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DEALING WITH DIVERSITY: ANALYZING THE CONSEQUENCES OF TEXTILE QUOTA ABOLITION

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In this paper, we provide a preliminary analysis of the consequences for Pakistan of abolishing the system of quotas installed under the Multi-Fibre Arrangement (MFA) and currently being dismantled under the Agreement on Textiles and Clothing (ATC). We develop a framework that takes into account the major sources of gains and losses from quota abolition. As a basis for the analysis, we developed estimates of the export tax equivalents(ETEs) of quotas that drawn on new data on quota prices for exports from Bangladesh; China; Hong Kong, China; Pakistan; India; Indonesia and Taiwan, China in the US and EU markets. Combining this information with detailed data on the unit values of imports at the quota category level we estimate the export taxes that would have the same restrictive effect as the quotas. Next, we evaluated the broad consequences of quota abolition in a global general equilibrium context, taking into account the second-round impacts associated with expanding exports to the currently restricted markets, the efficiency and employment gains.

Analysis of quota abolitions is a classic case where full GE treatment is important. Quota rents involve large transfers and there are major impacts on labor markets in many exporting countries. However, textile and clothing industries are much more diverse than the standard products in GE models, and the quota regime is very product-specific. A key need is for an analytical approach that takes into account the detailed information that is available on particular products. For this reason, we pay particular attention to the details of the products traded, and the product-specific nature of the policy interventions. We do this in part by examining policy developments at the textile category level, and in part by examining the degree of similarity between products at the tariff line level. A general equilibrium analysis is used because of the need to capture vertical product linkages and the rent transfers associated with quota abolition, but it is combined it with a novel procedure to extend our quantitative analysis beyond the aggregated "clothing" and "textile" sectors generally used in such analyses. In this paper, we analyze Pakistan because textiles, clothing and fibers making up close to three-quarters of Pakistan's exports and it is an important case study. But the approach is much more general.

The first step in the analysis is to develop a framework that takes into account the major sources of gains and losses from quota abolition. From this, we identify a need for information on the extent of the barriers restricting exports of textiles and clothing from Pakistan and major competitors. We then estimate the restrictiveness of these barriers. Next, we evaluate the broad consequences of quota abolition in a global general equilibrium context, taking into account the second-round impacts associated with expanding exports to the currently restricted markets, the efficiency and employment gains. Finally, we adjust the model to take into account differences between the product and protection in different country pairs.

The Basic Economics of the Quotas for Heterogeneous Products

The quotas operated under the Agreement on Textiles and Clothing were originally introduced under the Multi-Fibre Arrangement (MFA). A key feature of these quotas is that they are imposed only by a subset of countries and only on exports from a subset of exporters (Hamilton 1990) . Another important feature is that the importers allow exporters to allocate the quotas and hence potentially to benefit from the higher prices in the restricted markets. Their effects are complex and pervasive and can only be understood taking a global perspective, and distinguishing between the restricted markets-- where prices are raised—and the unrestricted markets—where prices are depressed.

The basic economic implications of the MFA for exporters restricted by these quotas can be summarized in the simple diagram presented as figure 1. As in Kathuria, Martin and Bharwaj (2003), we keep the diagram simple by basing it on the widely-used Armington assumption that the products produced by this group of exporters are differentiated from those produced by other countries. This assumption allows us to draw well-defined import demand curves for these exports in the restricted markets (D_R) and in the unrestricted markets (D_U). The horizontal summation of these two demand curves gives the global demand (D_T) for the exports of the restricted countries. In the absence of any quota restrictions, as in figure 1, the intersection of this total demand curve and the exporters' supply curve would have yielded the uniform price at which exports were sold in both restricted and unrestricted markets.

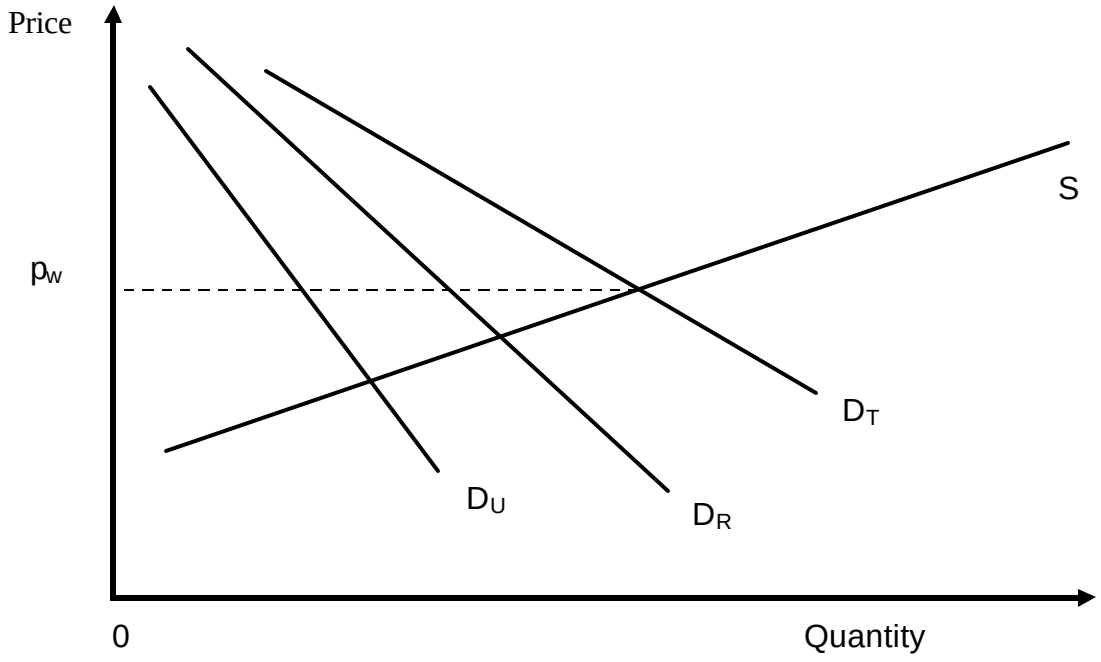

Figure 1. Market Equilibrium in the Absence of Quotas

In the undistorted equilibrium represented in figure 1 the same price applies in both the "restricted" (the restriction, of course, comes about in figure 2) and unrestricted markets, and the allocation of exports between the two markets depends only on the magnitude of demand in each of those markets. When quotas are introduced in the restricted markets as shown in figure 2, the quantity exported to that market declines. Because of the restrictions, the price received for exports to the restricted market increases from p_w to p_R. The price received for exports to the unrestricted market, however, declines from p_w to p_U (which is the new world price/marginal price). Note also that the overall demand curve facing the country (D'_T) becomes steeper, and hence less elastic, because of the zero elasticity of demand in the restricted market. Because the marginal price of output falls, the volume of output in the industry unambiguously declines. Whether static welfare increases or decreases depends on whether the net gain from quota rents in the restricted export market compared with the situation in figure 1 (represented by the crosshatched area in figure 2) outweighs the losses in the unrestricted markets (represented by the vertically shaded area in figure 2).[2]

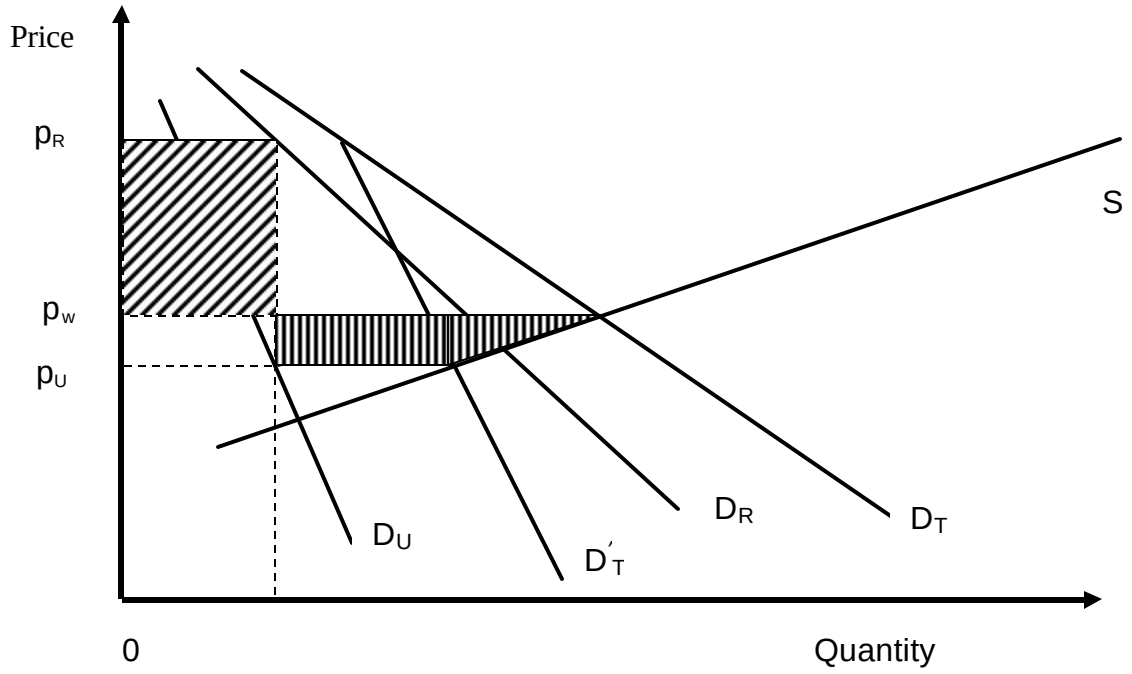

Figure 2. Market Equilibrium in the Presence of Quotas

The overall effect of the MFA on a country's welfare cannot, of course, be determined simply by the static welfare effects depicted in figure 2. A major problem with gains that accrue in the form of rents is that they create incentives for rent-seeking behavior in which enterprises and individuals use real resources in pursuit of the quota rents. Krishna and Tan (1998) pointed out that the systems of quota allocation used in the South Asian countries encourage such activities. Quota allocations frequently are based on historic export performance, which creates an incentive for firms to increase their

exports to unrestricted third markets even when those markets are not directly profitable, thus increasing the losses accruing in unrestricted markets. A further source of potential loss of quota rents arises through rent sharing-- where exporters are able to obtain some of the benefit of the quota rents. Krishna and Tan (1998) conclude that, when export quotas are sufficiently narrowly defined, some major importers appear to acquire sufficient market power to appropriate a substantial proportion of the quota rents.

Although figure 2 provides a basis for evaluating the partial effect of quotas on all restricted countries' exports as a group, it is inadequate as a basis for evaluating the overall impact of the MFA on a country because it does not take into account the effect of restrictions on other countries' exports. Restrictions on competing exporters clearly tend to increase the demand for exports from the country of interest. Whether these restrictions make any given country better or worse off depend upon the extent to which other countries' exports substitute for those from the country of interest; and on the relative magnitude of the barriers against exports from each country.

The overall impact of the quota regime on output and employment in its textile export sector depends upon the relative importance of the barriers that directly restrict its exports relative to the stimulus to its exports provided by the restrictions imposed on other exporters. This is represented very simply in graphical terms in Figure 3.

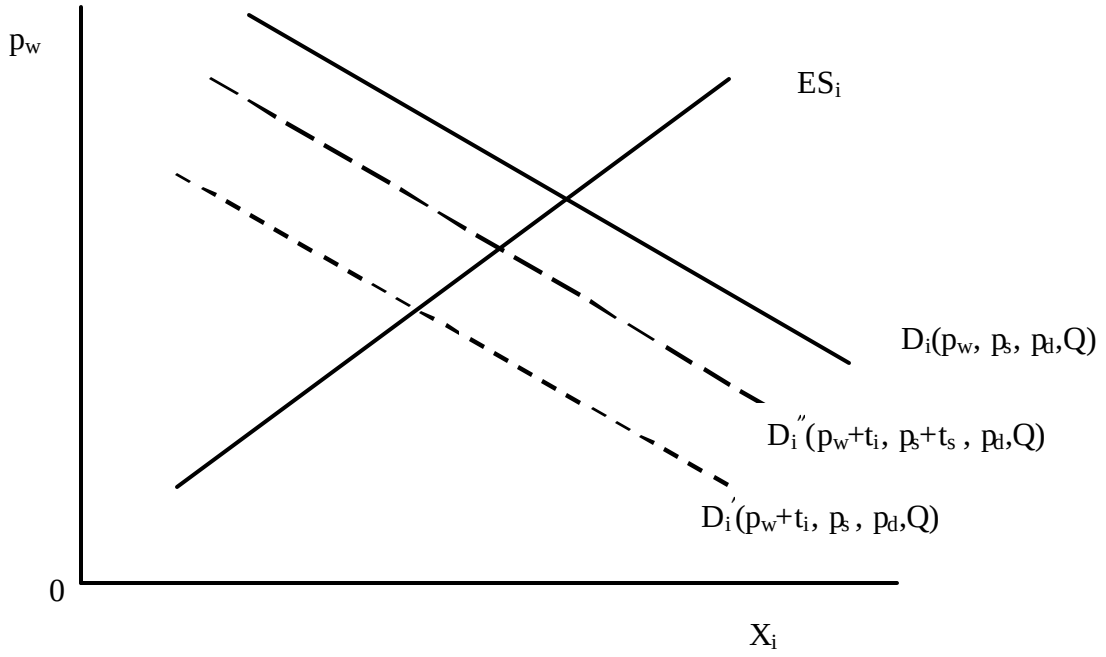

Figure 3. Impacts of the quota regime on output in country i

Figure 3 shows the export supply of textiles from country, ES_i , as an upward-sloping function of the price received by producer-exporters, p_w . The initial demand for this good is shown as a downward-sloping function of own price, conditioned on the prices of products from competing suppliers, p_s , and the composite quantity of absorption of textiles in the export markets served by country i. The composite demand, D_i , is the total demand for exports from restricted markets, and from unrestricted

markets, whose overall slope is influenced by the fact that the demands for quota-restricted markets are no longer price-responsive.

Although the restrictive policy is implemented through a system of export quotas, these quotas have shadow prices. In all efficiently-organized export markets, these quotas can be traded between suppliers—either formally or informally, and this process of arbitrage allows the effect of the quotas to be represented by bilateral export taxes. Exporters to restricted markets must purchase quotas, or forgo the right to sell/trade quotas that they hold, with the result that the price confronting a purchaser is the price received by the producer plus the cost of the quota.

Increases in the export tax equivalents of the quotas on country i's own exports shift the demand curve for its exports of textiles and clothing to the left, resulting in a demand curve like D_i'. Increases in the export tax equivalents of the export taxes on competing suppliers, however, will raise their costs and tend to increase the demand for exports from country i. The effect of incorporating these barriers is reflected in the move from D_i' to D_i'' in Figure 3. Clearly, whether the restrictions imposed on country i or its competitors will have a greater impact on exports from country i depends on a number of factors, including: the relative restrictiveness of the barriers to each country's exports, differences between the composition of exports from country i and its competitors; and the ease of substitution between exports from different countries in import markets. The curve D_i'' is drawn to the left of D_i simply for expositional purposes. Without examination of the specific case, one cannot be sure whether D_i'' lies to the left or the right of D_i .

A key element in assessing the impact of the abolition of quota is to first determine the magnitude of the barriers facing each restricted country's exports, and those of its major competitors. Then, the effects of abolishing these restrictions needs to be assessed. This is a difficult challenge, given that each exporter faces export tax equivalents that are different across the different products that are exported; across different export markets; and over time. However, with a few standard simplifying assumptions, the impacts of all of these barriers can be aggregated into precise estimates of the impact of quota abolition on Pakistan.

Dealing with Diversity

In standard computable general equilibrium models, it is likely that there will be a small number of textile and clothing sectors. In the widely-used GTAP model, for instance, there is a single textile sector and a single clothing sector. In reality, however, textiles and clothing contain a large number of highly differentiated products, and the comparative advantage and countries in different products is frequently very different. For quantitative analysis to make its greatest contribution, it must take into account these differences. While we cannot realistically expand the number of sectors, we can do side calculations that enable us to better capture the effects.

The standard Armington approach differentiates between countries exports, but imposes the same elasticity of substitution between country pairs. However, we have information about product mix and pattern of protection that should let us do better. To do this, we consider the demand in a particular final market (the US or the EU) for a product k that is exported from a country i (Q_i^k). We follow the Armington (1969)

approach of identifying a good, k, such as men's pajamas, and identifying as different products the versions of this good produced by different countries. We assume that the demand for the product in the import market will be influenced by the price of this product, by the prices of the same good k exported from other countries, P_i^k, and by the overall level of demand for good k in the market.

(1) $$Q_i^k = Q_i^k(P_i^k,...,P_n^k,Q^k)$$

Differentiating this demand relation with respect to changes in the prices of each product, and expressing the result in percentage change form, we obtain:

(2) $$\frac{dQ_i^k}{Q_i^k} = \sum_{j=1}^{n} \frac{\partial Q_i^k}{\partial P_j^k} \frac{P_j^k}{Q_i^k} \frac{dP_j^k}{P_j^k}$$

To simplify our notation, we use lowercase for proportional changes and identify the cross price elasticities as:

(3) $$q_i^k = \sum_{j=1}^{n} h_{ij}^k p_j^k$$

In our analysis, the p_j^k variables are the price shocks resulting from changes in the export tax rates affecting different commodities within the textile or clothing aggregates, assuming a constant domestic supply price for each product.

If we use the Armington assumption and assume that demand preferences can be adequately characterized by a CES demand structure between the goods k exported by different countries, then the own and cross-price elasticities h_{ij}^k may be written as:

(4) $$h_{ij}^k = \begin{cases} S_j^k s & if \quad j \neq i \\ (1-S_i^k)s & if \quad j = i \end{cases}$$

where S_j^k is the share of country j in the market for good k and s is the Armington elasticity. Under these circumstances, equation (3) may be re-written as:

(5) $$q_i^k = s \sum_{\substack{j=1 \\ j \neq i}}^{n} S_j^k p_j^k - s(1-S_i^k) p_i^k$$

We may write $1-S_i^k$ as a sum of the market shares of the other countries. In this situation, equation (5) may be expressed as:

(6) $$q_i^k = s \sum_{\substack{j=1 \\ j \neq i}}^{n} S_j^k (p_j^k - p_i^k)$$

This formulation leads us to a useful interpretation for assessing the impacts of quota abolition on the demands for individual products. If there are different price shocks for different countries, the difference between proportional price changes for country *j* and country *i,* multiplied by the market share of the country j, will determine the proportional change in the export demand for good *k* from country *i.* A big reduction in the supply price from a major exporter like China will reduce the demand for Pakistan's exports of that product.

Equation (5) may be also written in the following format:

$$q_i^k = s\,(1-S_i^k)\sum_{\substack{j=1\\ j\neq i}}^{n}\frac{S_j^k}{1-S_i^k}(p_j^k - p_i^k) \tag{8}$$

where we define relative market share $S_{-i,j}^k = \frac{S_j^k}{1-S_i^k},\ j=1,n\quad j\neq i$ where $S_{-i,j}^k$ is the market share of the country *j* for world exports less the exports of country *i.* We notice that the sum of $S_{-i,j}^k\ \ j=1,n\quad j\neq i$ is equal to unity and we may re-write (8) as:

$$q_i^k = s\,(1-S_i^k)\sum_{\substack{j=1\\ j\neq i}}^{n} S_{-i,j}^k(p_j^k - p_i^k) \tag{9}$$

This relation has an interesting interpretation. The proportional change in demand depends on s , the Armington elasticity, on the sum of market shares of other exporters than *i* and on relative market share weighted average of the differences in proportional changes in prices between other exporters and exporter *i.*

In any GE model, there will be a single textiles and a single clothing sector, therefore we need an aggregate demand, which we define in proportional change format. For the composite textile and clothing sectors we define composite quantity changes in the demand for exports of these goods from Pakistan:

$$q_P = \sum_{k=1}^{s} W_P^k q_P^k \tag{10}$$

where W_P^k is the value share ($W_P^k = \frac{Q_P^k P_P^k}{\sum_{l=1}^{s} Q_P^l P_P^l}$). Using (5), we obtain:

$$q_P = s\sum_{k=1}^{s} W_P^k (1-S_P^k)\,p_P^k - s\sum_{k=1}^{s}\sum_{\substack{j=1\\ j\neq P}}^{n} W_P^k S_j^k\,p_j^k \tag{11}$$

When we perform a standard CGE analysis using an aggregated textile or clothing sector, we implicitly set the shares of each category within the sector equal to the overall average share for the sector for a given country j and the price of each category within

sector equal to the average price of the sector. In this situation, the cross effects in the second term on the right hand side of (11) are represented as:

$$(12) \qquad s \sum_{\substack{j=1 \\ j \neq P}}^{n} S_j p_j$$

which takes into account only the overall market shares of competitors in the import market for textiles or clothing, and the average change in export prices in those competitors. It does not take into account any of the information we have obtained about the similarity between exports from Pakistan and particular competitors, nor any information we have available on the relationship between the price changes for goods exported by other countries, and the importance of these goods in Pakistan's exports. This information is included in the second term on the right hand side of (11).

To correct results based on equation (12), and to understand why the results for a particular country would differ from those obtained by focusing only on the average impacts in (12), we need to take into account and interpret the full set of cross-price impacts in the last term of (11). To do this, we expand these products using an approach based on the Analysis of Variance which allows us to break up the total cross-price impacts into a component due to the average price impacts presented in (12), and to deviations from these averages in terms of the export shares supplied by competitors, and in larger or smaller changes in the prices of competitors' exports.

Introducing the deviations from averages in the final term of the right hand side of (11), we obtain:

(13)

$$s\left(\sum_{\substack{j=1 \\ j \neq P}}^{n} S_j p_j + \sum_{k=1}^{s} W_P^k \sum_{\substack{j=1 \\ j \neq P}}^{n} S_j (p_j^k - p_j) + \sum_{k=1}^{s} W_P^k \sum_{\substack{j=1 \\ j \neq P}}^{n} p_j (S_j^k - S_j) + \sum_{k=1}^{s} W_P^k \sum_{\substack{j=1 \\ j \neq P}}^{n} (S_j^k - S_j)(p_j^k - p_j) \right)$$

Evaluating (13) and comparing it with (12) allows us to assess the extent to which the averaging implicit in use of a single sector for textiles or clothing omits important covariation between the price shocks and market shares of Pakistan's competing suppliers. The second term in (13) shows the extent to which the above-average price changes resulting from quota abolition are correlated with the shares of each good k in Pakistan's exports of textiles and clothing. The third term in equation (13) shows the extent to which above-average shares of product k in partner exports are correlated with high shares, W_P^k in Pakistan's exports.

Measuring the Barriers

The abolition of quotas in January 2005 will eliminate some, but not all, of the distortions affecting global trade in textiles and clothing. While the quotas will be abolished, tariffs on textiles and clothing will remain, frequently at very high levels. Further, some of Pakistan's competitors will benefit from preferential access to industrial country markets, either under preference schemes such as the EU's Everything But Arms (EBA), or through preferences provided under regional arrangements.

To fully assess the impacts of quota abolition, we need to take into account both the effects of removing the quotas against Pakistan's exports, and those of other important exporters. To identify the important competing exporters in this context, we first identified the top 25 exporters to the USA and the EU and then classified them by whether they had export quotas that would be abolished. These results of this classification, which are presented in full in Appendix Tables A.1 and A.2, were used to identify the countries for which it was important to accurately measure the effects of the quotas.

The Average Export Taxes

To perform the analysis, we estimated the export tax that would have been equivalent in its cost-raising effects to each individual quota, and expressed it as a percentage of the export value of goods in that category, excluding the value of the quota to obtain the export tax equivalent of the quota[1]. We then averaged these estimates across categories to obtain average export tax equivalents (ETEs) for textiles and clothing. These estimates are presented in Table 1 for key regions appearing in the analytical model we use in this study, the LINKAGE model (van der Mensbrugghe 2004).

For those economies where we have detailed estimates of quota prices—indicated by a star in the table-- actual quota prices [2] were used to estimate the average ETEs. Because the quota prices are highly variable over time, averages over extended periods were used to reduce the spurious variation introduced by specific circumstances applying in individual quota auctions. The weighted averages were calculated for all textile and clothing products exported, and not just those restricted in each country. For the countries

[1] This requires some care, as reported export values under a quota system generally reflect the value of the quota.

[2] In the case of Pakistan, the available auction prices for sales from the Export Promotion Bureau refer to the new quota allocated to Pakistan each year—the so-called growth quota. Purchase of this quota has entitled the owner to performance-based quota without charge in future years creating a serious difficulty in estimating the discounted, annual value of the quota. Only in 2004 does the purchase of quota entitle an exporter to only a single year, so we have used 2004 quota prices in our analysis.

in which we had no satisfactory estimates of quota prices, estimates of the average ETEs were made by comparing the quota utilization[3] rates for these economies with those for the economies in which we had direct estimates of the ETEs.

Table 1. Estimated export tax equivalents of quotas in key supplying regions, 2002-3

	Textiles		Clothing	
	EU	USA	EU	USA
	%	%	%	%
Bangladesh*	na	0.0	na	20.4
India	1.0	3.0	20	20
Pakistan*	9.4	9.8	9.2	10.3
China*	1.0	20.0	54.0	36.0
Hong Kong, China*	2.1	0.0	12.3	2.3
Sri Lanka	1.0	0.0	0.0	7.0
Other East Asia[a]	1.0	0.0	3.0	7.0
Newly Industrializing Economies[b]	1.0	0.0	0.3	2.5

Notes: * Denotes an estimate based on quota price information. Other estimates interpolated from quota utilization data. [a] Based on Indonesia, Philippines, Thailand. [b] Republic of Korea and Taiwan, China.

A key feature of the results in Table 1 is the generally much higher estimated ETEs for China than for other suppliers. China's average ETE of 54 percent for clothing to the EU was much higher than any other country's, a result that was supported by the very high average utilization rate of 99 percent. A surprising feature of China's estimated ETEs was the 1.0 average ETE on exports of textiles to the EU. While quota utilization was quite high for this category, at 97 percent, the estimated ETEs appeared to be reliable, so we have chosen to use this low number, recognizing that there is some uncertainty associated with it. Another key feature of the table is the much lower, but relatively consistent, estimates of the average ETEs against exports from Pakistan. A third is the quite high average ETE against Bangladesh's exports of clothing to the United States. This result is quite surprising given the fact that Bangladesh's quotas have grown very rapidly, and that Bangladesh is unrestricted in the EU market. However, it is based on a full year of data and appears to be soundly based. We note the estimated 7.6 percent average ETE reported for Bangladeshi exports to the United States by Mlachila and Yang (2004) based on more recent, but much less detailed data, and conclude that we must be resigned to considerable uncertainty about the ETEs given their variation over time.

We were unable to obtain satisfactory estimates of recent quota prices in India, and obtained contradictory estimates from other sources such as quota utilization rates. Unfortunately, quota trading is suppressed in India, creating a lack of transparency (and much higher social costs) than in Pakistan. Estimates derived based on interviews with market participants in the quota trading market, and reported in Kathuria, Martin and Bhardwaj (2003) pointed to average ETEs of around 40 percent in the United States and

[3] Quota utilization rates are widely viewed in the industry as a powerful indicator of the extent to which particular quotas restrict trade in a particular market, although comparisons across markets are made difficult by differences in quota allocation procedures.

20 percent in Europe during the period up to 1999. By contrast, the quota utilization rates, on which great store is placed by industry participants, suggested a completely different picture. India's quota utilization in the EU is almost as high as China's, which suggests an ETE similar to China's 54 percent. By contrast, India's quota utilization in the US in 2002 was under 60 percent, compared with China's 84 percent, suggesting an average ETE much lower than China's 36 percent. In light of the available evidence, we have set the ETE of clothing from India at 20 percent in both the EU and the USA.

ETEs against exports from Hong Kong have fallen to very low levels, except for exports of clothing to the EU, for which the ETE of 12 percent remains close to the level of 14 percent observed by Hamilton (1986) for the early 1980s. In general, the estimated ETEs for Sri Lanka, the Other East Asian countries, and the Newly Industrializing economies, appear to have fallen to very low levels, except for clothing exports from Other East Asia to the United States, where the ETE of 7 percent is likely to be important.

A key contributing factor to the export tax equivalents in Table 1 is the policy of export quota expansion under the Agreement on Textiles and Clothing (WTO 1995). A major objective of this agreement was to progressively return these sectors to normal market disciplines by a combination of accelerated growth in quotas, and progressive abolition of quotas during the phase-out period up to January 1, 2005. The abolition of quotas was not successful in achieving significant liberalization because the quotas phased out were largely those in which developing countries have no comparative advantage. However, the high growth rates of quotas in most suppliers (see Table 2) have undoubtedly contributed to the relatively low average ETEs observed in Pakistan, Sri Lanka, and Other East Asian economies such as the Philippines and Thailand. By contrast, the low growth of China's export quotas has undoubtedly contributed to the emergence of high export tax equivalents on these exports by restricting their growth. Effectively, this has stored up adjustment that could otherwise have occurred smoothly during the ten year phase-out to the end of the quota phase out. The low growth rates in mature exporters such as Hong Kong and Korea have been sufficient because the competitiveness of the industry in these suppliers has been falling.

Table 2. Quota enlargement under the Agreement on Textiles and Clothing, 2004/1994

	Textiles		**Clothing**	
	EU	**USA**	**EU**	**USA**
	%	**%**	**%**	**%**
Bangladesh	na	168	na	168
China	50	33	38	41
Hong Kong, China	16	37	22	17
India	50	141	79	116
Indonesia	83	134	117	133
Korea	70	37	38	12
Pakistan	79	139	119	150
Sri Lanka		134	204	132
Philippines		134	112	119
Thailand	59	127	116	123

Taiwan, China	34	22	24	4
Total	62	93	54	67

Notes: Based on quotas and growth rates in effect at the beginning of the implementation period. Source International Textile and Clothing Bureau, Geneva.

Estimates of the Export Barriers on Specific Products

Because the quotas are bilateral, the export tax equivalents (ETEs) vary between suppliers, and so need to be estimated by market and by supplier. We do this for all of the major suppliers for which data are available, and for the two major importing markets of the United States and the European Union.

Export Tax Equivalents In the US Market

The estimated export tax equivalents of textile quotas at the individual category level in the US market are presented in Appendix Table A.3 for all countries for which we were able to obtain disaggregated estimates. The ETEs are reported for individual quota categories in the body of the table, while the weighted-average ETEs and the proportion of categories with prices exceeding zero are presented at the bottom of the table. The set of products listed includes all products supplied by any of the exporters considered. Details of data sources, the period covered, and the method of calculation are given in the notes to this table. The estimates for India and for Taiwan, China should be treated with particular caution since they are based on observations for a single day.

A striking feature of the table is the relatively small number of categories in each supplier with positive quota prices, and hence with exports clearly restricted by quotas. Even in China, where many observations on quota transactions are available, only 26 percent of the textile quota categories appear to have positive prices. In Pakistan, 21 percent of quotas have positive prices, while 9.8 percent did in Taiwan, China, and only 1.6 percent in India and Hong Kong, China.

Another important feature of the data is the importance of particular categories in determining the average rate of export taxation, which we measure as the proportional contribution of each category to the total value of the quota rents. For Pakistan, we find that four categories-- sheets (Cat 361), towels (Cat 363), Other cotton manufactures (Cat 369) and Other Man-made-fiber furnishings (Cat 666)—account for almost all of the total textile quota rents. For China, a wider range of textile products contributed, although Cat 666 (Other man-made-fiber furnishings) accounted for over 60 percent of the total textile rents. For Hong Kong, China only one textile product generated any quota rents at all. The differences between countries in the markets which dominate their protection have the potential to insulate them to mitigate the increase in competition resulting from quota abolition.

The pattern observed in the clothing quota data presented in Appendix Tables A.5 and A.6 is broadly consistent with that for textiles. For most suppliers, only a minority of clothing products had ETEs above zero. The fraction of quotas with a price above zero

was 62 percent in China, 35 percent in India and Hong Kong, 33 percent in Pakistan, 28 percent in India, and 31 percent in Bangladesh.

The ETEs on particular categories are frequently very high, with the average ETE on Pakistan's exports of Category 347 (men's cotton trousers) being 31 percent and the average for Category 348 (women's trousers) being 36 percent. In China, the ETEs exceeded 100 percent on a number of products, including gloves, women's knit shirts, dressing gowns and brassieres. In Bangladesh, the export tax equivalents were very substantial on a number of products of importance, including men's knit shirts; skirts, and men's trousers. Even in those suppliers whose average ETEs were very low, such as Hong Kong (China), India and Indonesia, quite high ETEs applied on at least some categories. The average ETE on dressing gowns in Hong Kong (China) and India were, for instance, over 25 percent.

The contributions to the total export tax equivalent shown in Appendix Table A.6 were also highly concentrated. Two basic goods—cotton knit shirts 338/9 and cotton trousers 3478 -- accounted for over ninety percent of the total burden on Pakistan. The cost of the export tax was similarly concentrated in Bangladesh, where trousers (347, 348 and 647) accounted for over 50 percent of the total burden. In Taiwan (China), almost three quarters of the burden of the export taxes was accounted for by women's knit shirts and trousers (Cat 339 and 348). In Hong Kong (China), sweaters and women's knit shirts (Categories 445, 446, 638 and 639) accounted for over two-thirds of the burden. Only in China were the contributions to the total burden of the export quotas widely distributed, with no individual category accounting for over 12 percent of the total.

The single category, Category 338, where almost half of the burden imposed on Pakistan's exports was concentrated, clearly requires particular attention. In 2002, the volume of exports in this category stayed almost constant at 45 million square meter equivalents (SMEs), while in the first half of 2003, it rose to 60 million square meter equivalents on an annualized basis. The unit value of exports in this category fell from US$7.6 per Square Metre Equivalent (SME) in 2001 to $US 6.8 per SME in 2002 and to $5.81 per SME in first-half 2003. The net returns available to the producer-- net of the export tax equivalent of the quota-- were $3.7, $4.8 and $5.8 respectively, implying a sharp rise in the profitability of producing these goods.

Export Tax Equivalents In the EU Market

Estimates of ETEs by category, and of the importance of quotas in each category to the overall average barriers, are given in Appendix Table A.7 for textiles and A.8 for clothing. Unfortunately, we were only able to observe ETEs for a small number of countries, because of limited information on quota prices. The pattern observed in these tables is similar to that in the tables for the United States, with many quotas having zero prices in each supplying country, and only a few products contributing the lion's share of the total burden. For Pakistan, the largest contributions to the export tax burden on textiles were in Group 9 (Terry toweling) and Group 20 (Bed linen), which accounted for 12 and 81 percent of the total burden. In China, both of these products were also important contributors to the total burden, contributing 11.3 and 27.1 percent of the total burden. The export taxes on these two products were substantially higher in Pakistan than

in China, with the ETE for terry toweling being 36.4 in Pakistan and 16.9 in China. For bed linen, Pakistan's ETE was 27.7, as against 11.9 for China.

A key feature of the results for clothing in Table A.8 is the extraordinarily high ETEs for a small number of clothing products. The first four clothing groups—knitted shirts (Group 4), sweaters (Group 5), trousers (Group 6), and women's blouses (Group 7) accounted for the highest ETEs, and over 90 percent of the restrictive effect of the clothing quotas on China. Unfortunately for Pakistan, two of these products (knitted shirts and woven trousers) are also very important exports for Pakistan.

Accounting for Heterogeneity in Products and Barriers

While the initial model results given above provide important insights into the implications of quota abolition for Pakistan, the assumption that Pakistan produces the same set of clothing and textile products as each of its competitors is very strong[4]. We know that Pakistan's product mix differs substantially from that of its competitors, and that it differs more from some exporters than from others. Further, the pattern of export barriers may differ systematically. If, for instance, a major competitor were tightly restricted in major products produced by Pakistan, then the abolition of the quotas might have a large adverse impact on Pakistan even if these products constituted only a small share of the competing country's exports[5] .

The removal of export quotas on a competitor affects the demand for textile and clothing exports from Pakistan through two principal channels. The first is the direct substitution between the products in the market for final goods. The second is through changes in the derived demand for exports used as intermediate inputs. Clearly, the second linkage operates primarily through the clothing sector demanding inputs such as fabrics from the textile sector, but the broad textile sector in the model uses other textiles as intermediate inputs, and the clothing sector also uses some clothing sector outputs as inputs.

It is clear that the final-demand linkages between textiles from Pakistan and competitors, and the final-demand linkages in the clothing markets, need to take into account the available information about differences between countries in the composition of the textile and clothing aggregates. It is less clear how one would take into account differences between the input demand characteristics of the two sectors, other than through the information on the sources of imported intermediate inputs contained in the GTAP model database. In light of this, we focused on adjusting the estimated cross-price impacts of changes in the demand for each country's exports of textiles and clothing for differences in the composition of exports and in the quota price barriers facing each country.

[4] The Armington (1969) assumption employed in the computable general equilibrium model used in this analysis potentially takes into account imperfect substitution between the products produced by Pakistan and its competitors resulting from differences in the composition of exports. However, the standard version of the model we use specifies the same elasticity of substitution between products from each pair of exporters when we know there are sharp differences between the composition of the products exported by different suppliers.

[5] The competitor's share in these products could even be low because its quotas on these products were particularly restrictive.

To improve our assessment of the cross-price elasticities of demand for Pakistan's exports following changes in the prices of competitors' exports, we used the decomposition given in equation (13). This decomposition allowed us first to decompose the partial-equilibrium[6] demand effect of a change in the price of competitor's products into a component due to a change in the average price (assuming the composition of output in the two countries is the same); and three other components that reflect: differences in the composition of output; differences in the pattern of quota premia; and an interaction term between these two differences. Finally, we examined the impacts taking into account the fact that the product mixes and the patterns of export tax equivalents are sharply different between countries.

In the first section of Table 3, we estimated the direct impact of abolishing the export quotas in key exporting countries on the demand for Pakistan's exports of textiles and clothing in the US market. They were calculated based on the standard cross-country elasticities of substitution used in the GTAP model—8.8 for clothing and 4.4 for textiles.

We divided the difference between the standard cross-price effect and the one allowing for product heterogeneity into three terms as defined in second section. We call them the Export Tax Correlation effect; the Share Correlation effect; and the Interaction effect. The first of these terms takes into account the extent to which the export taxes of the competitor are high on products with a large share in Pakistan's exports. The second takes into account the extent to which the competitor exports the same products as Pakistan. The third term takes into account interactions, such as situations where a competitor has high export taxes on products in which both it and Pakistan have large export shares. The final column of Table 3 shows the ratio of the full effect—calculated by adding across columns 1, 2, 3 and 4 to the average effects

Table 3. Decomposing the effects of abolishing competitor quotas on the demand for Pakistan's exports of textiles and clothing

	Average effect	Export tax correlation	Share correlation	Interaction	Full	Ratio
	1	2	3	4	5	
Apparel to USA	%	%	%	%	%	
Bangladesh	-0.455	-0.338	-0.005	0.289	-0.509	1.12
China	-2.175	-0.576	1.182	.527	-1.043	0.48
HK	-0.147	0.106	0.091	-0.067	-0.016	0.11
India	-0.061	0.032	0.004	0.021	-0.068	1.11
Indonesia	-0.198	-0.084	0.096	0.055	-0.130	0.66
Taiwán, China	-0.022	-0.125	0.011	0.119	-0.017	0.76
Textiles to USA						
China	-2.219	-1.565	0.314	-0.011	-3.482	1.57
HK	0.000	0.000	0.000	0.000	0.000	1.05

[6] In this analysis, we assume that the quota rental rates are the same for all products

India	0.000	0.000	0.000	0.000	0.000	NA
Indonesia	0.000	0.000	0.000	0.000	0.0	NA
Taiwán, China	-0.063	0.059	0.031	-0.040	-0.013	0.15
Apparel- EU						
China	0.234	0.925	-0.036	-0.766	0.356	1.53
HK, China	-2.654	0.403	0.013	-0.683	-2.920	1.10
Textiles- EU						
China	0.178	1.536	-0.070	-0.866	0.778	4.38
HK, China	-0.005	-0.040	0.003	0.034	-0.009	1.67

Note: Ratio is the ratio of the full effect to the average effect. Other terms are as defined in section two.

In the first row of Table 3, we see that the full effect for Bangladesh apparel is 1.2 times the average effect. From the decomposition we see that the primary reason for this magnified effect is the export tax correlation—the situation where Bangladesh has high export taxes on products of interest to Pakistan. This particular case highlights the importance of a correlation whose effects are not widely known simply because information on the magnitude of quota rents in competitor countries is so difficult to obtain.

The case of China's apparel exports, shown in the second row, is completely different. In this case, the product mix (share) term is the main cause of the decline of over a half from the average impact to the full (negative) impact. Unfortunately for Pakistan, this effect is outweighed by a large negative impact through the ETE correlation—China having high quota rents on products of particular interest to Pakistan.

The estimated direct effect of abolishing Hong Kong's quotas falls to 11 percent of its initial level when full allowance is made for production and export tax heterogeneity. For India, the effect of apparel quota abolition declines by 61 percent in the case of apparel, but rises by 4 percent in the case of textiles.

In both apparel and in textiles, product share differences generally reduce the estimated negative impact of China's quota abolition on the demand for Pakistan's exports. An example of this negative correlation for clothing in the United States market is plotted in Figure 4.

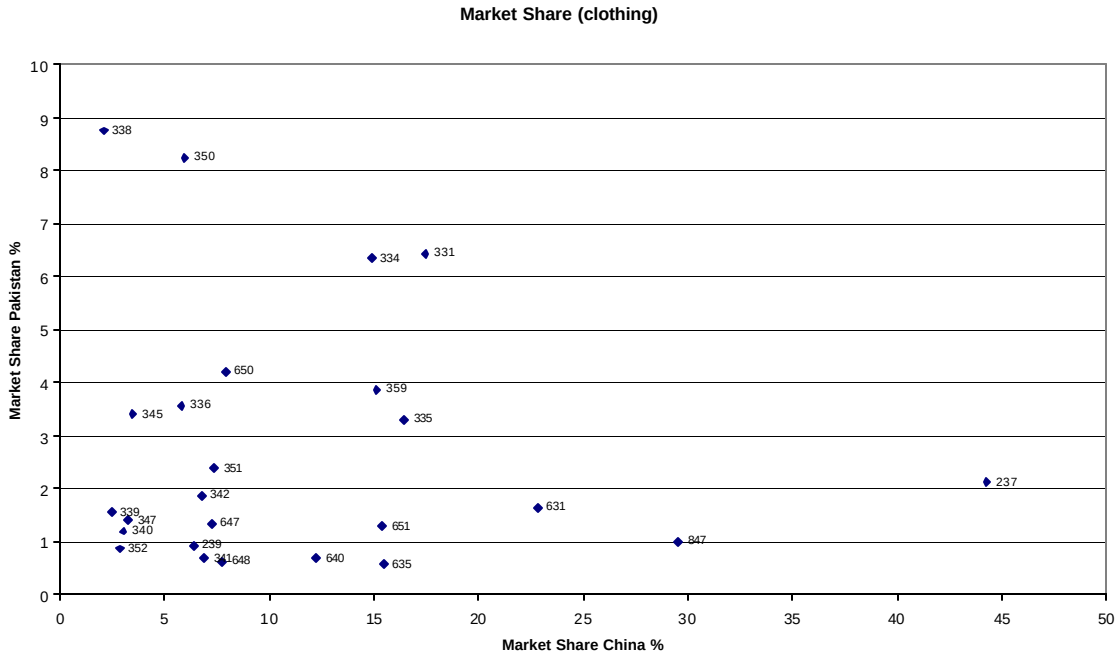

Figure 4. The Inverse Correlation between China's and Pakistan's Market Shares in the US Market for Clothing

A Quantitative Evaluation

We first present an analysis using a standard general equilibrium model. Then, we present an analysis taking into account information on differences between products and the patterns of export.

Modeling Without Taking into Account Product Diversity

Unfortunately, no global general equilibrium database currently contains Pakistan as a separate region. We have used a model—the LINKAGE model—maintained at the World Bank by Dominique van der Mensbrugghe, which is based on the GTAP database of the global economy. Fortunately, the "Other South Asia" region in this database is dominated by the economy of Pakistan[7] and we have used it to obtain an initial indication of the implications of reform for Pakistan.

To analyze the effects of liberalization, and possible policy responses, we conducted four experiments. The first (see Column 1 of Table 4) is the abolition of the

[7] The other economies in this composite region, such as Nepal, Afghanistan, the Maldives and Bhutan are minuscule by comparison with Pakistan. However, it would be desirable to incorporate Pakistan as a separate region in a future GTAP database.

quotas against Pakistan's exports of textiles and clothing in the US, the EU and Canada[8]. The second is the abolition of these quotas against all developing country exporters restricted by these quotas. The third adds to this an improvement of 20 percent in total factor productivity in Pakistan's textile sector, a change that has the potential to improve the competitiveness of the garment sector as well as the textile sector by lowering the costs of fabrics and other key intermediate inputs. The final shock considered includes quota abolition and a 20 percent productivity improvement in both the textile and garment sectors. The increase in productivity of 20 percent is somewhat arbitrary, but reflects an increase in productivity roughly one-third of what appears to be required to close the gap between productivity in Pakistan and productivity in China (World Bank and SMEDA 2003).

The quota abolition experiments involve the complete removal of the effective export tax imposed on exporters by the need to obtain an export quota before products can be sent to the quota markets of the USA, the EU and Canada. These experiments probably understate the implications of liberalization on efficiency and economic welfare since they do not include the elimination of the substantial costs associated with complying with the quota regulations, nor the costs of administering the quotas, nor those resulting from the resources spent in many countries on lobbying for quota allocations. Further, they ignore the possibility that some of the quota rents are actually appropriated by buyers in industrial countries (Krishna and Tan 1998).

The experiments including the effects of productivity increases in the textile and garment sectors are included because a key policy response to the increases in competition resulting from quota abolition is likely to be improvements in the efficiency of these sectors. While it may have been acceptable to allow productivity-reducing policies in the past, when export opportunities were limited, the costs associated with these policies will increase in the face of greater competition, as will the opportunities for growth and employment creation associated with productivity-enhancing reforms.

The increase in exports of clothing resulting from abolishing all of Pakistan's quotas is larger than the increase in exports of textiles, despite the fact that abolition of the quotas on textiles will raise the cost structure of the clothing industry by removing the burden on exports of textiles. The larger impact for clothing reflects, in part, the fact that clothing exports from different countries are seen as more substitutable than textiles from different exporters[9]. This seems reasonable given that clothing exports are typically produced very directly to purchasers' specifications, while textile characteristics are more strongly determined by the needs and constraints of the supplier. The increases in the exports of clothing and textiles (40 and 8 percent) are large enough to require reductions in exports from other sectors, which are brought about through an appreciation of the real exchange rate, and particularly through increases in real wage rates.

Outside the textile and clothing sectors, there is a 14 percent decline in the output of leather products as this labor-intensive sector faces increasing competition for inputs from the labor-intensive clothing and textile sectors. Other sectors experience much smaller reductions in output as they yield the resources needed for the expansion of the

[8] This is not a presented as a policy experiment, but to provide insights into the nature of the effects.

[9] Formally, the elasticity of substitution between textiles from different exporters is set at 4.4, while the elasticity of substitution for clothing is 8.8.

textile and clothing sectors. Cotton output expands modestly in response to increased demand.

Table 4. Implications of quota abolition and productivity for sectoral output and exports in Pakistan

	Pakistan Only	All Exporters	Textile Productivity	T and C Productivity
Output	%	%	%	%
Cotton	1.0	1.5	3.1	3.0
Other crops	-0.4	0.0	0.3	0.2
Livestock	-0.2	-0.1	0.1	0.1
Other natural resources	-1.5	-0.7	-0.7	-0.8
Fossil fuels	-1.1	-0.3	-0.5	-0.5
Processed foods	-2.0	-0.6	-1.0	-1.2
Textiles	8.1	7.3	13.8	14.0
Wearing apparel	40.0	-11.1	-9.5	0.9
Leather products	-13.6	-0.5	-4.4	-5.7
Basic manufactures	-2.6	-0.5	-0.9	-1.1
Equipment	-4.1	-0.7	-1.5	-1.9
Other manufacturing	-0.9	0.2	0.6	0.6
Electric and gas utilities	2.3	1.0	1.3	1.5
Construction	0.1	-0.3	-0.1	0.0
Services	-0.7	-0.3	-0.1	-0.1
Exports	%	%	%	%
Cotton	-11.8	-2.5	-6.2	-7.6
Other crops	-11.6	-2.9	-6.4	-7.7
Livestock	-14.5	-3.2	-7.7	-9.3
Other natural resources	-17.7	-1.6	-6.8	-8.9
Fossil fuels	-9.4	-1.8	-4.5	-5.6
Processed foods	-13.0	-2.2	-6.0	-7.5
Textiles	10.3	17.3	27.7	26.1
Wearing apparel	63.0	-17.3	-15.7	-0.6
Leather products	-21.4	-0.5	-6.8	-9.1
Basic manufactures	-11.9	-1.9	-5.3	-6.7
Equipment	-15.7	-3.2	-7.7	-9.5
Other manufacturing	-9.7	-1.8	-4.5	-5.6
Electric and gas utilities	-7.2	-1.6	-3.6	-4.5
Construction	-10.2	-2.3	-5.2	-6.4
Services	-11.0	-2.0	-5.1	-6.4
Total	8.0	3.8	6.8	7.7

When quotas are abolished for all exporters, a somewhat different picture emerges. The increase in output of textiles declines from 8.1 to 7.3 percent. The implications for the output of clothing are much more marked. Instead of rising by 40 percent, clothing output

falls by 11 percent. The decline in clothing exports is 17 percent. Exports of textiles rise, however, by 17 percent, more than compensating the impact of the decline in textiles on exports from the textile/clothing sector. Examination of the detailed model results reveals that the main cause of this increase in textile exports is a sharp increase in exports of textiles to China, which more than compensates for reductions in exports to the Canadian, European and US markets brought about by increased competition in these markets. Output and exports of leather products expand sharply, taking up labor and other resources otherwise used in the clothing sector.

The assumed 20 percent increase in textile sector productivity included in the third column raises output from the textile sector and increases output and exports of textiles, with export volumes growing by 27 percent after global liberalization and the rise in productivity. The positive impact of improving textile sector productivity on output and exports of clothing is limited. The decline in the price of domestically-produced textiles has only a small positive impact on the competitiveness of the clothing sector, which uses both domestic and imported textiles. With productivity rising by 20 percent in both textiles and clothing, the adverse impacts of global quota abolition on clothing output and exports are essentially neutralized, with output rising 0.9 percent and exports falling by 0.6 percent.

The implications of the four experiments considered for overall economic welfare and for labor income are given in Table 5. As would be expected, the model results imply that abolition of Pakistan's quotas alone will raise welfare and wages in Pakistan. Welfare rises by 0.4 percent or $231 million despite the loss of quota rents, because of improvements in the efficiency of resource use, and increases in the prices of exports (particularly of textiles). Wages of unskilled workers rise by close to four percent because of the abolition of the indirect export taxation on these relatively labor-intensive activities. Wages of unskilled workers rise by just over 3 percent.

When the quotas of all exporters are abolished, the overall impact on real income in Pakistan is estimated to be −0.4 percent, with the losses of quota rents outweighing positive impacts on resource use efficiency and improvements in the prices of exports of fibers, textiles and clothing sold on currently unrestricted markets. Real wages rise because of the demand for workers in the textile sector, which outweighs the decline in demand in the clothing sector

Table 5. Implications of quota abolition and productivity improvement for welfare and for labor returns in Pakistan

	Pakistan Only	All Exporters	Textile Productivity, up 20 %	T and C Productivity up 20%
Unskilled wages, %	3.7	0.9	1.9	2.3
Skilled wages, %	3.1	0.5	1.5	2.0
Real income (EV) %	0.4	-0.4	0.1	0.3
$m	231	-248	74	167

Increases in productivity in the textile and clothing sectors have positive effects both on overall economic welfare and on wages. Increases in productivity reduce the amount of

labor, and other factors, required to produce a given volume of output, thereby destroying some jobs, but creating other jobs by increasing the competitiveness of the industry. The net effect is to increase the demand for labor, and hence wages, relative to the baseline with quota abolition in all countries. The assumed 20 percent increase in productivity is sufficient to overcome the adverse impacts of quota abolition in all countries, albeit marginally. Increases in productivity in both the textile and garment sectors are sufficient to increase real income by $415 million per year from the level following global liberalization. Clearly, these results suggest that policy actions to increase productivity and competitiveness in the industry, and particularly in the textile sub-sector, could have a high payoff.

Modeling With Product Heterogeneity

As noted above, the results in Table 4 take into account only the direct impacts of reform on the demand for Pakistan's exports. The key to capturing the full effect of quota abolition is to incorporate product and policy differentiation within the model, adjusting the direct impacts of competition in product markets, while retaining the full impact of quota abolition on the demand for intermediate inputs. The results for this modified analysis are presented in Table 6:

Table 6. Implications of quota abolition and productivity for sectoral output and exports in Pakistan—with product heterogeneity

	Pakistan Only	All Exporters	Textile Productivity	T and C Productivity
Output	%	%	%	%
Cotton	1.0	1.5	3.0	3.0
Other crops	-0.4	0.1	0.3	0.2
Livestock	-0.2	-0.1	0.1	0.1
Other natural resources	-1.5	-0.6	-0.7	-0.7
Fossil fuels	-1.1	-0.3	-0.4	-0.5
Processed foods	-2.0	-0.5	-0.9	-1.1
Textiles	8.1	6.5	13.0	13.2
Wearing apparel	39.9	-11.0	-9.4	1.0
Leather products	-13.6	0.4	-3.5	-4.9
Basic manufactures	-2.6	-0.3	-0.7	-0.9
Equipment	-4.1	-0.4	-1.3	-1.7
Other manufacturing	-0.9	0.3	0.7	0.6
Electric and gas utilities	2.3	0.8	1.1	1.3
Construction	0.1	-0.3	-0.1	0.0
Services	-0.7	-0.3	-0.1	-0.1
Exports	%	%	%	%
Cotton	-11.8	-1.4	-5.1	-6.4
Other crops	-11.6	-2.0	-5.6	-6.9

Table 6. Implications of quota abolition and productivity for sectoral output and exports in Pakistan—with product heterogeneity

	Pakistan Only	All Exporters	Textile Productivity	T and C Productivity
Livestock	-14.5	-2.5	-7.0	-8.6
Other natural resources	-17.7	0.3	-5.0	-7.2
Fossil fuels	-9.4	-1.3	-3.9	-5.0
Processed foods	-13.0	-1.4	-5.2	-6.6
Textiles	10.3	15.7	26.0	24.4
Wearing apparel	63.0	-17.0	-15.4	-0.3
Leather products	-21.4	1.0	-5.4	-7.7
Basic manufactures	-11.9	-1.0	-4.4	-5.8
Equipment	-15.7	-2.1	-6.7	-8.5
Other manufacturing	-9.7	-1.3	-3.9	-5.1
Electric and gas utilities	-7.2	-1.2	-3.3	-4.1
Construction	-10.2	-1.8	-4.6	-5.8
Services	-11.0	-1.3	-4.5	-5.8
Total	8.0	3.5	6.5	7.3

As is clear from comparison of Tables 4 and 6, the details of the results for output and for exports are affected in a number of places by the adjustments for heterogeneity. This is an important finding, since it suggests that these adjustments, which have never, to our knowledge, been undertaken in applications of computable general equilibrium to the textile quota problem, can have substantial impacts on the results. However, the broad pattern remains, in this case, of declines in output and exports of apparel when the quotas are abolished, with increases in the output and exports of textiles.

The key impact of interest is overall welfare, which is reported in Table 7. Comparison of the results in Table 7 with those in Table 5 leads us to conclude that adjustment for heterogeneity reduce the adverse impacts of abolishing other countries' quotas on Pakistan, and convert some of them from negative to positive. However, the 20 percent increase in productivity considered is sufficient to raise real wages of unskilled wages by just over 2 percent. The 20 percent increase in productivity in textiles and clothing completely reverses the adverse impact of the abolition of competitors' quotas on real incomes.

Table 7. Implications of quota abolition and productivity improvement for welfare and for labor returns in Pakistan—with adjustment for heterogeneity

	Pakistan Only	All Exporters	Textile Productivity, up 10 %	T and C Productivity up 10%
Unskilled wages, %	3.7	0.7	1.7	2.1
Skilled wages, %	3.1	0.3	1.4	1.8

Real Income (EV) %		0.4	-0.5	0.1	0.2
	$m	231	-280	40	132

Conclusions

In this paper, we provide a preliminary analysis of the consequences for Pakistan of abolishing the system of quotas installed under the Multi-Fibre Arrangement (MFA) and currently being dismantled under the Agreement on Textiles and Clothing (ATC). This issue is of enormous importance to developing countries, and particularly to developing countries such as Pakistan that depend very heavily on exports of textiles and clothing.

The first step in the analysis was to develop a framework that takes into account the major sources of gains and losses from quota abolition. From this, we identified a need for information on the extent of the barriers restricting exports of textiles and clothing from Pakistan and her major competitors. We estimated the extent of these barriers. Finally, we then examined the implications of the very heterogeneous nature of markets for individual textile and garment products, and assess the implications for the results.

For an individual country such as Pakistan, the analysis must take into account the extent to which the quotas currently imposed on Pakistan restrict her exports relative to those of other exporters. While abolition of the quotas against Pakistan's exports will make her better off, abolition of the quotas against competing exporters may reduce Pakistan's competitiveness. Whether Pakistan is better or worse off after the quotas are abolished on January 1, 2005 is a complex question, the answer to which depends, *inter alia*, on the extent to which exports from Pakistan are restricted relative to exports from other suppliers; the strength of the competitive relationship between the two suppliers; and the extent of complementarities associated with global production sharing.

As a basis for the analysis, we use data on quota prices at the individual quota category level, drawing on previously unused data on quota prices for exports from Bangladesh; China; Hong Kong, China; Pakistan; India; Indonesia and Taiwan, China in the US and EU markets. Combining this information with detailed data on the unit values of imports at the quota category level we estimate the export taxes that would have the same restrictive effect as the quotas

A notable feature of the results is the very high export tax equivalents on China's exports to the US for textiles and clothing, and on exports of clothing to the European Union. The export tax equivalents for Pakistani producers are considerably lower, when compared for the same product mix. The export tax equivalents for India have fallen in recent years, a finding validated by low quota utilization rates. The export tax equivalents of quotas in Bangladesh are relatively high on clothing exports to the United States, although these products have unfettered access to Europe.

The underlying data at the individual quota category level point to sharp differences between the export tax equivalents of the quotas across products, over time, and between different suppliers. Many export tax equivalents are extremely high at times when particular products are "hot", with effective export tax rates above 100 percent very common.

Any analysis of the impacts of quota abolition needs to consider not just competition in markets for final goods, but also changes in demands for intermediate inputs, and in quota rents. Implications for wage rates and other factor prices are also of interest. To incorporate these interactions, we used the LINKAGE global general equilibrium model to obtain some initial insights into the implications of quota abolition. This analysis suggests that Pakistan will benefit from abolition of its own quotas, with the benefits resulting from improved efficiency of resource allocation in Pakistan outweighing the loss of quota rents.

When the quotas on all other exporters are eliminated at the same time, Pakistan's real income declines slightly. This reversal appears to be due largely to the loss of quota rents, a loss that may be more imagined than real, since there are serious doubts about how much of the quota rents are a net gain to society—certainly, it is unlikely that much of the benefit of such quota rents flows to the poor

We repeat the quantitative analysis taking into account the impacts of the major differences between the composition of Pakistan's export mix and that of her major competitors. While the adjustments made to deal with this problem change the details of the impact of other countries' quota abolition on Pakistan, they do not change the overall pattern, and Pakistan suffers small static welfare losses even after making these adjustments.

References

Armington, P. (1969), 'A theory of demand for products distinguished by place of production' *IMF Staff Papers* 16:159-78.

Hamilton, C. (1986), 'An assessment of voluntary restraints on Hong Kong exports to Europe and the USA' *Economica* 53:339-50.

Hamilton, C. (1990) *Textiles Trade and the Developing Countries: Eliminating the Multi-Fiber Arrangement in the 1990s*, World Bank, Washington, DC.

Kathuria, S., Martin, W. and Bhardwaj, A. (2003), 'Implications of MFA abolition for India and South Asia', Chapter 3 in Mattoo, A. and Stern, R. M. eds. *India and the WTO*, Oxford University Press and the World Bank.

Kathuria, S. and Bhardwaj, A. (1998), 'Export quotas and policy constraints in the Indian Textile and Garment Industries' Policy Research Working Paper 2012, World Bank, Washington DC.

Krishna, K. and Tan, L. (1998), *Rags and Riches: Implementing Apparel Quotas under the Multi-Fibre Arrangement*, University of Michigan Press, Ann Arbor.

van der Mensbrugghe, D. (2004), LINKAGE Technical Reference Document v6.9, Mimeo, World Bank, January.

Mlachila, M. and Yang, Yongzheng (2003), Bangladesh: the outlook for the ready made garment industry, Mimeo, International Monetary Fund, Washington DC.

World Bank and SMEDA (2003), *Improving the Investment Climate in Pakistan*, An investment climate assessment prepared by The World Bank Group in collaboration with The Small and Medium Enterprise Development Authority of the Government of Pakistan, March 2003.

Appendix Table A.1 Major Exporters of Clothing and Textiles to the USA, 2002

	Clothing			Textiles	
Exporter	**$bn**	**Quota action 2005**	**Exporter**	**$bn**	**Quota action**
China	7.5	TBA	China	6.6	TBA
Hong Kong, China	4.1	TBA	Mexico	2.5	Preferential
Honduras	2.6	Preferential status	Canada	2.4	No quotas
Dominican Republic	2.2	Preferential status	India	1.5	TBA
Indonesia	2.2	TBA	Korea, Rep.	1.3	TBA
Korea, Rep.	2.2	TBA	Pakistan	1.2	TBA
India	2.1	TBA	Italy	0.9	No quotas
Philippines	1.9	TBA	Japan	0.7	No quotas
Bangladesh	1.9	TBA	Thailand	0.6	TBA
Thailand	1.9	TBA	Turkey	0.5	TBA
El Salvador	1.7	Preferential status	Germany	0.5	No quotas
Guatemala	1.7	Preferential status	United Kingdom	0.4	No quotas
Canada	1.6	Preferential status	Indonesia	0.4	TBA
Italy	1.5	No quotas	France	0.4	No quotas
Sri Lanka	1.5	TBA	Israel	0.3	Preferential
Turkey	1.3	TBA	Brazil	0.3	TBA
Macao	1.2	TBA	Bangladesh	0.3	TBA
Cambodia	1.1	TBA	Philippines	0.3	TBA
Pakistan	1.0	TBA	Belgium	0.3	No quotas
Vietnam	1.0	Depends on WTO status	Portugal	0.3	No quotas
Malaysia	0.8	TBA	Hong Kong, China	0.2	TBA
Costa Rica	0.7	Preferential status	Dominican Republic	0.2	Preferential
Nicaragua	0.4	Preferential status	Netherlands	0.2	No quotas
Israel	0.4	Preferential status	Sri Lanka	0.2	TBA
			Spain	0.1	No quotas
Subtotal	52.0		Subtotal	22.7	
World	61.4		World	25.3	

Notes: UN COMTRADE data for textile and clothing imports defined according to WTO definitions. TBA means To be Abolished.

Appendix Table A.2 Major Exporters of Textiles and Clothing to the EU, 2002

	Clothing			Textiles	
Exporter	**$bn**	**Quota action**	**Exporter**	**$bn**	**Quota action**
China	4.3	TBA	Germany	4.5	No quotas
Hong Kong, China	3.1	TBA	China	3.0	TBA
Turkey	3.0	Preferential	Italy	2.7	No quotas
Italy	2.6	No quotas	Belgium	2.5	No quotas
Romania	2.4	Preferential	France	1.5	No quotas
Germany	2.1	No quotas	Netherlands	1.3	No quotas
Tunisia	2.0	Preferential	Spain	1.3	No quotas
Morocco	1.8	Preferential	United Kingdom	1.3	No quotas
Bangladesh	1.5	Preferential	Turkey	1.2	Preferential
India	1.4	TBA	India	1.1	TBA
Portugal	1.3	No quotas	United States	0.8	No quotas
Belgium	1.3	No quotas	Pakistan	0.7	TBA
France	1.0	No quotas	Portugal	0.6	No quotas
United Kingdom	1.0	No quotas	Austria	0.6	No quotas
Indonesia	0.8	TBA	Switzerland	0.6	No quotas
Netherlands	0.7	No quotas	Hong Kong, China	0.5	TBA
Spain	0.6	No quotas	Korea, Rep.	0.5	TBA
Poland	0.6	Preferential	Romania	0.5	Preferential
Sri Lanka	0.6	TBA	Japan	0.4	No quotas
Thailand	0.6	TBA	Czech Republic	0.4	Preferential
Mauritius	0.5	Preferential	Ireland	0.3	No quotas
Bulgaria	0.5	Preferential	Tunisia	0.3	Preferential
Hungary	0.5	Preferential	Poland	0.3	No quotas
Denmark	0.4	No quotas	Denmark	0.3	No quotas
Pakistan	0.4	TBA	Indonesia	0.3	TBA
Subtotal	34.7		Subtotal	27.8	
World	41.4		World	32.4	

Notes: As for Appendix Table A.1

Appendix Table A.3. Export tax equivalents of textile quotas in the USA

Category		B'desh	China	HK, China	India	Indonesia	Taiwan, China	Pakistan
		%	%	%	%	%	%	%
200	Yarns put up for retail sale, and thread	0.0	26.7	0.0	0.0	0.0	0.0	0.0
201	Specialty yarns kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	Carded cotton yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
301	Combed cotton yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
400	Wool yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
600	Textured filament yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
603	Yarn containing 85% artificial staple	0.0	0.0	0.0	0.0	0.0	0.0	0.0
604	Yarn containing 85% synthetic staple	0.0	0.0	0.0	0.0	0.0	0.0	0.0
606	Non-textured filament yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
607	Other staple fiber yarn kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
800	Silk blends or non-cotton veg. fiber	0.0	0.0	0.0	0.0	0.0	0.0	0.0
218	Of yarns of different color	0.0	0.0	0.0	0.0	0.0	1.9	0.0
219	Duck	0.0	0.0	1.5	0.0	0.0	0.0	0.9
220	Fabric of special weave	0.0	0.0	0.0	0.0	0.0	0.0	0.0
222	Knit fabric kg.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
223	Non-woven fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
224	Pile & tufted fabric	0.0	63.7	0.0	0.0	0.0	5.9	0.0
225	Blue denim	0.0	53.0	0.0	0.0	0.0	3.3	0.0
226	Cheesecloth, batiste, lawn, voile	0.0	0.0	0.0	0.0	0.0	0.0	0.8
227	Oxford cloth	0.0	0.0	0.0	0.0	0.0	0.0	0.0
229	Special purpose fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
313	Sheeting	0.0	28.4	0.0	0.0	0.0	0.0	0.7
314	Poplin & broadcloth	0.0	31.3	0.0	0.0	0.0	0.0	2.0
315	Printcloth	0.0	48.3	0.0	0.0	0.0	0.0	1.0
317	Twills	0.0	75.6	0.0	0.0	0.0	0.0	1.4
326	Sateens	0.0	43.4	0.0	0.0	0.0	0.0	0.0
410	Woven fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
414	Other wool fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
611	Woven fabric cont. 85% art. staple	0.0	0.0	0.0	0.0	0.0	0.0	0.0
613	Sheeting	0.0	0.0	0.0	0.0	0.0	0.0	1.7
614	Poplin & broadcloth	0.0	23.9	0.0	0.0	0.0	0.0	1.2
615	Printcloth	0.0	72.4	0.0	0.0	0.0	0.0	2.0
617	Twills & sateens	0.0	19.9	0.0	0.0	0.0	0.0	2.3
618	Woven artificial filament fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
619	Polyester filament fabric, light-weight	0.0	0.0	0.0	0.0	0.0	19.8	0.0
620	Other synthetic filament fabric	0.0	0.0	0.0	0.0	0.0	16.5	0.0
621	Impression fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
622	Glass fiber fabric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
624	MMF fabric, woven, 15- 36% wool	0.0	0.0	0.0	0.0	0.0	0.0	0.0
625	Poplin/broadcloth, staple/filament mix	0.0	0.0	0.0	0.0	0.0	3.4	0.0
626	Print cloth of staple/filament mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0
627	Sheeting of staple/filament mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0
628	Twills & sateens of staple/filament mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0
629	Other fabrics of staple/filament mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0%

Appendix Table A.3. Export tax equivalents of textile quotas in the USA

Category		B'desh	China	HK, China	India	Indonesia	Taiwan, China	Pakistan
		%	%	%	%	%	%	%
810	Woven fabric, silk & non-cotton	0.0	0.0	0.0	0.0	0.0	0.0	0.0
360	Pillowcases	0.0	68.1	0.0	0.0	0.0	0.0	0.0
361	Sheets	0.0	132.7	0.0	0.0	0.0	0.0	12.4
362	Bedspreads and quilts	0.0	36.7	0.0	0.0	0.0	0.0	0.0
363	Terry and other pile towels	0.0	7.2	0.0	0.0	0.0	0.0	46.3
369	Other cotton manufactures	0.0	0.0	0.0	0.0	0.0	0.0	11.2
464	Blankets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
465	Floor coverings	0.0	0.0	0.0	0.0	0.0	0.0	0.0
469	Other wool manufactures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
665	Floor coverings	0.0	0.0	0.0	0.0	0.0	0.0	0.0
666	Other MMF furnishings	0.0	116.0	0.0	0.0	0.0	0.0	19.6
669	Other MMF manufactures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
670	Flat goods, handbags & luggage	0.0	0.0	0.0	0.0	0.0	0.0	0.0
863	Towels	0.0	0.0	0.0	0.0	0.0	0.0	0.0
870	Luggage	0.0	0.0	0.0	0.0	0.0	0.0	0.0
871	Flatgoods and handbags	0.0	0.0	0.0	0.0	0.0	0.0	0.0
899	Other silk and veg blend manufs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Weighted Ave. Export Tax Equivalent	0.0	20.5	0.0	0.0	0.0	1.7	9.8
	Memo: % of categories restricted	0.0	26.2	1.6	0.0	0.0	9.8	23.0

Notes: Sources and Sample Period

Country	Year	Frequency	Source
Bangladesh	2002	Average (12 mths)	Communication from Texwatch.com
China	2002	Average (12 mths)	http://www.chinaquota.com/EN/index.asp
Hong Kong	2003	Average (3 mths)	http://tdc-link.tdc.org.hk/quota/HK/HK.asp
India	2001	26th Feb 2001	http://garments.indiaexcite.com/port_links/export_quota2.htm
Indonesia	2002	Average (12 mths)	Communication from Texwatch.com
Pakistan	2004	Jan	http://www.epb.gov.pk/epb/index.jsp
Taiwan	2002	12/5/2002	http://home.kimo.com.tw/ctquota/uqp.htm

ETEs were calculated by converting the quota price to an annual basis where needed, to US dollars, and to a Square Meter Equivalent (SME) basis. Import unit values were calculated from OTEXA data on import value and the quantity of imports on an SME basis, then adjusted to an export basis using fob/cif ratios, and finally converted to net of the quota value by subtracting the value of the quota. Finally, the ETE was calculated as the ratio of the quota price to the net-of-quota value of the export.

Note: Particular thanks are due to Soamiely Andrianandram for kindly sharing data.

Appendix Table A.4. Contributions to the export tax equivalents of US textile quotas

Category		China	HK, China	India	Taiwán, China	Pakistan
		%	%	%	%	%
200	Yarns and thread put up for retail sale	0.2	0.0	0.0	0.0	0.0
201	Specialty yarns kg.	0.0	0.0	0.0	0.0	0.0
300	Carded cotton yarn kg.	0.0	0.0	0.0	0.0	0.0
301	Combed cotton yarn kg.	0.0	0.0	0.0	0.0	0.0
400	Wool yarn kg.	0.0	0.0	0.0	0.0	0.0
600	Textured filament yarn kg.	0.0	0.0	0.0	0.0	0.0
603	Yarn containing 85% artificial staple	0.0	0.0	0.0	0.0	0.0
604	Yarn containing 85% synthetic staple	0.0	0.0	0.0	0.0	0.0
606	Non-textured filament yarn kg.	0.0	0.0	0.0	0.0	0.0
607	Other staple fiber yarn kg.	0.0	0.0	0.0	0.0	0.0
800	Silk blends or non-cotton veg. fiber	0.0	0.0	0.0	0.0	0.0
218	Of yarns of different color	0.0	0.0	0.0	2.8	0.0
219	Duck	0.0	100.0	0.0	0.0	0.1
220	Fabric of special weave	0.0	0.0	0.0	0.0	0.0
222	Knit fabric kg.	0.0	0.0	0.0	0.0	0.0
223	Non-woven fabric	0.0	0.0	0.0	0.0	0.0
224	Pile & tufted fabric	2.5	0.0	0.0	47.0	0.0
225	Blue denim	0.3	0.0	0.0	14.9	0.0
226	Cheesecloth, batiste, lawn, voile	0.0	0.0	0.0	0.0	0.0
227	Oxford cloth	0.0	0.0	0.0	0.0	0.0
229	Special purpose fabric	0.0	0.0	0.0	0.0	0.0
313	Sheeting	1.4	0.0	0.0	0.0	0.3
314	Poplin & broadcloth	1.6	0.0	0.0	0.0	0.1
315	Printcloth	4.3	0.0	0.0	0.0	0.4
317	Twills	2.1	0.0	0.0	0.0	0.5
326	Sateens	0.6	0.0	0.0	0.0	0.0
410	Woven fabric	0.0	0.0	0.0	0.0	0.0
414	Other wool fabric	0.0	0.0	0.0	0.0	0.0
611	Woven fabric containing 85% art. staple	0.0	0.0	0.0	0.0	0.0
613	Sheeting	0.0	0.0	0.0	0.0	0.1
614	Poplin & broadcloth	0.3	0.0	0.0	0.0	0.1
615	Printcloth	1.0	0.0	0.0	0.0	0.2
617	Twills & sateens	0.6	0.0	0.0	0.0	0.1
618	Woven artificial filament fabric	0.0	0.0	0.0	0.0	0.0
619	Polyester filament fabric, light-weight	0.0	0.0	0.0	6.5	0.0
620	Other synthetic filament fabric	0.0	0.0	0.0	26.9	0.0
621	Impression fabric	0.0	0.0	0.0	0.0	0.0
622	Glass fiber fabric	0.0	0.0	0.0	0.0	0.0
624	MMF fabric, woven, 15- 36% wool	0.0	0.0	0.0	0.0	0.0
625	Poplin & broadcloth of staple/ filament	0.0	0.0	0.0	1.9	0.0
626	Printcloth of staple/filament mix	0.0	0.0	0.0	0.0	0.0
627	Sheeting of staple/filament mix	0.0	0.0	0.0	0.0	0.0
628	Twills & sateens of staple/filament mix	0.0	0.0	0.0	0.0	0.0
629	Other fabrics of staple/filament mix	0.0	0.0	0.0	0.0	0.0
810	Woven fabric, silk & non-cotton veg fiber	0.0	0.0	0.0	0.0	0.0
360	Pillowcases	1.4	0.0	0.0	0.0	0.0

Appendix Table A.4. Contributions to the export tax equivalents of US textile quotas

Category		China	HK, China	India	Taiwán, China	Pakistan
		%	%	%	%	%
361	Sheets	10.3	0.0	0.0	0.0	6.9
362	Bedspreads and quilts	10.3	0.0	0.0	0.0	0.0
363	Terry and other pile towels	0.8	0.0	0.0	0.0	38.2
369	Other cotton manufactures	0.0	0.0	0.0	0.0	33.7
464	Blankets	0.0	0.0	0.0	0.0	0.0
465	Floor coverings	0.0	0.0	0.0	0.0	0.0
469	Other wool manufactures	0.0	0.0	0.0	0.0	0.0
665	Floor coverings	0.0	0.0	0.0	0.0	0.0
666	Other MMF furnishings	62.3	0.0	0.0	0.0	19.4
669	Other MMF manufactures	0.0	0.0	0.0	0.0	0.0
670	Flat goods, handbags & luggage	0.0	0.0	0.0	0.0	0.0
863	Towels	0.0	0.0	0.0	0.0	0.0
870	Luggage	0.0	0.0	0.0	0.0	0.0
871	Flatgoods and handbags	0.0	0.0	0.0	0.0	0.0
899	Other silk and veg blend manufs	0.0	0.0	0.0	0.0	0.0
	Total	100	100	100	100	100

Appendix Table A.5. Export tax equivalents of clothing quotas in the USA

		B'desh	China	Hong Kong, China	India	Indonesia	Taiwán, China	Pakistan
		%	%	%	%	%	%	%
237	Playsuits, sunsuits, etc	4.2	3.2	0.0	0.0	1.1	0.0	0.0
239	Babies' garments & acc	0.0	35.8	0.0	0.0	0.0	0.0	0.1
330	Handkerchiefs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
331	Gloves and mittens	0.0	112.8	0.0	0.0	0.0	0.0	0.3
332	Hosiery	0.0	0.0	0.0	14.3	0.0	0.0	0.0
333	M&B suit-type coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
334	Other M&B coats	22.3	37.3	0.0	0.6	7.8	0.0	3.7
335	W&G coats	9.1	44.4	0.0	0.2	7.9	0.3	0.2
336	Dresses	11.6	34.3	0.0	1.8	4.5	0.0	2.5
338	M&B knit shirts	43.9	23.2	0.0	2.2	9.3	9.4	11.1
339	W&G knit shirts & blouses	44.8	191.4	0.0	2.5	10.3	11.8	8
340	M&B shirts, not knit	6.7	60.8	0.0	2.6	2.7	0.0	0.6
341	W&G shirts, not knit	1.9	68.7	0.0	1.1	2.8	0.0	0.3
342	Skirts	43.7	143.5	0.0	1.2	16.5	0.0	0.2
345	Sweaters	0.0	42.3	0.0	0.0	17.5	0.0	0.0
347	M&B trousers & shorts	73.2	94.2	0.0	4.5	17.9	4.8	31.1
348	W&G trousers & shorts	74.5	77.2	0.0	4.6	17.8	3.8	36.2
349	Brassieres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350	Robes, dressing gowns	0.0	0.0	0.0	0.0	0.0	0.0	0.0
351	Nightwear and pajamas	17.0	57.2	0.0	1.8	14.5	0.0	10.4
352	Underwear	6.6	47.9	3.0	0.0	0.0	0.0	13.0
353	M&B down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
354	W&G down coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
359	Other cotton apparel	0.0	13.5	3.7	9.0	0.0	0.0	0.4
431	Gloves and mittens	0.0	0.0	0.0	0.0	0.0	0.0	0.0
432	Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433	M&B suit coats	0.0	30.1	0.0	0.0	0.0	0.0	0.0
434	Other M&B coats	0.0	30.5	3.7	0.0	0.0	0.0	0.0
435	W&G coats	0.0	52.0	1.3	0.0	0.0	0.0	0.0
436	Dresses	0.0	16.2	0.6	0.0	0.0	0.0	0.0
438	Knit shirts & blouses	0.0	34.7	0.7	0.0	0.0	0.0	0.0
439	Babies' garments & acc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
440	Shirts & blouses, not knit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
442	Skirts	0.0	11.9	1.9	0.0	0.0	0.0	0.0
443	M&B suits	0.0	40.2	0.0	0.0	0.0	0.0	0.0
444	W&G suits	0.0	10.7	0.0	0.0	0.0	0.0	0.0
445	M&B sweaters	0.0	31.0	10.0	0.0	0.0	0.0	0.0
446	W&G sweaters	0.0	35.3	11.2	0.0	0.0	0.0	0.0
447	M&B trousers & shorts	0.0	41.6	4.5	0.0	0.0	0.0	0.0
448	W&G trousers & shorts	0.0	22.7	6.6	0.0	0.0	0.0	0.0
459	Other wool apparel	0.0	0.0	0.0	1.7	0.0	0.0	0.0
630	Handkerchiefs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
631	Gloves and mittens	0.0	55.2	0.0	0.0	0.0	0.0	0.1
632	Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix Table A.5. Export tax equivalents of clothing quotas in the USA

		B'desh	China	Hong Kong, China	India	Indonesia	Taiwán, China	Pakistan
		%	%	%	%	%	%	%
633	M&B suit-type coats	0.0	42.1	0.3	0.0	0.0	0.0	0.0
634	Other M&B coats	18.6	21.1	0.5	0.6	27.2	0.0	4.2
635	W&G coats doz 34.50	25.8	31.0	0.4	0.2	39.0	0.0	0.3
636	Dresses	10.1	17.9	0.4	1.6	3.3	0.0	1.7
638	M&B knit shirts	6.2	78.6	9.0	0.0	4.3	0.0	10.1
639	W&G knit shirts & blouses	6.4	56.4	8.5	0.0	3.5	0.0	9.8
640	M&B shirts, non knit	5.6	49.6	0.6	2.8	3.4	0.0	0.8
641	W&G shirts & blouses, not knit	1.0	26.3	0.6	0.5	0.0	0.0	0.4
642	Skirts	37.8	85.3	10.2	1.2	0.0	0.0	0.0
643	M&B suits	0.0	60.1	0.0	0.0	0.0	0.0	0.0
644	W&G suits	0.0	28.0	0.0	0.0	0.0	0.0	0.0
645	M&B sweaters	11.4	60.6	4.5	0.0	5.7	0.0	0.0
646	W&G sweaters	12.1	35.6	4.3	0.0	4.7	0.0	0.0
647	M&B trousers & shorts	37.9	31.6	4.8	1.7	6.5	0.0	1.4
648	W&G trousers& shorts	30.7	37.8	8.4	1.8	5.2	0.0	1.7
649	Brassieres	0.0	114.2	0.0	0.0	0.0	0.0	0.0
650	Robes, dressing gowns	0.0	121.2	25.3	0.0	0.0	0.0	0.0
651	Nightwear and pajamas	15.9	28.5	5.3	0.0	0.0	1.4	11.5
652	Underwear doz 13.40	0.0	26.2	5.6	0.0	0.0	0.0	10.0
653	M&B down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
654	W&G down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
659	Other man-made fiber apparel	0.0	9.2	2.3	15.7	0.0	0.0	0.3
831	Gloves and mittens	0.0	0.0	0.0	0.0	0.0	0.0	0.0
832	Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
833	M&B suit-type coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
834	Other M&B coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
835	W&G coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
836	Dresses doz	0.0	0.0	0.0	0.0	0.0	0.0	0.0
838	Knit shirts & blouses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
839	Babies' garments &accessories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
840	Shirts & blouses, not knit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
842	Skirts doz	0.0	0.0	0.0	0.0	0.0	0.0	0.0
843	M&B suits	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844	W&G suits	0.0	47.4	0.0	0.0	0.0	0.0	0.0
845	Sweaters, non-cotton veg fibers	0.0	13.4	1.0	0.0	0.0	0.0	0.0
846	Sweaters, of silk blends	0.0	2.7	0.5	0.0	0.0	0.0	0.0
847	Trousers & shorts	22.5	0.0	0.0	0.0	0.0	0.0	0.0
850	Robes, dressing gowns, etc	0.0	0.0	0.0	0.0	0.0	0.0	0.0
851	Nightwear and pajamas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
852	Underwear	0.0	0.0	0.0	0.0	0.0	0.0	0.0
858	Neckwear	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859	Other apparel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Average	**20.4**	**36.1**	**2.3**	**1.9**	**6.4**	**0.8**	**10.3**
	Memo: % with positive ETEs	31.4	61.6	34.9	34.9	27.9	8.1	32.6

Appendix Table A.6. Contributions to the export tax equivalents of US clothing quotas

	Bangladesh	China	HK	India	Indonesia	Taiwan	Pak
	%	%	%	%	%	%	%
237 Playsuits, sunsuits, etc	0.1	0.1	0.0	0.0	0.0	0.0	0.0
239 Babies' garments & acc	0.0	8.5	0.0	0.0	0.0	0.0	0.0
330 Handkerchiefs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
331 Gloves and mittens	0.0	2.0	0.0	0.0	0.0	0.0	0.0
332 Hosiery	0.0	0.0	0.0	0.7	0.0	0.0	0.0
333 M&B suit-type coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
334 Other M&B coats	1.2	1.2	0.0	0.2	0.8	0.0	1.4
335 W&G coats	0.6	1.7	0.0	0.2	2.4	0.3	0.1
336 Dresses	0.5	0.5	0.0	1.9	1.4	0.0	0.3
338 M&B knit shirts	7.2	1.3	0.0	18.2	23.1	14.3	47.5
339 W&G knit shirts & blouses	6.0	8.8	0.0	5.6	6.8	45.3	7.2
340 M&B shirts, not knit	3.5	2.4	0.0	11.6	3.6	0.0	0.1
341 W&G shirts, not knit	0.5	2.7	0.0	11.0	8.2	0.0	0.0
342 Skirts	3.7	2.3	0.0	1.6	6.6	0.0	0.0
345 Sweaters	0.0	0.5	0.0	0.0	3.1	0.0	0.0
347 M&B trousers & shorts	26.8	5.3	0.0	8.7	10.5	7.7	24.1
348 W&G trousers & shorts	23.8	7.7	0.0	8.2	9.6	30.7	11.0
349 Brassieres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350 Robes, dressing gowns	0.0	0.0	0.0	0.0	0.0	0.0	0.0
351 Nightwear and pajamas	2.0	1.3	0.0	1.7	4.0	0.0	2.5
352 Underwear	1.7	1.1	3.5	0.0	0.0	0.0	3.1
353 M&B down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
354 W&G down coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
359 Other cotton apparel	0.0	1.9	1.3	8.3	0.0	0.0	0.1
431 Gloves and mittens	0.0	0.0	0.0	0.0	0.0	0.0	0.0
432 Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
433 M&B suit coats	0.0	0.1	0.0	0.0	0.0	0.0	0.0
434 Other M&B coats	0.0	0.1	0.1	0.0	0.0	0.0	0.0
435 W&G coats	0.0	0.3	0.3	0.0	0.0	0.0	0.0
436 Dresses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
438 Knit shirts & blouses	0.0	0.1	1.0	0.0	0.0	0.0	0.0
439 Babies' garments & acc.	0.0	0.0	0.0	0.0	0.0	0.0	0.0
440 Shirts & blouses, not knit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
442 Skirts	0.0	0.0	0.2	0.0	0.0	0.0	0.0
443 M&B suits	0.0	0.1	0.0	0.0	0.0	0.0	0.0
444 W&G suits	0.0	0.0	0.0	0.0	0.0	0.0	0.0
445 M&B sweaters	0.0	0.4	6.6	0.0	0.0	0.0	0.0
446 W&G sweaters	0.0	1.7	23.5	0.0	0.0	0.0	0.0
447 M&B trousers & shorts	0.0	0.2	0.1	0.0	0.0	0.0	0.0
448 W&G trousers & shorts	0.0	0.1	1.0	0.0	0.0	0.0	0.0
459 Other wool apparel	0.0	0.0	0.0	0.2	0.0	0.0	0.0
630 Handkerchiefs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
631 Gloves and mittens	0.0	1.1	0.0	0.0	0.0	0.0	0.0
632 Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
633 M&B suit-type coats	0.0	0.2	0.0	0.0	0.0	0.0	0.0
634 Other M&B coats	3.9	1.9	0.2	0.2	2.4	0.0	0.2
635 W&G coats doz 34.50	3.7	2.6	0.4	0.2	11.4	0.0	0.0

Appendix Table A.6. Contributions to the export tax equivalents of US clothing quotas

	Bangladesh	China	HK	India	Indonesia	Taiwan	Pak
	%	%	%	%	%	%	%
636 Dresses	0.4	2.1	0.2	2.7	1.6	0.0	0.0
638 M&B knit shirts	0.6	1.2	2.0	0.0	1.3	0.0	0.7
639 W&G knit shirts & blouses	0.5	4.8	35.2	0.0	0.4	0.0	0.3
640 M&B shirts, non knit	0.4	1.8	0.1	1.4	0.5	0.0	0.0
641 W&G shirts & blouses, not knit	0.1	1.4	0.3	1.2	0.0	0.0	0.0
642 Skirts	0.6	2.2	2.8	1.0	0.0	0.0	0.0
643 M&B suits	0.0	0.3	0.0	0.0	0.0	0.0	0.0
644 W&G suits	0.0	1.2	0.0	0.0	0.0	0.0	0.0
645 M&B sweaters	0.1	0.2	0.8	0.0	0.0	0.0	0.0
646 W&G sweaters	0.5	1.3	4.6	0.0	0.1	0.0	0.0
647 M&B trousers & shorts	7.8	2.3	1.9	1.1	1.2	0.0	0.2
648 W&G trousers& shorts	2.8	2.5	7.6	1.2	1.1	0.0	0.1
649 Brassieres	0.0	12.4	0.0	0.0	0.0	0.0	0.0
650 Robes, dressing gowns	0.0	3.4	0.5	0.0	0.0	0.0	0.0
651 Nightwear and pajamas	0.2	0.9	1.4	0.0	0.0	1.7	0.8
652 Underwear	0.0	0.7	3.0	0.0	0.0	0.0	0.2
653 M&B down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
654 W&G down-filled coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
659 Other man-made fiber apparel	0.0	0.9	0.6	13.2	0.0	0.0	0.0
831 Gloves and mittens	0.0	0.0	0.0	0.0	0.0	0.0	0.0
832 Hosiery	0.0	0.0	0.0	0.0	0.0	0.0	0.0
833 M&B suit-type coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
834 Other M&B coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
835 W&G coats	0.0	0.0	0.0	0.0	0.0	0.0	0.0
836 Dresses doz	0.0	0.0	0.0	0.0	0.0	0.0	0.0
838 Knit shirts & blouses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
839 Babies' garments &accessories	0.0	0.0	0.0	0.0	0.0	0.0	0.0
840 Shirts & blouses, not knit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
842 Skirts doz	0.0	0.0	0.0	0.0	0.0	0.0	0.0
843 M&B suits	0.0	0.0	0.0	0.0	0.0	0.0	0.0
844 W&G suits	0.0	0.1	0.0	0.0	0.0	0.0	0.0
845 Sweaters, non-cotton veg fibers	0.0	1.9	0.8	0.0	0.0	0.0	0.0
846 Sweaters, of silk blends	0.0	0.0	0.0	0.0	0.0	0.0	0.0
847 Trousers & shorts	0.9	0.0	0.0	0.0	0.0	0.0	0.0
850 Robes, dressing gowns, etc	0.0	0.0	0.0	0.0	0.0	0.0	0.0
851 Nightwear and pajamas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
852 Underwear	0.0	0.0	0.0	0.0	0.0	0.0	0.0
858 Neckwear	0.0	0.0	0.0	0.0	0.0	0.0	0.0
859 Other apparel	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix Table A.7. Export Tax Equivalents and Contributions to ETEs in Europe, textiles

		ETE			Contribution to ETE		
Code	Description	China	HK, China	Pak	China	HK China	Pak
		%	%	%	%	%	%
1	Cotton yarn, not put up for retail sale	0.0	0.0	1.6	0.0	0.0	0.7
2	Woven fabrics of cotton, other than gauze	7.0	0.0	3.0	32.1	0.0	3.9
3	Woven fabrics of synthetic fibres	11.0	0.0	1.2	6.9	0.0	2.1
9	Terry towelling and similar woven terry fabrics of cotton;	16.9	0.0	36.4	11.3	0.0	12.3
18	Briefs, nightshirts, pyjamas, bathrobes	0.0	0.0	0.0	0.0	0.0	0.0
20	Bed linen, other than knitted or crocheted	11.9	0.0	27.7	27.1	0.0	80.9
22	Yarn of staple or waste synthetic fibres	0.0	0.0	0.0	0.0	0.0	0.0
23	Yarn of staple or waste artificial fibres	0.0	0.0	0.0	0.0	0.0	0.0
32	Woven pile fabrics and chenille fabrics	0.0	0.0	0.0	0.0	0.0	0.0
33	Woven fabrics of synthetic filament yarn lt 3 m wide	0.0	0.0	0.0	0.0	0.0	0.0
34	Woven fabrics of synthetic filament yarn, 3 m or more wide	0.0	0.0	0.0	0.0	0.0	0.0
35	Woven fabrics of synthetic fibres (continuous)	0.0	0.0	0.0	0.0	0.0	0.0
36	Woven fabrics of continuous art fibres , not for tyres	0.0	0.0	0.0	0.0	0.0	0.0
37	Woven fabrics of artificial staple fibres	0.0	0.0	0.0	0.0	0.0	0.0
38 B	Net curtains, other than knitted or crocheted	0.0	0.0	0.0	0.0	0.0	0.0
39	Table linen, toilet linen and kitchen linen	11.4	0.0	0.1	22.5	0.0	0.0
40	Woven curtains	0.0	0.0	0.0	0.0	0.0	0.0
41	Yarn of synthetic filament (continuous),	0.0	0.0	0.0	0.0	0.0	0.0
42	Yarn of continuous man-made fibres, not for retail	0.0	0.0	0.0	0.0	0.0	0.0
43	Yarn of man-made filament, yarn of art staple fibres,	0.0	0.0	0.0	0.0	0.0	0.0
46	Carded or combed sheep's wool	0.0	0.0	0.0	0.0	0.0	0.0
47	Yarn of carded sheep's woolhair, not for retail sale	0.0	0.0	0.0	0.0	0.0	0.0
48	Yarn of carded sheep's woolhair, not for retail sale	0.0	0.0	0.0	0.0	0.0	0.0
49	Yarn of carded sheep's woolhair, for retail sale	0.0	0.0	0.0	0.0	0.0	0.0
50	Woven fabrics of sheep's wool	0.0	0.0	0.0	0.0	0.0	0.0
51	Cotton, carded or combed	0.0	0.0	0.0	0.0	0.0	0.0
52	Cotton	0.0	0.0	0.0	0.0	0.0	0.0
53	Cotton gauze	0.0	0.0	0.0	0.0	0.0	0.0
54	Artificial staple fibres	0.0	0.0	0.0	0.0	0.0	0.0
55	Synthetic staple fibres	0.0	0.0	0.0	0.0	0.0	0.0
56	Yarn of synthetic staple fibres	0.0	0.0	0.0	0.0	0.0	0.0
57	Carpets	0.0	0.0	0.0	0.0	0.0	0.0
58	Carpets, carpentines and rugs	0.0	0.0	0.0	0.0	0.0	0.0
59	Carpets and other textile floor coverings	0.0	0.0	0.0	0.0	0.0	0.0
60	Tapestries, hand-made	0.0	0.0	0.0	0.0	0.0	0.0
61	Narrow woven fabrics, and narrow fabrics (bolduc)	0.0	0.0	0.0	0.0	0.0	0.0
62	Chenille yarn	0.0	0.0	0.0	0.0	0.0	0.0
63	Knitted fabric of synthetic fibres, elastomeric	0.0	0.0	0.0	0.0	0.0	0.0
65	Knitted or crocheted fabric,	0.0	0.0	0.0	0.0	0.0	0.0
66	Travelling rugs and blankets,	0.0	0.0	0.0	0.0	0.0	0.0
67	Knitted clothing accessories not for babies	0.0	0.0	0.0	0.0	0.0	0.0
68	Babies' garments and clothing accessories,	0.0	0.0	0.0	0.0	0.0	0.0
76	Industrial or occupational clothing not knitted	0.0	0.0	0.0	0.0	0.0	0.0
77	Ski suits, other than knitted or crocheted	0.0	0.0	0.0	0.0	0.0	0.0
78	Garments, other than knitted or crocheted,	0.0	1.6	0.0	0.0	25.5	0.0

Appendix Table A.7. Export Tax Equivalents and Contributions to ETEs in Europe, textiles								
		ETE			Contribution to ETE			
Code	Description	China	HK, China	Pak	China	HK China	Pak	
83	Overcoats, jackets, blazers and other garments	0.0	15.0	0.0	0.0	74.5	0.0	
84	Shawls, scarves	0.0	0.0	0.0	0.0	0.0	0.0	
87	Gloves, mittens and mitts	0.0	0.0	0.0	0.0	0.0	0.0	
88	Stockings, socks and sockettes,	0.0	0.0	0.0	0.0	0.0	0.0	
90	Twine, cordage, ropes and cables, synthetic	0.0	0.0	0.0	0.0	0.0	0.0	
91	Tents	0.0	0.0	0.0	0.0	0.0	0.0	
94	Wadding; textile fibres	0.0	0.0	0.0	0.0	0.0	0.0	
95	Felt and articles thereof	0.0	0.0	0.0	0.0	0.0	0.0	
96	Non-woven fabrics and articles of such fabrics	0.0	0.0	0.0	0.0	0.0	0.0	
97	Nets and netting made of twine, cordage or rope	0.0	0.0	0.0	0.0	0.0	0.0	
98	Other articles made from yarn or rope	0.0	0.0	0.0	0.0	0.0	0.0	
99	Textile fabrics otherwise coated;	0.0	0.0	0.0	0.0	0.0	0.0	
100	Textile fabrics impregnated, coated	0.0	0.0	0.0	0.0	0.0	0.0	
109	Tarpaulins, sails, awnings and sunblinds	0.0	0.0	0.0	0.0	0.0	0.0	
110	Woven pneumatic mattresses	0.0	0.0	0.0	0.0	0.0	0.0	
111	Camping goods	0.0	0.0	0.0	0.0	0.0	0.0	
112	Other made up textile articles,	0.0	0.0	0.0	0.0	0.0	0.0	
113	Floor cloth, dish cloth and dusters	0.0	0.0	0.0	0.0	0.0	0.0	
114	Woven fabrics for technical uses	0.0	0.0	0.0	0.0	0.0	0.0	
115	Flax or ramie yarn	0.0	0.0	0.0	0.0	0.0	0.0	
117	Woven fabrics of flax or of ramie	0.0	0.0	0.0	0.0	0.0	0.0	
118	Table linen and kitchen linen of flax or ramie,	0.0	0.0	0.0	0.0	0.0	0.0	
120	Curtains (incl. drapes), interior blinds,	0.0	0.0	0.0	0.0	0.0	0.0	
123	Woven pile fabrics and chenille fabrics of flax or ramie	0.0	0.0	0.0	0.0	0.0	0.0	
124	Synthetic staple fibres	0.0	0.0	0.0	0.0	0.0	0.0	
125	Synthetic fibres	0.0	0.0	0.0	0.0	0.0	0.0	
125 B	Monofilament, strip, synthetic	0.0	0.0	0.0	0.0	0.0	0.0	
126	Artificial staple fibres	0.0	0.0	0.0	0.0	0.0	0.0	
127 A	Yarn of artificial filaments (continuous) not for retail	0.0	0.0	0.0	0.0	0.0	0.0	
127 B	Monofilament, strip of artificial textile	0.0	0.0	0.0	0.0	0.0	0.0	
128	Coarse animal hair, carded or combed	0.0	0.0	0.0	0.0	0.0	0.0	
129	Yarn of coarse animal hair or of horsehair	0.0	0.0	0.0	0.0	0.0	0.0	
130 A	Silk yarn other than yarn spun from silk waste	0.0	0.0	0.0	0.0	0.0	0.0	
130 B	Silk yarn other than of category 130 A	0.0	0.0	0.0	0.0	0.0	0.0	
131	Yarn of other vegetable textile fibres	0.0	0.0	0.0	0.0	0.0	0.0	
133	Yarn of true hemp	0.0	0.0	0.0	0.0	0.0	0.0	
134	Metallized yarn	0.0	0.0	0.0	0.0	0.0	0.0	
135	Woven fabrics of coarse animal hair or of horse hair	0.0	0.0	0.0	0.0	0.0	0.0	
136	Woven fabrics of silk or of silk waste	0.0	0.0	0.0	0.0	0.0	0.0	
138	Woven fabrics of paper yarn, other than of ramie	0.0	0.0	0.0	0.0	0.0	0.0	
139	Woven fabrics of metal threads	0.0	0.0	0.0	0.0	0.0	0.0	
140	Knitted or crocheted fabric other than wool, cotton or MMF	0.0	0.0	0.0	0.0	0.0	0.0	
142	Carpets and other textile floor coverings of sisal	0.0	0.0	0.0	0.0	0.0	0.0	
146	Carpets	0.0	0.0	0.0	0.0	0.0	0.0	
146 B	Twine, cordage, ropes and cables of sisal	0.0	0.0	0.0	0.0	0.0	0.0	
146 C	Twine, cordage, ropes and cables of jute	0.0	0.0	0.0	0.0	0.0	0.0	

Appendix Table A.7. Export Tax Equivalents and Contributions to ETEs in Europe, textiles

		ETE			Contribution to ETE		
Code	Description	China	HK, China	Pak	China	HK China	Pak
147	Silk waste(incl. cocoons unsuitable for reeling)	0.0	0.0	0.0	0.0	0.0	0.0
148 A	Yarn of jute	0.0	0.0	0.0	0.0	0.0	0.0
148 B	Coir yarn	0.0	0.0	0.0	0.0	0.0	0.0
149	Woven fabrics of jute, more than 150 cm	0.0	0.0	0.0	0.0	0.0	0.0
150	Woven fabrics of jute, not more than 150 cm	0.0	0.0	0.0	0.0	0.0	0.0
151 A	Floor coverings of coconut fibres (coir)	0.0	0.0	0.0	0.0	0.0	0.0
152	Vegetable textile fibres	0.0	0.0	0.0	0.0	0.0	0.0
154	Vegetable textile fibres, raw or processed	0.0	0.0	0.0	0.0	0.0	0.0
156	Blouses and pullovers knitted of silk	0.0	0.0	0.0	0.0	0.0	0.0
157	Garments, knitted or crocheted	0.0	0.0	0.0	0.0	0.0	0.0
159	Dresses, blouses, not knitted, of silk	0.0	0.0	0.0	0.0	0.0	0.0
160	Handkerchiefs of silk or silk waste	0.0	0.0	0.0	0.0	0.0	0.0
161	Garments, not knitted or crocheted,	0.0	0.0	0.0	0.0	0.0	0.0
	Average all textiles	**0.9**	**2.1**	**9.4**			

Appendix Table A.8. Export tax equivalents of apparel quotas in the EU

		ETE			Contribution to ETE		
Codes	Description	China	HK, China	Pak	China	HK, China	Pak
		%	%	%	%	%	%
4	Shirts, T-shirts, and pullovers knitted	76.3	0.0	8.3	12.7	0.0	11.8
5	Jerseys, pullovers, anoraks knitted	310.7	62.6	2.8	29.7	94.2	2.6
6	Woven trousers	206.5	1.9	17.0	21.4	4.7	85.4
7	Women's or girls' blouses, shirts	718.9	0.6	0.3	28.4	0.6	0.1
8	Men's or boys' shirts	82.4	0.7	0.2	3.9	0.5	0.0
10	Gloves, mittens and mitts, knitted	0.0	0.0	0.0	0.0	0.0	0.0
12	Panty-hose and tights, stockings, socks,	33.7	0.0	0.0	0.3	0.0	0.0
13	Underpants and briefs	0.9	0.0	0.0	0.2	0.0	0.0
14	Men's or boys' woven overcoats, raincoats	0.9	0.0	0.0	0.0	0.0	0.0
15	Women's woven overcoats, raincoats	13.6	0.0	0.0	1.1	0.0	0.0
16	Men's or boys' suits and ensembles	0.3	0.0	0.0	0.0	0.0	0.0
17	Men's or boys' jackets or blazers	0.4	0.0	0.0	0.0	0.0	0.0
19	Handkerchiefs, not knitted	0.0	0.0	0.0	0.0	0.0	0.0
21	Parkas; anoraks, windcheaters	0.0	0.0	0.0	0.0	0.0	0.0
24	Nightshirts, pyjamas, dressing gowns	0.0	0.0	0.0	0.0	0.0	0.0
26	Women's or girls' dresses, of wool, of cotton	34.7	0.0	0.0	1.6	0.0	0.0
27	Women's or girls' skirts	0.0	0.0	0.0	0.0	0.0	0.0
28	Trousers, shorts, knitted or crocheted	0.5	0.0	0.0	0.0	0.0	0.0
29	Women's or girls' suits and ensembles	7.5	0.0	0.0	0.5	0.0	0.0
31	Brassières, woven, knitted or crocheted	0.0	0.0	0.0	0.0	0.0	0.0
69	Accessories	0.0	0.0	0.0	0.0	0.0	0.0
70	Panty-hose and tights of synthetic fibres	0.0	0.0	0.0	0.0	0.0	0.0
72	Swimwear, of wool, cotton or MMF	0.0	0.0	0.0	0.0	0.0	0.0
73	Track suits	0.0	0.0	0.0	0.0	0.0	0.0
74	Women's or girls' knitted suits	0.0	0.0	0.0	0.0	0.0	0.0
75	Men's or boys' knitted suits	0.0	0.0	0.0	0.0	0.0	0.0
85	Ties, bow ties and cravats	0.0	0.0	0.0	0.0	0.0	0.0
86	Corsets, corset-belts etc	0.0	0.0	0.0	0.0	0.0	0.0
	Average	**54.0**	**12.3**	**9.2**			
	Fraction with positive ETEs	50	14	25			