Trade-Induced Protectionism in Egypt's Manufacturing Sector

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Abstract

After decades of extensive use of protection to promote industrialization in developing countries, the tide has been reversed in recent years. Egypt is no exception. The paper addresses the questions: How far did trade liberalization go in Egypt? What is the impact of trade liberalization on protection in Egyptian industries over the past decade? And how would protection in different industries evolve under Egypt's full compliance with international trade liberalization commitments? The assessment includes both tariff-induced protection as well as non-tariff barriers to trade, such as quality control, import bans, and anti-dumping.

The paper concludes that protection in industries has declined significantly from 31 percent in 1994 to 19 percent in 2002, with most of the liberalization confined to the first 4 years of this period. Moreover, the study shows that the effective protection in industry is expected to decline by at least 40 percent with the full liberalization of trade with Arab countries, the European Union and the United States.

ملخص

بعد عقود من الاعتماد المكثف على السياسات الحمائية لتطوير الصناعة في الدول النامية ومنها مصر، شهدت السنوات الأخيرة تطورا في الاتجاه المعاكس. وتحاول هذه الورقة الإجابة عن الأسئلة التالية: إلى أي درجة تم تحرير التجارة في مصر؟ ما هو أثر تحرير التجارة على كل من المعدل الاسمي والفعال للحماية في الصناعة المصرية خلال العقد الماضي؟ وأخيرا، ما هو معدل الحماية الفعال المتوقع بعد تنفيذ مصر لالتزاماتها الدولية الخاصة بتحرير التجارة؟ ويشتمل هذا التقييم على كل من الحماية الجمركية والقيود غير التعريفية للتجارة مثل رقابة النوعية وحظر الواردات ومكافحة الإغراق.

وتخلص الورقة إلى أن المعدل الفعال للحماية في الصناعة قد انخفض بشكل واضح من ٣١% عام ١٩٩٤ إلى ١٩% عام ٢٠٠٢، وإن كان هذا الانخفاض قد تم معظمه في الأربع سنوات الأولى من هذه الفترة. وبالنسبة للمستقبل، أوضحت الدراسة أنه من المتوقع انخفاض معدل الحماية الفعال بنسبة ٤٠% على الأقل بعد التحرير الكامل للتجارة مع الدول العربية والاتحاد الأوروبي والولايات المتحدة.

I. Introduction

Developing countries have traditionally resorted to high protective measures to promote industrialization, believing that it will help achieve self-sufficiency in strategic sectors and protect domestic employment. However, in recent years opinions have shifted as evidence revealed that openness is key to growth and development. The most influential evidence in recent years is given by Sachs and Warner (1995) who found that open economies grew at an average annual rate of 4.5 percent over the 1970s and 1980s, while closed economies grew at only 0.7 percent. Egypt, Argentina and India were among the inward-oriented countries that started the 1970s with GDP growth rates that were higher than many outward-oriented countries at the time, then deteriorated and ended up worse off.

Egypt's trade policy is integral to the country's efforts to restructure the economy in order to restore growth, and it has undergone changes in the direction of deeper integration in the world economy. Egypt has embarked on several paths to reduce trade protection including unilateral trade liberalization efforts, attempts to reduce tariffs and dismantle non-tariff barriers to trade (NTBs) to meet its commitments under the WTO, and engaging in regional FTAs to eliminate trade barriers. How are these trade reforms progressing in Egypt? What is the impact on protection in Egyptian industries? How would protection in different industries evolve under full compliance with Egypt's international trade commitments?

In an attempt to answer these questions, this paper relies on the effective rate of protection (ERP) concept to evaluate the impact of Egypt's trade policy on industry protection. It produces consistent intertemporal estimates of influences of trade policy on the industry incentive structure from the 1990s to the present, and extrapolates the impact of trade policy by assessing Egypt's future trade liberalization arrangements. To fully grasp the level of protection in Egyptian industries to date, tariff-induced protection estimates are complemented by information on quality control measures, which currently cover more than 50 percent of total tariff lines in Egypt, import bans, and other evolving protective measures such as anti-dumping.

The paper is organized as follows. Section II tracks tariff-induced protection in Egyptian industries over the past decade. Section III deals with NTBs. Section IV evaluates the overall level of protection in Egyptian industry in recent years. Section

V looks ahead by providing future estimates of protection in different industries in light of Egypt's trade liberalization commitments. Section VI offers some concluding remarks.

II. Nominal and Effective Protection in Egypt: 1990 to 2002

This section deals with protection from a narrow scope by concentrating on its tariff aspect.[1] In this context, both nominal and effective tariff protection are estimated. Effective protection is a more useful indicator for producers and policymakers who value what it reveals about the structure of incentives in different sectors of the economy. Effective protection, by accounting for both tariffs on outputs and inputs, exhibits how value added in different industries is altered by the whole tariff structure.

Nominal Protection

The trend of reducing maximum tariff rates, which began in the late 1980s, continued into the 1990s. In Egypt, the maximum tariff rate was 110 percent in 1986 and was reduced to 70 percent in 1994, 50 percent in 1997, and to 40 percent in 1998. In 2000, the maximum tariff rate increased to 43 percent.[2] Egypt maintains some exceptions to this rule such as alcoholic beverages and cars, which tend to surpass the maximum tariff rate. Also, items removed from the import ban list, in accordance with WTO obligations, are subject to higher tariffs. For example, tariffs on whole poultry are set at 80 percent, textiles at 54 percent, and clothing (to be removed from the ban list during 2002) is subject to highly restrictive specific tariffs.[3] The study estimated an average ad valorem equivalent (AVE) for the specific tariffs on clothing equal to 627 percent (see Appendix for more details on these estimates).[4] Because of the exceptionally high tariffs on clothing and alcoholic beverages and to avoid any distorting effects on average protection at the economy and industry levels, these

[1] Anti-dumping duties, countervailing duties and safeguard restrictions (usually, but not necessarily tariffs) are discussed under non-tariff barriers to trade. Because of their applicability on imports from certain countries (anti-dumping and countervailing duties) and their temporary nature, they are not included in the calculations of industry tariff-induced protection. Besides, they are classified as non-tariff barriers by organizations such as UNCTAD.

[2] The maximum rate is currently applied to products such as footwear; some glass products; television receivers; reception apparatus for radiotelephony; and travel goods, handbags, wallets and jewelry cases.

[3] Currently, tobacco and clothing are the only import items subject to specific tariffs.

[4] EU (2002) provides a close estimate of 645 percent.

averages are hereafter reported exclusive of garments and beverages. Tobacco will also be excluded.

There were also movements in other tariff rates in order to support domestic industries against competing imports and to resolve some existing imbalances between tariffs on inputs and outputs. These imbalances resulted from gradual reductions in maximum tariffs over time that were not accompanied by appropriate reductions in tariffs on inputs. As a result, some final imported goods were eventually taxed as much as their imported components (Al-Ahram daily, 2000).

Such amendments to Egypt's tariff schedule preserved tariff escalation as a prominent feature of Egypt's tariff structure. Tariffs are higher for fully processed products, whereas raw materials and semi-processed products have lower tariffs (Nathan Associates, 2000). In 1999, the average tariff on products in the first stage of processing was 14.3 percent, 21.4 percent in the second stage, and 35.6 percent in the third stage (Madani and Olarreaga, 2002).

Tariff changes have resulted in a decline in economy-wide unweighted average tariff rates from 25.9 percent to 19.9 percent between 1994 and 1998. Consistent with the movements in maximum tariffs, in 2000 the average tariff rate increased to 21.5 percent. The average tariff rate then declined to 20.4 percent in 2002, but was still above its level in 1998. The unweighted average for manufacturing follows the same trend with slightly higher values (26, 20 and 20.7 percent in 1994, 1998 and 2002, respectively). Tariff dispersion, as measured by standard deviation, has also followed the trend of average tariffs.

Import weighted economy-level average tariff rates are generally lower than the unweighted rates.[5] They are 16.2, 13.2, and 13.5 percent for 1994, 1998 and 2002, respectively. The corresponding figures for manufacturing are 19.6, 15.8 and 15.9 (Table 1).[6] This deviation between the ex-ante (unweighted) and ex-post (weighted) tariffs signals an import composition that is skewed toward lower tariff bands. In the year 2000, for example, 49 percent of Egyptian imports were products that were subject to tariff rates of 10 percent or less. On the industry level, the restrictiveness of

[5] Average import data of the years, 1994, 1998, 1999 and 2000, were used in calculating the weighted averages. Import data are at the 8 digit level of HS classification to correspond to Egypt's tariff schedule. The data for 1994 covers the first 10 months of the year.

[6] These estimates do not take into consideration preferential imports under the Common Market of East and South Africa (COMESA) and the Pan-Arab Free Trade Agreement (PAFTA) arrangements.

the tariff system is apparent in food processing, wood, and chemicals where high tariffs restrict imports and ex-ante tariffs exceed ex-post tariffs.[7]

Table 1. Developments in Average Weighted Nominal Tariffs in Egypt (%)

	1994	1998	2002
Economy-wide average tariffs*	16.2	13.2	13.5
Overall manufacturing average tariffs*	19.6	15.8	15.9
Average tariffs by industry			
Food processing	8.8	7.9	7.9
Cotton ginning and pressing	5.0	5.0	5.0
Cotton spinning and weaving	34.5	30.9	32.9
Garments	68.7	39.6	608.1
Leather products excl. shoes	44.4	29.3	35.7
Shoes	70.0	40.0	43.0
Wood, wood products, excl. furniture	10.6	9.0	11.8
Furniture	69.7	39.9	39.9
Paper and printing	16.7	15.7	15.6
Chemicals and products, excl. petroleum	11.4	10.5	10.7
Rubber, plastic and products	35.8	27.5	28.3
Porcelain, china, pottery	47.6	30.5	30.5
Glass and products	34.7	25.4	25.7
Mineral products, n.e.i.	17.8	15.1	16.1
Iron, steel, other base metals	19.9	15.2	15.3
Machinery and appliances	19.9	14.9	15.1
Transportation equipment	46.7	39.3	39.3

* Excluding beverages, tobacco and clothing.

Source: Author's calculations.

Across the board, Egyptian customs charge a service and inspection fee of 1 percent on imports. It also charges an additional fee of 2 percent on goods subject to import duties of 5 to 29 percent, and a charge of 3 percent on goods subject to import duties of 30 percent or more. These fees increase applied tariff rates correspondingly. These para-tariffs are significant as they constituted 23 percent of Egypt's total customs revenues in 1994.

Effective Protection

This section expands on the impact of tariff changes on tariff escalation or protection in different industries by measuring ERPs that focus on the full range of interventions that may affect a given production process. Effective import tariffs for different industries are calculated taking into account tariff barriers to trade and using

[7] Unweighted average tariffs for food, wood and chemicals industries are 23, 25 and 17 percent, respectively. These rates are higher than the corresponding average weighted tariffs 8, 12 and 11 percent, respectively.

input/output (IO) tables for Egypt. Reported estimates do not account for the impact of the Common Market of East and South Africa (COMESA) and the Pan-Arab Free Trade Agreement (PAFTA).[8]

There is more than one IO table reflecting inter-industry linkages: there are the 1991/92 IO tables, the last IO tables compiled by CAPMAS, and thereafter the Ministry of Planning (MOP) produced more than one table, albeit with a compressed number of sectors. This negates a one-to-one correspondence between economic sectors of CAPMAS and MOP tables in some cases.[9] ERPs were calculated for 1994 to 2002 using the IO tables 1991/92. ERPs for the years 1998 and 2002 were also calculated using the more recent IO tables of 1998/99. To allow for comparisons, the 1998/99 IO tables were regrouped to correspond to the 1991/92 tables.

ERP levels and dispersion for the industrial sector are presented in Table 2. In general, ERPs are lower according to IO 1998/99 than they were for IO 1991/92. Moreover, the more recent tables show unchanged ERPs between 1998 and 2002, whereas the IO 1991/92 tables indicate a slight increase in protection between the two years. Differences in the results of the two tables do not necessary reflect structural changes in the economy since the tables are in current prices.

Nevertheless, there are similarities between the results of IO 1991/92 and IO 1998/99. Cotton ginning remains to be the industry that is always negatively protected. Also, in both cases and over time for the one-to-one corresponding industrial sectors, highly protected industries (with above average ERPs) are textiles, clothing, leather products excluding footwear, transportation, and rubber and plastic. Due to aggregation, the IO 1998/99 tables hide other highly protected industries shown in IO 1991/92, such as furniture (included under wood products in IO 1998/99 tables), glass and pottery (grouped with mineral products) and footwear (included with clothing).

[8] Imports from COMESA are limited and the PAFTA is not yet in full effect.

[9] For example, IO 1998/99 lumps together clothing and footwear, wood products and furniture, and glass and pottery with other mineral products. On the other hand, it separates paper from printing, and electric and non-electric machinery.

Table 2. Effective Rates of Protection in the Egyptian Manufacturing Sector (%)

	1991/92 IO tables			1998/99 IO tables	
	1994	**1998**	**2002**	**1998**	**2002**
Food processing	8.1	7.4	7.4	5.8	1.5
Cotton ginning and pressing	-8.9	-6.2	-5.9	-11.1	-11.5
Spinning and weaving	50.3	44.9	48.2	36.2	38.4
Garments	82.8	44.3	826.0		
Garments and footwear				43.9	674.1
Leather products excl. shoes	60.9	38.7	50.8	33.2	43.6
Shoes	94.4	50.4	51.8		
Wood, wood products, excl. furniture	6.1	5.8	9.4		
Furniture	99.0	55.1	53.8		
Wood products including furniture				9.1	12.0
Paper and printing	17.1	16.2	16.0	15.2	15.0
Chemicals and products, excl. petroleum	9.6	9.5	9.7	9.2	6.9
Rubber, plastic and products	49.6	37.0	38.1	30.1	31.0
Porcelain, china, pottery	62.0	39.0	38.9		
Glass and products	40.0	28.9	29.2		
Mineral products, n.e.i.	20.5	17.6	19.0	20.9	19.6
Iron, steel, other base metals	22.1	16.6	16.8	15.4	12.0
Machinery and appliances	19.2	14.2	14.3	14.4	11.1
Transportation equipment	54.8	46.7	46.6	45.4	44.6
*Unweighted manufacturing average**	37.8	26.4	27.8	18.6	18.6
*Dispersion**	31.4	18.5	19.2	15.5	17.4

* Average and dispersion are for all industries included in the table excluding clothing.

Source: Author's calculations.

The non-uniformity in production and investment incentives in the manufacturing sector, exclusive of beverages and clothing industries, as measured by dispersion in ERPs, declined between 1994 and 2002. But these exceptions hide an uneven structure of incentives in the manufacturing sector with the clothing industry at one extreme receiving a subsidy of more than 500 percent to its value added due to tariffs, while at the other extreme, cotton ginning has its value added taxed. This could translate into increased incentives for factors of production to move toward the clothing industry (and other highly protected industries) where they could receive higher returns than under free trade and a disincentive for investment and may squeeze resources out of industries such as cotton ginning.

ERPs for the manufacturing sector are on average higher than nominal protection, which confirms the escalation of Egypt's tariff schedule referred to earlier. The top five industries with the highest nominal protection (garments, spinning and weaving, transportation, leather products, and rubber and plastic industries) are also the industries with the highest ERPs. For these industries, ERPs are always higher than nominal tariffs. The clothing industry experienced the most significant positive

increase in tariff escalation between 1998 and 2002 due to the government's attempt to increase its competitiveness by raising tariffs on competing final products, while providing it with low-priced inputs.

It is worth noting that the above ERP calculations are for a producer for the domestic market whose value added is inflated by tariffs on competing imported goods and eroded by tariffs on inputs. For an exporter, ERPs will not only be lower but also negative because he sells at international prices, and the value of his inputs will be higher than in the case of free trade, even in perfectly operating export promotion schemes. He still has to pay higher prices for domestic inputs due to tariffs on competing imports (Nathan Associates, 1998).

The degree of anti-export bias in the Egyptian economy is calculated in Table 3.[10] Incentives against exporting have declined between 1994 and 2002 for the whole economy as well as for the manufacturing sector. Within the industrial sector, bias has increased significantly in the clothing sector and marginally in the wood industry. The incentives against exports are highest in the clothing, footwear, leather products, and spinning and weaving industries.

[10] Anti-export bias is calculated as:

$$B_{xj} = \left\{ \frac{1+tj}{1+sj} - 1 \right\} \times 100$$

where

t_j = nominal tariff rate on activity j

s_j = export subsidy rate or the duty drawback per LE of exports and is calculated as

$= \sum_i ti \times mij$ the technical coefficient of imported commodity i per unit value of activity in IO 1991/92.

Table 3. Developments in Tariff-induced Bias Against Exports (%)

	1994	1998	2002
Economy-wide average*	23.0	16.6	17.4
Manufacturing average*	25.5	17.9	18.9
Bias by industry			
Food Processing	5.7	5.1	5.1
Cotton Ginning	5.0	5.0	5.0
Spinning and Weaving	30.0	26.9	28.8
Ready-made Garments	64.9	36.8	593.0
Leather Products less footwear	40.6	26.2	34.0
Footwear	66.7	37.9	40.8
Wood Products Less Furniture	5.0	4.4	5.9
Furniture	64.6	36.4	35.4
Paper & Printing	7.4	7.0	6.9
Chemical Products less oil refining	5.1	4.9	5.0
Rubber & Plastic Products	29.3	22.6	23.1
Porcelain Products	46.8	29.9	29.9
Glass Products	28.8	21.1	21.3
Non-metallic Products	17.4	14.8	15.8
Metals and Iron Products	18.2	13.9	14.0
Machinery & Equipment	9.5	7.2	7.2
Transportation Means	27.6	23.9	23.9

* Excluding beverages, tobacco and clothing industries.

Source: Author's calculations.

III. Non-Tariff Barriers to Trade

The developments in Egypt's tariff structure reflect one aspect of its trade policy during the 1990s. In addition to the country's general tendency to lower tariff barriers as reflected by the decline in nominal and effective tariff rates between 1994 and 2002, Egypt aimed at reducing reliance on NTBs. This section examines the remaining NTBs in Egypt.

Quality Control

The majority of Egypt's mandatory manufacturing standards are concerned with food products, engineering goods, and textiles and clothing. Only 25 to 30 percent of these standards conform to international standards (UNCTAD TRAINS, on internet). In 1996, businesses in Egypt reported that the additional costs to imports associated with the quality control system were between 5 and 90 percent of their initial expectations according to their respective industry. Costs are largest for food products and imported final consumer goods, and smallest for industrial goods and pharmaceuticals. These costs include explicit costs such as fees, lost products due to excessive sampling, extended port charges due to delays and informal payments, and

implicit costs such as unnecessarily rejected products due to strict customs standards, delays in reaching markets, and efforts devoted to clearing customs (Nathan Associates, 1996). A recent amendment to the executive regulations of the Import & Export Law, which allows for only a superficial examination of industrial non-food imports under certain circumstances, is not expected to affect the costs associated with food imports.

In 1994, the list of commodities subject to quality control covered 32 items (Kheir El Din and El-Shawarby, 1999). In 1998, it expanded to include 182 items, 184 items in 2000, and 191 items in 2002. Commodities recently added to the list include ready-made garments (as per the policy of adding items removed from the ban list to the quality control list). Frequency ratios of quality control by industry are presented in Table 4.[11]

Table 4. Frequency Ratios of Quality Control by Manufacturing Sector (%)

	2002
Food processing	84
Cotton spinning and weaving	61
Garments	96
Leather products excl. shoes	57
Shoes	100
Wood, wood products, excl. furniture	58
Furniture	61
Paper and printing	35
Chemicals and products, excl. petroleum	56
Rubber, plastic and products	57
Porcelain, china, pottery	55
Glass and products	55
Mineral products, n.e.i.	43
Iron, steel, other base metals	53
Machinery and appliances	37
Transportation equipment	30
Overall	58

Source: Author's calculations from Ministry of Foreign Trade (2002a).

Import Bans

The import ban list, instituted in 1986 as a replacement for the import licensing system, covered 210 items in 1990. It currently covers only poultry parts (ISIC food industry), ready-made garments that will be removed from the list during 2002, and some textile products.

[11] Frequency ratios are defined as the percentage of tariff lines subject to quality control measures. This indicator serves to identify the importance of non-tariff measures for the whole economy and at industry level.

Anti-dumping and Safeguard Measures

GATT permits countries to impose trade restrictions as anti-dumping duties, countervailing duties, and safeguard actions.[12] Anti-dumping remedies are by far the most common form of import relief;[13] Egypt has initiated both anti-dumping and safeguard actions. Anti-dumping duties have been imposed on steel reinforcing bars, stainless steel sinks, tin sheets, lamps, tires, electric engines, lockers, pencils, and wallpaper (Ministry of Economy and Foreign Trade, 2001). These products have above average industry nominal protection. It appears that steel and metal, machinery and appliances, and rubber industries are most active in seeking protection against imports. This conforms to world trends as the steel and metal industries and chemical industries dominate anti-dumping investigations (WTO, 2002).

Despite Egypt's limited number of anti-dumping initiations, the intensity of its use, defined as the number of cases initiated per US dollar of imports, is relatively high compared with that of other countries (Table 5). The said indicator is presented as an index with the US (the country most associated with anti-dumping) set at 1.

Regarding safeguards, Egypt has only initiated three safeguard actions during the past years. These were against matches (ISIC chemical industry), florescent lamps (ISIC machinery and equipment) and powdered milk (ISIC food industry). Safeguards are applied to imports of these products from all sources and therefore are more restrictive in nature than anti-dumping, which is applied against exports of individual countries (Ministry of Economy and Foreign Trade, 2001).

[12] Anti-dumping duties are imposed against imports that are sold at dumped prices if they cause or threaten to cause harm to domestic industry. Under the same conditions, countries can impose countervailing duties against subsidized imports. Safeguards are temporary trade measures applied by a government on an emergency basis against increased imports of a particular good from all countries if they are causing or threatening to cause harm to its domestic industry.

[13] The number of antidumping, countervailing, and safeguard cases initiated worldwide from 1995-2001 are 1789, 147, and 144 cases, respectively.

Table 5. Anti-dumping Initiations per US Dollar of Imports by Reporting Country, 1995-2001

	Number of initiations by importing country 01/01/95 to 31/12/01	Intensity index Number of initiations per US dollar of imports (US=1)
Argentina	166	25.3
India	248	22.1
South Africa	156	20.3
Trinidad and Tobago	10	14.0
Peru	31	13.0
New Zealand	35	9.7
Egypt	32	8.9
Australia	139	8.1
Venezuela	30	7.9
Colombia	23	6.7
Brazil	96	6.4
Nicaragua	2	5.1
Indonesia	39	4.4
Israel	27	3.2
Turkey	36	3.1
Chile	14	3.1
Canada	102	1.9
Philippines	15	1.8
Mexico	49	1.4
Korea, Rep. of	47	1.3
European Community	247	1.2*
United States	257	1.0
Guatemala	1	0.9
Malaysia	17	0.9
Poland	8	0.7
Czech Republic	3	0.4
Thailand	5	0.3
Japan	2	0.0

* Anti-dumping initiations as share of extra EU trade.

Sources: Number of anti-dumping initiations: WTO, statistics on anti-dumping;
Data on imports: World Bank (2002), *World development indicators* CD ROM; and WTO trade statistics;
Intensity index: Author's calculations.

Trade-related Legislations and Policies

From 1990 to 2002, some regulations were passed that could reflect negatively on the flow of imports in general or the imports of specific sectors. Such legislation includes the requirement of 100 percent cash collateral for imports of consumer goods; Decree 580/1998 stipulates that automobiles must be imported only in the year of manufacture (United States Trade Representative, 2002); Decree 192/2000 increased the local component requirement for car assembly to 45 percent (up from 40 percent) to benefit from reduced custom duties on imported inputs (EU, 2002). In the area of government procurement, Decree 1664/2000 encourages public authorities to buy

national products. Also, there is a 15 percent price preference given to Egyptian bidders over foreigners.[14]

On the other hand, there are other important developments related to the implementation of the WTO agreement on customs valuation as of July 2001. According to the agreement, customs valuation is based on invoices presented by importers. If under-invoicing is suspected, various methods for inspection can be applied. For instance, importers can take legal action against the Customs Authority in the event of a valuation dispute. This replaces the old system that valued imports on the basis of the worldwide price list received annually from foreign producers/distributors or on the highest price available in the local market. According to the old system, if customs officials suspected under-invoicing, they would usually add 10 to 30 percent to the invoice value of imports which tended to overvalue imports. The abolishment of the old valuation system is expected to encourage imports.

IV. Overall Trade Protection in Egyptian Industry: Putting Pieces Together

The pace of trade reform has slowed down and tariff levels and dispersion have not gone below their levels in 1998. In addition, the quality control system – given its restrictiveness – has expanded. The contraction of the ban list has been countered by imposing high tariffs on exiting items or by inflating the quality control list by adding formerly banned items. The new customs valuation system is still in the early stages and it needs time to be fully and soundly implemented.[15]

This slowdown is worrisome because Egypt was already in a relatively unfavorable position regarding trade reforms in the late 1990s. This is evident in Table 6 below, which compares trade protection indicators for Egypt and different country groups. Egypt is more protected than all its comparators by all measures, with

[14] There were other regulations that were modified as a result of discussions with trading partners. Decree 619/1998 imposed a direct shipment requirement for a wide range of consumer goods. It was modified in 1999 by carving out the operations of multinationals from the direct shipment requirement (US Commercial Services, 2002).

[15] EU (2002) indicates that the application of the new customs system in Egypt "…does not always meet operators' expectations and is often regarded as not meeting fully Egypt's multilateral obligations. It appears that customs officials apply the rules in a non-uniform and often discretionary way. Examples include: questioning of invoice values when other listings/prices were available to the customs (resulting into much higher valuation for the imported commodities); requesting legalization of a wide range of commercial documents…"

only minor exceptions. Among 97 countries, Egypt had the highest dispersion of tariff rates, and the highest overall trade protection index (Srinivasan, 2002). Fitch IBCA (2002) confirms these concerns as it considered Egypt to be one of the least open economies in 2002.

Table 6. Trade Protection in Egypt for Different Country Groups, Late 1990s

	Simple average tariff	**Weighted average tariff**	**Standard deviation**	**NTB Coverage**	**Escalation index**	**Aggregate measures of protection***	
	(%)	(%)	(%)	(%)	Ratio	Oliva	AN
Egypt	28.1	13.7	130.6	28.8	2.1	55.8	23.5
Comparators							
by income group							
Low income	15.5	12.6	10.9	5.5	1.5	11.7	21.2
Lower middle income	15.3	12.5	15.0	13.4	1.7	14.7	15.1
Upper middle income	13.8	11.6	12.3	14.7	1.6	13.6	11.8
High income	4.3	3.4	7.0	15.6	1.7	8.0	10.9
By region							
Europe & central Asia	9.8	6.7	11.0	10.9	2.0	10.4	11.6
East Asia	13.1	8.7	16.8	9.9	1.8	13.2	11.3
Latin America	13.1	11.9	8.5	17.1	1.6	12.9	14.7
Sub-Saharan Africa	17.7	14.2	13.3	4.5	1.5	13.1	18.9
South Asia	19.7	18.8	11.7	8.2	1.2	14.6	27.7

* The aggregate index is constructed by using the Oliva method as a latent variable with weights for tariff rates, standard deviations and NTB coverage set by maximizing the correlation between the three component measures and the latent protection measure. The aggregate protection measure by AN method refers to the Anderson and Neary ideal protection measure derived from welfare theoretic foundations based on a general equilibrium model using detailed 5500 lines of HS 6 digit tariff lines combining tariffs and NTBs, measured as the uniform tariff rate that must be applied to the free-trade regime as a compensating variation to return welfare to the most recent year of observation.

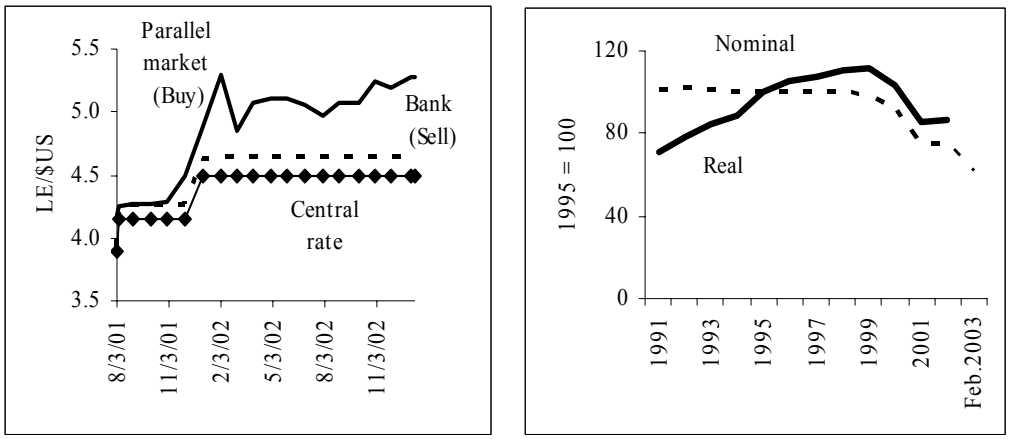
Source: Srinivasan (2002).

This slowdown in trade reforms is part of a general slowdown in economic reform in Egypt that began in the late 1990s, and was fueled by unfavorable external conditions. The absence of a binding external commitment to reform as in 1991 might also have contributed to this slowdown. Another possible reason is the call for protection by industries to prepare for the fierce competition expected with the full enforcement of Egypt's FTAs. There are also the governmental attempts to "combat the trade deficit…through creeping import resistance" (EU, 2002).

Without taking into account the impact of PAFTA and COMESA, overall protection in the manufacturing sector increased between 1998 and 2002. Evidence of this trend includes the levels of ERPs that remained unchanged between these two years under the best scenario (Table 2), the expansion in quality control measures, increased use of GATT-legitimate trade restrictions since the issuance of the anti-dumping Law 161/1998, and the regulations passed from 1998 to 2002 that tended to restrict imports and favor domestic production.

Also, effective protection that integrates other elements such as the efficiency of services and the impact of the exchange rate makes the net impact uncertain. Djankov and Hoekman (1997) indicate that ERPs in Egypt decline significantly and become negative in some industries if the inefficiency of the services sector is taken into account. Also, overvaluation of the Egyptian pound prior to the shift to a floating exchange rate regime in January 2003 tended to lower the local price of imports, thus making them more attractive domestically (Figure 1).

Figure 1. Developments in Exchange Rate in Egypt[1]



[1] Nominal and real exchange rates are expressed in terms of US dollars per Egyptian pound. Increases in indices reflect appreciation of the pound.

Sources: EFG-Hermes, unpublished data; IMF, *International Financial Statistics*, different issues; and World Bank (2002), *World Development Indicators* CD ROM.

The following section continues to rely on the ERP concept with focus on the viewpoint of policymakers and industry participants. It discusses future developments in effective protection and investment incentives in Egyptian industry given Egypt's current and upcoming trade liberalization commitments.

V. Protection in Egyptian Industry: A Look Ahead

Over the past decade, Egypt has been reinforcing the trade liberalization component of its Economic Reform and Structural Adjustment Program through various trade liberalization arrangements. Among these are Egypt’s commitments in the Uruguay Round (UR), its membership in PAFTA and COMESA, and the partnership agreement with the EU. Egypt also signed a Trade and Investment Framework Agreement (TIFA) with the US in 1999 that can be seen as an intermediary step to a future FTA between the two countries.

Taking into consideration the above obligations, the following are estimates of effective protection in Egypt's manufacturing sector in the future. These estimates are provided for the year 2007 (the date of full trade liberalization with other Arab countries in the context of PAFTA and the end of stage one of the Egypt-EU partnership agreement),[16] 2013 (the end of stage two of the EU agreement), 2016 (the end of stage three of the EU agreement), and 2019 (the end of stage four of the EU agreement). In 2019, an additional commitment is also considered: a possible FTA with the US if it materializes within the next couple of years. The impact of the COMESA agreement is not considered since Egypt's imports from its countries are limited, averaging about 1.2 percent of total imports between 1997 and 2001 (Ministry of Foreign Trade, 2002d).

The following figures are by no means exact as they are estimated under specific assumptions, which are discussed below. Yet, they give an idea of the possible consequences Egypt's trade commitments could have on its industrial sector in the coming years.

ERP Calculations: Data, Methodology and Underlying Assumptions

Before beginning the estimation it was necessary to answer two questions: Which IO tables to use, and what will the levels of tariffs on Egyptian imports be under full compliance with its trade liberalization commitments? The most recent IO tables (1998/99) were deemed appropriate to allow for comparisons with the current status in industries.

Determining future tariffs required constructing an import weighted tariff for each tariff line, which reflects the conditions of each agreement in proportion to the weights of corresponding trading blocs in Egypt's imports. Tariff data used are the bound rates of the UR, applied tariff rates or adjusted applied tariff rates as in the case of the EU agreement. Under the EU agreement, the phasing out of tariffs is based on either current applied tariffs if they are below or equal to UR bound rates, or on bound rates as in the case of textiles and clothing imports. In general, tariffs used for textiles and clothing imports are the bound rates, given that current applied tariffs are far above Egypt's multilateral commitments. Shares of the EU, the US, Arab countries

[16] It is assumed that the partnership agreement with the EU will begin in 2004.

and the rest of the world in Egypt's imports are based on import data from 2000.[17] Imports from the rest of the world are subject to current applied tariffs.

This approach does not account for changes in the sourcing of imports due to the regional agreements (i.e. trade creation and trade diversion). Hoekman, Konan and Maskus (1998) indicate that an FTA with the EU and the Arab countries and no US FTA will increase imports from the EU by 38 percent and from the Arab countries by 44 percent (relative to the base year 1996). At the same time, imports from the US and the rest of the world will decline by 14 percent and 25 percent, respectively. If an agreement is concluded with the US, then the type of agreement (whether a shallow or deep FTA) will affect the pattern of trade. A shallow FTA with the US will increase imports from the EU, Arab countries and US by 47 percent, 29 percent and 39 percent, respectively. Imports from the rest of the world will decline by 30 percent. A deep FTA will increase imports from EU, US and Arab countries by 25 percent, 22 percent and 14 percent, respectively.

However, applying these rates across the board on the imports from different sources will not be accurate either. The change in imports of each industry will vary depending on its specific conditions. Accordingly, fixed 2000 import shares will be assumed taking into account that the resultant collective estimates are upper bounds for the protection in manufacturing sector in the future. ERPs will be effectively much lower.

In addition to tracking the impact of different trade agreements on protection over time, as mentioned earlier, a pure UR scenario is also considered where Egypt only fulfils its multilateral commitments and applies the bound rates of the UR. This scenario is useful, despite the fact that bound rates are on average higher than current tariff rates, because it reflects Egypt's industry status if it happens to exploit the room to maneuver under the UR.

Main Findings

If Egypt restricts its commitments to the UR, then nominal tariffs and ERPs will be higher than their values in 2002. The only exceptions to this generalization are textiles and clothing industries that are currently protected by more than the UR bound rates

[17] Ideally, an average of more than one year of imports should have been used to determine shares. However, the huge data requirements in this case prevented doing so.

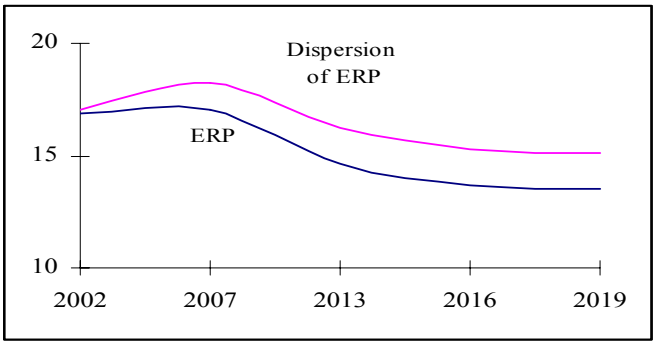
(Table 7). This is expected given that currently 59 percent of Egypt's tariff lines are below bound rates, 27 percent are equal to bound rates, and 14 percent are above the bound rates. In terms of imports, these correspond to 70 percent, 21 percent and 9 percent of Egyptian imports in 2000, respectively. Hoekman and Subramanian (1996) have shown that the UR would lead to limited trade liberalization in Egypt, yet it could lock in policy reforms that started late 1980s and could facilitate the move to a EU-Mediterranean agreement.

In order for Egypt to benefit from openness, it needs to go beyond its multilateral commitments. If the impact of each of the trade agreements is examined separately and trade creation and diversion effects are disregarded, it seems that the EU partnership will have the greatest effect on protection in Egypt's manufacturing sector. The impact of the Arab and the US FTAs are almost the same. This is contrary to expectations given both their importance to Egypt's imports. However, 47 percent of Egypt's imports from the US are cereals (wheat and maize), which are subject to 1 percent tariff rates. In fact, the Arab share of imports in some industries is higher than that of the US. The textiles sector, which is currently relatively highly protected, is one example (Table 7).

Collectively, the PAFTA and the EU agreement will lower effective protection in the manufacturing sector over time from the current level of 18.6 percent to 12.4 percent in 2019. If a US FTA is added ERP will fall to 11.4 percent. ERP dispersion will also decline but to a lesser extent (Table 7). As explained earlier, these are upper bound estimates given the expected changes in Egypt's pattern of trade. The initial increase in protection due to the EU agreement, which tends to postpone the liberalization of final goods, does not appear because of the offsetting effect of the PAFTA (Figure 2).[18] Nevertheless, the estimated rise in protection due to the EU agreement alone is not as high as expected. This may be attributed to the great deal of aggregation embodied in the IO tables.

[18] The sectors that will witness an initial increase in protection due to the EU agreement include basic metal industries, food industries, non-metallic industries, chemical industries, machinery and equipment, leather industries, rubber industries, and wood industries. The principal change of liberalization between years 13 and 16 of the EU agreement (or the end of stage three and end of stage four) is concentrated in transport equipments, which are the remaining industrial products on the liberalization schedule for this period.

Figure 2. Impact of EU Agreement on Protection in Egyptian Industry



Source: Author's calculations.

The traditionally highly protected industries (leather, transportation, rubber and plastic, textiles, and clothing) will remain as such under the full implementation of the EU, PAFTA and US FTAs. The sector that will remain by far the most protected is the leather industry due to the limited sources of imports of this sector from the EU, US and Arab countries (Table 7). As a result, nominal protection will decline by only 3 percent between 2002 and 2019.

The difference in ERPs in some industries between 2002 and 2007 can be partially attributed to the application of bound rates on textiles and clothing as opposed to the current extraordinarily high tariffs explained earlier. Generally speaking, the clothing and the textile industries are the sectors that will be most affected by Egypt's regional agreements given their current relatively high tariffs. The impact of the EU agreement on the clothing industry will appear in 2008 and extend over the following 10 years.

The impact of PAFTA (and Egypt's bilateral trade agreements with some Arab countries) on Egyptian industries has already manifested itself in the form of increased imports over the past years. In fact, the shares of Arab countries' imports in some industries exceed that of the EU (textiles) and the US (textiles, chemicals, non-metal, and basic metal). Industry participants indicate additional factors that work to increase the exposure of Egyptian industries to imports from the Arab world. First, competing industries in some countries have lower tax rates, lower cost of capital and land, etc., which lowers the cost of their products and allows them to more easily compete in the Egyptian market. Second, these agreements are sometimes used to pass goods from East Asia and other areas outside the domain of PAFTA into Egypt, consequently, industries such as printing and textiles have already expressed concern about these agreements (Al Ahram Al-Iktesadi, 2002).

Table 7. Effective Protection in Egyptian Industries in the Future (%)

	Shares in Egyptian imports in 2000			Effective rates of protection						
	EU	**US**	**Arab countries**	**2002**	**UR scenario**	**2007 PAFTA & first stage of EU FTA**	**2013 PAFTA & second stage of EU FTA**	**2016 PAFTA & third stage of EU FTA**	**2019 PAFTA & fourth stage of EU FTA**	**2019 PAFTA, EU & US FTAs**
Cotton Ginning				-11.5	-28.9	-25.8	-24.7	-24.2	-24.1	-22.8
Food Industries	22.0	13.0	1.7	1.5	17.7	5.2	5.4	5.5	5.5	4.6
Textiles	17.5	2.6	18.1	38.4	16.0	17.9	15.2	14.2	14.2	13.7
Clothes & Leather Footwear	25.8	5.9	4.9	674.1	25.9	19.9	19.5	19.1	19.1	15.1
Wood & Wood Products	40.6	2.7	0.5	12.0	16.3	12.1	11.8	11.7	11.7	11.3
Paper & Printing	35.7	7.7	2.5	15.0	20.1	13.8	11.3	11.1	11.1	10.4
Leather & Leather Products	15.2	0.7	0.4	43.6	64.8	44.5	42.2	40.5	40.5	40.5
Rubber Products	38.3		4.5	31.0	49.9	29.7	24.7	22.3	22.3	20.6
Chemical Industries	43.0	11.0	17.4	6.9	16.2	6.9	5.2	4.8	4.8	3.8
Non-Metal Industries	37.8	4.4	8.9	19.6	45.6	20.8	16.4	15.5	15.5	14.8
Basic Metal Industries	25.9	3.9	6.0	12.0	24.5	13.8	11.7	10.4	10.4	9.6
M&E	55.3	14.0	1.4	11.1	20.4	12.4	10.4	9.6	9.6	7.4
Transport Devices	39.2	6.2	6.2	44.6	51.8	39.8	31.9	28.5	27.2	22.9
Average excl. clothing				**18.6**	**26.8**	**15.9**	**13.5**	**12.5**	**12.4**	**11.4**
Standard deviation excl. clothing				**17.4**	**22.4**	**18.0**	**16.3**	**15.4**	**15.3**	**14.7**

This raises the question: Has Egypt gone too far in opening up its economy? The answer is no. First, industries have not performed well over the past decades under high protection. Second, the reduction in nominal and effective protection will be gradual and the transition, in the case of the EU agreement, is supported the EU's Industry Modernization Program. Industries need to operate more efficiently in the future and look beyond national territories since the status quo will not be able to guarantee their dominance over domestic markets.

VI. Conclusion

Between 1994 and 1998, there was a noticeable decline in nominal and effective tariff protection at the industry level. Between 1998 and 2002 and in terms of the classical instruments of trade policy (tariffs and NTBs), overall protection in Egypt's manufacturing sector has increased. This situation is not sustainable given Egypt's current and prospective trade commitments. Increased external pressures on industries are inevitable in the future. Under full compliance with the EU partnership and the PAFTA, current ERPs for the manufacturing sector will decline by around 33 percent at least. Understanding this on the industry side is crucial in order to begin rigorous restructuring and to make use of supporting industrial programs. Granting additional protection to industries, as in the case of the clothing sector, should be reconsidered to avoid future shocks to industries. The traditional high protection of specific industries should also be reviewed based on the industries that have met the expectations of differential treatment over the past years.

The government needs to follow up on its efforts to maintain the exchange rate at its market value to support trade liberalization. In fact, an overvalued exchange rate is often the root cause of protection because it means that the import-competing industries are faced with increased pressure from foreign competitors, thus increasing calls for protection against imports. Increased tariff protection as a substitute to devaluation is defective because it produces an anti-export bias and it distorts incentive regime in case of a non-uniform tariff structure (Shatz and Tarr, 2000).

Appendix

Calculating an ad valorem equivalent (AVE) for specific tariffs is controversial since there is no single AVE for any specific tariff. AVEs calculated as the ratio of specific tariffs to unit value of imports, depend on the choice of import price and exchange rate, both of which can change over time.

Regarding the choice of unit prices, values and quantities of Egyptian imports of clothing were tried first. This proved inappropriate because the Egyptian ban on imports of clothing prior to January 2002 suppressed such imports. Also the units used to report imports of many tariff lines were different from those stated in Decree 469/2001 imposing specific tariffs on clothing imports. The outcome was distorted, extremely high AVEs. A perfect substitute to Egypt's data would be world unit prices to represent average quality and variety of products. However, world imports at the disaggregate level (8 digit HS classification) were not available, and accordingly average unit price of US imports of clothing items for 2000 and 2001 were used as a proxy for world prices. Finally, exchange rates between the Egyptian pound and the US dollar in 2000 and 2001 were used to make the necessary currency transfers.

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