Jordan – United States Free Trade Agreement Economic Impact Study: Searching for Effects of the FTA on Exports, Imports and Trade Related Investments

AMIR II Achievement of Market-Friendly Initiatives and Results

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JORDAN AMIR II

Achievement of Market-Friendly Initiatives and Results

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Jordan – United States Free Trade Agreement Economic Impact Study: Searching for Effects of the FTA on Exports, Imports and Trade Related Investments

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Abstract

This study aims to assess the impact of the Jordan-United States Free Trade Agreement (JUSFTA) on trade and trade-related investment at a sectoral level with a focus on industries other than the garments sector, which has mainly taken advantage of a preferential trade arrangement other than the JUSFTA or grains, which remain subject to governmental price controls. The study consists of five parts. Part I is an Introduction. Part II provides an overview of the changing pattern of trade and investment in the Jordanian economy since the enactment of the JUSFTA. Much of the data are recent and appear for the first time with an industry-level focus. The analytic challenge, of course, is to sort out how much of the change in the economy owes to the JUSFTA. Part III addresses the issues involved. In particular, we first provide a methodology that allows us to apportion the extent to which the JUSFTA has contributed to the pattern of Jordanian exports and imports. Our approach relies on both a formal computable partial equilibrium (CPE) analysis and sector-by-sector reviews of industry experience. Part IV turns to the findings from field interviews with representatives of business, trade associations, and government. This section confronts some of the subtler potential impacts surrounding such policies as rules of origin, intellectual property rights (IPR), and some of the domestic constraints to taking advantage of the JUSFTA. Part V offers some conclusions and recommendations.

The authors wish to thank Salam Al-Bawab, Head of Studies and Research Division, JEDCO and Fatima Al-Homsi, Head of Enterprise Development Division, JEDCO for their contribution to the industry specific anecdotal evidence.

Abbreviations and Acronyms

BIT	Bilateral Investment Treaty
CBJ	Central Bank of Jordan
CPE	Computable Partial Equilibrium
DOS	Department of Statistics
EPC	Executive Privatization Commission
FDA	Food and Drug Administration
FDI	Foreign Direct Investment
FOB	Free on Board
FTA	Free Trade Agreement
GAFTA	Greater Arab Free Trade Agreement
GATS	General Agreement of Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GOJ	Government of Jordan
GSP	General System of Preferences
GTAP	Global Trade Analysis Project
HTS, HS	Harmonized Tariff Schedule
IMF	International Monetary Fund
IPR	Intellectual Property Rights
JEA	Jordan Exporters Association
JEDCO	Jordan Enterprise Development Corporation
JGATE	Jordanian Association of Garment and Textile Exporters
JIB	Jordan Investment Board
JOSTONE	Jordan Stone and Title Exporters Association
JUSBP	Jordan-United States Business Partnership
JUSFTA	Jordan-United States Free trade Agreement
MENA	Middle East and North Africa
MFA	Multi-Fiber Arrangement
MFN	Most Favored Nation
MIT	Ministry of Industry and Trade
NTR	Normal Trade Relations
QIZ	Qualifying Industrial Zones
SETP	Social and Economic Transformation Program
SITC	Standard International Trade Classification Code
TRC	Telecommunication Regulatory Commission
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
USITC	United States International Trade Commission
WTO	World Trade Organization

Table of Contents

Tables and Figures

Tables

Figures

Executive Summary

Part I. Introduction

Highly visible among Jordan's various policy changes over the last decade is the Jordan-United States Free Trade Agreement (JUSFTA). On October 24, 2000, Jordan and the United States entered into a free trade agreement with the objective of strengthening economic ties, promoting investment and employment opportunities, and improving the competitiveness of both countries. The JUSFTA covers trade in goods and services, protection of intellectual property rights (IPR), the environment, labor, and electronic commerce. One of the main features of the agreement is the gradual elimination over ten years of tariffs applied to all goods, except alcohol and tobacco, traded between the two countries.

Since the JUSFTA went into effect in December 2001, Jordan's exports to the United States have increased by 453 percent, or on average 91 percent a year during the last five years. The main exports to the United States were textiles and apparel, jewelry, machinery and mechanical appliances, electrical machinery and equipment, plastics, and pharmaceuticals. In terms of imports from the United States, during the last five years overall imports increased by 90 percent, or on average 18 percent a year. The top imports into Jordan were machinery and mechanical appliances, vehicles, arms and ammunition, cereals, aircrafts and parts, electrical machinery and equipment and parts, and optical, measuring, precision and medical and surgical instruments and parts.

This study aims to assess the impact of the JUSFTA on trade and trade-related investment at a sectoral level. The focus is on industries other than the garments sector, which has mainly taken advantage of a preferential trade arrangement other than the JUSFTA or grains, which remain subject to governmental price controls. Also, much of what we report concerns Jordan's exports rather than its imports, owing to the genesis of the study, although we address both. The main analytical challenge lies in attempting to isolate the role of the free trade agreement (FTA) in particular in changing patterns of trade and investment.

Part II. Overview

The Jordanian economy has undergone a remarkably positive transformation since the exchange rate and banking crisis prior to 1993, which nearly halved the average Jordanian's living standard. Since then, export-led growth is higher, foreign direct investment is increasing, and poverty and unemployment have been reduced. By all accounts, a substantial portion of this transformation owes to the economic reforms implemented by the Government of Jordan (GOJ) in the last decade, including macroeconomic stabilization, liberalized foreign trade and domestic prices, reduced public debt, and privatization of state-owned enterprises (IMF, 2005).

- The economy continued to expand at a healthy, though slower pace, at a rate of 7.2 percent in 2005, down from 7.7 percent during 2004. At the same time, the external current account deficit widened significantly, mainly reflecting a growing trade deficit and a decline in external grants.

- International trade and integration with the world economy has become one of Jordan's primary strategies for continued domestic economic growth.

- The trade liberalization facilitated by the General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO) commitments and obligations, and bilateral and multilateral agreements, brought about not only considerable growth in exports and imports, but also a diversification of trade.

- The expansion in trade volumes in 2004, compared to 1999, mirrors a 60 percent increase in the overall industrial production, a 64 percent growth in value added, and a 18 percent increase in employees' compensation.

- Despite numerous investment reforms, trade liberalization has been accompanied by only a relatively modest inflow of foreign investments, particularly in the manufacturing sector. According to the World Investment Report 2005 prepared by the United Nations Conference on Trade and Development (UNCTAD), Jordan is classified as a country with high foreign direct investment (FDI) potential but low performance. The inward FDI performance index, at 2.031 in 2004, ranks Jordan at 48 out of 140 countries.

- A closer look at the investment activities over the past ten years shows, however, that the strong export performance since 2000 has been closely associated with FDI involvement. This is especially true for the export-oriented industries located in the qualifying industrial zones (QIZ) and in particular textiles and garments, and jewelry. In the case of garments, the FDI entered basically non-existent industries into the economy and managed to generate a large trade surplus with the United States in only a few years.

- The current situation of the garment industry, concentrated in the QIZs, merits separate study since issues are complex and varied (e.g., labor, local costs of production, and impact of competitors in major export markets). Nonetheless, statistics show a very significant decline in overall QIZ export growth and a shift away from using the QIZ program to the JUSFTA in exporting garments to the United States. This shift could be attributed to a combination of factors, such as the removal of the global export quotas under the Multi-Fiber Arrangement (MFA) and the cost savings that other trade arrangements such as the JUSFTA can provide.

- The non-restrictive JUSFTA rules of origin include a value added requirement and the change in tariff classification, name or use of the articles, which is used to provide the country of origin test, while also allowing for imported inputs to be used in the manufacture of the finished article for export. Thus, the JUSFTA, through its advantageous rules of origin, improves the way in which Jordanian producers source compared to the QIZ program.

- The geographic pattern of Jordan's international trade is changing and the United States is becoming a much more important trading partner than in the past. This shift coincides with the JUSFTA that provides for extensive liberalization of trade in goods across all sectors, excluding tobacco and tobacco products. The almost 100 percent coverage of the JUSFTA allows for the elimination or the significant reduction of tariffs on virtually all goods trade between the two countries.

Summary of Jordan's Trade with the World and the United States, 2000-05 (million US$)

Indicators	World			United States			U.S. Share in Total		
	2000	2004	2005	2000	2004	2005	2000	2004	2005
Imports	4,595.8	8,176.9	10,478.4	316.9	552.1	643.3	6.9%	6.8%	6.1%
Exports	1,898.7	3,881.8	4,282.8	73.3	1,092.9	1,267.3	3.9%	28.2%	29.6%
Balance	(2,697.1)	(4,295.2)	(6,195.6)	(243.6)	540.7	624.0	-	-	-

Source: Department of Statistics (DOS), Yearly and Monthly External Trade, and United States International Trade Commission (USITC), Interactive Tariff and Trade DataWeb (www.dataweb.usitc.gov).

Part III. Industry Impact and Trade Flows

Measuring the impact of the JUSFTA, or any trade agreement, is challenging due to the fact that the Jordanian economy has so extensively evolved since 2000 and therefore many factors other than the JUSFTA could have impacted on trade between Jordan and the United States. For example, Jordan's accession to the WTO and the general liberalization of the economy have contributed to the structural shift in the economy in recent years. Likewise, in the future factors other than the JUSFTA will likely have a significant impact on trade between those two countries. Taking these dynamics into account, our approach is to first develop a methodology aimed to isolate the potential impact of the FTA on trade flows, and then to apply this methodology to 20 sectors of interest for Jordan and the United States. The challenge is to isolate the impact of the FTA in particular and to apportion how much trade is new and how much trade is diverted from either other export markets or, for Jordanian exports, from other U.S. preferential access schemes such as the Generalized System of Preferences (GSP) or QIZ. Then, based on field interviews and input from various sources, we report on some of the FTA impacts which are more difficult to quantify.

We first develop the analytics of quantifying the sectoral impact of a FTA over 2000-05. We proceed at a partial equilibrium level focusing on a variety of industries in isolation. This is justified by the still small size of each industry relative both to the world economy, certainly, and to the overall size of the domestic economies involved. Our estimates and calculations focus first on the effects of tariff preferences. Specifically, any FTA-induced price increase for Jordanian exporters to the U.S. market will induce a positive supply response of FTA exports owing to:

i) an **increase** in the level of output (and employment) of the good produced in Jordan and exported to the United States;

ii) a **diversion** of some of the already existing level of Jordanian output from alternative export destinations to the U.S. market;

iii) a **conversion** of some of the already existing level of Jordanian exports to the United States from normal trade relations (NTR) (most-favored nation [MFN] applied base rate tariffs) status to FTA (duty-free) status;

iv) a **conversion** of some already-existing level of Jordanian exports to the United States from QIZ or GSP (duty-free) status to FTA (duty-free) status.

For exports from the United States to Jordan, only effects i) – iii) are relevant. Also, for U.S. exports we consider the current ad valorem tariff rates as well as Jordan's evolving tariff rate structure.

We begin with a very conservative "benchmark" case that assumes a substantial share of increased FTA exports were merely converted from GSP status and so contributed nothing to welfare. Among the findings for Jordan's exports:

- The potential impact of a FTA depends on the extent of the preferences granted, which in this case would entail the complete elimination of duties, and on how high the duties were in the first place. The average U.S. MFN tariff for the products of interest was in fact already low at 2.8 percent, and ranged from zero to 6.9 percent. Additionally, a portion of Jordanian exports enjoyed duty-free access to the U.S. market before the JUSFTA under the GSP. (The QIZs were not very important for the products of this study since we exclude garments.)

- The exporting industries in this study experienced qualitatively similar adjustments after the JUSFTA, but with significant quantitative differences.

- On average, exports to the United States for each sector increased from $1.15 million to $13.89 million, and of this increase, $11.8 million on average was designated FTA. (Note, however, that jewelry dominated this average.) While predicted increases in annual industry exports at initial world prices based on supply elasticities of 3 and 10 were on average $103,125 and $384,938, yielding average total FTA exports per industry of $1.25 million and $1.54 million, respectively, these predictions fell well short of the actual FTA exports at initial world prices that averaged $7.84 million. However, on a case-by-case basis, the predictions were much closer to actual industry experience.

- The "implied elasticity" – attributing all observed FTA exports as a response only to the tariff preferences extended – was, on average, a relatively high 42, suggesting substantial trade diversion to the U.S. market or some change in relevant factors independent of the JUSFTA. The implied elasticities among industries, however, ranged from 3.2 to 113.

- The average industry's additional (net welfare) annual export earnings on account of the FTA were $234,729, although the range was from $0 (one industry confronted a zero MFN tariff before the FTA) to $2.27 million. Of course, increased FTA export earnings for each industry are much higher than this (on average over $7 million), but we assume that any FTA exports to the United States could have been sold elsewhere at the world price anyway and so net this "gain" out.

- Our model revealed that the absolutely largest increase in exports was recorded in jewelry products (Harmonized System (HS) 71 that includes natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin) with exports rising from $9.39 million to over $77 million using the FTA, or about two-thirds of the industry's total exports to the United States.

- Our theoretical framework supports that employment will be created in exporting industries as output expands in response to the FTA trade preferences. The FTA does not reduce employment in any import-competing industries because the increased imports come at the expense of non-FTA country exporters who must now compete on less favorable terms and so see their exports displaced by U.S. or Jordanian exports. While the employment effects of the FTA are surely positive in our framework, measuring the extent of FTA-created employment in exporting industries is problematic. This is because we cannot know from the data available just how much of the observed FTA exports actually comes from new production.

- The largest annual net welfare export earnings gains occurred in plastics (HS 39) and machinery and mechanical appliances (HS 84) with increases of $37,935 and $20,380, respectively. Preparations of vegetables, fruit, and nuts (HS 20) benefited in terms of employment, with an approximate five percent gain in employment as being attributed to JUSFTA.

- There are three anomalies reported. The U.S. MFN tariff on beverages, spirits and vinegar (HS 22) was already zero before the FTA, yet Jordanian FTA exports increased substantially. Hence the large under-prediction of such exports. Printed books (HS 49) received only a small tariff preference of 0.4 percent, but nonetheless, despite a large number of exports to the United States, there were no exports of product at all under the FTA. Finally, electrical machinery and equipment (HS 85) received a tariff preference of 1.97 percent; yet despite significant exports before the FTA as well as a substantial increase afterward, apparently none of the exports after 2000 used the FTA, resulting in a substantial under-prediction of FTA exports for that industry. Of course, rules of origin requirements, sanitary and phytosanitary (SPS) measures and other non-tariff constraints, or simple ignorance of the FTA advantages may explain some of these anomalies, as discussed below.

- Less conservative assumptions than those of the benchmark case entailed much larger flows of exports attributed to the FTA.

A closer examination of Jordan's export industries is reported as well. The more detailed industry-level data and firm-level analysis seemed to corroborate that the FTA was viewed as important in the exporting and investment decisions of at least some firms. Also, this latter data seem to indicate that much of the FTA trade is not merely a customs reclassification from other duty-free options such as the GSP or QIZ. Findings for selected industries include:

- HS 20 PREPARATIONS OF VEGETABLES, FRUIT, NUTS, OR OTHER PARTS OF PLANTS -- There was a very large increase in FTA exports and a decrease to zero in NTR exports. This industry reports substantial exports under the FTA aimed at the American Arab community, with orders up sharply in the past few years. The main challenge in exporting to the United States is compliance with Food and Drug Administration (FDA) regulations.

- HS 28 INORGANIC CHEMICALS; ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE-EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES -- There was a dramatic increase in exports of this industry and almost all of the new exports used the FTA. Specifically, exports in this group consisted of three products: bromine, potassium hydroxide, and aluminum oxide. The bromine exports of almost $146,000, using the FTA for the first time in 2005, account for all of the FTA exports.

- HS 29 ORGANIC CHEMICALS **--** Despite a substantial increase in exports to the United States of these products (1,408 percent between 2005 and 2000), usage of the FTA has been limited. Nonetheless, the large increase in GSP exports indicates the importance of trade preferences generally. This is a case where the FTA can be viewed as an important viable alternative should the GSP requirements be modified in the future, and so may lend confidence of no disruption to exporters.

- HS 39 PLASTICS AND ARTICLES THEREOF -- Exports using the FTA have increased substantially. Generally, the industry reports being well aware of the FTA and its advantages.

- HS 68 ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS -- This is a fairly dynamic industry and uses both the FTA and the GSP extensively, although the tariff preference advantage is on average a modest 1.74 percent. Exports to the United States are mainly stone and marble products, including tiles. The exporters are largely aware of the FTA and view it positively.

- HS 71 NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMIPRECIOUS STONES, PRECIOUS METALS; PRECIOUS METAL CLAD METALS, ARTICLES THEREOF; IMITATION JEWELRY; COIN -- Exports of the sector have increased substantially under the FTA. The main exporter is an Italian firm (joint with Armenian interests) that produces high quality Italian design gold jewelry (gold chains and fancy jewelry). All exports are destined to the U.S. market.

- HS 84 NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF -- Exports in all customs categories have increased substantially. The company Petra Engineering is an important source of these exports, with air conditioning being a large component.

Exports from the United States to Jordan for the ten sectors studied have also increased substantially. Most of the exports from the United States are treated as FTA-eligible. Among the findings:

- Even with the recent Jordanian tariff reforms and despite incomplete implementation of the FTA, the preference margins for U.S. goods are substantial. Nonetheless, our predicted trade flows underestimated the actual increase in U.S. exports.

- The sector average exports increased from $10.87 million in 2000 to $32.96 million in 2005. The largest export sector included products such as boilers, machinery and mechanical appliances (HS 84), with exports of about $104 million; the smallest included products such as furniture, bedding, cushions, lamps and lighting (HS 94) at $7.5 million.

- For U.S. exporters, the FTA resulted in increased export earnings by an average of about $2.24 million across the industries.

- The most striking sectors are vehicles, other than railway or tramway rolling stock (HS 87) and iron and steel (HS 73) with implied elasticities of 49 and 40, respectively. Although year 2000 exports were relatively small, even without full implementation of the FTA tariff reductions, preference margins exceed 10 percent and the response has been quite dramatic.

Part IV. Evidence from Field Interviews

In order to give some perspective to the industry analysis above, we contacted a number of relevant parties for interviews. Specifically, we report on:

- Awareness of the FTA, utilization, and perceived advantages
- Compliance costs and potential rules of origin impediments
- The new legal environment, and, specifically, IPR issues
- Domestic constraints to taking advantage of the FTA

Interviews and anecdotal evidence suggested a general awareness of the FTA. Perceptions of the benefit of the program differed, however. While situations varied by industry, the magnitude of the tariff preferences for Jordanian exporters was often seen as useful but not the major consideration in the export decision. Also, tariff preferences are already available through existing GSP program. More important constraints concerned local labor conditions, packaging and marketing considerations, transport costs, and so on.

The investment response to the FTA in Jordan was reported to be low still, but not zero. There have been three firms from Turkey, for example, that invested in Jordan for export to the United States explicitly because of the FTA. And several U.S. firms have invested in Jordan on account of the FTA with the objective of sourcing to the European Union, as well as to Jordan. Also, the timing of foreign direct investment in Jordan for jewelry exports to the United States using the FTA seems to indicate that the FTA was a factor. The perception in the Jordanian business community seemed to be that U.S. firms preferred a larger market and, anyway, can work through European connections. Also, it was mentioned that the Jordanian buyer is perceived as generally more familiar with European products.

The more liberal treatment of rules of origin was considered important by some sectors, especially current QIZ exporters of garments. Also, some users of the GSP viewed the FTA as an important backstop should the GSP program cease or be modified in the future. We also found some evidence of "exporter spillovers" in that some producers were becoming more familiar and comfortable with the U.S. market simply because other exporters were now accessing that market.

Compliance with the FTA requirements was not viewed as onerous for most actual exporters. Likewise, the business practices changes associated with the FTA were viewed favorably and as important. Several sources cited the more favorable rules of origin of the FTA and generous "cumulation" rules as extremely important from a cost standpoint. Particularly when compared with the existing QIZ, the more favorable rules can have a significant impact on profits and so contribute positively to exports.

Finally, there was a clear perception that the FTA was a sign of progress toward a more liberal trade regime, although the pharmaceutical sector in particular did not welcome what it viewed as excessive patent protection.

Part V. Conclusions and Recommendations

The Jordanian economy has responded remarkably well to the progressive economic liberalization program of the past decade. An overriding recommendation would be generally to "stay the course" and for Jordan to continue with the policy of macroeconomic stabilization and economic reform.

Specifically, with regard to the FTA, several recommendations can be offered.

- Since the FTA is by its nature a piecemeal liberalization program, it is extremely important to continue to lower all NTR tariffs as FTA tariff rates are brought toward zero by 2010. All FTAs divert trade to the preferred partner, and consequently have "good" and "bad" elements. The good part for Jordan is that Jordan's exports to the United States receive preferred status (no duties need to be paid by the importers) and so command higher prices there. This is why the FTA will cause output and employment to increase in Jordan. Similarly, U.S. exports to Jordan will increase because they can enter duty free and so are preferred by importers. However, the "bad" aspect is that Jordan will no longer collect duty revenue on the imports from the United States as it will now stay with the U.S. suppliers who are now able to sell in Jordan at the tariff-protected higher prices, but do not have to pay any duty as their foreign competitors do. A good way to avoid this "cost" of lost revenue for Jordan is to have lower NTR tariffs. This will result in lower prices for Jordanian consumers and, although tariff revenues still decrease, the lost revenues now go to Jordanian consumers in the form of lower prices instead of to U.S. firms in the form of higher profits. Of course, the Government of Jordan may want to replace the lost tariff revenue, but this is "neutral" from Jordan's standpoint as it represents a transfer from taxpayers to the Government for government services provided. So long as the NTR rates are lowered, it just represents replacing one tax (the tariff) with a different (better) tax, and consumers gain from lower prices.

- Investors clearly want an effective and transparent legal environment. So continued vigilance in abiding by codes of conduct mandated by the WTO accession and reinforced by the FTA is useful. At the same time, the complaints of the pharmaceutical industry are not trivial and require some attention.

- It is always useful to disseminate information concerning the FTA or other trading opportunities. Nonetheless, experience from Jordan and from other countries suggests that lack of government-provided information is not an overwhelming constraint to exporting and importing.

- In order to monitor the FTA and to support enlightened economic liberalization generally, the GOJ should redouble its efforts to develop an analytic capacity for policy evaluation.

Part I. Introduction

The Jordanian economy has undergone a remarkably positive transformation since the exchange rate and banking crisis prior to 1993, which nearly halved the average Jordanian's living standard. Since then, export-led growth is higher, foreign direct investment is increasing, and poverty and unemployment have been reduced. By all accounts, a substantial portion of this transformation owes to the economic reforms implemented by the GOJ in the last decade, including macroeconomic stabilization, liberalized foreign trade and domestic prices, reduced public debt, and privatization of state-owned enterprises (IMF, 2005).

Highly visible among the various policy changes is the JUSFTA. On October 24, 2000, Jordan and the United States entered into a free trade agreement with the objective of strengthening economic ties, promoting investment and employment opportunities, and improving the competitiveness of both countries. The JUSFTA covers trade in goods and services, protection of IPR, the environment, labor, and electronic commerce. One of the main features of the agreement is the gradual elimination over ten years of tariffs applied to all goods, except alcohol and tobacco, traded between the two countries.

Since the JUSFTA went into effect in December 2001, exports to the United States have increased by 453 percent, or on average 91 percent a year during the last five years. The main exports to the United States were textiles and apparel, jewelry, machinery and mechanical appliances, electrical machinery and equipment, plastics, and pharmaceuticals. In terms of imports from the United States, during the last five years overall imports increased by 90 percent, or on average 18 percent a year. The top imports into Jordan were machinery and mechanical appliances, vehicles, arms and ammunition, cereals, aircrafts and parts, electrical machinery and equipment, and optical, precision and medical and surgical instruments.

While many forces beyond the FTA may be at work, it is somewhat unusual to see such a dramatic change in a bilateral trade pattern in such a short time (Cassing and Husted, 2004). And, in general, both the public and private sectors seem to believe that the country has benefited from the Agreement, yet are unsure about the nature and extent of any positive changes brought about by the JUSFTA at the sector level. To date, however, the GOJ and other interested parties have conducted no study or analytic briefing on the impact of the JUSFTA, although interest exists. The challenge, of course, lies in actually isolating the impact of the JUSFTA alone, in light of the many other changes that have occurred in Jordan, the Middle East and North Africa region, and the world.

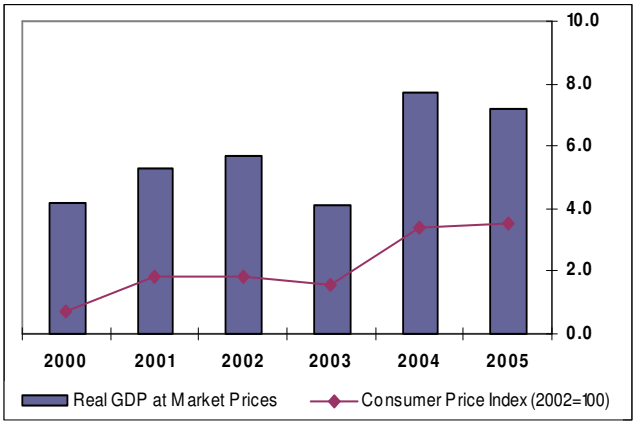
This study addresses some of the issues and aims, in particular, to assess the impact of the JUSFTA on trade and trade-related investment at a sectoral level. The focus is on industries other than the garments sector, which is already much studied, or grains, which are still the purview of the Ministry of Industry and Trade. Also, much of what we report concerns Jordan's exports rather than its imports, owing to the genesis of the study, although we address both.

The study consists of four more parts. Part II provides an overview of the changing pattern of trade and investment in the Jordanian economy since the enactment of the JUSFTA. Much of this data is recent and appears for the first time with an industry-level focus. The analytic challenge is to sort out how much of the change in the economy owes to the JUSFTA. Part III addresses the issues involved. In particular, we first provide a methodology that allows us to apportion the extent to which the JUSFTA has contributed to the pattern of Jordanian exports and imports. Our approach relies on both a formal econometric analysis and on extensive field interviews, and reference to the experience with similar FTAs in other countries. Part IV presents further results of the interviews and confronts some of the subtler potential impacts surrounding such things as awareness of the FTA, usage and inhibitions to usage, rules of origin, IPR, and some of the domestic constraints to taking advantage of the JUSFTA. Part V offers some conclusions and recommendations.

Part II. Overview

Jordan's progress in reducing trade barriers, and the structural reforms carried out by the Government in the past several years, have contributed to gains in trade and economic growth. The Social and Economic Transformation Program (SETP) introduced in 2001 was launched as a means of tackling poverty and unemployment. Financed by international aid funds and privatization proceeds, the program includes spending on infrastructure improvements, poverty alleviation and enhanced productivity, in addition to modernization of the Jordanian legislative and regulatory framework and support for the improvement of the investment climate.

Figure 1: GDP Growth and CPI, 2000-05

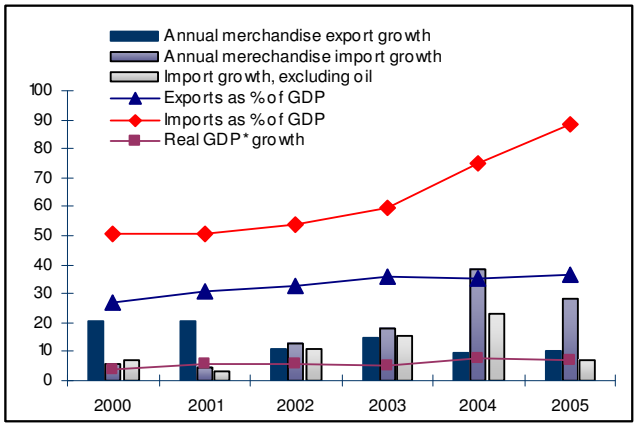


Source: Compiled from Central Bank of Jordan (CBJ), Main Economic Indicators and Consumer Price Index (CPI) tables.

Driven by domestic consumer demand and a rapid increase in oil prices, the economy continued to expand at a healthy, though slower pace, at a rate of 7.2 percent in 2005, down from 7.7 percent during 2004. At the same time, the external current account deficit widened significantly, mainly reflecting a growing trade deficit and a decline in external grants.

The trade liberalization facilitated by the GATT/WTO's commitments and obligations, and bilateral and multilateral agreements, brought about not only a considerable growth in exports and imports, but also a diversification of trade. Jordan's total external trade increased by 22.4 percent over 2004, from $12.1 billion to $14.8 billion, but also led to a growing trade deficit.

Figure 2: Foreign Trade and its Share in GDP, 2000-05



Source: Compiled from CBJ, Main Economic Indicators and External Trade tables.

The strong growth in domestic exports was largely offset by surging imports, reflecting the increased industrial production and high import content of exports, continued pickup in domestic economic activity and consumer demand, and rising world oil prices. Exports grew by 10.3 percent in 2005 over 2004, while imports' growth was 28.1 percent, significantly outweighing exports and leading to an increase in trade deficit of 44.2 percent. According to figures released by the Department of Statistics (DOS), exports are estimated at 36.3 percent of gross domestic product (GDP), while imports' share in the GDP rose to 88.7 percent compared to 73.1 percent in 2004.

Table 1: Jordan's Trade with the World, 2000-05 (million US$)

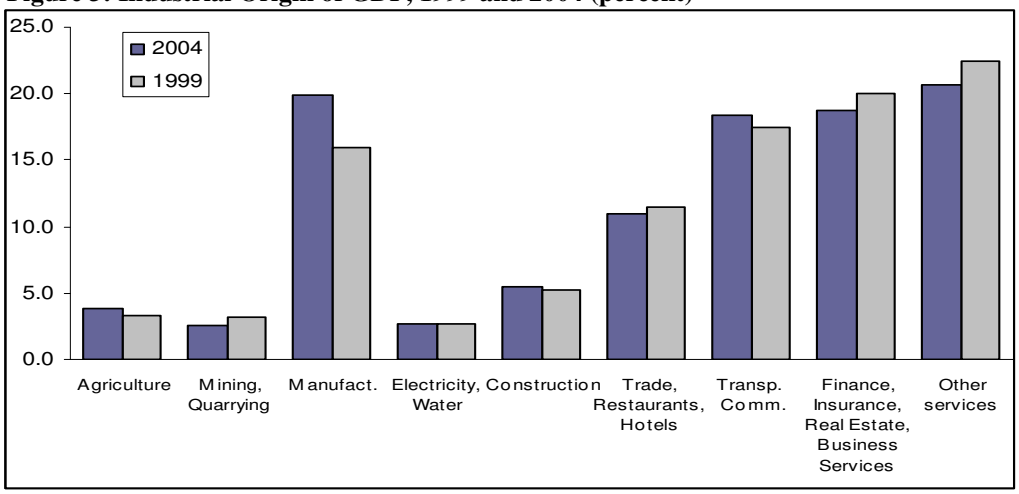
External Trade	2000	2004	2005
Imports	4,595.8	8,176.9	10,478.4
Exports	1,898.7	3,881.8	4,282.8
Balance	(2,697.1)	(4,295.2)	(6,195.6)

Source: Compiled from DOS, External Trade Statistical tables.

The increase of trade in the GDP ratio can be partly explained by the progress in the implementation of the JUSFTA, in addition to the number of bilateral and regional preferential trade agreements.

The expansion in trade volumes in 2004, compared to 1999, mirrors a 60 percent increase in the overall industrial production, a 64 percent growth in value added and 18.2 percent increase in employees' compensation. During 2004, the general industrial index rose to 129. 9 percent compared to 2000, with the manufacturing index at 133.4 percent and mining and quarrying at 103.1 percent. For 2004, figures published by the Central Bank of Jordan (CBJ) indicate highest manufacturing growths in radio, television, and communication equipment, construction materials, vehicles, tobacco products, electrical machinery and equipment, paints, products of metal, rubber and plastic products, footwear and leather, precious metals, cement and lime, pharmaceuticals, and food and beverages. The growth of manufacturing and service industries reflects the growth in domestic demand, especially in new construction activities, but also a global demand for exports.

Figure 3: Industrial Origin of GDP, 1999 and 2004 (percent)



Source: Compiled from CBJ, Monthly Statistical Bulletin.

Real growth was mainly driven by the manufacturing, transport and communications sectors, which grew by 19.9 percent and 18.5 percent respectively. The highest index is in industries which also witnessed higher export growth. Until not long ago, the manufacturing sector was held back by Jordan's small, low-middle income market, the lack of industrial raw materials and of real export competitiveness. The rapid economic growth, coupled with preferential market access, opened domestic industries to exports and also invited competition. Thus the larger market allowed for an increase of the share of the manufacturing sector in the GDP and a relatively strong export performance, driven mainly by the ready-made garment industry. Yet investments, particularly in manufacturing industries fell short of expectations. Private investors have mainly engaged in light industrial activity, such as food- processing, garments, consumer goods and construction materials. The contribution of manufacturing to GDP has shown an improvement over the past three years, while agriculture has declined.

As a whole, services still dominate the economy. Their aggregate output accounted for an estimated 70 percent of the GDP in 2004, with finance, insurance and real estate, government services, transport, storage and communications, as well as wholesale, retail, hotels and restaurants the major contributors.

Figure 5: Industrial Origin of GDP at Current Market Prices (million JD)

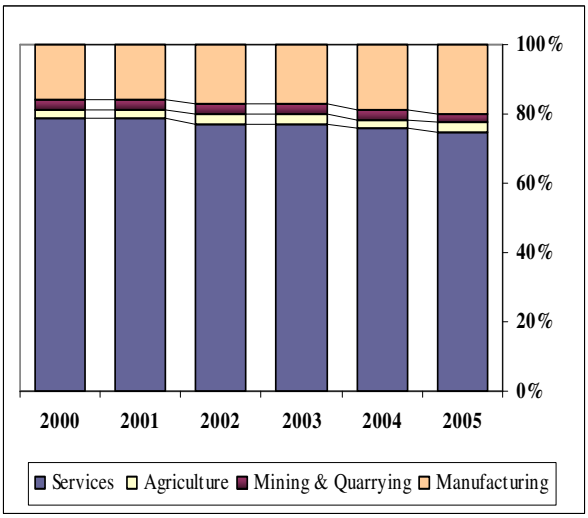
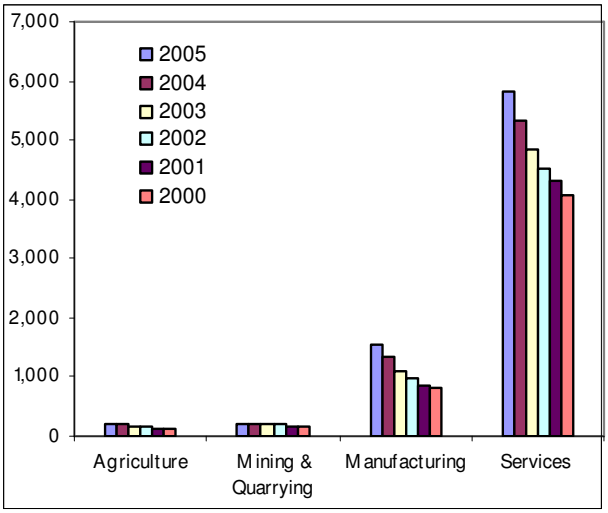


Figure 4: GDP, by Type of Economic Activity (percent)



Source: Compiled from CBJ and DOS, Industrial Origin of GDP tables.

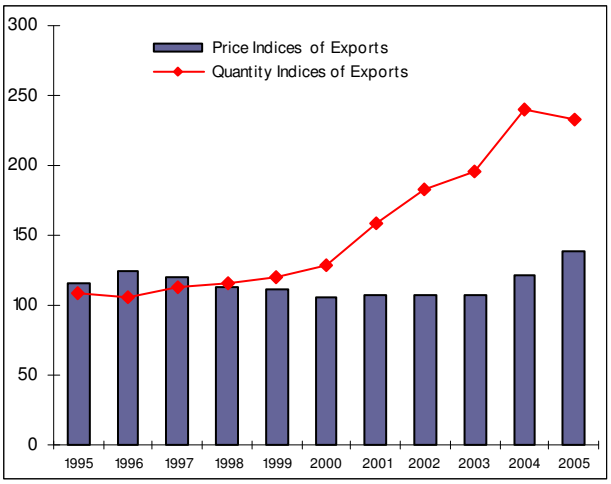
Table 2: Industrial Production Quantity Index (1999=100)

Industry	2000	2004
General Index	**106.9**	**129.9**
A. Mining, Quarrying and Manufacturing	**107.1**	**130.1**
I. Mining and Quarrying :	**101.7**	**105.1**
Extraction of Petroleum & Natural Gas	112.1	114.6
Quarrying of Stone	159.9	94.2
Phosphate	91.5	103.5
Potash	107.6	107.2
II. Manufacturing:	**107.8**	**133.4**
Radio and TV and Communication Equipments	83.0	309.2
Manufacture of Articles of Concrete & Cement	145.4	257.9
Motor Vehicles, Trailers	121.5	229.8
Tobacco Products	109.9	208.0
Machinery and Equipment	99.5	189.0
Paints	99.9	186.3
Electrical Machinery and Apparatus	98.5	177.4
Fabricated Metal Products except Machinery and Equipment	111.3	164.4
Rubber and Plastic Products	109.1	147.5
Footwear and Leather	138.3	146.6
Basic Precious and Non-Ferrous Metals	95.8	143.1
Cement and Lime	98.0	142.4
Pharmaceuticals	108.3	134.7
Food Products and Beverages	134.3	130.8
Iron and Steel	100.9	127.5
Paper and its Products	100.2	122.3
Basic Chemicals, except Fertilizers	92.5	121.3
Refined Petroleum Products	109.4	120.9
Wearing Apparel and Textiles	94.0	113.2
Furniture	91.6	108.7
Fertilizers	86.4	105.3
Cutting Shaping and Finishing of Stone	94.7	98.3
Publishing and Printing	120.5	92.5
Detergents and Soap	70.1	90.9
Other	79.0	79.9
Medical Equipment	104.3	70.0

Wood and Cork, except Furniture	69.8	69.7
B. Electricity ,Gas, Steam and Hot Water Supply	**104.5**	**127.3**

Source: Compiled from CBJ and DOS, Economic Activity Indicators.

Figure 6: Price and Quantity Indices of Domestic Exports (1994=100)

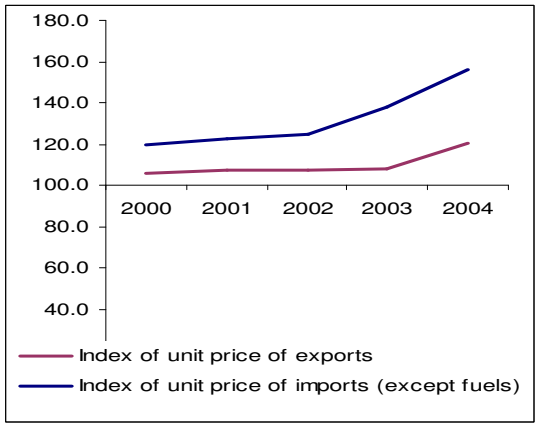


Source: CBJ, Quantity Indices of Domestic Exports.
Note: Data for 2004-05 are preliminary.

During 2000-2005, price indices for most exports went up, with highest increase of manufactured goods (43.5%), chemicals (40.3%, crude materials except fuel (32.9%), followed by food and live animals (24.5%), machinery and transport equipment (13.8%), beverages and tobacco (16.5%) and miscellaneous manufactured articles (18.9%).

At the same time, export quantity indices were at 511.2 for miscellaneous manufactured articles, 414.5 for beverages and tobacco, 100.9 for machinery and transport equipment, 91.5 for food and live animals, 57.6 for vegetable and animal fats, 20.7 for chemicals, 8 for manufactured goods, and 4.4 for crude materials, except fuel.

Figure 7: Index of Import –Export Prices, 2000-04



Jordan pays more for imports it receives than for its exports. The aggregate index of exports' unit price has increased from 105.8 in 2000 to 120.3 in 2004, while the index of unit price of imports (except fuels) increased from 119.7 in 2000 to 155.8 in 2004.

2.1. JUSFTA and Other Reforms

International trade and integration with the world economy has become one of Jordan's primary strategies for continued domestic economic growth. Towards it, the authorities took measures to create open market mechanisms in favor of foreign investment and trade operations with the aim of improving productivity, domestic industries' international competitiveness, create much needed jobs, and in general improve the standard of living. Trade liberalization and facilitation measures implied removing of tariffs and restrictive regulations and other impediments that affect the physical movement of goods and capital across borders, or, in case of services, restrictions on the mobility of labor or investment across borders, and are ultimately aimed at reducing the costs on international transactions. Jordan's trade regime has been liberalized, first, to secure the country's membership in the WTO and compliance with its agreements. In its accession to the GATT, the General Agreement on Trade in Services (GATS) and the Trade-Related Aspects of Intellectual Property Rights (TRIPS), Jordan obliged to ensure that the national legislation, regulations and procedures are in conformity with the provisions of these agreements.

As party to the multilateral trading system under WTO, Jordan has reduced tariffs across the board to all trading partners and on a MFN, non-discriminatory basis and further eliminated barriers preferentially

through bilateral and regional trade agreements. Under MFN or NTR, the country has a simple import tariff structure, with 100 percent binding coverage.

In 2005, the Government announced new measures to unilaterally eliminate custom tariffs on more than 200 import items, mainly raw materials and other industrial inputs. These measures aim at further liberalizing trade, free up funds for investments and consumption and provide additional incentives for the manufacturing sector.

Table 3: Jordan's Import Tariff Structure, WTO-Bound

Tariff Bands	2000	2005	2006	2010
	---------- % share ----------			
30%	46.8%	23.5%	22.9%	22.9%
25%	0.1%	18.9%	0.3%	0.8%
20%	4.1%	3.8%	3.8%	21.6%
15%	8.1%	8.1%	8.1%	9.0%
10%	15.2%	13.2%	10.8%	10.8%
5%	20.9%	19.9%	19.9%	19.8%
0%	3.4%	7.1%	7.1%	7.3%
Other	2%	5%	27%	7.8%
Average tariff	**19.9%**	**17.4%**	**17.1%**	**16.3%**

Source: Calculated from Jordan Customs' tariff tables.

In addition to commitments under WTO/GATT, further trade liberalization was achieved by entering in a number of bilateral and multilateral trade agreements. In 1996, the United States extended the Israeli-U.S. FTA duty-free status to products of the West Bank, Gaza Strip and QIZs, thus allowing for Jordanian products manufactured in the QIZs the opportunity to gain duty-free access to the U.S. market. The 1997 QIZ Agreement signed between Jordan and Israel managed to attract millions of dollars in foreign investment, created tens of thousands of jobs and massively increased Jordan exports to the United States. The JUSFTA, signed in 2000 and entered into force in December 2001, provides for the elimination of all barriers to bilateral trade in goods and services within ten years. The agreement incorporates flexible rules of origin and provisions for e-commerce, trade related labor and environmental provisions, IPR protection and dispute settlement mechanism. To complement the FTA, the Bilateral Investment Treaty (BIT) with the United States (signed in 1997), in effect since 2003, provides for reciprocal protection of Jordanian and U.S. individual and corporate investments.

The Pan-Euro Mediterranean Agreement between Jordan and the European Union (EU), in effect since 2002, aims at establishing a free trade area over a period of 12 years. The Association Agreement was part of the 1994 Barcelona Conference with its key objective of creating a free trade area in industrial goods between the European Union and 12 Mediterranean countries by the year 2010, later modified to 2012. Jordan negotiated its Association Agreement with the European Union in 1997, but for political and economic reasons it was not ratified by both sides until 2002. In 2004, Jordan signed the Aghadir Agreement with Egypt, Morocco and Tunisia, a further step towards a Mediterranean regional integration and better prospects for cumulation on rules of origin. Also in 2004, Jordan signed a FTA with Singapore towards the creation of a free trade area and greater cooperation for investment in high value-added industries. Regionally, the country has been party to the Great Arab Free Trade Area (GAFTA) since 1998, and in December 2004 further liberalized trade with Israel in the framework of the Pan-Euro-Mediterranean agreement, ensuring a system of cumulation of origin for preferential access to the European market. Currently the country is negotiating a free trade agreement with Turkey.

2.2. Changing Patterns of Trade and Investment

2.2.1. Overall

The country's trade with the world increased by 22.4 percent in 2005, up from $12 billion in 2004 to $14.8 billion in 2005. Exports (domestic and re-exports) reached $4.3 billion in 2005, while imports amounted to $10.5 billion. The surge in international oil prices, the pick up in domestic consumer demand and the large import content of manufacturing exports, led, despite the 10.2 percent growth of exports, to a 44.2 percent negative trade balance. Imports of raw materials and investment goods were an important factor in underlying the trade expansion. Oil and steel, construction materials and textile imports were influenced by an increase in the manufacturing and construction sectors.

Figure 8: Top Export Markets, 2000-05 ('000 US$)

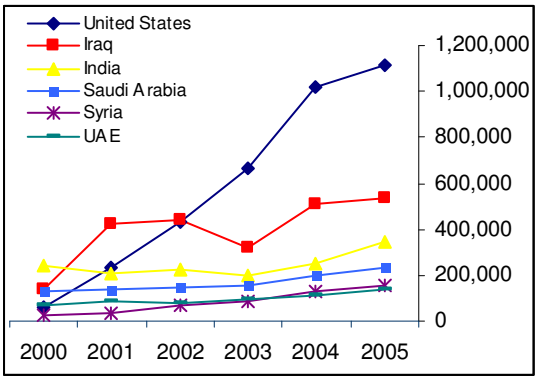


Table 4: Summary of Jordan's Trade with the World and the United States, 2000-05 (million US$)

Indicators	World			United States			U.S. Share in Total		
	2000	2004	2005	2000	2004	2005	2000	2004	2005
Imports	4,595.8	8,176.9	10,478.4	316.9	552.1	643.3	6.9%	6.8%	6.1%
Exports	1,898.7	3,881.8	4,282.8	73.3	1,092.9	1,267.3	3.9%	28.2%	29.6%
Balance	(2,697.1)	(4,295.2)	(6,195.6)	(243.6)	540.7	624.0	-	-	-

Source: DOS, Yearly and Monthly External Trade and USITC's Interactive Tariff and Trade DataWeb.

Jordan's top export markets in 2005 were the United States with 29.6 percent of total ($1,267.3 million), followed by Iraq ($534.2 million), India ($344.7 million), Saudi Arabia ($233.5 million), Syria ($159.3 million) and the United Arab Emirates ($135 million). Main exports were *products of chemical and allied industries*, *textile and apparel, machinery and mechanical appliances, electrical equipment and vegetable products*. For the same year, top import sources were Saudi Arabia with 23.7 percent of total ($2,478 million), followed by China ($961.2 million), Germany ($837 million), the United States ($643.3 million) and South Korea ($372.5 million), with products such as *minerals, machinery and mechanical appliances, electrical equipment, vehicle and transport equipment, metals and articles of base metal.*

Figure 9: Top Import Markets, 2005

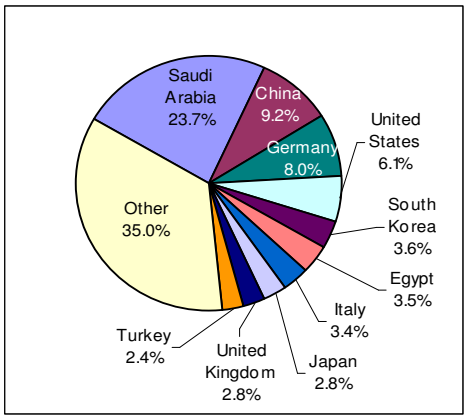
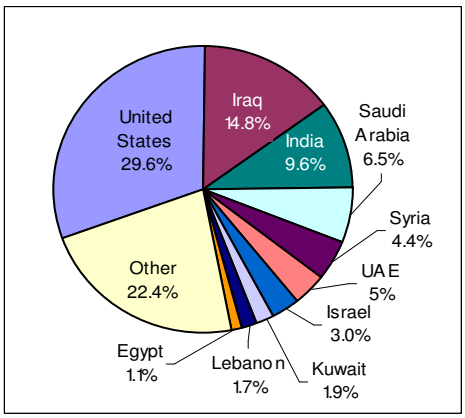


Figure 10: Top Export Markets, 2005



Source: DOS, Yearly and Monthly External Trade Data Tables.

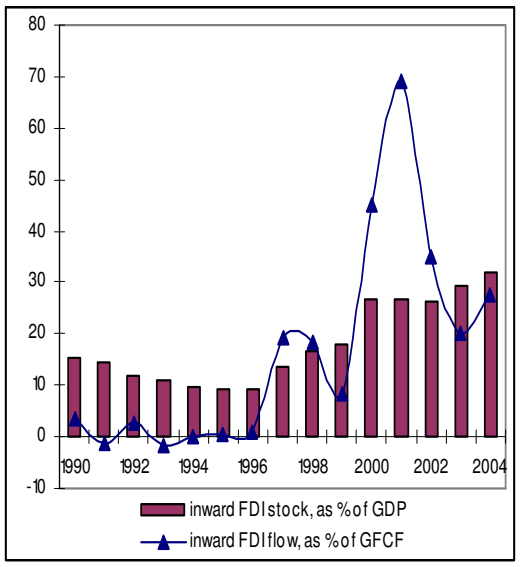
2.2.2 Investments

The economic growth of the past years needs to be sustainable in order to support the relatively high rate of population growth. The Government has pursued economic and regulatory reforms, as well as reformed key economic sectors in order to enhance the country's attractiveness to investors, increase FDI inflows, improve productivity and foster economic growth. Working closely with the International Monetary Fund (IMF), the authorities practiced careful monetary policy, and made significant progress in the privatization program.

Attractive investment incentives granted to domestic and foreign investors take the form of exemptions from custom duties, tax incentives, and unrestricted transfer of capital and profits. A policy of privatization of government-owned companies in telecommunications, transport, cement and other key sectors has increased efficiency, boosted employment, and strengthened foreign exchange reserves. Other measures aimed at fostering a more conductive environment for private sector dynamism were: introducing legislation to abolish control of foreign ownership of property and land, strengthen the judicial system and regulatory agencies, encourage and regulate leasing activities, e-commerce and e-government. The government has enacted several laws related to the promotion of foreign investments. The Competition Law, endorsed by the Parliament in 2004 (though effective as a provisional law since August 2002) provides strong incentives for promoting private entrepreneurship and attracting foreign direct investment. The law protects small- and medium- sized enterprises from unfair competition by dismantling cartels and monopolies. It also prevents price-fixing and encourages competitive innovation to ensure consumers' access to quality products at reasonable prices. The Companies Law No. 22 of 1997 amended by Law No.40 of 2002, is aimed at streamlining the registration process and lists the types of companies which can be registered in Jordan.

The Jordanian Executive Privatization Commission (EPC), supported by the World Bank and the United States Agency for International Development (USAID), is responsible for the management of the privatization program. With the privatization of many state–owned companies, several regulatory bodies were created: the Telecommunications Regulatory Commission (TRC), Stock Market Regulatory Commission, the Public Transport Regulatory Commission and the Aqaba Railway Corporation.

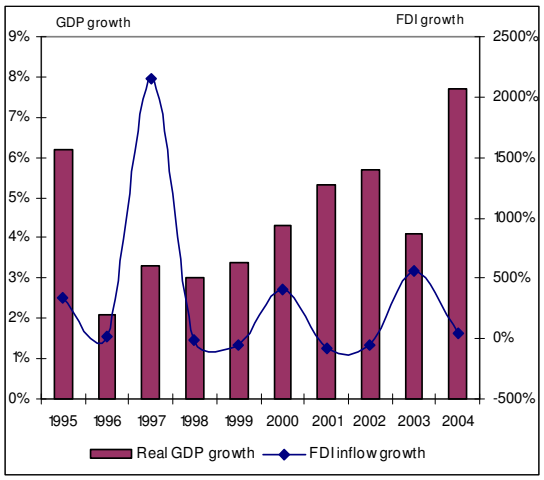
Figure 11: FDI Flows as Percent of GDP and FDI Stocks as Percent of GFCF, 1990-2004



Yet, these measures, aided also by trade liberalization, have been accompanied by only a relatively modest inflow of foreign investments, particularly in the manufacturing sector. According to UNCTAD, *World Investment Report 2005*, Jordan is classified as a country with high FDI potential but low performance. The inward FDI performance index, at 2.031 in 2004, ranks Jordan at 48 out of 140 countries.

A closer look at the investment activities over the past ten years shows, however, that the strong export performance since 2000 has been closely associated with FDI involvement. This is especially true for the QIZ export-oriented industries and in particular textiles and garments, and jewelry. In the case of garments, the FDI entered basically non-existent industries and managed to generate a large trade surplus with the United States in only a few years.

Figure 12: 2004 Growth Rates of FDI Inflows and GDP, 1995-2004

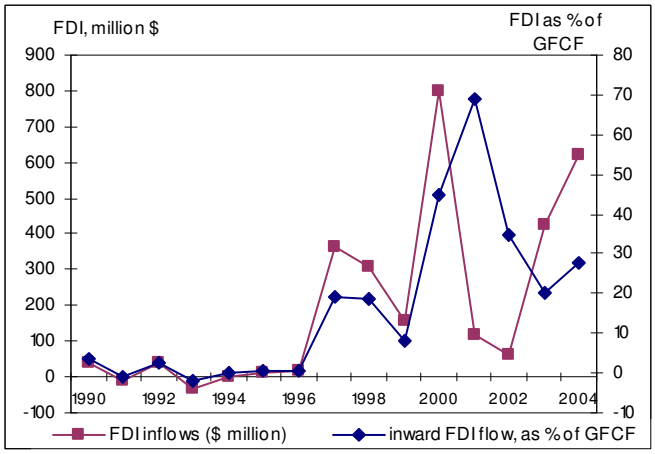


If we consider the gross fixed capital formation indicator as a fairly reliable measure of the trend in new fixed capital assets by enterprises in the domestic economy, we can conclude that FDI brought a positive effect on capital formation. The average ratio of FDI inflows to gross fixed capital formation (GFCF) increased over the past ten years, with the highest growth of 69 percent in 2001. The same ratio was at 27.6 percent in 2004, compared to 20.1 percent in 2003 and only 3.5 percent in 2002, while the inward FDI stock, as percentage of GDP was 31.9 in 2004, up from 26.8 in 2000.

According to UNCTAD,[1] total inward FDI in 2004 amounted to $620.3 million, up 46.2 percent from $424.1 million in 2003. The Jordan Investment Board's figures, which account for investments that are registered under the Investment Promotion Law, show total investments (foreign and domestic) in 2005 at $1,057.5 million, up 79.3 percent from 589.8 million in 2004. The industrial sector accounts for 55.1 percent (at $582.5 million), out of which 69 percent ($400.6 million) is domestic investment. A breakdown of foreign industrial investments is presented in Table 5.

In the presence of a liberal trade regime, it was expected that Jordan would be able to attract more investment and capitalize on the potential technology transfer and skill spillover effects of FDI. The potential positive effect of FDI on economic growth is dependent on several factors, and, in Jordan's case the modest FDI gains could be attributed to the small market size, the predominantly service based economic structure, the lack of qualified (or even unqualified) domestic workforce[2], the lack of industries' adequate backward and forward linkages and the difficult geopolitical situation (heightening the risk perception of investors).

Figure 13: FDI Inflows and their Share in GFCF, 1990-2004



Source: International Monetary Fund, *World Economic Outlook Database*, September 2005 and UNCTAD, *World Investment Report, 2005*, World Investment Directory on-line.

[1] UNCTAD FDI Statistical Tables, Major FDI Indicators.

[2] Although Jordan experiences a chronic labor excess, it still imports large numbers of skilled and unskilled foreign workers. The case of the domestic and foreign garment manufacturers is replicated in other emerging, export oriented industries. The latest DOS (official) unemployment figures are 15.7 in the Quarter II of 2005.

Table 5: Foreign Investments that Benefited from the Investment Promotion Law (million US$)

Industrial Sectors	2000	2001	2002	2003	2004	2005
Food and beverage industries	8.0	387.5	13.3	3.2	12.4	30.9
Tobacco and alcohol	3.1	4.9	0.1	0.2	0.0	0.1
Textiles	7.2	0.1	1.6	0.4	0.0	1.7
Clothing	77.7	86.3	20.6	26.2	75.9	17.2
Leather and leather articles	2.8	0.0	1.0	0.1	0.0	0.0
Wood and wood products, except furniture	5.9	0.2	1.3	0.0	0.0	0.0
Paper and paper products	0.0	0.3	0.0	1.3	3.0	6.1
Printing and publishing	1.2	0.9	0.8	0.0	1.1	1.0
Petroleum products	0.0	0.0	3.5	0.0	0.0	2.1
Chemicals	1.7	0.3	93.2	0.3	3.1	37.5
Rubber and plastics	13.7	8.5	2.8	29.8	1.7	24.0
Engineering	8.6	3.1	10.3	1.1	2.3	37.5
Cosmetics and toiletries	0.2	0.5	0.1	0.5	0.3	0.1
Pharmaceuticals	0.0	0.4	1.3	2.3	0.0	0.2
Office equipment	0.6	0.0	0.0	0.0	0.0	0.0
Electrical machinery, apparatus	2.3	4.2	0.0	47.1	0.7	19.0
Communication equipment, radio, TV	0.0	0.0	0.0	0.0	0.0	0.0
Information and communication	0.4	3.7	16.1	0.4	0.5	2.7
Vehicles and transport equipment	0.0	0.4	0.1	0.0	1.8	0.0
Furniture	0.7	5.4	0.1	0.0	0.1	0.4
Metals	0.0	0.1	5.1	1.4	0.0	0.0
Products of metal	0.4	13.8	4.7	0.6	4.8	1.0
Other	0.0	0.0	0.7	0.0	0.0	0.0
Total	**134.5**	**520.4**	**176.7**	**114.8**	**107.6**	**181.5**

Source: Jordan Investment Board (JIB).

Table 6: Trade with the World and the United States, 2005 ('000 US$)

HS Section	Description	Exports*			Imports**			Balance	
		World	U.S.A.	US % of Total	World	U.S.A.	US % of Total	World	U.S.A.
I.	Live animals; animal products	67,893	126	0.002	288,239	2,097	0.007	(129,680)	(1,971)
II.	Vegetable products	258,918	475	0.002	561,561	66,643	0.119	(302,642)	(66,168)
III.	Animal or vegetable fats and oils	120,951	363	0.003	151,826	10,450	0.069	(30,875)	(10,087)
IV.	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	159,631	2,446	0.015	449,395	11,626	0.026	(289,763)	(9,180)
V.	Mineral products	28,022	98	0.003	2,433,373	1,056	0.000	(2,405,351)	(958)
VI.	Products of the chemical or allied industries	1,257,850	5,428	0.004	657,008	30,357	0.046	600,842	(24,929)
VII.	Plastics and articles thereof; rubber and articles thereof	120,897	2,448	0.020	416,480	9,523	0.023	(295,584)	(7,075)
VIII.	Raw hides and skins, leather, furskins and articles thereof	7,327	45	0.006	10,195	216	0.021	(2,868)	(171)
IX.	Wood and articles of wood	10,151	52	0.005	129,597	2,836	0.022	(119,446)	(2,784)
X.	Pulp of wood or of other fibrous cellulosic material	80,876	2,702	0.033	236,331	11,452	0.048	(155,455)	(8,750)
XI.	Textiles and textile articles	1,102,764	1,082,933	0.982	865,776	7,601	0.009	236,988	1,075,332
XII.	Footwear, headgear, umbrellas	3,623	109	0.030	32,369	542	0.017	(28,747)	(433)
XIII.	Articles of stone, plaster, cement, asbestos	26,309	1,228	0.047	132,116	1,155	0.009	(105,807)	73
XIV.	Natural or cultured pearls, precious or semi-precious stones	179,641	118,775	0.661	235,395	1,367	0.006	(55,754)	117,408
XV.	Base metals and articles of base metals	178,964	50	0.000	794,200	29,234	0.037	(615,236)	(29,184)
XVI.	Machinery and mechanical appliances; electrical equipment	376,144	8,555	0.023	1,618,752	143,829	0.089	(1,242,608)	(135,274)
XVII.	Vehicles, aircraft, vessels and associated transport equipment	149,739	374	0.002	1,007,692	133,261	0.132	(857,952)	(132,887)
XVIII.	Optical, precision, medical instruments and apparatus	35,041	440	0.013	146,873	34,005	0.232	(111,831)	(33,565)
XIX.	Arms and ammunition	-	-	0.000	-	68,680	0.000	-	(68,680)
XX.	Miscellaneous manufactured articles	54,329	135	0.002	111,506	11,354	0.102	(57,176)	(11,219)
XXI.	Works of art, collectors' pieces and antiques	351	515	1.466	198	20	0.101	153	495
	Unspecified (others)	54,047	39,768	0.736	199,506	30,009	0.150	(186,397)	6,203
	TOTAL	**4,282,832**	**1,267,068**	**0.296**	**10,478,385**	**607,308**	**0.058**	**(6,155,189)**	**659,760**

Source: DOS, Yearly and Monthly External Trade Databank, and USITC's Interactive Tariff and Trade DataWeb.
Note: *Exports= total exports (domestic + re-exports)
**US Exports = Domestic exports only

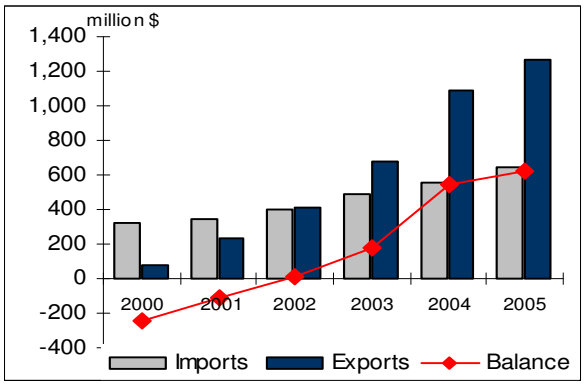
2.3. Jordan – United States Trade

Trade with the United States in particular continues to increase and diversify as we move more into the implementation of the JUSFTA. Jordan has managed to move away from mainly intraregional trade which was based in the past on similar production and export structures with the countries in the region and offering limited possibilities of trade diversification, into global, more dynamic trade. The market access gained through trade liberalization has allowed the country to increase its share in global trade, and in particular with the United States

In 2005, the United States was Jordan's top export market and fourth import supply source. Total bilateral trade increased by 17.7 percent over 2004, reaching $1.9 billion. For the same period, exports to the United States increased by 15.9 percent, much faster than the 10.3 percent increase of exports to the world. The ratio of exports (domestic plus re-exports) to the United States to Jordan's world exports increased from 3.8 percent in 2000, to 28.2 percent in 2004 and 29.6 percent in 2005.

At the end of December 2005 Jordan ranked 70 as the United States' largest trading partner, with total merchandise trade of $1.9 billion, an increase of 17.7 percent from the $1.6 billion in 2004. Merchandise exports to the United States reached over $1.2 billion and imports from the United States amounted to $643 million.

Figure 14: Jordan-U.S.Trade, 2000-05



Source: USITC Tariff and Trade DataWeb.

The non-restrictive JUSFTA rules of origin include a value added requirement and the change in tariff classification, name or use of the articles, which is used to provide the country of origin test, while also allowing for imported inputs to be used in the manufacture of the finished article for export. Thus, the JUSFTA, through its advantageous rules of origin improves the way Jordanian producers source compared to the QIZ program. Under the Agreement producers can use local, U.S. or foreign inputs to qualify for preferential treatment, as opposed to the QIZ program which contains the minimum eight percent requirement to source Israeli inputs. The latter leads to higher cost of inputs to qualify, and can be equivalent to an average duty of around three to four percent (see case study in Box 1). Therefore, the margin of QIZ tariff preference for the majority of products that currently still retain some duties under the FTA is almost non-existent due to the restraining Israeli cumulation requirements. In addition, there is no territorial restriction when exporting under the JUSFTA, while the QIZ program's zero tariff benefits go only to goods manufactured and exported from a qualifying industrial zone.

The time span for JUSFTA tariff schedule implementation stretches over ten years, but the impact of tariff reductions began to show since the first years of implementation, with import and export tariffs reducing every year. As of January 1, 2006, the JUSFTA entered into its sixth year of implementation, with scheduled categories A, B and C already completely duty-free, D group duties reduced by 60 percent and with goods classified in the exception categories also gradually reduced. The full implementation of the agreement will begin on January 1, 2010 when duties on all goods traded between the two countries will become zero. Exceptions are tobacco (not included in

the schedule), and alcohol, on which import duties are gradually reduced, but not totally eliminated (i.e. will retain a max. 80 percent duty rates at the end of the 10-year implementation period).

As previously noted, according to the U.S. schedule for imports of goods originating in Jordan, approximately 96 percent of tariff lines are currently duty–free. The remaining four percent include some articles of clothing, footwear and agricultural products (group D, H, and I) that will be eliminated either gradually by or in one step on Jan 1, 2010 (group F). As a result of this gradual tariff elimination, a significant number of tariff lines for articles of apparel and clothing are no longer charged customs duties under the JUSFTA, and thus, for most of these goods the agreement outmatches the duty-free QIZ program. The exception category F includes five *articles of apparel* (HS: 61041200, 61046220, 61099010, 61102010, 61102020, and 61103030) and four *articles of luggage* (HS: 42021220, 42021240, 42021260, and 42021280). These items will retain the base rate duty until January 1, 2010, at which time they will become duty-free.

Jordan's imports from the United States also benefit from similar scheduled tariff elimination. With the exception of a short list of products included in the special groups (G, I, J, K, L and M), more than 60 percent of goods imported from the United States are currently duty-free, while for most of the remaining tariff lines duties are gradually eliminated through the implementation period. As of January 1, 2006, goods of group D (approx. 2,200 articles) are levied 12 percent duties, instead of the initial 30 percent and will continue to be further reduced in equal yearly rates. These changes have begun to positively reflect on the wholesale and retail sectors in addition to industries which import industrial and agricultural products from the United States, such as chemicals manufacturing, textile and apparel manufacturing, construction, glassware, printing, wood and furniture industry, mechanical an electrical appliances and equipment, agricultural and food processing industries.

Table 7: Scheduled Elimination of Jordan Import Tariffs by FTA Rates in 2000, 2005 and 2006

2000 tariffs bands	% share	2005 tariffs bands	% share	2006 tariffs bands	% share
30%	46.8%	30%	1.3%	80%	0.0%
25%	0.1%	20%	0.6%	38%	0.0%
20%	4.1%	12%	36.4%	35%	0.0%
15%	8.1%	8%	0.5%	30%	1.3%
12%	0.0%	0%	61.0%	22%	0.0%
10%	15.2%	Other	0.1%	20%	0.6%
8%	0.0%			12%	36.4%
5%	20.9%			8%	0.5%
0%	3.4%			0%	61.0%
Other	2.0%				

Source: Compiled from Jordan's FTA schedule of tariffs elimination.

Jordan's import exception groups include a relatively small number of tariff lines for which tariff elimination is applied according to a different schedule, but fully implemented by January 1, 2010. Examples are passenger vehicles (group M) originating in the United States and that currently benefit from a 10 percent tariff reduction. Instead of the 30 percent initial duties upon import, duty rates on these vehicles are 20 percent in 2006, 15 percent in 2007, 10 percent in 2008 and 5 percent in 2009, with full elimination on January 1, 2010.

The average ad valorem tariffs for imports and exports, according to the HS section-level classification for year 2000 (prior to FTA implementation) and in 2006 (year six of FTA implementation), are presented in Table 8 below. The overall average unweighted ad valorem tariff for Jordan's exports in 2006 is 0.2 percent, compared to the 6.9 percent of average import tariffs.

Table 8: Average Ad-valorem Tariffs Before and in Year Six of FTA Implementation

HS Sections	Description	Jordan (FTA) Import Tariffs		US (FTA) Import Tariffs	
		2000	2006	2000	2006
I.	Live animals; animal products	17.8%	3.7%	4.0%	0.1%
II.	Vegetable products	19.2%	13.6%	2.9%	0.1%
III.	Animal or vegetable fats and oils	17.5%	5.5%	1.8%	0.0%
IV.	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	32.3%	16.1%	4.3%	0.1%
V.	Mineral products	13.2%	3.3%	0.2%	0.0%
VI.	Products of the chemical or allied industries	14.1%	1.8%	3.6%	0.0%
VII.	Plastics and articles thereof; rubber and articles	15.9%	5.0%	3.7%	0.0%
VIII.	Raw hides and skins, leather, fur skins and articles thereof	15.0%	5.5%	4.8%	0.3%
IX.	Wood and articles of wood	12.8%	4.4%	2.3%	0.0%
X.	Pulp of wood or of other fibrous cellulosic material	17.9%	5.6%	0.8%	0.0%
XII.	Textiles and textile articles	17.3%	5.4%	8.7%	0.4%
XII.	Footwear, headgear, umbrellas	27.5%	10.9%	9.6%	2.2%
XIII.	Articles of stone, plaster, cement, asbestos	22.2%	7.8%	5.0%	0.4%
XIV.	Natural or cultured pearls, precious or semi-precious stones	16.5%	3.3%	3.0%	0.0%
XV.	Base metals and articles of base metals	15.1%	4.1%	2.4%	0.0%
XVI.	Machinery and mechanical appliances; electrical equipment	12.4%	4.8%	1.6%	0.0%
XVII.	Vehicles, aircraft, vessels and associated transport equipment	15.1%	6.8%	2.6%	0.3%
XVIII.	Optical, precision, medical instruments and apparatus	17.8%	7.4%	1.5%	0.0%
XIX.	Arms and ammunition	25.2%	9.7%	1.2%	0.0%
XX	Miscellaneous manufactured articles	26.0%	10.5%	2.6%	0.0%
XXI.	Works of art, collectors' pieces and antiques	27.5%	10.5%	0.0%	0.0%

Source: Compiled from the Jordan and U.S. schedule of tariff reductions.

Figure 15: **Ad-valorem Tariffs for Jordan Imports under the FTA, 2000 and 2006**

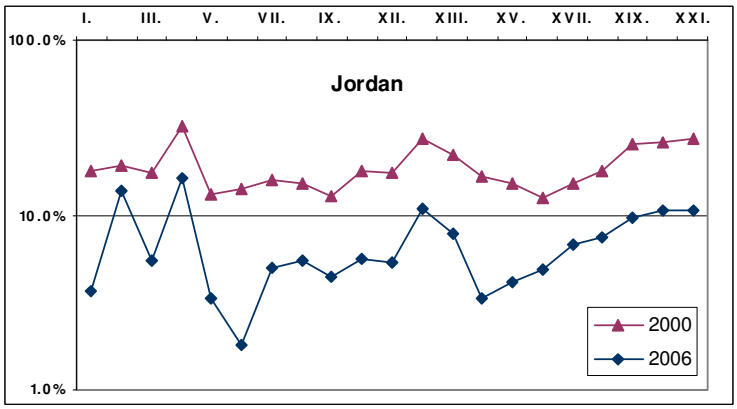
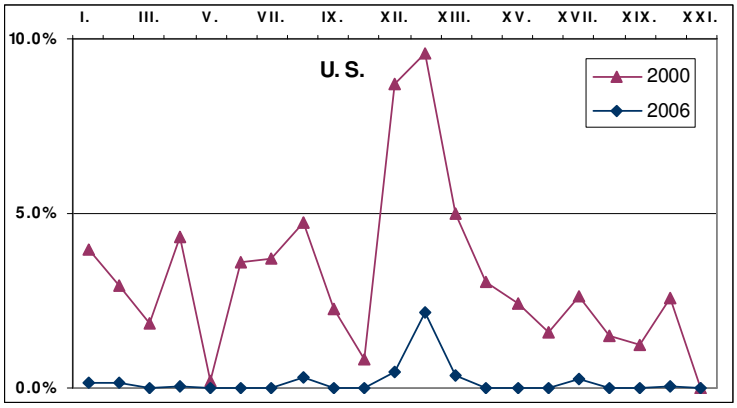


Figure 16: **Ad-valorem Tariffs for Jordan Exports under the FTA, 2000 and 2006**



Source: Compiled from Jordan's and U.S.'s schedule of tariffs elimination.

Table 9: Jordan – U.S. Bilateral Trade, 2000-05 ('000s US$)

Indicator	2000	2001	2002	2003	2004	2005	Growth '00-'05
Jordan Exports	72,842	229,110	412,084	673,290	1,092,575	1,267,300	**15.9%**
Jordan Imports	305,597	339,129	396,617	479,310	531,415	643,300	**16.7%**
Total Trade	**378,439**	**568,239**	**808,701**	**1,152,600**	**1,623,990**	**1,910,600**	**17.7%**
Balance	**(232,755)**	**(110,019)**	**15,467**	**193,980**	**561,160**	**624,000**	**11.2%**

Source: USITC, Tariff and Trade DataWeb.

Based on to the Standard International Trade Classification Code (SITC), the 2004-2005 change in Jordanian exports of goods to the United States reflects increases of 15.1 percent in *miscellaneous manufactured articles* ($1,207 million), 41.8 percent in *other commodities* ($39.7 million), 79.4 percent in *chemicals and related products* ($5.4 million), 74.4 percent in *manufactured goods classified by material* ($2.3 million), 17.9 percent in *machinery and transport equipment* ($8.9 million) and 283.9 percent in *beverages and tobacco* ($0.85 million). A 19.1 percent decrease occurred in exports of *animal and vegetable oils and fats* ($0.29 million). Consumer goods top the list of exports, in particular with *articles of textile and clothing*, followed by *jewelry* and *medical and pharmaceutical preparations.*[3]

[3] Based on the U.S. end-use code classification, Jordan's export figures reflect an increase of 40.4 percent in *capital goods, except automotive* ($5.7 million), 29.3 percent in *food, feed and beverages* ($3.0 million), 27.5

For the same period, the change in Jordanian imports from the United States reflected increases of 45.9 percent in *machinery and transport equipment* ($313 million), 16.5 percent in *miscellaneous manufactured articles* ($117.2 million), 45.4 percent in *manufactured goods classified by material* ($38.6 million), 15 percent in *other commodities, n.e.c.* ($30 million), and a 29.7 percent drop in *food and live animals* ($75.4 million). Jordan's imports from the United States are topped by *passenger vehicles, tanks and artillery, guns and ammunition, cereals, industrial machinery and telecommunications equipment.*[4]

Table 10: Top Exports-Imports, SITC Classification, 2000, 2001 and 2004-05 ('000s US$)

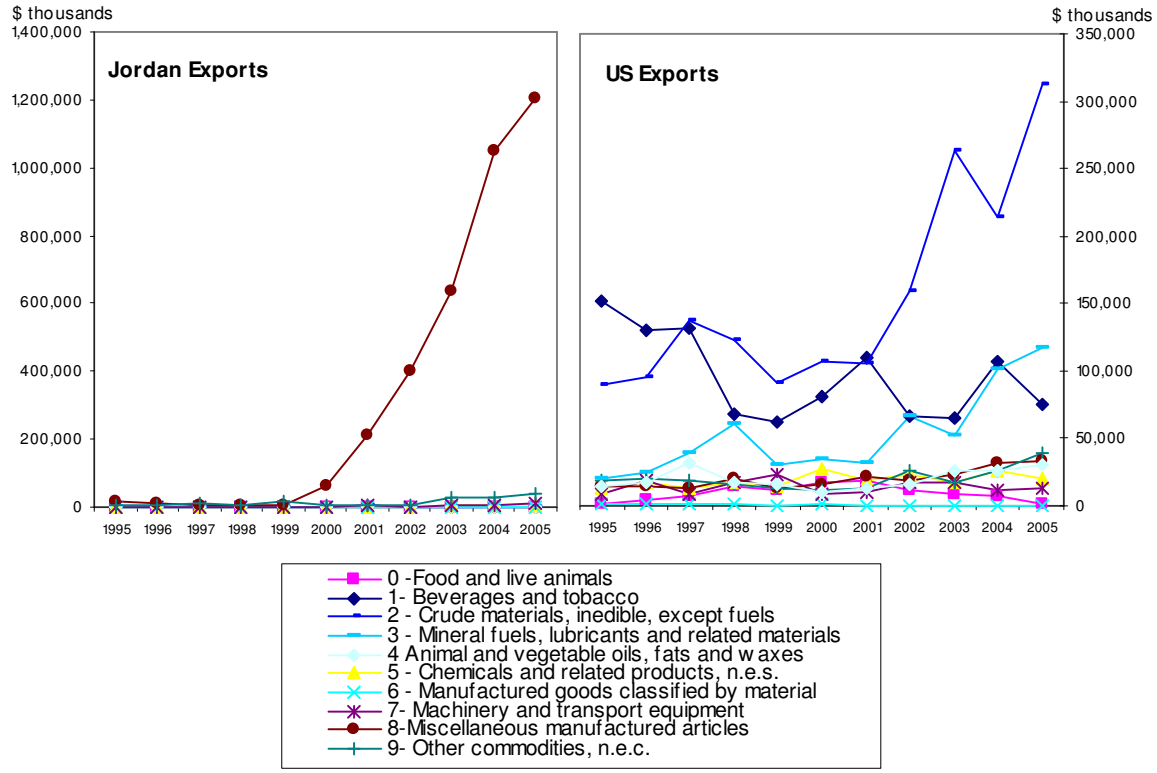
Description	2000		2001		2004		2005		% change '04-'05	
	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.
0 -Food and live animals	529	80,831	792	109,604	1,877	107,325	2,305	75,413	22.8%	-29.7%
1- Beverages and tobacco	74	17,379	80	18,432	223	6,872	856	1,915	283.9%	-72.1%
2 - Crude materials, inedible, except fuels	541	26,858	3,177	18,159	1,764	26,321	415	20,142	-76.5%	-23.5%
3 - Mineral fuels, lubricants and related materials	0	749	0	345	0	331	0	563	n/a	70.1%
4 Animal and vegetable oils, fats and waxes	71	8,000	131	10,685	361	11,821	292	13,081	-19.1%	10.7%
5 - Chemicals and related products	1,263	16,482	2,312	22,308	3,009	31,594	5,399	33,282	79.4%	5.3%
6 - Manufactured goods classified by material	1,407	10,991	1,040	13,011	1,304	26,537	2,274	38,598	74.4%	45.4%
7- Machinery and transport equipment	977	106,464	4,578	105,263	7,550	214,617	8,905	313,048	17.9%	45.9%
8- Miscellaneous manufactured articles	64,026	35,130	209,666	32,101	1,048,732	100,595	1,207,037	117,232	15.1%	16.5%
9- Other commodities, n.e.c.	4,362	9,860	7,196	13,357	28,044	26,107	39,774	30,017	41.8%	15.0%
Total	**73,250**	**312,744**	**228,971**	**343,266**	**1,092,864**	**552,119**	**1,267,257**	**643,291**	**16.0%**	**16.5%**

Source: USITC Interactive Tariff and Trade DataWeb.

percent in *industrial supplies and materials* ($4.5 million) and a 15.3 percent increase in *consumer goods* ($1,214 million) and a 87.2 percent decrease in *automotive vehicles, parts and engines* ($0.21 million).

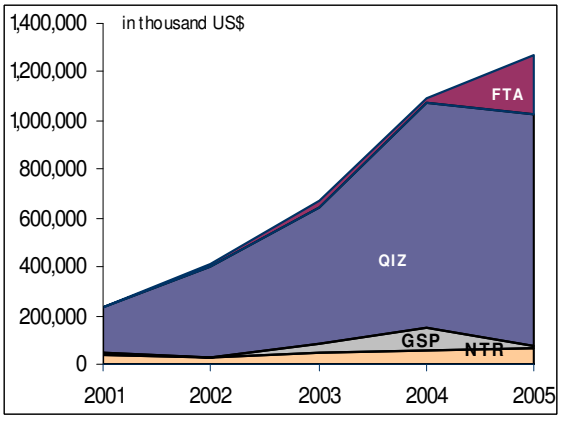
[4] Similarly, the change in Jordanian imports from the United States reflected increases of 77.6 percent in *automotive vehicles, part, engines* ($86.5 million), 20.7 percent in *capital goods, except automotive* ($188.5 million), 10 percent in *consumer goods* ($46.6 million), 3.8 percent in *industrial supplies and materials* ($76.5 million), and a 28.4 percent drop in *food, feeds and beverages* ($85.2 million).

Figure 17: Jordan – U.S. Trade 1995-2005 ('000s US$)



Jordan already enjoys considerable access to the U.S. market for most of its exports, whether under the unilateral preferential programs such as the GSP and the QIZ, or because MFN tariffs are already low or zero.

Figure 18: Jordan Exports to the United States, by Export Program, 2000-05



Although exports are diversified, clothing and apparel (HS chapters 61, 62) are the dominant engine of export growth to the United States - with 85.4 percent of total exports in 2005, and also the cause of the $626 million in trade surplus with the United States. While the elimination of textile and apparel quota under the Multifiber Agreement in January 2005 and the Egyptian QIZ program (January 2005) did not bring a visible negative effect on Jordan's clothing and apparel exports, global competition in this sector is definitely stronger and diversification is much needed in order to sustain a healthy export growth.

Source: USITC Tariff and Trade DataWeb.

A closer look at the exports' breakdown under different programs shows an increase of exports under the FTA (1,091%), the QIZ program (2%) and NTR (17%), while those under the GSP show a significant decline (-87%), mainly due to the shift towards FTA.

Table 11: Jordan Exports to the United States by Export Program, 2000-06 ('000 US$)

Program	2000	2001	2002	2003	2004	2005	2006 a/	Growth Rate 2004-05
JUSFTA	-	-	12,601	27,910	20,695	246,462	94,350	1091%
QIZ	30,127	180,787	369,455	563,928	927,330	945,018	320,371	2%
GSP	10,347	9,473	5,977	35,011	89,767	11,664	3,364	-87%
NTR	32,368	38,850	24,050	46,440	54,783	63,924	17,177	17%
TOTAL	**72,842**	**229,110**	**412,084**	**673,290**	**1,092,575**	**1,267,068**	**435,262**	**16%**

a/ January-April.
Source: USITC Interactive Tariff and Trade DataWeb.

Jordan- U.S. Free Trade Agreement (JUSFTA)

Exports under the FTA grew by 1,091 percent, from $20.7 million in 2004 to $246.5 million in 2005. FTA share in total exports is currently 19.45 percent, up from the only 1.89 percent in 2004. This confirms an expected trend to move towards taking more advantage of the FTA tariff elimination, and shifting from the traditional GSP or QIZ programs. On the total of $246.5 million FTA exports in 2005, the U.S. Customs calculated approx. $667 thousand duties (see Table 12), equivalent to 0.3 percent weighted average tariffs. As U.S. tariffs on imports of articles of apparel and clothing are gradually eliminated, it is only natural that these articles are being exported under the FTA. During 2005, 12 percent of total exports of clothing and apparel were exported under the FTA. The past year's figures indicate not only a first major increase in the value of FTA exports but also a diversification of the types of goods exported. Articles of *jewelry* top the list of FTA exports, and together with *apparel and clothing, household appliances, stone and marble*, and *industrial machinery* account for 99 percent of the $246.5 million FTA exports. The remaining FTA exports are made up of *articles* such as *of food, chemicals, beverages, feed oil and seeds* (see Table 12).

Table 12: Top FTA Exports by HS Chapter, 2005 ('000 US$)

Rank	HS Chapter/ Product Description	2005	Top exports	2000 Base rate duty	2005 FTA duty-rate
1	71- Pearls, precious or semiprecious stones, precious metals, imitation jewelry	113,602	Gold jewelry	5.0%	0.0%
			Gold necklaces	5.5%	0.0%
			Silver jewelry	5.0%	0.0%
2	62- Articles of apparel and clothing, woven	102,360	Women trousers, shorts of cotton	16.6%	0.0%
			Men trousers, shorts of cotton	16.6%	0.0%
			Women trousers, shorts of synthetic fibers	29.2%	11.7%
3	61- Articles of apparel and clothing, knitted or crocheted	24,391	Women briefs, panties of man-made fibers	15.6%	0.0%
			T-shirts of cotton	16.5%	0.0%
			Women overcoats, anoraks	15.9%	0.0%
4	84- Boilers, machinery and mechanical appliances, parts	2,361	Air conditioning machines	2.2%	0.0%
			Machines and mechanical appliances	2.5%	0.0%
			Parts of gearing gears	2.5%	0.0%
5	39- Plastics and articles	1,250	Sacks and bags for packing goods;	3.0%	0.0%

			Tableware and kitchenware	3.4%	0.0%
6	68- Articles of stone, plaster, cement, etc.	412	Monumental and building stones of calcareous stones; Of travertine; Of marble.	4.9% 4.2% 4.9%	0.0% 0.0% 0.0%
7	63- Made-up textile articles	280	National flags; blankets; table linen	7.0% 8.5% 11.3%	0.0% 0.0% 0.0%
8	15-Animal or vegetable fats and oils and their cleavage products; prepared edible fats	277	Olive oil; Edible mixtures; vegetable oils, fats	3.4cent/kg; 8.8cent/kg	0.0 0.0
9	22-Beverages, spirits and vinegar	259	Waters; mixed fruit and vegetable juice.	0.2c/liter	0.0
10	28-Inorganic chemicals	146	Bromine	5.5%	0.0%
11	21-Miscellaneous edible preparations	121	Mixed condiments; Soups and broth preparations; Food preparations of gelatin.	6.4% 3.2% 4.8%	0.0% 0.0% 0.0%
12	20-Preparations of vegetables, fruit, nuts	110	Fruit jams; Green olives in saline; Vegetable prepared or preserved.	3.5%-1.8% 3.7cent/kg 11.2%	0.0% 0.0 0.0%
13	11-Milling industry products; malt; starches etc.	107	Germ of cereals, flaked or whole; groats and meal of wheat; Wheat or flour	4.5% 0.5cnet/kg 0.7cnet/kg	0.0% 0.0 0.0
14	65-Headgear and parts	97	Hats and headgear, knitted and woven; hair-nets	20cent/kg+7% 5.6%	0.0% 0.0%
15	17-Sugars and sugar confectionery	96	Chewing gum; Sugar confections or sweetmeats.	4.0% 5.6%	0.0% 0.0%
16	40-Rubber and articles	73	Retreaded pnuematic radial tires.	4%	0.0%
17	34-Soap; waxes, polishing or scouring products; candles; dental preparations	67	Linear alkylbenzene sulfonates.	6.5%	0.0%
18	29-Organic chemicals	61	Sulfonamide drugs, excluding anti-infective agents	6.5%	0.0%
19	87-Vehicles, other than railway or tramway, parts and accessories	60	Parts and accessories of motor vehicles	2.5%	0.0%
20	09--Coffee, tea, mate and spices	48	Spices, nesoi	1.9%	0.0%
	All Other:	285			
	Subtotal (99.88%):	***246,177***			
	Total	**246,462**			

Source: USITC Interactive Tariff and Trade DataWeb.

Qualifying Industrial Zones (QIZ)

The QIZ retained its highest share of exports, at $945 million in 2005, yet the growth was only 2 percent compared to 64 percent in 2004. Export growth during the first four months of 2006 registered 2 percent less than the same period one year ago. The share of QIZ exports in total exports to the United States dropped to 75 percent, down from 85 percent in 2004 and its peak of 90 percent in 2002. The composition of QIZ exports since 2003 has been nearly exclusively (99.8 percent a year) ready-made garments and related articles.

The very significant decline in QIZ exports' growth is due to a number of factors. First, as we advance in tariff elimination, an increasing number of garment exporters find their products to benefit from duty-free access under the FTA, and therefore the agreement becomes their preferential program of choice. Even for articles that still retain three to four percent duties, the FTA proves to be more cost saving. Second, due to the territorial restraints of the QIZs, more and more non-QIZ manufacturers and exporters can benefit from preferential duty rates outside the QIZ arrangement.

Third, the removal of export quotas under the Multi-Fiber Arrangement (MFA) has important implications for QIZ garment exporters. Most of the investment in the QIZ originated from countries that had quota restrictions on their exports to the United States, such as the Far East, Pakistan, Sri Lanka, China, Taiwan, India, and Korea. Some of these countries are known to have lower production costs than Jordan (viz., Sri Lanka, China, and India), while others have higher production costs than Jordan (viz., Taiwan and Hong Kong). With the removal of the MFA quotas in January 2005, the major attraction of exporting garments through the QIZs to the United States from Jordan largely disappeared. Moreover, investors must still comply with the eight percent Israeli content rule to take advantage of exporting under QIZ status. This content rule reportedly drives up the final cost by 100 to 200 percent compared with products manufactured in the Far East or Turkey (JUSBP, 2005). Egypt is also at a competitive edge compared to Jordan, since in addition to having low labor and manufacturing costs also benefits from duty-free access to the United States under the QIZ Agreement signed with Israel and the United States in December, 2004.

Table 13: Growth of Jordan's Garment Exports to the United States, by Export Program (2000-06) (Percent)

	2001	2002	2003	2004	2005	2006 a/
JUSFTA	--	--	73%	79%	857%	400%
QIZ	637%	123%	53%	64%	2%	-2%
GSP	--	--	--	--	--	--
NTR	-7%	-36%	-4%	52%	-31%	-31%
TOTAL	334%	109%	51%	64%	13%	13%

a/ January-April.
Source: USITC Interactive Tariff and Trade DataWeb.

Recent trade statistics indicate that a shift is occurring away from exporting garments using QIZ status towards exporting garments under the JUSFTA, and that total garment exports from Jordan to the United States in the last two years plummeted. For example, in 2005 the growth rate of garment exports destined to the U.S. market under the JUSFTA had surged by 857 percent compared with one year earlier, even though the share of those products in total JUSFTA exports had declined by 13 percentage points, representing 51 percent of total JUSFTA exports. During the first four months of 2006, the value of JUSFTA garment exports to the United States rose by 400 percent compared with the same period in 2005, and represented two-thirds of total JUSFTA exports, compared with more than one-fourth (28 percent) of the same period in 2005. In contrast, the growth rate of QIZ garment exports to the United States nearly stagnated in 2005 compared

with one year earlier (only 2 percent growth) and during the first four months of 2006 declined by 2 percent compared with that same period one year earlier.

The recent events in QIZ export performance likewise have important implications for investment and employment in Jordan. Nonetheless, it is difficult to quantify changes since the government fails to maintain accurate statistics, and the private sector often neglects to provide complete data. These changes signal the need for greater involvement by the Jordan Investment Board, which could begin by updating the investment strategy prepared in 2003 (Sayegh, 2003). That strategy signaled that possible threats such as increases in local operating costs, rapid disincentive by QIZ factories, and other countries entering into FTAs with the United States could have a negative impact on the garment industry in Jordan. Likewise, authors outlined several opportunities to attract additional investment for the garment sector to Jordan that have not necessarily been taken, such as capitalizing on a country's inability to obtain preferential access to the U.S. market (e.g., Turkey) and expectation of loss of quota exemptions (e.g., Gulf Cooperation Council countries). Likewise, the Ministry of Industry and Trade could insist on better statistics from businesses operating in the QIZs.

Finally, Jordanian garment manufacturers are concerned about the impact of China's increased penetration into the U.S. market after the removal of export quotas. This development raises the need to undertake a competitor analysis, which while important, is beyond the scope of this study. Such a study could examine, for example, changes in the types of garments at the HS 8-digit level that is China exporting to the United States, the unit price of individual products, and whether these products match with Jordan's exports of garments and corresponding prices.

General System of Preferences (GSP)

The GSP was the first preferential export program offered to Jordan by the United States. Though its share in Jordan's exports is continuously decreasing (from 14.21 percent in 2000, to 8.22 percent in 2004 and to only 0.92 percent in 2005), some exporters still show a preference in using the program, mostly due to the lack of awareness about the FTA. Main GSP exports are *jewelry, machinery and mechanical appliances and organic chemicals.*

Normal Trade Relations (NTR)

Exports under Normal Trade Relations (former MFN) are levied the WTO's prevailing tariff rates, and since a significant number of articles exported under NTR already enter the United States duty-free, there is no need to claim preferential treatment. However, looking at the composition of NTR exports, one concludes that the program is also used when exporting some goods with high duties (i.e. ready-made garments), when otherwise, under the QIZ or FTA, there would be no duties. This may be due to lack of awareness, or, in some cases, the lack of compliance with the preferential programs' rules of origin requirements (country of origin and/or value added requirement). For instance, in 2005 Jordan exported $63.9 million worth of goods that entered United States without claims for preferential treatment, and therefore a total of $2.38 million import duties were charged.

Table 14: Calculated Duties for Exports under the FTA and NTR, 2001-05

Program		Export Value US$	Paid Duties in US$	Weighted Average Tariffs
	2001			
FTA		-	-	0.0%
NTR		38,850,085	3,832,583	9.9%
	2002			
FTA		12,600,834	649,564	5.2%
NTR		24,050,324	2,545,204	10.6%
	2003			
FTA		27,910,473	682,611	2.4%
NTR		46,397,469	2,274,556	4.9%
	2004			
FTA		20,695,135	630,901	3.0%
NTR		54,754,717	3,417,288	6.2%
	2005			
FTA		246,461,987	666,939	0.3%
NTR		63,921,756	2,384,889	3.7%

Source: USITC Interactive Tariff and Trade DataWeb.

Part III. Industry Impact and Trade Flows

3.0. Introduction

In this section we focus on a number of industries for which trade between Jordan and the United States has grown rapidly since the inception of the JUSFTA. In particular, we attempt to assess the extent to which the FTA has contributed to this rapid growth and to highlight the attendant welfare gains. Our approach is to first develop a methodology aimed to isolate the potential impact of the FTA on trade flows, and then to apply this methodology to twenty sectors of interest for Jordan and the United States. The challenge here is to isolate the impact of the FTA in particular and to apportion how much trade is new and how much trade is diverted from either other export markets or, for Jordanian exports, from other U.S. preferential access schemes such as the GSP or QIZ. Then, based on field interviews and input from various sources, we report on some of the FTA impacts which are more difficult to quantify.

We focus on 20 industries listed further in this chapter. We have for the most part excluded the garment industry - by far the most important export sector for Jordan – because it already had special access to the United States market before the FTA through the QIZ. (We do address the sector with regard to rules of origin benefits of the FTA over a QIZ.) Also, we have excluded grains from U.S. exports, although important, because of the special treatment of pricing. Of the remaining industries, we focus on 10 export and ten import product groups.

The Jordanian export product groups, listed below, represent 75.2 percent of non-garment Jordanian exports and 48 percent of all FTA exports. Two sectors of particular interest are jewelry (HS 71), which dominate exports and grew very rapidly using the FTA, and printed books (HS 49), which are also large and grew very rapidly but does not use the FTA at all.

Table15: Top Jordanian Exports to the United States, 2000 and 2005 ('000 US$)

HS Chapter / Description	2000	2005
71 - Natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin	9,388	118,775
84- Nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	488	7,937
29- 0rganic chemicals	222	4,019
49 -- Printed books, newspapers, pictures and other printed products, manuscripts, typescripts and plans	570	2,666
39- plastics and articles of plastic	425	2,175
68 - Articles of stone, plaster, cement, asbestos, mica or similar materials	101	1,131
20 - Preparations of vegetables, fruit, nuts or other parts of plants	39	911
85 -Electrical machinery and equipment and parts, sound recorders and reproducers, television recorders and reproducers, parts and accessories	234	618
22 - Beverages, spirits and vinegar	18	492
28 - Inorganic chemicals; organic or inorganic compounds of precious metals, or rare-earth metals, of radioactive elements or if isotopes	16	199

The Jordanian import products (U.S. exports to Jordan), studied here comprise 60 percent of non-grain imports from the U.S. and 54.3 percent of FTA imports.[5]

Table 16: Top Jordanian Imports from the United States, 2000 and 2005 ('000 US$)

HS Chapter / Description	2000	2005
84.--nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	42,757	104,140
87.--vehicles, other than railway or tramway rolling stock, and parts and accessories thereof	6,667	89,850
85.--electrical machinery and equipment and parts thereof; sound recorders and reproducers, television recorders and reproducers, parts and accessories	22,669	39,689
90.--optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	15,375	33,833
76.--aluminum and articles thereof	3446	13,783
73.--articles of iron or steel	783	11,980
15.--animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	8,071	10,450
29.--organic chemicals	2,584	9,110
38.--miscellaneous chemical products	2115	9,251
94.--furniture; bedding, cushions etc.	4,216	7,511

Source: USITC Trade and Tariff DataWeb.

3.1. Measuring the Impact of the FTA

3.1.1. Methodology

In this section we develop the analytics of quantifying the sectoral impact of a FTA. We proceed at a partial equilibrium level focusing on a variety of industries in isolation. This is justified by the still small size of each industry relative both to the world economy, certainly, and to the overall size of the domestic economies involved. (That is, we assume that the output variations of one industry do not impose significant cost effects on other industries.) We provide the formal specification of the model in Appendix 1, and summarize our approach using Figures 19 and 20 below.

Consider first the class of goods that are potentially exported from Jordan to the United States – for example, organic chemicals (HS 29) or beverages, spirits and vinegar (HS 22). Focusing on any one such good and the U.S. market, Figure 19 depicts the U.S. import demand (D_{US}) and Jordanian export supply (S_J) of goods potentially eligible for FTA treatment, where the quantity of the good and the price are denoted by Q and P, respectively. (We will refer to these sorts of good as "potential FTA exports", or just "exports" where the meaning is clearly in reference to the FTA.) In the absence of a more complex computable world general equilibrium model such as GTAP (GTAP, https://www.gtap.agecon.purdue.edu/), this supply curve is used to capture four forces at work.

[5] Based on Jordan Customs' procedures, we assumed that all imports from the United States entered Jordan under the FTA.

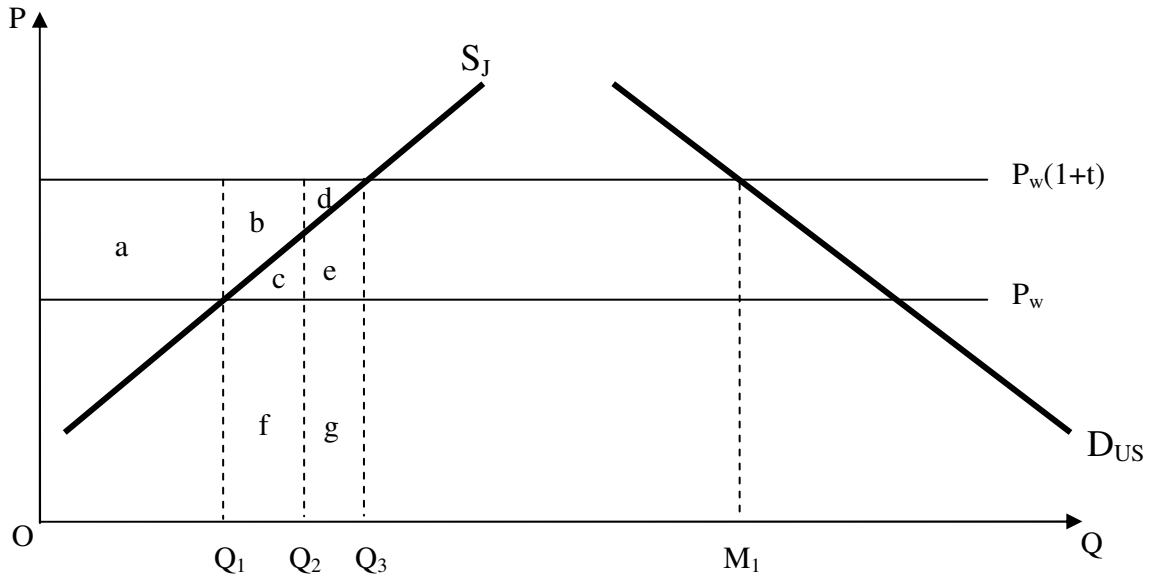


Figure 19: Effects of Trade Preferences in the U.S. Market

Specifically, any FTA-induced price increase for Jordanian exporters to the U.S. market will induce a positive supply response of FTA exports owing to:

i) an **increase** in the level of output (and employment) of the good produced in Jordan and exported to the United States;

ii) a **diversion** of some of the already existing level of Jordanian output from alternative export destinations to the U.S. market;

iii) a **conversion** of some of the already existing level of Jordanian exports to the United States from NTR (MFN applied base tariffs) status to FTA (duty-free) status;

iv) a **conversion** of some already existing level of Jordanian exports to the United States from QIZ or GSP (duty-free) status to FTA (duty-free) status.

As explained below, the first three effects are clearly welfare enhancing for Jordan, with effect "i)" governing increased employment, while effect "iv)" is largely neutral, although it could entail some positive aspects through cost reductions associated with more liberal FTA rules of origin.

The world price for the good is given by P_W and is assumed to be unaffected by the level of trade between the United States and Jordan. The U.S. applicable MFN *ad valorem* tariff on imports of this good is denoted by t so that the demand price in the U.S. market is given by $P = (1+t)P_W$, but exporters only receive this price net of the tariff, or P_W. Total imports for this good are given by M_1, determined by the total quantity of imports demanded by the United States at domestic price P, of which Jordan supplies a portion. In the absence of any other trade preferences for Jordan, Jordanian exports to the market are given by Q_1. Tariff revenue collected on Jordanian exports, tP_WQ_1, is given by the area "a". Now, when the JUSFTA is fully implemented, qualifying Jordanian exports are exempt from the import duty and so exporters receive the full tariff protected domestic price P. Jordanian exports to the U.S. market for this good increase to Q_3, displacing an equivalent amount of exports from other non-preferred countries. Of these increased exports, Q_2 –

Q_1 we assume comes from increased production in Jordan and the rest derive from Jordanian exports diverted from other non-U.S. markets.

Furthermore, industry export earnings and value added rise. If all of the previous NTR exports qualify for FTA status, the surplus now available to Jordanian exporters rises by the full amount of previous tariff revenue payments plus a bit more, in total denoted by the area a + b + c + d + e. (Note that areas f and g represent increased export earnings in the U.S. market, but that amount could have been earned elsewhere by selling at the world price, P_W, and so is netted out of "net welfare export earnings.") In particular, the areas indicated in Figure 19 correspond to:

- **a**, the price premium on existing exports owing to the exemption from the tariff;
- **b + c**, the increased net revenues owing to the increase in Jordanian production of new exports;
- **d + e**, the increased net revenues owing to diversion from previous export markets to the U.S market;
- **c + e**, the increased costs of producing new goods or diverting existing exports to the U.S. market; and
- **f + g**, increased export earnings in the U.S. market that could have been earned in other world markets anyway.

In fact, for many goods exported to the United States, Jordan already qualifies for trade preferences under the GSP or, especially for textiles and apparel, under the QIZ. In such cases, the value of the trade preferences extended under the JUSFTA would be diminished. For any commodity that already received duty free access into the U.S. market, the FTA access would have no effect on the price which exporters receive. However, as is discussed in Part II, there might still be some positive effects on the exporter cost side owing to more liberal rules of origin, reduced uncertainty about the permanence of the trade preferences, or any increased awareness of the advantages of trade preferences. In particular, as reported elsewhere in this study, there is some evidence that more liberal rules of origin, reduced compliance costs, and so on, represent a potential cost advantage to using the FTA over other preferences on the order of three to four percent. In terms of Figure 19, any such cost savings are represented by a downward shift in the supply curve and so increased exports and the associated export earnings.

Figure 20 illustrates a similar methodology relating to imports from the United States gaining duty free access into Jordan. Consider a good which is exported from the United States to Jordan – for example, articles of iron or steel (HS 73) or vehicles (HS 87).

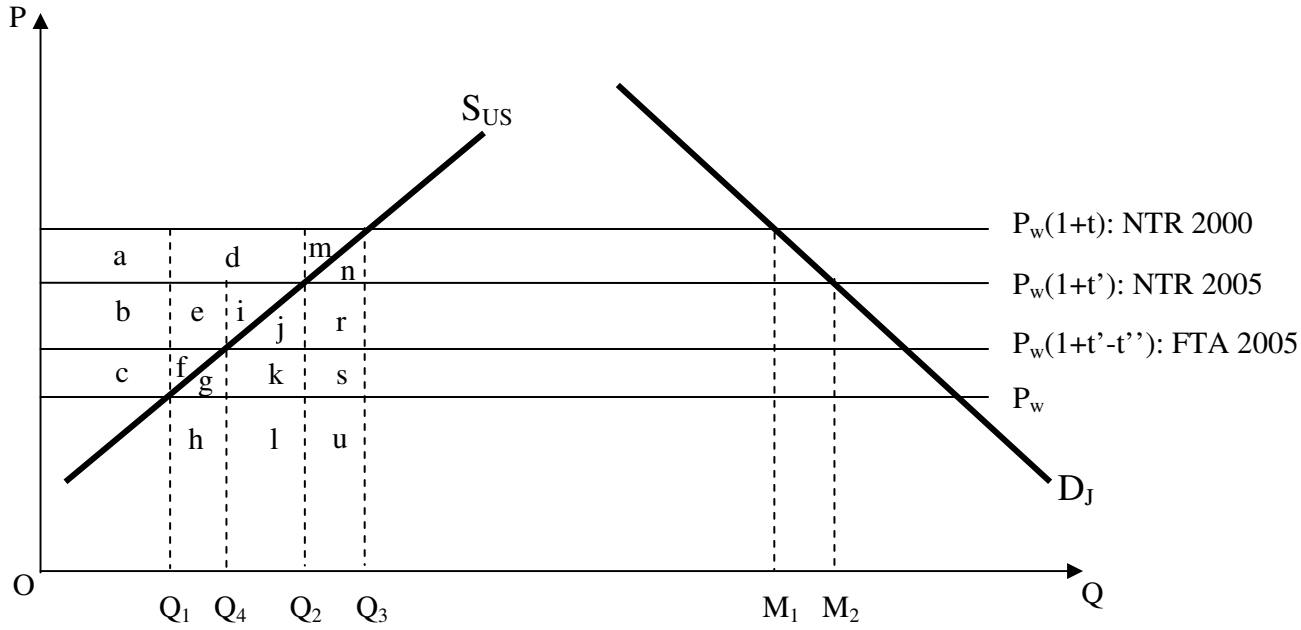


Figure 20: Effects of Trade Preferences in the Jordanian Market

Again, we take the world price of such a good, P_W, to be unaffected by the Agreement. Figure 20 depicts the Jordanian domestic import demand for the good as D_J and the supply from the United States to Jordan as S_{US}, with the supply curve reflecting both the production response and the trade diversion response as before. (Of course, now there is no complication from the QIZ and GSP.) The domestic price of the good, P, reflects any Jordanian tariff, t, so that $P = (1+t) P_W$ for the tariff schedule before the FTA. In the absence of tariff preferences, assuming the initial year 2000 NTR tariff rate t, U.S. exporters receive the supply price P_W, which is net of the tariff, and so supply Q_1 of Jordan's total imports M_1 of the good. Tariff revenue collected from U.S. exporters is given by the area a + b + c.

With the full implementation of the JUSFTA, the applied tariff falls to zero, and so U.S. exporters now supply the Jordanian market with the larger quantity Q_3 at the domestic price P, of which some portion (not shown) may derive from new production and the rest is diverted trade. In this case, the duty-free U.S. exports displace the exports of other countries resulting in increased export earnings of tP_WQ_3. Geometrically, this is shown by the area a+b+c+d+e+f+g+i+j+k+m+n+r+s. In fact, the FTA is not fully implemented and our calculations below reflect the lower but still non-zero 2005 Jordanian FTA tariffs, denoted t'' in Figure 20. Furthermore, our calculations reflect that the preference margin for U.S. exports has been eroded somewhat by the continuing policy of Jordan lowering overall NTR tariffs for all of its trading partners. In Figure 20, the current NTR applied base tariff is shown as t' resulting in total imports from all sources of M_2 and, of this, in exports from the U.S. being somewhat lower at Q_2 when the zero tariffs are fully implemented and, for now, at Q_4 since the U.S. selling price net of the non-zero FTA tariff is $P = (1 + t' – t'') P_W$. Hence, the current value of FTA access in terms of additional net export earnings is reduced to $(t'-t'') P_WQ_4$, or geometrically area c+f+g. (Area g represents any real resource cost of increased U.S. exports to Jordan. Area h represents export earnings, but these earnings could have been realized by exporting anywhere at the world price and so are netted out from the FTA calculation of benefit.)

Employment Effects

Employment will be created in exporting industries as output expands in response to the FTA trade preferences. Note that, in our theoretical framework, the FTA does not reduce employment in any import-competing industries because the increased imports come at the expense of non-FTA country exporters who must now compete on less favorable terms and so see their exports displaced by U.S. or Jordanian exports.

In Figure 19, for example, the FTA is credited with increased output in Jordan for this industry of $Q_2 - Q_1$, the rest being attributed to converted existing exports, Q_1, and trade diverted from other Jordanian export markets to the U.S. market, $Q_3 - Q_2$. Roughly, the increase in Jordanian production will generate employment in proportion to the industry output change. So, for example, the direct employment effect will be the percentage change in the export prices due to trade preferences times the price elasticity of supply times current employment in the industry. For example, a five percent increase in the export price when the price elasticity of supply is 2 will induce a ten percent increase in employment in such an industry. Of course, there will also be positive indirect employment effects as the expanding industries increase their demand for locally supplied intermediate inputs, transport services, and so on.

Other Considerations and Potential Exogenous Influences

Figures 19 and 20 can be used to highlight one of the methodological challenges confronting the analysis. In particular, other exogenous changes unrelated to the JUSFTA may serve as important contributing factors which mitigate (or enhance) the importance of the FTA itself. However, and significantly, note that the substantial growth in the size of the U.S. economy *per se*, while affecting the level of U.S. imports, does *not* alter the level of imports from Jordan since the world supply is taken to be perfectly elastic and so accommodates all of the increase in U.S. demand at a constant price. Similarly, any changes in Jordanian demand on account of growing national income will not affect our calculations. Also, while the nominal exchange rate was constant over this period, the real effective exchange rate was not. However, the large depreciation in the Jordanian trade-weighted real exchange rate between 2000 and 2005 was substantially with Jordan's non-U.S. trading partners (IMF, 2005). If anything, the real exchange rate movements probably reduced the measured impact of the FTA in our calculations as both Jordan and the U.S. were low price-inflation countries relative to the rest of the world and to Jordan's other trading partners.

There are still three potentially important exogenous factors:

- First, world prices for particular Jordanian export goods may have changed between 2000 and 2005. In Figure 19, for example, if the world price increases after 2000 for whatever reason, then Jordanian exports might be expected to increase as well, independently of any trade preference.

- Second, costs of production in Jordan or transportation/retailing to the U.S. market could have changed exogenously due, say, to technical progress, uncompensated changes in labor productivity, or altered intermediate input costs. This would result in the supply curve in Figure 19 shifting either upward or downward and so result in modified export levels even in the absence of a FTA.

- Finally, the JUSFTA is only one among many recent alterations to the global trade environment and other important policy changes around the world could modify export

patterns. Even beyond events in Iraq, a historically important market for Jordan, other events such as modified access to alternative Jordanian export markets or exogenous foreign investment flows into Jordan could be the source of increased Jordanian exports.

Similar considerations would apply to U.S. exports to Jordan. In the sections that follow, we attempt to isolate the impact of such exogenous changes in our narrative.

Exporting Spillovers and Export Booms

Note that one effect that could be important but is difficult to quantify is the "exporting spillover effect." It is well known that increased levels of export activity lead to positive spillovers in the sense that other potential exporters learn about new markets, transport networks, and so on, and begin to export for themselves. [See, e.g. Roberts and Tybout (1997).] For Jordan, while FTA exports increased substantially, total exports to the United States increased by even more. So, at least some of the increased non-FTA export activity probably owes to the FTA if Jordan follows the pattern of other "export boom" experiences around the world. While we do not attempt to quantify this effect, our field interviews suggested that heightened awareness of the U.S. market on account of the FTA could be significant.

3.1.2. Data and Parameters

The approach taken here assumes that both Jordan's exports and imports are potentially supplied by worldwide competitors with an aggregate supply curve that is perfectly elastic. That is, the world price is taken as constant regardless of the quantity of Jordanian exports to or imports from world markets. This is easily justified empirically. For example, while one of Jordan's major exports to the United States is certain machinery and other equipment (HS 84) at $7.9 million in 2005, China's exports alone to the United States of these goods is $52.7 billion. The assumption does, however, preclude any consumption gains from the FTA. (See, for example, Bhagwati and Panagariya (1996) and World Bank (2000) on empirical support for this assumption.) However, note that this means that our estimates of welfare benefits are, if anything, biased downwards. Any FTA-induced lower prices or improvements in quality of goods will result in increased net positive national welfare gains captured by consumers as "consumer surplus."

Within the FTA, the supply curves for the United States and for Jordan of any particular good are taken to be less than perfectly elastic. This is empirically justified because, as discussed in Part II above, the formation of the FTA with its tariff preferences resulted in less than complete trade diversion. That is, for both the United States and Jordan, imports within the FTA continue to compete with similar goods from countries outside the FTA which enjoy no trade preferences. In the case of Jordan's exports to the United States, this is to be expected simply due to the sheer size of the U.S. economy which makes it impossible for any Jordanian industry to service the entire market before encountering material shortages or cost constraints. For U.S. exports to Jordan, apparently the costs of supplying most goods from the United States increase as the scale of exports increases. (Otherwise, U.S. goods would displace all similar goods from the rest of the world in Jordan.) This undoubtedly owes in part to the increasing costs of transportation and logistics involved in supplying a distant market, as well as to any increasing marginal costs of actually producing the good in question.

The estimation of sectoral effects focuses on the 20 industries described above. Tables 16 and 17 list the industries of interest, along with relevant tariff rates confronting Jordanian exports to and imports from the United States. (Note that implementation of FTA zero duties is not yet complete.) For Jordan's imports, we show the initial MFN applied base tariff rates in both 2000 and 2005,

along with the FTA rates. For Jordan's exports to the United States, we also show the proportion of the tariff lines in each HS chapter eligible for duty-free GSP access.

Table17: Average Ad-valorem U.S. Tariffs Confronting Jordanian Exports

HS Chapter – Description	TARIFFS		
	NTR (MFN)	2005 FTA	GSP eligibility
20 - Preparations of vegetables, fruit, nuts or other parts of plants	6.9	0.22	68/ 170
22 - Beverages, spirits and vinegar	0	0	16/ 73
28 - Inorganic chemicals; organic or inorganic compounds of precious metals, or rare-earth metals, of radioactive elements or if isotopes	2.76	0	130/ 258
29- 0rganic chemicals	5.32	0	358/ 943
39- plastics and articles of plastic	4.65	0	154/ 224
49 -- Printed books, newspapers, pictures and other printed products, manuscripts, typescripts and plans	0.4	0	
68 - Articles of stone, plaster, cement, asbestos, mica or similar materials	1.74	0	24/ 65
71 - Natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin	3.02	0	50/ 104
84- Nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	1.28	0	269/ 840
85 -Electrical machinery and equipment and parts, sound recorders and reproducers, television recorders and reproducers, parts and accessories	1.97	0	265/ 609
AVERAGE	**2.804**	**0.022**	

Table 18: Average Ad-valorem Jordanian Tariffs Confronting U.S. Exports

HS Chapter - Description	TARIFFS		
	2000 MFN	2005 FTA	2005 MFN
15.--animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	20.42	6.94	19.65
29.--organic chemicals	6.68	0.63	4.56
38.--miscellaneous chemical products	17.83	3.75	8.92
73.--articles of iron or steel	26.98	10.48	12.34
76.--aluminum and articles thereof	20.34	6.31	20.2
84.--nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	11.74	3.27	10.28
85.--electrical machinery and equipment and parts thereof; sound recorders and reproducers, television recorders and reproducers, parts and accessories	21.33	6.71	15.63
87.--vehicles, other than railway or tramway rolling stock, and parts and accessories thereof	20.7	10.66	19.7
90.--optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	18.49	6.67	12.92
94.--furniture; bedding, cushions etc.; lamps and lighting fittings nesoi; illuminated signs, nameplates and the like; prefabricated buildings	27.27	13.29	26.7
AVERAGE	**19.178**	**6.871**	**15.09**

As already noted, we have excluded the garment and the grain sectors. The industries studied represent the remaining major exports and imports of Jordan to and from the United States. In total, the industries account for 75 percent of non-garments exports and 60 percent of non-grain imports. Note that the tariff rates reported here are somewhat deceiving in that applied tariffs vary

for particular products within each 2-digit HS Chapter. For example, for products classified as HS 20 (preparations of vegetables, fruit and nuts) the tariff on fruit jams is 3.5 percent and on preserved vegetables 11.2 percent. For the industries we study here, though, this variance in sub-product tariff rates is not too great. (We report export levels and tariff rates for sub-products in Table 12.)

Various studies [DEPRA (1998), Hufbauer and Elliott (1994), NBER (2004)] provide a range of plausible elasticity estimates which we use to guide parameterization of our model. The crucial parameter is the relevant export supply elasticity which governs our "predicted exports." The import demand elasticity plays no role since world prices are assumed to be unaffected by the JUSFTA and neither country's exports to the other totally displace trade from other regions of the world which enter at MFN tariff rates. The actual parameter values utilized for export supply elasticities range from 3 to 10. We also compute the "implied elasticity" which is just the actual observed percentage quantity change divided by the FTA induced percentage price change, assuming a constant elasticity supply curve. We use this "implied elasticity" in order to infer the extent of any trade diversion. When we refer to employment effects, we take the price elasticity of supply (new production) to be between 1.0 and 3.0.

Data for prices and quantities are taken from the IMF (***http://dsbb.imf.org/Applications/web/dsbbhome/***) and the USITC ***(http://dataweb.usitc.gov/)***. Export data are notoriously unreliable since, while imports regularly pass through customs procedures, exports are much less reliably monitored. For example, using the IMF *Direction of Trade* data base, reported imports from Jordan for the United States and exports to the United States from Jordan differ by from 10 percent to 250 percent from 1999 to 2005. For Jordanian exports to the United States, we rely on USITC reported imports into the United States. We found less discrepancy with respect to U.S. exports to Jordan and so use the USITC data for consistency.

In initializing the model for computation of estimated supply and export earnings effects, we take units of each good to be one U.S. dollar's worth of output, so that the world price is initially unity. The year 2000 is taken as the benchmark for exports before the FTA and the year 2005 for current exports. Not counting garments, by far most exports in the year 2000 entered the Unites States under NTR tariff rates and so we parameterize Q_1 above to exports in 2000 and then adjust for GSP exports.

The empirical challenge, particularly for Jordan's exports, is to parameterize Q_2, Q_3, and the portion of Q_1 which does not qualify for FTA status. The problem is that while we can observe actual FTA exports, we cannot know what proportion of those exports would have been exported anyway with NTR treatment and what proportion would have qualified as duty free under GSP but chose to enter as FTA. In the calculations reported below, we present first a very conservative "benchmark case" wherein we assume that all of the NTR exports in existence before the FTA would in fact qualify for FTA duty-free treatment, and where a significant portion of FTA exports are presumed to have merely been converted in status from GSP to FTA. This is "conservative" because the assumption minimizes the impact on new production and employment attributed to the FTA. We also report on the possibility that there was no such conversion, which seems plausible for some industries, as well as address the issue in our discussion of individual industry experiences. The welfare calculations are affected by the second assumption about GSP treatment, but not by the first assumption about conversion from NTR status, which will simply lead us to under-predict the export response to the FTA. As for the initial NTR exports, we consider both the case wherein all existing exports in 2000 qualify for FTA status in 2005 and wherein only a portion – possibly zero – qualify for FTA status.

Specifically, as reported in Part II above, there are 2005 data on FTA, GSP, QIZ, and NTR exports to the United States both in total and by sector. This allows us to estimate, somewhat roughly, the share of 2005 exports under the FTA which are not merely diverted from existing GSP and QIZ exports. For QIZ exports, our selection of industries largely precludes the principle exports, so this poses no problem. For GSP exports, we note from Part II above that from 2004 to 2005, a large share of GSP exports "disappeared." Although this may differ across industries, for our benchmark case we assume that all of these missing GSP exports were in fact switched to the FTA, which is clerically not difficult for exporters to do, and note that these previously GSP exports would represent about 31.7% of FTA exports to the United States. We therefore multiply the existing FTA exports of each sector by (1 - 0.317) in order to net out the exports which "disappeared" from GSP treatment but may have "reappeared" as FTA exports. The remaining exports are what we denote as the FTA exports in 2005. We then consider the possibility that there was no reclassification of exports at all, as well as report on specific industry details.

For imports into Jordan from the United States, Jordan Customs, when asked about this, reports that basically all imports from the United States enter under the FTA, unless there is some transshipment or other problem with documentation. So, if the product is made in the United States, shipped directly from the United States, and has the accompanying documentation, it is treated as under the FTA. In essence, all U.S. exports to Jordan shipped from the United States are treated as FTA, with anything else listed as entering from another source country, not the United States.

3.2. Estimation and Simulation: Jordanian Exports to the United States

Tables 18 and 19 report the results of our calculations. We present several scenarios for the supply elasticities and for the tariff regimes – e.g., with and without GSP, and with and without full implementation of the JUSFTA tariff cuts. We begin with an overview of the results and some summary statistics for Jordanian exports using the most conservative "benchmark" case assumption that a substantial amount of the FTA exports were already GSP exports. Then we offer some alternative scenarios concerning treatment of GSP exports and compliance costs. Next we provide a brief discussion of the particulars of each sector. Finally, we present similar calculations for Jordanian imports from the United States.

3.2.1. Jordanian Exports -- Benchmark Case

The exporting industries in this study experienced qualitatively similar adjustments after the JUSFTA, but with significant quantitative differences. The potential impact of a FTA depends on the extent of the preferences granted, which in this case would entail the complete elimination of duties, and on how high the duties were in the first place. The average U.S. MFN tariff for the products of interest was in fact already low, 2.8 percent, but ranged from zero to 6.9 percent. Additionally, a portion of Jordanian exports enjoyed duty free access to the U.S. market before the JUSFTA under the GSP. (The QIZs were not very important for the products of this study since we exclude garments.) Nonetheless, on average, exports to the United States for each sector increased from $1.15 million to $13.89 million, and of this increase $11.8 million on average was designated FTA. (Note, however, that jewelry (HS 71) dominates this average.) While predicted increases in annual industry exports at initial world prices based on supply elasticities of 3 and 10 were on average $103,125 and $384,938, yielding average total FTA exports per industry of $1.25 million and $1.54 million, respectively, these predictions fell well short of the actual FTA exports at initial world prices which averaged $7.84 million. However, on a case by case basis, the predictions were much closer to actual industry experience, reflecting a large under-prediction for the exports of a very large sector, jewelry (HS 71).

The implied elasticity was, on average, a relatively high 42, suggesting substantial trade diversion to the U.S. market or some change in relevant factors independent of the JUSFTA. The range of implied elasticities among industries, however, was from 3.2 to 113. The average industry's additional (net welfare) annual export earnings on account of the FTA were $234,729, although the range was from $0 (one industry confronted a zero MFN tariff before the FTA) to $2.27 million. Of course, increased FTA export earnings for each industry are much higher than this, on average over $7 million, but we assume that any FTA exports to the United States could have been sold elsewhere at the world price anyway and so net this "gain" out. In the tables below, this is referred to as "net welfare" gain in annual export earnings. Also, the calculations here are just for the "benchmark" case which assumes that all reductions in GSP exports reappeared as FTA exports, the most conservative assumption. If none of these GSP exports were in reality switched to the FTA, the net welfare annual export earnings increase would be $343,728 per industry. (True economic welfare gains would have been somewhat lower than this to the extent that some of the increased export earnings in excess of world price were needed to cover rising costs of increased production and any costs associated with trade diversion from foreign markets. Recall, however, that trade diversion to the JUSFTA from the GSP or QIZ is already netted out.)

Table 19 reports the results of our computable partial equilibrium (CPE) simulations for Jordanian FTA exports using the conservative benchmark assumptions.

Table 19: Results of CPE Simulations for Jordanian Exports ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@US domestic prices)	Implied Elasticity	Net Welfare Gain in Annual Export Earnings
20 - Preparations of vegetables, fruit, nuts or other parts of plants	47.64	70.28	75.13	15.44	4.85
22 - Beverages, spirits and vinegar	18	176.90	176.90	NA	0
28 - Inorganic chemicals; organic or inorganic compounds of precious metals, or rare-earth metals, of radioactive elements or if isotopes	17.36	97.04	99.72	71.81	2.68
29- 0rganic chemicals	259.35	39.56	41.66	3.164	2.10
39- plastics and articles of plastic	487.09	815.81	853.75	23.57	37.94
49 -- Printed books, newspapers, pictures and other printed products, manuscripts, typescripts and plans	576.87	0	0	0	0
68 - Articles of stone, plaster, cement, asbestos, mica or similar materials	106.36	276.58	281.40	76.44	4.813
71 - Natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin	10,264.50	75,315.63	77,590.17	73.93	2,274.53
84- Nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	506.98	1,592.18	1,612.56	113.00	20.38
85 -Electrical machinery and equipment and parts, sound recorders and reproducers, television recorders and reproducers, parts and accessories	248.10	18.75	19.12	3.95	0.37
Averages	**1,253.23**	**7,840.28**	**8,075.04**	**42.48**	**234.77**

Consider, for example, the first product group in the Table, HS 20 (preparations of vegetables, fruit, nuts or other parts of plants). In 2000, just before enactment of the JUSFTA, Jordan exported only $39,000 worth of product to the United States. These exports were subject to the 6.9 percent U.S.

MFN tariff rate, although 68 of the 170 line items in the chapter were eligible for a tariff rate of zero percent under the GSP scheme. By 2005, the FTA tariff reductions were nearly, but not quite, fully implemented so that exports were subjected to an average tariff of 0.22 percent. If the output supply response had an elasticity of 3, then the nearly 6.9 percent increase in the price afforded Jordanian exporters due to the tariff preferences should have resulted in an increase in FTA exports to the United States of an additional annual $8,070 (valued at the initial world price), or 20.7 percent. (Including a 4 percent cost saving from using the FTA, as we discuss later, would augment this increase to about 30 percent.) In fact, FTA exports to the United States for this category of goods increased to $70,281 (valued at initial world prices and assuming all previous GSP exports are not counted), or an increase in exports of 80.2 percent, and to $75,130 valued at the preferential U.S. domestic price. If all of this actually observed export increase had been on account of the FTA preferences, this would imply a price elasticity of export supply of 15.44. That is, each 1 percent increase in the price available in the U.S. market results in a 15.44 percent increase in Jordanian exports. Since this is a fairly high output response to a price change, apparently some of the increase in exports to the United States of HS 20 goods derives from trade diversion from other Jordanian export markets, or from some other exogenous change. (Recall that we have already netted out exports which merely switched status from GSP to FTA.) In fact, Table 2 in Part II f this report indicates that domestic output of all food products and beverages actually fell between 2000 and 2004, although only part of this was in category HS 20. There are other indications of the extent of diverted trade. While exports of the products in HS 20 from Jordan to all destinations went up by about 35 percent from 2000 to 2004, exports to the United States under the FTA increased disproportionately by over 190 percent. (Annex 1 recounts the changing trade patterns for other products of interest.)

Nonetheless, still focusing only on the exports of HS 20, from the Jordanian perspective trade diversion is a genuine source of gain. That is, all of the FTA exports diverted to the U.S. markets from elsewhere, as well as any new production from Jordan, now command a 6.9 percent higher price. (Note that this price advantage would be reduced to the extent that exports in the group already received duty-free access to the U.S. market through the GSP or QIZ, but we have already taken that into account.) This results in increased annual net welfare export earnings of $4,849, of which up to $2,691 represents the increase in the value of exports already being sent to the U.S. market prior to the FTA (previous tariff revenue collected by the United States), and the rest derives from higher prices received in the U.S. market for newly produced and diverted exports. (The "net welfare gain" for Jordan would be somewhat less owing to any increased marginal resource costs of new production and from any additional costs of transporting diverted goods to the U.S. market.)

In this case, our "benchmark" assumption that previous GSP exports reappeared as FTA exports is probably too severe. As is discussed below, while all of the previous NTR exports disappeared by 2005, both FTA *and* GSP exports increased substantially. A reasonable assumption would be that, in contrast to our benchmark assumption, all of the 2005 FTA exports are new, with some portion perhaps converted from previous NTR exports. In such a case the increased annual export earnings for HS 20 would be 48% higher.

As for employment, the direct impact in Jordan could be inferred as follows. Exports attributed to the FTA represent about 9 percent of the total 54 percent increase of HS 20 exports to the world. So, roughly, a 5 percent gain in employment in the sector could be reasonably attributed to the FTA. The indirect sectoral impact on employment is more difficult to calculate in the absence of a detailed input-output matrix for Jordanian industry, but presumably would favor the domestic suppliers of intermediate inputs to HS 20 such as transport or local packaging materials.

In this example using industry category HS 20, the actual dollar amounts are not large for several reasons. First, this is one of the smaller export sectors and Jordanian exports under the FTA, while growing rapidly, are still relatively small. (Exports to the United States of HS 20 goods outside of the FTA were almost ten times as large at $836,000.) Second, the United States has very low MFN tariffs anyway and so the value of any tariff preferences is tempered by the already liberal market access available to all MFN nations. Nonetheless, the small absolute dollar amounts mask large percentage changes. To the extent that the FTA accounts for some of these large changes, large percentage increases in export earnings or Jordanian employment in particular sectors can be attributed to the FTA. Furthermore, the numbers reported are annual and represent a stream of increased export earnings well into the future. For example, viewing the FTA access as an asset, the "discounted present value" of just the small, current increased stream of export earnings is about $0.3 million.

In order to complete this extended example, we reiterate the cautionary note of earlier on the attribution of observed changes. Other exogenous changes unrelated to the JUSFTA may well serve as important contributing factors which mitigate (or enhance) the importance of the FTA itself. The most important such factors would be any changes in the world price of particular Jordanian exports or imports; changes in the structure of Jordanian or U.S. costs unrelated to the FTA; changes in world political or trade-related events directly impacting world export patterns. We address such caveats on an industry-by-industry basis in later subsections.

The other industries in the study had similar but quantitatively varied experiences. The absolutely largest increase in exports was in HS 71 (natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin) with exports rising from $9.39 million to over $77 million using the FTA, about two-thirds of the industry's total U.S. exports. The U.S. MFN tariff rate for this group was 3.02 percent with about half (50/104) of the tariff lines qualifying for GSP duties of 0 percent, for which we have adjusted. Assuming an export supply elasticity of 3.0, the FTA would have resulted in a price increase for exports of the full 3.02 percent and so an increase in exports of over 9 percent, or $876,498. In fact, exports at world prices rose by over 700 percent implying a very large supply elasticity of 74 if only the FTA price advantage were the cause. Some of this large increase may indeed owe to a more elastic supply response than assumed or to some FTA-related cost savings, and so a larger Jordanian output response. Indeed, from Table 2 in Part II, output of one component, basic precious and non-ferrous metals, did increase by over 50 percent from 2000 to 2005. Nonetheless, as above, this still suggests substantial diversion of exports from other destinations, or else some important other exogenous change. Table in Annex 1 is consistent with trade diversion in that while HS 71 exports to the world increased by about 16 percent, exports to the United States alone went up by almost 30 percent. Furthermore, assuming that the real world price has been stable, this implies an increase of annual net welfare export earnings for this sector of $2.27 million, of which up to $283,517 owes to the higher U.S. price now afforded the already existing level of exports and the rest represents the revenue gain from diverting exports to the now more lucrative (for Jordanian exporters) U.S. market. As above, economic welfare might be somewhat less than this gain due to any marginally increasing real resource cost associated with producing new goods or diverting already existing production to the U.S. market.

Among the remaining industries, the largest annual net welfare export earnings gains occurred in chapters HS 39 (plastics and articles thereof) and HS 84 (nuclear reactors, boilers, machinery and mechanical appliances, parts thereof) with increases of $37,935 and $20,380, respectively. The first industry confronted MFN tariffs in the United States of around 5 percent before the FTA, so the trade preferences did potentially offer some important price advantages, although the GSP zero rate was also available for some of the products in these groups. However, HS 84 experienced a

very large increase in FTA exports to the United States despite confronting only a low MFN tariff of 1.28 percent before the FTA. This may simply reflect the buoyancy of this sector seeking new markets over the time period as production in Jordan nearly doubled for machinery, electrical machinery, and apparatus. (See Table 2 in Part II above) Once again, for all these industries, the implied export supply elasticities are so large – ranging from 23 to over 113 – that to the extent to which the FTA induced the observed levels of exports to the U.S. market, some trade diversion must have played a role.

There are three anomalies reported. The U.S. MFN tariff on HS 22 (beverages, spirits and vinegar) was already zero before the FTA, yet Jordanian FTA exports increased substantially. This situation explains the large under-prediction of such exports. HS 49 (printed books, etc.) received only a small tariff preference of 0.4 percent, but nonetheless, despite a large number of exports to the United States, there were no exports at all under the FTA. Finally, HS 85 (electrical machinery and equipment and parts, etc.) received a tariff preference of 1.97 percent, yet despite significant exports before the FTA as well as a substantial increase afterward, apparently none of the exports after 2000 use the FTA, resulting in a substantial under-prediction of FTA exports for that industry. Of course, rules of origin requirements, SPS and other non-tariff constraints, or simple ignorance of the FTA advantages may explain some of this, as is discussed below.

3.2.2. Jordanian Exports – Limited GSP Conversion

The benchmark case reported on so far, as noted, treats previous GSP exports very conservatively. Alternatively, very few of the previous GSP qualifying exports may have simply switched to FTA status. In this case, our calculations have considerably understated the importance of the FTA for Jordan's exports by over 30 percent. Table 19 adjusts for this with the assumption that no previous GSP exporters simply converted export classification to the FTA. In this case, FTA export earnings increase substantially, to almost $12 million per industry on average, and net welfare annual export earnings increase to an industry average of $343,728 with a range of from zero to $3.3 million.

Table 20: Results Assuming No Conversion from Previous GSP to FTA Status ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@US domestic prices)	Implied Elasticity	Net Welfare Gain in Annual Export Earnings
20 - Preparations of vegetables, fruit, nuts or other parts of plants	47.64	102.90	110	19.36	7.10
22 - Beverages, spirits and vinegar	18	259	259	NA	0
28 - Inorganic chemicals; organic or inorganic compounds of precious metals, or rare-earth metals, of radioactive elements or if isotopes	17.36	142.08	146	84.13	3.92
29- 0rganic chemicals	259.35	57.92	61	4.473	3.08
39- plastics and articles of plastic	487.00	1,194.46	1,250	29.433	55.54
49 -- Printed books, newspapers, pictures and other printed products, manuscripts, typescripts and plans	576.87	0	0	0	0
68 - Articles of stone, plaster, cement, asbestos, mica or similar materials	106.36	404.95	412	93.41	7.05
71 - Natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin	10,264.50	11,0271.80	113,602	85.55	3,330.21
84- Nuclear reactors, boilers, machinery and	506.98	2,331.16	2361	137.90	29.84

mechanical appliances, parts thereof					
85 -Electrical machinery and equipment and parts, sound recorders and reproducers, television recorders and reproducers, parts and accessories	248.10	27.46	28	5.69	0.540
Averages	**1,253.23**	**11,479.17**	**1,1822.9**	**51.10**	**343.73**

In a later section we discuss which industries are more likely to have substantial amounts of previous GSP exports converted to FTA exports, and which are less likely. In fact, the evidence suggests that for most of the industries studied the increases in observed FTA exports were *not* merely existing export levels being converted in customs status. Hence, the larger benefits of the FTA reported here are likely to be closer to reality than those based on our more conservative assumptions earlier. (Note that AMIR report ***Economic Impact and Implications for Jordan of the U.S. – Jordan Free Trade Agreement, 2001*** makes a similar observation.)

3.2.3. The Effect of Compliance Cost Savings with the FTA

Table 20 is similar to the benchmark case Table 18, but incorporates a supply curve shift reflecting the cost savings associated with the more liberal JUSFTA rules and requirements. While the FTA cost advantages are most pronounced *vis-à-vis* the QIZ on account of the more liberal rules of origin, there are also some advantages over the GSP. In particular, the FTA product coverage is wider - including certain import-sensitive electronic products, steel products, luggage and flat goods, and so on – and sourcing requirements on "content" are more liberal. Also, the GSP must be renewed by Congress periodically (it was just renewed in 2002 for a further five years) and this creates uncertainty among potential exporters. We assume, based on the study of Francois, Hoekman, and Manchin (2005), and on our own estimates, that the cost saving is 4 percent for each industry.

Table21: Results Assuming 4% Non-Tariff Cost Savings from FTA ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@US domestic prices)	Net Welfare Gain in Annual Export Earnings
20 - Preparations of vegetables, fruit, nuts or other parts of plants	51.75	70.28	75.13	7.66
22 - Beverages, spirits and vinegar	20.16	176.90	176.90	7.08
28 - Inorganic chemicals; organic or inorganic compounds of precious metals, or rare-earth metals, of radioactive elements or if isotopes	19.24	97.04	99.72	6.56
29- 0rganic chemicals	284.07	39.56	41.66	3.69
39- plastics and articles of plastic	535.29	815.81	853.75	70.57
49 -- Printed books, newspapers, pictures and other printed products, manuscripts, typescripts and plans	645.24	0	0	0
68 - Articles of stone, plaster, cement, asbestos, mica or similar materials	118.39	276.58	281.40	15.88
71 - Natural or cultured pearls, precious and semiprecious stones, precious metals; precious metals clad metals, articles thereof; imitation jewelry; coin	11,365.11	75,315.63	77,590.17	5,287.16
84- Nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	565.30	1,592.18	1612.56	84.07
85 -Electrical machinery and equipment and parts, sound recorders and reproducers, television recorders and reproducers, parts and accessories	275.91	18.75	19.12	1.12
Averages	**1,388.05**	**,840.28**	**8,075.04**	**548.38**

This modification has several effects. First, the net welfare gain increases substantially to an average annual gain of $548,000 per industry and $5.2 million for the large FTA exporting HS 71. Second, the predicted exports, while still largely under-predicted, are at least closer to the actual FTA exports for these industries, which are valued at over $8 million based on the more conservative benchmark treatment of GSP exports. This is at least suggestive that compliance costs savings may be an important factor in the success of the FTA relative to existing schemes such as, particularly, the QIZ.

3.2.4. Employment Effects

While the employment effects of the FTA are surely positive in our framework, measuring the extent of FTA-created employment in exporting industries is problematic. This is because we cannot know from the data available just how much of the observed FTA exports actually comes from new production.

As a very rough estimate, we might assume that half of the FTA trade is from new production. Then, taking the new FTA exports times one-half would approximate the increase in industry output and so the proportion of employment in the industry due to the FTA would be this number divided by total industry output.

3.3. Specific Sector Considerations and Mitigating Circumstances: Jordan's Exports

In the above analysis, all of the effects of changes in exports and imports are attributed to the FTA. Of course, many other things have changed as well. Generically, other important exogenous changes would be reflected in changes in the world price, P_W, or in changes in the structure of Jordanian or U.S. MFN applied base tariff rates. Exogenous changes in the industry cost structure owing to technological change would matter as well, as would changes in transport costs or other countries' trade policies which might divert exports to or from markets of Jordanian interest.

In this section, we recount the specific changes in trade patterns of each HS Chapter export industry, along with some anecdotal evidence collected by The Jordan Export Development Corporation (JEDCO).

HS 20 PREPARATIONS OF VEGETABLES, FRUIT, NUTS, OR OTHER PARTS OF PLANTS

Exports of this sector were favored by the JUSFTA with a decrease in the duty from 6.9 percent to virtually zero over the last five years. Below we show the changes in exports to the United States by program (in US$).

	2000	2005
GSP	7,940	777,396
FTA	-	109,843
QIZ	-	23,613
NTR	30,906	-

While exports increased dramatically in the GSP category, there was also a very large increase in the FTA exports and a decrease to zero in NTR exports. This means that, since the GSP treatment was already available in 2000, apparently the cessation of NTR exports, along with the additional

increase in FTA exports, might well owe to exports from Jordan now truly taking advantage of the FTA and not merely switching status from GSP. Note that in our benchmark calculations above, the gains attributed to the FTA would be understated as we apportioned 31 percent of the increase in FTA exports to previous GSP exports, which seems unlikely given the increase in the GSP exports.

Specifically, the industry reports substantial exports under the FTA aimed at the American Arab community, with orders up sharply in the past few years. The main challenge in exporting to the United States is compliance with FDA regulations.

HS 22 BEVERAGES, SPIRITS AND VINEGAR

This is a particularly interesting and anomalous sector in that while the U.S. MFN tariff rate was already zero before the FTA, and so the FTA afforded no obvious advantage in this respect, exports surged from $18,000 in 2000 to almost $500,000 in 2005, with over half of these, $259,000, using the FTA. The exact export flows are shown below.

	2000	2005
FTA	-	259,458
GSP	-	198,295
NTR	18,100	33,992

While we can assume that there was an independent impetus to export, new investment or compliance with previously restrictive SPS regulations, for example, the fact that the FTA was the preferred scheme is at least suggestive of some advantage to exporters in the industry.

HS 28 INORGANIC CHEMICALS; ORGANIC OR INORGANIC COMPOUNDS OF PRECIOUS METALS, OF RARE-EARTH METALS, OF RADIOACTIVE ELEMENTS OR OF ISOTOPES

As shown, there was a dramatic increase in exports of this industry and almost all of the new exports used the FTA. The MFN duty is 2.76 percent, so this could be indicative of a fairly large export response to relatively small preference margins. Note that no exporter used the GSP before or after the FTA, although it is available for 130 of the 258 products in this group.

	2000	2005
FTA	-	145,524
NTR	15,552	53,197

Specifically, exports in this group consisted of three products: Bromine, potassium hydroxide, and aluminum oxide. The bromine exports of almost $146,000, using the FTA for the first time in 2005, account for all of the FTA exports. These exports, in turn, represent 6.8 percent of all U.S. bromine imports, second only to Israel with $1.98 million of exports to the United States. Exports of potassium hydroxide were about $27,000 and aluminum oxide about $26,000, both new export products in 2005.

The bromine exporter is the manufacturer Jordan Bromine Company (JBC), which is a joint venture between the Arab Potash Company and Albemarle Holdings Company Limited, a wholly owned subsidiary of Albemarle Corporation. The Company produces bromine and bromine derivatives including inorganic bromides of calcium, sodium and hydrogen extracted from the Dead Sea. JBC was established in 1999, with production starting in 2003. It was said to be a $150 million joint venture (50-50 percent) with employment of 70 in 2003 (At the time, it was considered to be the biggest U.S. investment in Jordan.) and an anticipated additional 170 jobs in the second phase. The

second phase includes a new production facility for membrane chlorine and should now be operational.

Although the average U.S. MFN tariff rate for HS 28 is only 2.97 percent, the tariff rate for the products of JBC is 5.5 percent under NTR but zero with the FTA. Hence, the preference margin and so the gains from the FTA are larger than we report earlier by almost double. Also, since the largest competitor, Israel, receives duty-free treatment under an FTA, and since the Dead Sea is a major source of bromine (1 billion tons), the extra 5.5 percent margin may be important in the decision to export bromine competitively from Jordan. This represents a good example of how the "averages" calculated above can underestimate the gains afforded Jordanian exporters using the FTA.

HS 29 ORGANIC CHEMICALS

Despite a substantial increase in exports to the United States., usage of the FTA has been limited. Nonetheless, the large increase in GSP exports indicates the importance of trade preferences generally. This is a case where the FTA can be viewed as an important viable alternative should the GSP requirements be modified in the future, and so may lend confidence of no disruption to exporters.

	2000	2005
GSP	137,700	2,076,098
NTR	41,775	1,882,205
FTA	-	60,607

HS 39 PLASTICS AND ARTICLES THEREOF

Exports using the FTA have increased substantially, as is shown below.

	2000	2005
FTA	-	1,250,101
NTR	94,230	595,259
GSP	331,005	174,905
QIZ	-	154,822

The large decrease in GSP exports suggests that at least some portion of the FTA exports may have simply converted customs status. Nonetheless, these converted exports represent only about 10 percent of total FTA exports. Furthermore, since NTR exports have increased by about $500,000 as well, it might be inferred that the large increase in FTA exports in fact derives largely from new production in Jordan, or perhaps some trade diversion. Generally, the industry reports being well aware of the FTA and its advantages.

HS 49 PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRINTED PRODUCTS; MANUSCRIPTS, TYPESCRIPTS AND PLANS

Despite a large increase in exports to the United States., virtually all of the exports entered under NTR status. GSP usage, although small in 2000, disappeared altogether in 2005.

	2000	2005
NTR	560,001	2,663,667
QIZ	-	2,604
GSP	9,728	-

JEDCO reports finding only one company that exports to the United States. The exports are mainly educational books. Although the industry reports active participation in U.S. trade shows where they find buyers, JEDCO finds a lack of awareness of the FTA. Of course, this may just reflect the fairly low MFN tariffs – 0.4 percent on average -- and so limited value of the FTA for this sector.

HS 68 ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS

This is a fairly dynamic industry and uses both the FTA and the GSP extensively, although the tariff preference advantage is on average a modest 1.74 percent. As shown below, NTR exports are relatively small, while FTA exports now comprise almost 40 percent of all industry exports to the United States.

	2000	2005
GSP	101,445	680,259
FTA	-	412,058
NTR	-	38,773

Exports to the United States are mainly stone and marble products, including tiles. The exporters are largely aware of the FTA and view it positively. Exports have increased due especially to participation in trade shows, with the help of the industry trade association, and improved quality. The industry actively pursues continuous contracts. Shipping costs were reported as the key competitive variable.

HS 71 NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMIPRECIOUS STONES, PRECIOUS METALS; PRECIOUS METAL CLAD METALS, ARTICLES THEREOF; IMITATION JEWELRY; COIN

Exports of the sector have increased substantially under the FTA. At the same time, the decline in GSP exports suggests that some of the FTA exports may have previously entered as GSP. However, the decline in the GSP exports represents less than 5 percent of current FTA exports, and so is clearly not the source of the explanation for FTA exports. NTR exports increased, as did QIZ exports, but the quantities were small relative to the size of FTA exports.

	2000	2005
FTA	-	113,601,516
GSP	9,376,587	4,202,584
QIZ	-	546,257
NTR	11,080	424,395

The main exporter is an Italian firm (joint with Armenian interests) that produces high quality Italian design gold jewelry (gold chains and fancy jewelry). Exports are 100 percent for the U.S. market. The firm came to Jordan in 2000, started production in 2002, and uses the FTA extensively. As export contracts have increased, investment has expanded to another factory.

HS 84 NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF

Exports in all customs categories have increased substantially. Since GSP usage increased by so much, the large increase of $2.36 million under the FTA was probably not due to any mere conversion of exports from GSP status.

	2000	2005
GSP	14,794	2,986,002
NTR	473,096	2,387,434
FTA	-	2,360,774
QIZ	-	203,086

The company Petra Engineering is an important source of these exports, with air conditioning being a large component. The company considers the FTA to be important, participates actively in trade shows, and competes on both price and quality.

HS 85 ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION RECORDERS AND REPRODUCERS, PARTS AND ACCESSORIES

Although exports have more than doubled, the FTA accounts for only a small percentage of the increase, and the GSP for even less. Since there were no GSP exports in 2000, we can assume that all of the FTA exports are new production or trade diverted from other export markets.

	2000	2005
NTR	234,384	578,764
FTA	-	28,265
GSP	-	10,785

3.4. Estimation and Simulation: Jordanian Imports from the United States

The JUSFTA also holds potential advantages for U.S. exporters. Table 21-22 report on our findings by sector using a methodology similar to that used for Jordanian FTA exports. As explained above in the section on Methodology, the calculations reflect both Jordan's general external trade liberalization – lower NTR applied base tariffs – and the incomplete implementation of the FTA tariffs for the United States. Both of these features conspire to reduce the advantage of the FTA for U.S. firms.

3.4.1. Results Using 2005 NTR and FTA Tariff Rates

Table 21 reports on the current tariff regime of with 2005 NTR tariffs and FTA tariff levels at the partially implemented 2005 levels. (On average, these rates are 15.09 percent and 6.87 percent respectively.)

Table 22: Results of CPE Simulations for U.S. Exports ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@Jordan domestic prices in US $)	Implied Elasticity	Net Welfare Gain in Annual Export Earnings
15.--animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	11,556.19	8,677.96	10,450	0.37	1,102.97
29.--organic chemicals	2,900.78	8,539.56	9,110	34.50	335.60
38.--miscellaneous chemical products	2,460.29	7,851.14	9,251	15.21	405.90
73.--articles of iron or steel	827.51	9,434.56	11,980	40.95	175.48
76.--aluminum and articles thereof	5,090.64	11,453.38	13,783	11.42	1,590.88
84.--nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	52,393.85	93,198.50	10,4140	10.42	6,533.22
85.--electrical machinery and equipment and parts thereof; sound recorders and reproducers, television recorders and reproducers, parts and accessories	29,292.42	32,711.61	39,689	2.08	2,917.88
87.--vehicles, other than railway or tramway rolling stock, and parts and accessories thereof	8,643.47	74,440.76	89,850	49.11	6,729.45
90.--optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	18,441.74	28,553.46	33,833	4.64	1,784.59
94.--furniture; bedding, cushions etc.; lamps and lighting fittings nesoi; illuminated signs, nameplates and the like; prefabricated buildings	6,149.71	5,901.63	7,511	1.47	791.41
Averages	**13,775.66**	**28,076.26**	**32,959.7**	**17.02**	**2,236.74**

In 2005, these industries represented about 54.3 percent of Jordanian imports from the United States. For the industries considered, the impact is more pronounced than for Jordanian exporters because the export volumes tend to be larger (Recall that we excluded by far Jordan's largest export industry to the United States, garments.), and because Jordan's MFN tariffs are still quite high so that preferential access induces larger adjustments. Specifically, for the industries we study, the average tariff fell from about 19 percent in 2000 to 15 percent in 2005, while the JUSFTA average duty for these industries in 2005 was significantly lower at 6.87 percent. Thus, even with the recent Jordanian tariff reforms and despite incomplete implementation of the FTA, the preference margins for U.S. goods are substantial.

The sector average exports increased from $10.87 million in 2000 to $32.96 million in 2005. The largest export sector was HS 84 (Nuclear reactors, boilers, machinery and mechanical appliances) with exports of about $104 million and the smallest was HS 94 (furniture; bedding, cushions, etc.; lamps and lighting) at $7.5 million. As above, the assumed export supply elasticity of 3.0 on average under-predicted the actual increase in imports given the observed tariff margins of preference, but not by as much as for Jordanian exports to the United States. The average "implied elasticity" is 17, suggesting at least some trade diversion or some other exogenous change in costs or world prices. (Of course, the U.S. presence in Iraq grew during this period, but any transshipped goods do not appear in our data.) However, the implied elasticities are not always so high on a sector by sector basis and, in fact, are below 3.0 for several sectors.

For U.S. exporters, the FTA resulted in increased export earnings by an average across the industries of about $2.24 million, corresponding to area "c + f + g" in Figure 2, adjusted to reflect that the FTA duties are not yet zero and using Jordanian 2005 NTR tariff rates. (Net welfare for the United States increased by less, as part of the increased earnings went for additional production and shipping costs, area "g" in Figure 20). For Jordan, this represents a welfare loss due to trade diversion caused by the FTA, which technically appears as lost tariff revenue. But this loss has already been mitigated by the program of MFN tariff reductions and can be completely avoided by further reducing external trade taxes. (This welfare gain accrues to Jordanian consumers and, geometrically, is represented by the area between the NTR 2000 price line and the NTR 2005 price line all the way over to the demand curve.)

While HS 84 dominates the numbers absolutely, and so biases the averages upward, the most striking sectors are HS 87 (vehicles, other than railway or tramway rolling stock, and parts) and HS 73 (articles of iron and steel) with implied elasticities of 49 and 40. Although year 2000 exports were relatively small, even without full implementation of the FTA tariff reductions, preference margins exceed 10 percent and the response has been quite dramatic. Of course, there are undoubtedly other exogenous factors at play as well, but much of the change can be attributed to the FTA.

The next two sections present alternative (hypothetical) tariff structures for Jordan as a way of illustrating how our predicted exports would be affected, and by way of decomposing the total effect of evolving NTR and FTA applied tariff rates.

3.4.2. The Effects of Evolving NTR Tariff Rates: Results Using Current FTA Tariff Rates but Higher (Year 2000) NTR Rates

Table 22 reports on the magnitudes on the assumption that year 2000 NTR rates had not been reduced, but given year 2005 FTA tariff rates. The first column shows that the predicted exports would have been higher. But, note that this would have been more than offset by a loss in consumer welfare were Jordan to have actually retained the higher NTR tariffs of 2000. The next three columns report actual observed exports but calculate the net welfare change using the hypothetical tariff rates. While the gains for U.S. exporters would have been larger by about $800,000 per industry on average, the reduction in the gains due to Jordanian NTR tariff reductions has been more than offset by gains to Jordanian consumers as a result of lower prices for imported goods.

Table 23: Results Assuming Jordan's NTR Ad valorem Tariff Rates Were Not Reduced After 2000 ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@Jordan domestic prices in US $)	Net Welfare Gain in Annual Export Earnings
15.--animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	11,794.66	8,677.96	10,450	1,169.79
29.--organic chemicals	3,081.94	8,539.56	9,110	516.643
38.--miscellaneous chemical products	3,140.07	7,851.14	9,251	1,105.44
73.--articles of iron or steel	1,238.05	9,434.56	11,980	1,556.70
76.--aluminum and articles thereof	5,109.43	11,453.38	13,783	1,606.91
84.--nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	54,567.76	93,198.50	104,140	7,893.91
85.--electrical machinery and equipment and parts thereof;	34,136.07	3,2711.61	39,689	4,782.44

sound recorders and reproducers, television recorders and reproducers, parts and accessories				
87.--vehicles, other than railway or tramway rolling stock, and parts and accessories thereof	8,883.461	74,440.76	89,850	7,473.85
90.--optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	21,496.79	28,553.46	33,833	3,375.02
94.--furniture; bedding, cushions etc.; lamps and lighting fittings nesoi; illuminated signs, nameplates and the like; prefabricated buildings	6,242.90	5,901.63	7,511	825.05
Averages	**14,969.11**	**28,076.26**	**32,959.7**	**3030.58**

3.4.3. The Effects of Full Implementation of the FTA: Results Using Current (Year 2005) NTR Tariff Rates and Zero FTA Tariff Rates

Finally, Table 23 shows the effects if the FTA had fully implemented as it will be in 2010 – and so zero tariffs – but the Jordanian NTR tariff rates are not further reduced. Naturally, predicted U.S. exports increase. Also, as shown, net export earnings welfare gains for U.S. exporters increase to over $4 million for the average industry. This is because any drop in the FTA rate not accompanied by a decrease in the NTR rate will become increased export earnings for U.S. exporters. But this represents a loss in tariff revenue for Jordan.

Table 24: Results Assuming FTA Ad valorem Tariff Rates Are Fully Implemented (Year 2010) ('000 US$)

HS Chapter – Description	Predicted Q (@world prices)	Actual Q (@ world prices)	Actual Q (@Jordan domestic prices in US $)	Net Welfare Gain in Annual Export Earnings
15.--animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	13,825.01	8,677.96	10,450	1,705.22
29.--organic chemicals	2,953.86	8,539.56	9,110	389.40
38.--miscellaneous chemical products	2,732.96	7,851.14	9,251	700.32
73.--articles of iron or steel	1,110.11	9,434.56	11,980	1,164.22
76.--aluminum and articles thereof	5,984.51	11,453.38	13,783	2,313.58
84.--nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	57,345.26	93,198.50	104,140	9,580.81
85.--electrical machinery and equipment and parts thereof; sound recorders and reproducers, television recorders and reproducers, parts and accessories	35,046.44	32,711.61	39,689	5,112.83
87.--vehicles, other than railway or tramway rolling stock, and parts and accessories thereof	11,434.39	74,440.76	89,850	14,664.83
90.--optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	22,137.46	28,553.46	33,833	3,689.11
94.--furniture; bedding, cushions etc.; lamps and lighting fittings nesoi; illuminated signs, nameplates and the like; prefabricated buildings	8,574.93	5,901.63	7,511	1,575.73
Averages	**16,114.49**	**28,076.26**	**32,959.7**	**4,089.61**

This scenario serves to highlight the importance of Jordan's continuing to reduce its NTR base applied tariff rates for all of its trading partners. In particular, as the NTR tariffs are lowered, the lost tariff revenue is converted into consumer welfare gains through lower import prices **and** the consumer gains more than offset lost tariff revenues from all other non-U.S. imports as well.

3.5. Conclusions

It appears that the FTA has indeed had an impact on trade and investment. While both theory and the predictions of the stylized economic model anticipate increased bilateral trade, the actual trade flows exceeded the predictions. The more detailed industry-level data and firm-level analysis seemed to corroborate that the FTA was viewed as important in the exporting and investment decisions of at least some firms. Also, this latter data seem to indicate that much of the FTA trade is not merely a customs reclassification from other duty-free options such as the GSP or QIZ.

Part IV. Evidence from Field Interviews

4.0. Introduction

In order to give some perspective to the industry analysis above, we contacted a number of relevant parties for interviews (see Annex 2). The primary objective was to corroborate some of the findings of the empirical investigation and to delve more deeply into issues which are difficult to quantify. The focus was on Jordan's FTA exports. In this section we report on the views of industry managers, trade associations, and various government entities as to the impact of the JUSFTA. The issues are grouped topically, rather than by industry. Specifically, we report on:

- Awareness of the FTA, utilization, and perceived advantages
- Compliance costs and potential rules of origin impediments
- The new legal environment, and, specifically, IPR issues
- Domestic constraints to taking advantage of the FTA

4.1. Awareness of the FTA, Utilization, and Perceived Advantages

The field interviews and input from JEDCO revealed considerable differences across industries. The Jordan Exporters' Association (JEA) reported widespread awareness of the FTA and many sources (JOSTONE, Dead Sea Products Manufacturers Association, Ministry of Industry and Trade, JEDCO) confirmed a *theoretical* preference for the U.S. market over the more heterogeneous European market. That is, the business community clearly wants to export to the U.S. market and is excited by the prospect, even if remote for some firms. Roughly, it appears that some years ago exporting generally was related to participation in trade shows which generated orders and led to increased exports. On average, product quality was uneven (mostly, low) and, prior to 2000, the main markets were in the region, especially Iraq. However, due to FTA market access and awareness, along with the unreliable Iraqi market and new domestic and foreign investments, the exporters managed to increase quality and became comfortable with exporting to the U.S. market. Thus, there is now some real capability to complement the excitement about exporting.

Naturally, industries like pharmaceuticals and some of the more sophisticated garment producers are acutely aware of the FTA. In other industries, awareness of the advantages is growing. Some firms, in fact, apparently did not realize that they qualified for tariff preferences before the FTA – using the GSP – and were made aware of the fact due to information distributed about the FTA. (Air conditioners, cosmetics, and plastic bags were cited.) Other sources (Amman Chamber of Industry, JEDCO, Ministry of Industry and Trade) reported more modest awareness. One company that exports educational books to the United States, for example, said that they participate in trade shows to find buyers and yet were unaware of the FTA agreement, from which they could in fact benefit. Surprisingly, JGATE reported that awareness of the FTA was still lacking among some garment producers even though the FTA offers a clear advantage over a QIZ in terms of rules of origin. It was also suggested (JEA) that using Jordan as a platform for exporting to the United States under the FTA was not yet successful as potential investors were not aware of the trade advantages.

Potential exporters collected practical information on the FTA in a number of ways. The JEA (together with the American Chamber of Commerce in Jordan and other associations) conducted several seminars in the past, but follow-up was reported to be low. The JEA also conducted a study

tour of the U.S. market for a number of potential exporters, although exports have yet to materialize from that event. Dead Sea Products attended a U.S. Customs course on U.S. market entry and strategies. JOSTONE members were quite knowledgeable of the FTA and generally comfortable with the U.S. market. They had received technical support, training, and information on standards through JUSBP, U.S. contacts and trade shows. However, according to several sources, and as opposed to the *theoretical enthusiasm* noted earlier, there was a clear *practical bias* in the private sector to rely on nearby markets and a reported lack of knowledge about how to access the U.S. market and generally deal with the system.

As for actual usage of the FTA and perceived advantages, the field evidence offers a mixed picture. As is clear from the aggregate numbers reported above, usage is up dramatically. The Amman Chamber of Industry reports that both the volume of exports and the number of firms exporting have increased owing to the FTA. This increase in the number of firms suggests that the FTA has directly led to more entrepreneurial activity. This is consistent with the positive "export spillover" effect cited in the literature on export booms. Clearly the most sophisticated exporters among garment producers were aware of and used the more liberal rules of origin advantages under the FTA compared with a QIZ. Dead Sea Products, as with a number of other industries, already used the GSP to access the U.S. market and saw no advantage to the FTA. (However, the GSP access was extremely important in the exporting decision and the FTA was viewed as reassuring in case the GSP law changed.) Various importers of intermediate inputs that ultimately exported (Dead Sea products, furniture, etc.) already received duty free treatment as "industrial input" importers, and so saw no advantage to sourcing from the United States using the FTA. For some industries, like furniture, tariffs in the United States were not a priority cost relative to transport, warehousing, and considerations of quality, all of which precluded exporting.

The investment response to the FTA in Jordan was reported to be low still, but not zero. There have been three firms from Turkey, for example, that invested in Jordan for export to the United States explicitly because of the FTA. And several U.S. firms have invested in Jordan on account of the FTA with the objective of sourcing to the European Union, as well as to Jordan. Also, the timing of foreign direct investment in Jordan for jewelry exports to the United States using the FTA seems to indicate that the FTA was a factor. Bromine exports from JBC faced a similar situation, although the Dead Sea location was obviously crucial. The sense, though, supported by the Chamber of Industry, seemed to be that U.S. investments such as for water treatment were driven more by funding source requirements than by the FTA. The perception in the Jordanian business community seemed to be that U.S. firms preferred a larger market and, anyway, can work through European connections. Also, it was mentioned that the Jordanian buyer is perceived as generally more familiar with European products.

4.2. Compliance Costs and Potential Rules of Origin Impediments

Because free trade agreements by their nature discriminate between member and non-member trading partners, inherent to any agreement are numerous rules and qualifications which proscribe the terms of accessing the agreement's favorable components. These include stipulations regulating such things as trade facilitation provisions (transparency, customs administration, technical barriers to trade, electronic commerce, and sanitary and phytosanitary regulations), and provisions with respect to the regulatory environment (safeguards/trade remedies, government procurement, intellectual property rights, labor, environment, and dispute settlement). In this section we report on our field interviews concerning such costs, although we discuss the legal environment and IPR issues in the next section.

Compliance with the FTA rules comes at a cost in terms both of administration – e.g., monitoring and verification – and of altered business practices – e.g., sourcing of inputs. Francois, Hoekman, and Manchin (2005) have estimated these costs to be about 4 percent of the value of exports on average. We have calculated that rules of origin under the FTA could present a cost advantage relative to a QIZ of 3 – 4 percent. Potentially, this could significantly affect trade. Box 1 is suggestive of potential savings.

In fact, compliance with the FTA requirements was not viewed as onerous for most actual exporters. (Of course, it is impossible to know how much exporting may have been discouraged due to perceived compliance costs.) There was an instance cited with reference to the GSP where Jordanian goods warehoused in Canada had encountered delays when shipped to the United States on account of documentation of raw material sources for cosmetics. But, generally, the "paperwork" costs of using the FTA were viewed as minimal.

On the other hand, the business practices changes associated with the FTA were viewed favorably and as important. Several sources, including JGATE, cited the more favorable rules of origin of the FTA and generous "cumulation" rules as extremely important from a cost standpoint. Particularly when compared with the existing QIZ, the more favorable rules can have a significant impact on profits and so contribute positively to exports.

Box 1: Cost breakdown under QIZ and FTA Scenarios

Sample product: knitted pant, 100% cotton (2 zippers, draw cord). Price, f.o.b.: $4.25/piece

The 35 percent cumulation requirement to qualify for QIZ duty-free treatment is to purchase a minimum 8 percent of the f.o.b. price, i.e. $4.25 from Israel, which, in this case, amounts to a minimum of $0.34. Since sources for some of the inputs are nominated by the buyer, Israeli sourcing is done for items # 3, 4, 7 and 8. Often, the manufacturer is forced to purchase inputs worth above the 8 percent, such as in this case, where by purchasing all 4 items, the percentage reaches 8.5 percent. In some instances, label and zipper suppliers are nominated to be also Israeli, thus raising the percentage of Israeli inputs to over 10 percent. (The most commonly sourced inputs from Israel are, polybags, cartons, sewing thread, elastic, hangers, labels, buttons, and zippers, in addition to fabric cutting operations or knitting.)

#	Item	Source	Unit	Consumption	QIZ Price	FTA Price	All QIZ cost/unit	FTA cost/ unit	Actual QIZ cost/unit
1	Main label	Nominated	pc	1	0.3	0.02	0.300	0.020	0.020
2	Care label	Turkey	pc	1	0.2	0.01	0.200	0.010	0.010
3	Sewing thread	Israel for QIZ/ other for FTA	cone (5000 yards)	350	1.35	0.8	0.095	0.056	0.095
4	Elastic	Israel for QIZ/ other for FTA	yard	1	0.08	0.05	0.080	0.050	0.080
5	Hangtag	Nominated	pc	1	0.04	0.03	0.040	0.030	0.030
6	Hanger	Nominated	pc	1	0.17	0.12	0.170	0.120	0.120
7	Polybag	Israel for QIZ/ other for FTA	pc	1	0.07	0.04	0.070	0.040	0.070
8	Carton	Israel for QIZ/ other for FTA	pc (1/12 pants)	0.083	1.4	1	0.117	0.083	0.117
9	Zippers (20cm)	Hong Kong	pc	2	0.25	0.15	0.500	0.300	0.300
10	Drawcord	Hong Kong	yard	1.5	0.12	0.08	0.180	0.120	0.120
	Total							**0.829**	**0.961**

Moreover, the higher the f.o.b. price per item, the more types of inputs manufacturers have to buy in order to fulfill the 8 percent requirement. In this case, should the manufacturer have an alternative choice to purchasing inputs (from sources other than Israel), he would save a $0.132 per piece, and increase profits by 3.11 percent. In addition to the obvious cost difference, there are also indirect costs such as those related to documentation processing in Jordan and Israel, arbitrary border closures that affect the flow of goods, etc. Therefore, the QIZ requirements lead to higher costs of inputs to qualify which can be equivalent to an average duty of around 3-4 percent. As such, the margin of QIZ tariff preference for the majority of products which currently still retain some duties under the FTA is almost non-existent due to the restraining cumulation requirement.

Item	Cost / unit	
	QIZ	FTA
1. Fabric:100% cotton 240 GSM, French Terry, $4.25/kg, c.i.f. Aqaba; consumption is 500 gr./unit	$ 2.125	$ 2.125
2. Land trasport (port-factory-port)	$ 0.100	$ 0.100
3. Inputs (other than fabric)	$ 0.961	$ 0.829
4. CMP* Cost	$ 0.780	$ 0.780
5. **Total Cost**	**$ 3.966**	**$ 3.834**
6. ***Appraised value (f.o.b. price)***	***$ 4.250***	***$ 4.250***
7. **Profit, $**	**$ 0.284**	**$ 0.416**
8. ***Profit, %***	***6.68%***	***9.79%***
9. ***Difference (% profit FTA-QIZ)***		***3.11%***
Assuming an order of 25,000 pieces:		
Total Cost	$ 99,150	$ 95,850
Profit	$ 7,100	$ 10,400
* CMP = cost, manufacture, packing and icludes direct labor cost + indirect labor cost+ direct processing cost+ indirect processing cost		

4.3. The New Legal Environment and IPR Issues

The JUSFTA has altered the legal environment in Jordan in several potentially important ways. Many of the changes were already incumbent in commitments for WTO accession anyway. Thus, while the Trademark and Patent Law is still in Parliament, Companies' Law, copyright, "internet treaties", and so on are moving forward. An important challenge is in operationally enforcing commitments. In particular, several sources reported very limited capacity to interpret and enforce some of the laws, especially in light of "*ex officio* protection" which commits the government to enforce laws even if no complaint is filed.

Nonetheless, trademark enforcement is viewed as adequate. Copyright enforcement is still considered weak. So, while statutory reform is in place, implementation is uneven and there is still somewhat limited confidence by potential investors in the integrity of the system.

While not the focus of this study, we make brief mention of the impact of the FTA with regard to IPRs and pharmaceuticals. Clearly there is something of a sea change occurring in the industry. The main issue surrounds the FTA extension of five year patent protection, as mandated by the WTO TRIPS Agreement and accession, to potentially an additional three years of patent protection depending on product modification, thus stifling some potential generic products.

Roughly, in the 1960s and 1970s Jordanian pharmaceutical firms were major suppliers in the region. Due to a combination of preferential treatment in the MENA region, lax patent protection, and government support, large investments were reflected in18 factories producing pharmaceuticals. Recently, production was at $400 million annually and exports exceeded $250 million to 60 countries. Employment is still substantial with about 4,000 direct hires in a high value-added industry and maybe employment of 10,000 more indirectly

The TRIPS Agreement, when enforced, protects patents for five years. The FTA includes Article 22, so-called "TRIPS +" or "five and three," which extends protection for "new uses of old chemical entities" by three years. The local industry is concerned that this will preclude profitable competition at any level and enlists consumer support by warning of higher prices. The complaint, aside from lamenting the acceptance of the Article in the FTA, is that interpretation is vague and that the stipulations are stronger than applied to other countries. Also, the sense seems to be that more multinational-oriented foreign firms are not interested in joint ventures in Jordan, preferring instead to source overseas.

Pharmaceutical importers seem to agree that, if enforced, most of the new patent laws will lead to a substantial downsizing of local production, possibly to none at all. Of course, the importers felt that enforcement of the laws was still lax.

4.4. Domestic Constraints to Taking Advantage of the FTA

While trade preferences afford Jordan some potential advantages, any gains require the cooperation of the domestic economic and legal environment if production and export/import patterns are to be beneficially altered. In particular, the economy needs to be sufficiently flexible so that domestic impediments or bottlenecks do not arise in the product, transport, and labor markets. Our field interviews identified a number of such impediments.

There was widespread concern about "labor shortages." Both skilled and unskilled labor shortages were reported, but a reliable supply of local unskilled labor was the most common complaint. Dead Sea Products, for example, reported trouble finding labor to load and unload trucks. Shortages of both skilled and unskilled labor were reported by the Furniture Association, JOSTONE, Ministry of Industry and Trade, and the Chamber of Industry.

The transport system and shipping were viewed as adequate (JEA), although some firms reported delays in ocean shipping through Aqaba. Others (Chamber of Industries) cited port delays in the recent past and numerous complaints, but said that no problems existed currently at the port. (Note that the Danish company Maersk now manages port operations and this was viewed positively by the business community.) One exporter cited ship disruptions due to low backhaul and so a reluctance to dock in Aqaba in the first place. Hopefully, as trade volumes expand, this problem should dissipate. JOSTONE, whose members export 30 percent of their output, most of this to the United States, thought that transport costs were high. Another source mentioned recently higher truck rental prices as an increased business constraint, but this seemed to be with reference to Iraq-bound traffic. The Dead Sea Manufacturers also reported high costs of shipping due to the lack of smaller containers to accommodate the smaller quantities exported (e.g., costs of shipping in 40 ft containers equals costs of shipping by air for smaller lots).

Several sources (Products Manufacturers Association, Furniture Association) cited problems with packaging, printing and labeling. In particular, local firms were not viewed as capable of providing packaging materials sufficient to market products in the United States. Printing and labeling were a particular problem for retail oriented firms, such as cosmetics, and shipping crates for goods such as furniture. Hence, such materials were imported at an additional cost from as far away as Hong Kong.

The JEA and others cited the small scale of production runs and unreliable production as constraints to exports. For example, contacts with the U.S. retailer Costco indicated that while the quality of some Jordanian products was acceptable, the quantity which could be supplied was far too small to make sourcing in Jordan practical. While there are some successes – e.g., chewing gum – it was suggested that small production scale would necessitate finding "niche" markets for chocolates, beverages, or "Mediterranean products" such as processed food, canned food, and so on. In fact, this is somewhat the strategy of highly successful exporters such as Dead Sea Products and some of the HS 20 firms cited above.

Jordanian taxes generally were not viewed as a problem for exporters by the JEA, but the VAT was seen as "too high" by several firms. (Of course, in such surveys of opinion, no business likes taxes.)

4.5. Conclusions

While the field interviews must be viewed as anecdotal evidence, nonetheless, when taken in conjunction with the overall trends reported in Part II and the industry performance relative to the CPE predictions of Part III, some empirical regularities seem to emerge.

Certainly there is widespread notional awareness of the FTA and considerable excitement about the idea of new investment and exporting to the U.S. market. At the same time, there was some trepidation about sharper competition as tariffs are liberalized and new firms enter older markets. Also, there was considerable consternation expressed on the part of the domestic pharmaceutical industry which felt that the extension of patent protection under Article 22 with "five and three" would destroy the local industry by giving an advantage to regional competitors and overseas firms in the generic drugs market. In fact, any industry dislocation on account of tariff liberalization owes almost entirely to the general reduction in NTR tariffs, not to the FTA. However, the local pharmaceutical industry will undoubtedly come under increased competitive pressure to the extent that the new legal codes are enforced.

In practice, while the FTA is growing in usage, many businessmen did not perceive U.S. tariffs to be the binding constraint on exports, citing rather domestic cost factors. In fact, the FTA seemed to be viewed as more important by non-exporters than by actual exporters, given low U.S. tariffs and access to the GSP and QIZ. Nonetheless, the FTA was seen as useful and an important alternative to the GSP should that program be modified or rescinded. Also, larger exporters cited the substantial cost benefits of the more liberal FTA rules of origin compared with the QIZ.

Unlike commodity trade, where we could document FTA usage, it is impossible to track officially the extent to which the FTA is responsible for new investment. However, we did find evidence that the FTA was important for new investment in several industries and presume that this can be extrapolated somewhat.

Part V. Conclusions and Recommendations

5.0. Introduction

The economy of Jordan has changed extensively over the last decade and for the last five years the economic progress has coincided with the introduction of the Jordan-U.S. Free Trade Agreement. Formally adopted by Jordan and the United States on October 24, 2000, with the objective of strengthening economic ties, promoting investment and employment opportunities, and improving the competitiveness of both countries, the Agreement has been progressively implemented since December 2001. While most of the positive economic change in Jordan probably owes overwhelmingly to policies of macroeconomic stabilization and general economic liberalization, the JUSFTA appears to have had some impact as well.

This study has focused on the effects of one of the main features of the Agreement, the gradual elimination over ten years of tariffs applied to all goods, except alcohol and tobacco, traded between the two countries. As recounted in the Overview (Part II), bilateral trade has certainly increased dramatically as exports to the United States grew by 453 percent, or on average 91 percent a year during the last five years, and imports from the United States increased by 90 percent, or on average 18 percent a year. Also, trade-related investment seems to have increased.

In order to isolate the contribution of the FTA to the growth in trade and investment, the study follows two tacks. First, we looked at a rapidly growing subset of exporting industries and, using data on trade flows and customs status, measured the actual exporting experience against what might be reasonably anticipated given the tariff preferences extended. Second, we conducted field interviews with representatives of businesses, trade associations, and government entities in order to understand what role the FTA plays in the observed increased trade and investment volumes.

5.1. Summary of Findings

The FTA does seem to matter and there is evidence of industry adjustment along lines that economic theory would anticipate in the presence of tariff preferences (Part III).

- Bilateral trade flows between the United States and Jordan have increased far more (proportionally) than trade with other countries.
- Usage of the FTA has increased substantially and we found evidence that this trade was not just conversion from other trade preference programs like the GSP and QIZ.
- While exporters from both countries benefited, the U.S. exporters gained absolutely more simply because the volume of trade was larger and the spread between NTR and FTA tariff rates is larger in Jordan than in the United States.
- The very large "implied elasticities" of the export response to the FTA supply price increases suggests that some of the trade was diverted from other export destinations.

In fact, trade surpassed the predictions of our computable partial equilibrium model for most industries. On average, exports under the FTA were about seven times larger than we would have expected using an export supply elasticity of 3.0. However, some industries were anomalous, with one industry using the FTA but with a zero NTR tariff to begin with, and another not taking advantage of the FTA despite substantial exports. Interviews indicated that lack of awareness about the FTA may explain the latter anomaly. More liberal rules of origin or recent compliance with health standards in the United States may explain the former anomaly since the main exports of Jordan to the United States in this group are waters and mixed fruit and vegetable juice. Also, there

is a small specific tariff of 0.2 cents/liter applied to some exports of some items in this group which was rounded to zero in the averages.

Interviews and anecdotal evidence (Part IV) suggested a general awareness of the FTA. Perceptions of the benefit of the program differed, however. While things varied by industry, the magnitude of the tariff preferences for Jordanian exporters was often seen as useful but not the major consideration in the export decision. More important constraints concerned local labor conditions, packaging and marketing considerations, transport costs, and so on. Nonetheless, certain firms clearly viewed the FTA as important and some investment is located in Jordan expressly because of the FTA.

The more liberal treatment of rules of origin was considered important by some sectors, especially current QIZ exporters of garments. Also, some users of the GSP viewed the FTA as an important backstop should the GSP program cease or be modified in the future. We also found some evidence of "exporter spillovers" in that some producers were becoming more familiar and comfortable with the U.S. market simply because other exporters were now accessing that market. Finally, there was a clear perception that the FTA was a sign of progress toward a more liberal trade regime, although the pharmaceutical sector in particular did not welcome what it viewed as excessive patent protection.

5.2. Recommendations

The Jordanian economy has responded remarkably well to the progressive economic liberalization program of the past decade. An overriding recommendation would be generally to "stay the course" and for Jordan to continue with the policy of macroeconomic stabilization and economic reform.

Specifically, with regard to the FTA, several recommendations can be offered.

- Since the FTA is by its nature a piecemeal liberalization program, it is extremely important to continue to lower all NTR tariffs as FTA tariff rates are brought toward zero by 2010. All FTAs divert trade to the preferred partner, and consequently have "good" and "bad" elements. The good part for Jordan is that Jordan's exports to the United States receive preferred status (no duties need to be paid by the importers) and so command higher prices there. This is why the FTA will cause output and employment to increase in Jordan. Similarly, U.S. exports to Jordan will increase because they can enter duty free and so are preferred by importers. However, the "bad" aspect is that Jordan will no longer collect duty revenue on the imports from the United States as it will now stay with the U.S. suppliers who are now able to sell in Jordan at the tariff-protected higher prices, but do not have to pay any duty as their foreign competitors do. A good way to avoid this "cost" of lost revenue for Jordan is to have lower NTR tariffs. This will result in lower prices for Jordanian consumers and, although tariff revenues still decrease, the lost revenues now go to Jordanian consumers in the form of lower prices instead of to U.S. firms in the form of higher profits. Of course, the Government of Jordan may want to replace the lost tariff revenue, but this is "neutral" from Jordan's standpoint as it represents a transfer from taxpayers to the Government for government services provided. So long as the NTR rates are lowered, it just represents replacing one tax (the tariff) with a different (better) tax, and consumers gain from lower prices.

- Investors clearly want an effective and transparent legal environment. So continued vigilance in abiding by codes of conduct mandated by the WTO accession and reinforced

by the FTA is useful. At the same time, the complaints of the pharmaceutical industry are not trivial and require some attention.

- It is always useful to disseminate information concerning the FTA or other trading opportunities. Nonetheless, experience from Jordan and from other countries suggests that lack of government provided information is not an overwhelming constraint to exporting and importing.

- In order to monitor the FTA and to support enlightened economic liberalization generally, the GOJ should redouble its efforts to develop an analytic capacity for policy evaluation.

Appendix 1: Model Specification

Supply Estimates:

Using the notation of Part III, write the constant elasticity supply curve as

$Q = aP^E$

where "a" is a parameter initializing the position of the supply curve and E is the price elasticity of export supply.

In our predictions we define units of exports to be USD 1 of each product at world prices and so initialize P_W to unity, "a" to the observed level of exports, Q_1, and E to 3.0 or 10.0. We assume the world supply curve for each product is perfectly elastic and so P_W is fixed.

For calculations of hypotheticals, we take the natural log of the supply equation and use the ad valorem tariff data reported in Parts II and III. For the cost saving supply shifts, we introduce a parameter to shift the supply curve downward by 4 percent at every quantity.

Demand:

Note that the import demand function plays no role and so we do not use it

Annex 1: Changing Patterns of Trade between Jordan and Main Trading Partners, 2000 and 2004

Values measured in FOB, US$

2000		2004	
Countries	**Value**	**Countries**	**Value**
Exports			
(20) Preparations of vegetables, fruit, nuts, or other parts of plants			
Total	3,969,651	Total	6,345,047
Iraq	1,090,421	Iraq	1,831,391
S. Arabia	802,648	Saudi Arabia	1,381,835
Kuwait	335,150	Kuwait	465,349
Libya	253,948	Lebanon	434,067
U.A.E.	245,959	U.A.E.	423,678
USA	11,637	U.S.A.	327,918
Other	1,229,888	Other	1,480,807
(22) Beverages, spirits and vinegar			
Total	6,324,838	Total	27,163,189
Iraq	980,166	Iraq	23,463,933
Libya	848,637	Syria	645,695
Kuwait	292,163	Palestine NA	428,461
Israel	216,301	Turkey	369,158
Turkey	138,093	Lebanon	240,918
U.S.A.	26,392	U.S.A.	89,441
Other	3,823,087	Other	1,925,583
(28) Inorganic chemicals; organic or inorganic compounds of precious metals			
Total	136,674,630	Total	146,647,087
India	56,768,114	India	71,601,310
Pakistan	30,313,264	Saudi Arabia	9,672,924
UAE	8,543,555	UAE	5,413,209
Saudi Arabia	6,629,714	Spain	5,057,896
Egypt	2,941,762	Sudan	3,280,784
U.S.A.	21,150	Egypt	3,050,637
Other	31,457,070	Other	48,570,328
(29) Organic chemicals			
Total	11,052,024	Total	8,958,991
Portugal	2,846,992	Saudi Arabia	1,798,692
Saudi Arabia	471,613	Tunisia	1,445,545
Tunisia	297,177	Portugal	1,383,932
Libya	239,700	Iraq	914,337
Lebanon	195,990	Syria	672,961
U.S.A.	175,446	U.S.A.	18,181
Other	6,825,106	Other	2,725,344
(39) Plastics and articles thereof			
Total	51,068,095	Total	76,297,565
Saudi Arabia	3,587,446	Iraq	41,365,001
Egypt	2,955,487	Syria	7,246,249
UAE	2,929,051	Saudi Arabia	4,475,660
Palestine NA	1,453,568	Israel	3,366,179
Tunisia	1,350,819	Lebanon	2,640,955
U.S.A.	577,767	U.S.A.	350,035
Other	38,213,957	other	16,853,485
(49) Printed books, newspapers, pictures and other printed products; manuscripts, typescripts and plans			

Total	13,246,566	Total	6,861,718
Libya	1,000,595	Iraq	3,864,697
Algeria	601,261	U.S.A.	728,458
Yemen	540,900	Saudi Arabia	359,766
Sudan	170,480	UAE	168,439
USA	144,669	Palestine NA	167,611
Palestine NA	143,053	Libya	155,388
Other	10,645,609	Other	1,417,360
(68) Articles of stone, plaster, cement, asbestos, mica or similar materials			
Total	10,580,733	Total	12,662,781
Saudi Arabia	3,690,487	Saudi Arabia	5,524,068
Israel	2,558,919	UAE	1,525,086
Kuwait	946,698	Kuwait	830,797
UAE	942,214	Iraq	713,920
Egypt	323,735	Israel	701,361
U.S.A.	423	U.S.A.	127,575
Other	2,118,257	Other	3,239,974
(71) Natural or cultured pearls, precious or semiprecious stones, precious metals; imitation jewelry			
Total	11,897,541	Total	178,364,693
UAE	4,375,870	U.S.A.	87,142,363
Israel	4,120,516	Switzerland	47,375,116
USA	3,015,692	Israel	30,926,417
Bahrain	124,270	UAE	5,959,282
Kuwait	59,075	Italy	5,173,212
Lebanon	7,119	Panama	152,231
Other	194,997	Other	1,636,072
(84) Nuclear reactors, boilers, machinery and mechanical appliances; parts			
Total	36,329,936	Total	136,218,986
Saudi Arabia	6,758,882	Iraq	25,215,708
Israel	5,968,237	Syria	19,230,702
Germany	5,594,819	UAE	9,867,799
Egypt	5,308,532	Saudi Arabia	7,872,466
UAE	5,306,432	U.S.A.	3,828,892
U.S.A.	235,470	Israel	2,917,153
Other	7,157,565	Other	67,286,266
(85) Electrical machinery and equipment and parts; ;sound recorders and reproducers, television recorders and reproducers, parts and accessories			
Total	56,117,851	Total	160,022,010
Israel	4,553,172	Iraq	55,305,631
Lebanon	2,655,765	Syria	19,846,408
Saudi Arabia	1,691,491	UAE	9,636,230
Egypt	1,577,449	Saudi Arabia	3,435,189
Bahrain	1,396,336	Lebanon	2,486,596
U.S.A.	56,527	U.S.A.	115676.4
Other	44,187,112	Other	69,196,279
(61) Articles of apparel and clothing accessories, knitted or crocheted			
Total	22,696,702	Total	612,263,900
Israel	14,743,004	U.S.A.	556,492,115
Germany	1,864,474	Israel	40,345,149
U.S.A.	950,530	UAE	3,107,365
U.K.	839,850	Iraq	1,732,889
Netherlands	825,002	Canada	1,596,666
Greece	377,609	Turkey	1,269,344
Other	3,096,233	Other	7,720,372

(62) Articles of apparel and clothing accessories, not knitted or crocheted

Total	90,856,541	Total	402,857,441
U.S.A.	42,973,895	U.S.A.	362,807,727
Israel	29,608,184	Israel	17,009,966
Italy	1,915,100	Iraq	2,947,080
Palestine NA	1,735,092	UAE	2,827,806
Libya	1,710,966	Libya	2,518,651
U.K.	1,279,311	Algeria	2,236,078
Other	11,633,992	Other	12,510,132

Imports

(15) Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes

Total	57,583,548	Total	205,991,110
Malaysia	34,640,181	Indonesia	106,273,584
U.S.A.	8,775,781	Malaysia	43,786,392
Ukraine	2,660,755	India	16,983,505
Netherlands	2,223,258	U.S.A.	15,065,091
Indonesia	872,277	Ukraine	7,812,305
Saudi Arabia	822,626	UAE	3,886,637
Other	7,588,671	Other	12,183,596

(29) Organic chemicals

Total	79,297,891	Total	119,353,226
India	9,719,295	India	18,632,105
China	7,219,805	China	18,072,379
Italy	6,997,430	U.S.A.	11,536,665
U.S.A.	6,133,585	Germany	8,344,503
Germany	4,696,582	Japan	6,167,071
Netherlands	3,893,285	Netherlands	5,855,497
Other	40,637,910	Other	50,745,006

(38) Miscellaneous chemical products

Total	44,871,762	Total	72,841,708
France	5,044,863	Iraq	11,352,564
Germany	4,654,720	U.K.	7,925,100
U.S.A.	4,538,783	Germany	7,394,577
U.K.	3,798,585	France	4,859,586
Italy	2,572,482	U.S.A.	3,944,961
China	1,706,147	Saudi Arabia	3,514,003
Other	22,556,183	Other	33,850,916

(73) Articles of iron or steel

Total	70,859,413	Total	183,894,558
Japan	8,464,956	Ukraine	57,267,597
Turkey	7,822,161	China	22,512,611
Italy	7,457,462	Turkey	14,472,931
China	6,803,611	S. Korea	12,530,375
Germany	6,339,033	Italy	10,637,125
U.S.A.	1,301,530	U.S.A.	7,794,415
Other	32,670,660	Other	58,679,503

(76) Aluminum and articles thereof

Total	51,522,317	Total	102,614,599
UAE	14,654,827	UAE	40,531,117
Bahrain	5,666,406	Saudi Arabia	11,571,902
Egypt	5,267,444	Brazil	10,008,741
U.S.A.	4,301,625	Malaysia	5,728,905
Germany	4,052,526	Germany	4,846,438
Italy	2,520,699	U.S.A.	2,380,324

Other	15,058,789	Other	27,547,171
(84) Nuclear reactors, boilers, machinery and mechanical appliances; parts			
Total	403,044,412	Total	577,408,346
U.S.A.	56,930,027	Germany	87,661,357
Germany	53,372,214	China	78,344,909
Italy	45,286,783	Italy	62,464,297
U.K.	36,168,205	U.S.A.	61,873,748
Japan	34,366,432	Japan	51,574,926
China	19,123,912	UK	34,365,768
Other	157,796,839	Other	201,123,340
(85) Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television recorders and reproducers, parts and accessories			
Total	248,493,739	Total	528,674,129
U.S.A.	36,979,397	Finland	61,996,974
U.K.	31,766,842	U.S.A.	56,359,502
Germany	28,632,592	China	53,959,444
S. Korea	20,970,123	S. Korea	52,315,752
France	20,183,469	Germany	46,127,507
China	13,488,936	Hungary	42,336,361
Other	96,472,379	Other	215,578,590
(87) Vehicles, other than railway or tramway rolling stock, and parts and accessories			
Total	523,919,333	Total	596,345,055
Germany	276,623,358	Germany	205,308,453
Japan	91,148,625	Japan	132,943,738
S. Korea	87,802,486	S. Korea	120,167,556
U.K.	10,550,882	USA	21,930,579
U.S.A.	10,300,748	France	19,218,841
France	5,886,574	Thailand	17,722,169
Other	41,606,659	Other	79,053,718
(90) Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof			
Total	67,116,799	Total	109,413,060
U.S.A.	15,226,838	U.S.A.	23,939,248
Germany	12,408,049	Germany	19,311,961
Japan	8,141,687	Japan	12,566,815
Italy	4,530,714	U.K.	8,290,226
U.K.	3,908,022	Italy	8,276,806
France	2,501,340	China	6,360,826
Other	20,400,149	Other	30,667,179
(94) Furniture; bedding, cushions etc.; lamps and lighting fittings nesoi; illuminated signs, nameplates and the like; prefabricated buildings			
Total	30,156,052	Total	62,489,009
Italy	5,533,106	China	17,255,832
U.S.A.	3,712,517	U.S.A.	9,433,705
China	2,578,302	Italy	5,472,398
Lebanon	2,571,117	Germany	4,788,865
Malaysia	2,439,847	Malaysia	3,681,077
Taiwan	1,388,505	Egypt	3,379,752
Other	11,932,658	Other	18,477,380

Source: Compiled from DOS, External Trade Tables.

Annex 2: Field Interviews

USAID/AMIR Program (overall trade issues):

- Jamal Al Jabiri, Deputy Director, USAID/Jordan, Office of Economic Opportunities (OEO)
- Steve Wade, Chief of Party, AMIR Program
- Greta Boye, Private Sector Policy Initiative (PSPI) Team Leader, AMIR Program
- Geoff Wright, Enhanced Competitiveness Initiative (ECI) Team Leader, AMIR Program

GOJ and other counterparts:

- Maha Ali, Director, Foreign Trade Policy Directorate (FTPD), MIT
- Yousef Al-Shamali, Acting Head, American and European Trade Relations Division, FTPD, MIT
- Bilal Hmoud, Director, Industrial Development Directorate (IDD), MIT (rules of origin)
- Hasan Al Omari, Head of Rules of Origin Section, IDD, MIT (rules of origin)
- Gina Farraj, Advisor the Ministry of Industry and Trade
- Rose Alissi Wazani, CEO, American Chamber of Commerce in Jordan
- Anna Maria Salameh, Trade Specialist, American Chamber of Commerce in Jordan
- Dr. Wael Al-Akayleh, Chief Executive Officer (CEO), Jordan Export Development Corporation (JEDCO)
- Dr. Maen Nsour, CEO, Jordan Investment Board (JIB)

IPR Issues:

- Nancy Dababneh, IPR Attorney, International Business Legal Associates (IBLAW)

Private Sector:

- Juma Abu Hakmeh, Director General, Amman Chamber of Industry
- Halim Abu Rhameh, CEO, Jordan Exporters' Association (JEA)
- Hanan Sboul, Jordanian Association of Pharmaceutical Manufacturers (JAPM)
- Rashed Dawazeh, CEO, Jordanian Association of Garment and Textile Exporters (JGATE)
- Rasmi Bani Saied, Jordan Stone and Tile Exporters Association (JOSTONE)
- Nidal Adel Melhem, CEO, Jordan Furniture Exporters and Manufacturers Association (JFEMA)
- Dr. Osama Quteishat, Chairman, Dead Sea Products Manufacturers Association

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