZ factory employees would fulfill some of the expectations for knowledge and skill transfer billed by the agreement, as well as increasing the actual job market mobility gained by women working in the QIZ's. More easily reachable goals include streamlining the incentive and raise system to eradicate favoritism. Making wage rates and promotions more

transparent would improve the reputation of work in the QIZ's all over Jordan, and could mitigate the reported problem of a limited local labor force.

Moreover, the government should reduce the input cost through negotiating the reduction of the Israeli percentage in the QIZ product eligibility requirements in order to enhance the competitiveness of the Jordanian products,

QIZs will have to cope with the fact that the MFA has been terminated. Efforts should focus on producing commodities that would remain subject to high tariffs in the USA. However, with the advent of the FTA the QIZs must reposition themselves in order to cope with the ramifications of the new agreement.

One could also address concerns over the "fallacy of composition", which holds that if too many developing countries embark on an industrialization path focusing only on textiles, for example, then the export prospects of these countries will quickly be diminished. This problem is expected as Egypt embarked on a new experience similar to Jordan, which further poses a threat to the Jordanian experience.

Where feasible, steps should be taken to encourage diversification of the QIZs products so as to avoid focusing on a relatively narrow range of simple, low-tech clothing product lines.