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# THE MULTIFIBRE ARRANGEMENT AND ITS EFFECTS ON DEVELOPING COUNTRIES

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The textile and clothing (T&C) industry has played an important role in economic development. It is possible to begin T&C production with relatively small amounts of capital and access to a large low-skilled, low-paid work force.<sup>1</sup> T&C products are “typically among the first items produced and exported by a newly industrializing economy as it begins to diversify away from primary production” (Park and Anderson 1988, p. 1). The T&C industry contributed to the early stages of industrialization in many countries, including Japan, the United Kingdom, and the United States. Today, T&C products lead manufacturing items in both domestic production and exports in many developing countries.

In spite of (or perhaps because of) its importance to developing countries, international trade of T&C products has been subject to trade restrictions for many years. As early as 1935, Japan announced (or, more precisely, was forced to announce) a voluntary export restraint (VER) on textile exports to the United States (see Goto 1988b for further details). Although the trend in world trade has been toward trade liberalization since World War II, T&C trade has remained an exception. Since 1961, when the Short-Term Arrangement Regarding International Trade in Cotton Textiles (STA) was adopted, special arrangements have been made for international trade of T&C. Restrictions on T&C trade were extended to include

synthetic fibers and wool when the Arrangement Regarding International Trade in Textiles, better known as the Multifibre Arrangement (MFA), was adopted in 1973. Administered by the General Agreement on Tariffs and Trade (GATT), the MFA has been renewed three times; the current agreement—MFA IV—extends through July 1991.

Because of the importance of the T&C trade and the everlasting restrictions on it, the MFA has had a strong impact on both importing and exporting countries. For example, the MFA affects consumers in importing countries by increasing prices of both domestic and imported T&C products. Exporting countries are affected by a reduction in export opportunity. Although this is partly offset by the “quota rent,” studies have shown that the export revenue of developing countries that is lost as a result of restrictions is substantial. In addition to its short-term impact, the MFA has some far-reaching effects on economic development. For example, the MFA contributes to the economic development of unrestricted or less restricted developing countries, which are often poorer than the restricted developing countries that are major T&C exporters, by encouraging foreign investment in the less restricted countries. At the same time, the MFA has a negative impact on economic development because the process of the dynamic division of labor through the shift in comparative advantage is delayed. Because of quota rent revenue, relatively high-wage economies, such as Hong Kong, can maintain their position as major producers of such labor-intensive goods as clothing. As soon as a poorer developing country, such as Bangladesh, shows success in exporting T&C products, importing countries discourage its efforts by imposing MFA quotas on its exports.

This article examines the dominant features of T&C exports from developing countries, summarizes MFA provisions and their development, surveys studies that have been conducted on the effects of the MFA on importing and exporting countries, and examines its long-term effects on the economic development of exporting countries.

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***T&C Exports  
and Restrictions:  
An Overview***

In 1987 world trade in textiles and clothing amounted to more than \$140 billion, or 10 percent of manufacturing trade (one billion equals a thousand million). Because clothing is relatively labor-intensive, developing countries have a comparative advantage in production (see table 1). By 1987 developing countries' share in world T&C exports was more than 50 percent, whereas their share in manufacturing exports was only 18 percent. Particularly strong

**Table 1. Developing Countries' Share of World Exports**  
(percent)

<i>Export</i>	1976	1980	1987
Textiles and clothing	32.2	40.6	52.0
Textiles	26.0	30.0	36.4
Clothing	43.1	57.7	65.6
Manufacturing	9.4	13.2	18.1

*Source:* United Nations trade statistics.

competitiveness is shown in clothing exports, with a share of more than 65 percent.

In 1976–87 clothing exports from developing countries grew at a rate that far exceeded manufacturing exports. However, the growth of their T&C exports as a whole (that is, textiles and clothing combined) was substantially lower than that of their manufacturing exports. This occurred partly because of MFA restrictions on T&C exports and partly because of the shift of developing country exports toward capital-intensive products, such as consumer electronics and machinery.

The share of T&C (especially clothing) in developing countries' manufacturing exports is large. As shown in table 2, more than a quarter of manufacturing exports of developing countries are textiles and clothing—three times higher than the world average. The growth rate of textile exports from developing countries during 1976–87 was much slower than that of clothing exports. This is because industrial countries have regained some of their relative strength in the production of textiles, as production has become more capital-intensive following technological developments in the

**Table 2. Share of Textile and Clothing Exports in Manufacturing Exports**  
(percent)

<i>Export</i>	1976	1980	1987
<i>World exports</i>			
Textiles and clothing	9.4	9.1	9.7
Textiles	5.9	5.0	4.5
Clothing	3.5	4.1	5.2
<i>Developing country exports</i>			
Textiles and clothing	32.2	27.9	28.0
Textiles	16.2	11.4	9.1
Clothing	16.0	16.5	18.9

*Source:* United Nations trade statistics.

industry (GATT 1984). Technological progress has been slower in clothing production, which is still relatively labor-intensive. Thus the share of textile exports in manufacturing declined substantially in developing countries, while that of clothing increased.

Remarkable differences between textiles and clothing are also found in the destinations of these exports from developing countries. As shown in table 3, almost all clothing exports—but only half of textile exports—go to industrial countries. According to Keesing and Wolf (1980), this heavy dependence of the developing country clothing industry on the industrial country market is partly because of low demand for factory-made clothing in developing countries and partly because of strong MFA import restrictions that most developing countries impose on clothing.

Although many developing economies export clothing to industrial countries, most clothing comes from Hong Kong, the Republic of Korea, and Taiwan (the Asian Big Three). The data in table 4 show this concentration and indicate an even more interesting phenomenon. Although the share of the Asian Big Three in clothing exports declined in 1973–84, the shares of China and other Asian countries increased. The following factors are at work: (a) the shift in comparative advantage in labor-intensive clothing production from developing countries that are more developed (that is, high-wage) to those that are less developed (that is, low-wage), just as Japan lost its comparative advantage to the Asian Big Three decades ago, and (b) the shift in clothing exports from the more restricted Asian Big Three toward developing countries that are less restricted as a result of the discriminatory nature of the MFA restrictions.

The dramatic growth of clothing exports from developing countries occurred in spite of a high level of tariffs and nontariff barriers. Table 5 gives the average tariff rates imposed by major importers of

**Table 3. Textile and Clothing Exports from Developing Countries by Destination**  
(percent)

<i>Destination</i>	1965	1973	1978	1983
<i>Textiles</i>				
Industrial countries	58.2	62.3	51.6	49.9
Developing countries	41.8	37.7	48.4	50.1
<i>Clothing</i>				
Industrial countries	79.3	90.0	85.8	87.3
Developing countries	20.7	10.0	14.2	12.7

*Note:* Eastern Europe and the U.S.S.R. are not included.

*Source:* Compiled from data from International Labour Office 1987, p. 11.

**Table 4. Textile and Clothing Imports into Industrial Countries from Selected Developing Economies**  
(percent)

Origin of imports	Textiles		Clothing	
	1973	1984	1973	1984
Asian Big Three <sup>a</sup>	29.3	26.8	67.7	61.1
China	11.6	17.8	2.6	8.7
Other Asia <sup>b</sup>	29.2	22.4	7.7	13.4
Latin America and the Caribbean <sup>c</sup>	7.2	9.2	2.7	3.2
Other <sup>d</sup>	22.7	23.8	19.2	13.6
Total	100.0	100.0	99.9 <sup>e</sup>	100.0

a. Hong Kong, Republic of Korea, Taiwan

b. Bangladesh, India, Indonesia, Pakistan, Philippines, Sri Lanka, Thailand

c. Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Haiti, Peru, Uruguay

d. Greece, Portugal, Spain, Turkey, Yugoslavia

e. Figures do not add to 100 because of rounding.

Source: Cline 1987, p. 141.

T&C. The tariff rate on T&C after the Tokyo round of GATT negotiations is almost three times higher than that on manufactured goods as a whole. Moreover, during the Tokyo round, T&C tariff rates were not reduced as much as the rates on manufactured products.

The tariff rates on T&C products tend to increase according to the stage of processing. The average tariff rate on fibers imposed by major importers is around 1 percent, whereas on clothing it is often

**Table 5. Tariff Rates for Textiles and Clothing before and after the Tokyo Round**  
(percent)

Country or group	T&C		Manufacturing	
	Before	After	Before	After
United States	23.5	19.0	7.0	5.0
Canada	24.0	21.5	13.5	8.5
Japan	14.0	11.5	10.0	5.5
European Community	15.0	11.5	8.5	6.0
Austria	30.5	30.0	14.5	12.5
Finland	30.0	29.0	7.5	6.0
Sweden	13.0	12.5	6.0	4.5
Switzerland	10.5	8.5	3.5	2.5
Simple average	20.1	17.9	8.8	6.3

Source: GATT 1984, p. 68.

**Table 6. Tariff Levels for Textiles and Clothing after the Tokyo Round**

(percent)

Country or group	Fibers	Yarns	Fabrics	Clothing
United States	3.5	9.0	11.5	22.5
Canada	3.0	13.0	21.5	24.0
Japan	0.5	6.5	9.5	14.0
European Community	0.5	7.0	10.5	13.5
Austria	0.0	7.0	23.5	37.0
Finland	0.5	6.5	28.5	39.0
Sweden	0.5	7.5	13.0	14.0
Switzerland	0.0	3.5	8.5	11.0
Simple average	1.1	7.5	15.8	21.9

Source: GATT 1984, p. 69.

more than 20 percent. The clothing tariff rates of Austria and Finland are especially high (see table 6).

In addition to tariffs, nontariff barriers (NTBs) are widely imposed on developing country T&C exports. Table 7 shows that the percentage of T&C imports subject to NTBs is two to three times that for manufactured imports as a whole. T&C imports from developing countries are more likely to be subject to NTBs than those from industrial countries because MFA restrictions are imposed only on low-cost suppliers.

**The MFA and the GATT Principles**

The MFA consists of a system of bilateral quotas against T&C exports from developing countries (see appendix). The basic idea of the MFA is the same as those of its predecessors—the Short-Term Arrangement Regarding International Trade in Cotton Textiles (STA), 1961–62, and the Long-Term Arrangement Regarding International

**Table 7. Imports Subject to Nontariff Barriers, 1983**

(percent)

Country or group	T&C			Manufacturing		
	Total	From industrial countries	From developing countries	Total	From industrial countries	From developing countries
United States	57.0	31.1	64.0	17.1	16.5	18.6
European Community	52.0	15.6	68.9	18.7	15.2	29.9
Japan	11.8	11.0	13.0	7.7	9.7	4.4

Source: Nogués, Olechowski, and Winters 1986.

Trade in Cotton Textiles (LTA), 1962–73. Under these international agreements, signatories can impose quantitative restrictions to avoid “market disruption.” The concept of market disruption in the MFA appeared as early as 1960, when the GATT’s contracting parties met to discuss the U.S. proposal for an international agreement to restrict T&C trade. As agreed in 1960, market disruption occurs when (a) there is a sharp and substantial increase of specific products from particular sources, (b) the products are brought in at prices substantially below those in the importing country, (c) there is serious injury, or the threat of serious injury, to domestic producers. Of the three, (b) is the most important. As Sampson states, “in this manner, low-cost suppliers (that is, developing countries) can be selectively singled out for restraint—only they can cause market disruption as it is defined by the MFA” (1986, p. 71).

As many authors, including Choi, Chung, and Nicolas (1985), Keesing and Wolf (1980), and Sampson (1986), have pointed out, because the MFA provides for quantitative restrictions against T&C exports from developing countries, the MFA (as well as the STA and the LTA) derogates GATT principles of nondiscrimination and avoidance of quantitative restrictions except in special cases. Thus, although administered under the auspices of GATT, the MFA is contrary to the spirit of GATT.

How did the T&C industry in importing countries succeed in getting such exceptional protection as the MFA? Several authors, including Keesing and Wolf (1980) and Sampson (1986), speculate on the origin of the MFA. The answer lies in a series of developments in the cotton industry and the international trade of cotton products in the 1950s and early 1960s. The basic idea of the MFA was first incorporated in 1961 into the STA, which covered cotton products.

The United States played a decisive role in establishing the STA. By the 1950s, the U.S. textile industry had succeeded in obtaining some support for protection against imports of cotton textiles. Keesing and Wolf note that “two important ideas [were] especially strongly held in the United States, namely (i) that textiles were somehow special and fully deserving of exemption from general liberalization and (ii), a closely related idea, that without protection the industry could hardly survive” (1980, p. 10). Keesing and Wolf point out that there are both economic and political reasons for such special treatment of the U.S. textile industry. First, output and employment in the industry were stagnant and even declining in the 1950s. Although the stagnation could be attributed partly to international competition caused by the shift in comparative advantage toward low-wage countries, the main reason was a stagnant demand for textile products. The share of textile products in personal consumption expenditure in the United States fell from 14 percent in

1919 to less than 9 percent in 1959 (Keesing and Wolf 1980). Second, the industry was large—employing 17 percent of the total manufacturing work force in industrial countries—and well organized as a political pressure group. Third, the only countries affected adversely by the protection were Japan and developing countries whose political clout was then weak.

The protectionist idea was reinforced when Japan applied for accession to the GATT in 1955. Many countries worried about the potential of Japan, which was dramatically expanding exports of cotton textiles. As Sampson argues, “restraining all suppliers would require restraint of more economically powerful countries and could prompt retaliatory action or requests for compensation as provided for in Article XIX of GATT” (1986, p. 72). Therefore, in 1957 the United States, a major importer of Japanese cotton products, negotiated an agreement on the Japanese five-year VER on the shipment of cotton textiles to the United States. Although the United States succeeded in curbing Japanese cotton products, other Asian economies—especially Hong Kong—dramatically increased shipments to fill the gap (see table 8).

Such a diversion of sources of imports is common for T&C products, because the setup costs of production are small. Faced with such a diversion, the United States began negotiations with Hong Kong on the VER (in vain) and brought the issue to GATT in an attempt to obtain a multinational framework for the restriction on T&C products. Meanwhile, the United Kingdom formed bilateral agreements with Hong Kong, India, and Pakistan on the VER.

VERs are a derogation of GATT principles because they are discriminatory and quantitative restrictions. Therefore, the restricting countries—especially the United States—wanted to obtain international sanction for them. Exporting countries also wanted an international arrangement because, as Keesing and Wolf argue, “it was feared that uncontrolled restrictions, even if agreed on a ‘voluntary’

**Table 8. *Shipment of Cotton Products to the United States***

(millions of U.S. dollars)

<i>Exporter</i>	1956	1961
Japan	84.1	69.4
Hong Kong	0.7	72.0
Other Asia	15.3	25.0
Other	54.2	36.9
Total	154.3	203.3

Source: Hunsberger 1964.

basis, would fundamentally impair the long-term opportunities of developing countries” (1980, p. 20). Although the MFA (as well as the STA and the LTA) provides that new quota levels are not to be lower than actual shipments before the imposition of the quota (see appendix for details), the level of VERS before 1960 was often substantially below the actual shipments of the previous year.

Thus the interests of importing and exporting countries partly coincided, and the international agreement on restrictions on T&C trade came into effect in 1961. Synthetic fiber and wool became important by the early 1970s and were included in the MFA when it was initiated in 1974.

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Because the MFA gives only a framework for world T&C trade and actual restrictions are imposed by either unilateral or bilateral quotas, the severity of MFA restrictions depends on the administration of the individual quotas. Most studies agree that restrictions have become more comprehensive and more severe over time.

### *Development of MFA Restrictions*

As the GATT (1984) pointed out, the period under MFA I (January 1974–December 1977) was characterized by a period of “relative liberalization” of trade in textiles and clothing. During this time, many previous restrictions were abolished, consistent with MFA article 2 (on the phasing out of pre-MFA restrictions). Not only had cotton textiles been subject to restrictions under the STA and LTA since 1961, but there were also trade restraints on wool and synthetic fiber products. Therefore, the period under MFA I “witnessed enhanced discipline in the regulatory measures compared to the autonomous and arbitrary methods of the past” (p. 78). The restrictions imposed during MFA I were more or less consistent with the spirit of the MFA text. Most importing countries preferred selective coverage of items (consistent with annex A of the MFA) rather than comprehensive restrictions; only the United States took comprehensive measures. Provisions of annex B (on the base level, growth rate, and flexibility; see appendix for details) were well observed by many importing countries.

MFA II (January 1978–December 1981) proved more restrictive, primarily because of European Community (EC) initiatives. During the period under MFA I, the EC’s T&C imports dramatically increased, possibly because T&C exports from developing countries shifted to the EC from the United States, where a comprehensive system of bilateral restriction had been set up in 1971. This increase occurred during a time of economic recession and high unemployment after the first oil crisis. Thus, although most of the MFA participants favored a simple extension of the MFA, the EC took a hard

line. The EC was responsible for a new provision included in the Protocol of Extension—the possibility of “jointly agreed reasonable departures” from particular elements in particular cases. Although reasonable departures were intended to be only temporary, they have, in fact, been used for long periods. The departures consisted of reductions in quotas from their previous levels (or actual trade), reductions in flexibility, and growth rates below 6 percent.<sup>2</sup> During this period, the EC formed a system of comprehensive restrictions, dividing MFA products into 114 categories and five groups. In addition, it adopted a “basket extractor” mechanism whereby any exporter whose exports exceeded a threshold share of total EC imports would be subject to new controls.

Faced with the growing objections of exporting countries to the frequent use of departures under MFA II, the Protocol for MFA III (January 1982–July 1986) excluded the reasonable departures clause. Instead, more specific provisions were introduced. One of the most important was an “antisurge” provision concerning underutilized quotas. Most of the MFA quotas are unfilled except for those imposed on a few superstars of T&C exports (see the section “Effects of the MFA on Exporting Developing Countries”). The utilization ratio of other countries is sometimes as low as 10 to 20 percent. Importing countries thus added antisurge provisions to avoid sudden influxes of imports under unfilled quotas. To facilitate adjustment in importing countries, a permanent subcommittee of the Textiles Committee was established to monitor adjustment policies. In spite of these changes, MFA III led to a further tightening of restrictions. In December 1983, the Textiles Surveillance Body reported on the implementation of MFA III as follows:

On the basis of notifications reviewed in 1982 and 1983, the overall picture is one of a somewhat more severe implementation of the Arrangement since the coming into force of the 1981 Protocol of Extension:

- unilateral measures have been taken more frequently;
- a number of new bilateral agreements with previously unrestricted countries had been concluded;
- coverage in terms of products under restraint has increased;
- agreements concluded with large suppliers are again more and more restrictive.

Faced with dramatic import increases in the 1980s, the United States became even more restrictive. The most important change in U.S. policy was a “call” system, announced in December 1983. Under this system, consideration of a possible case of market disruption can be initiated when imports have (a) reached 20 percent of production or (b) risen by 30 percent in the preceding twelve

months, and imports from an individual supplier have reached 1 percent of production.

The United States invited more than a hundred consultation calls in 1984–85, and in almost all cases new restrictions were imposed on T&C exports from developing countries. The EC's policies toward T&C exports from developing countries, however, were less severe under MFA III than under MFA II. The EC did not invoke the antisurge provision during MFA III, and the basket extractor mechanism was invoked less frequently than before.

During MFA IV (August 1986–July 1991), provisions for even broader coverage and tighter restrictions have been introduced. The reasonable departures clause has been restored, the product coverage has been extended to include vegetable fibers and silk blends, and other small changes have been made to further restrict T&C exports.

The MFA has now been in effect for many years and there is little prospect of its being abolished when MFA IV ends, although the future of the MFA is being negotiated under the Uruguay round. Because of the everlasting nature of the MFA, it has profound long-term effects on economic development (see "Effects of the MFA on Exporting Developing Countries," later in this article).

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Although this article concentrates on the effects of the MFA on exporting developing countries, major studies on the effects of the MFA (and other restrictions on T&C trade) on importing countries are briefly examined here, because they are an important part of the whole picture. Although policymakers in importing countries maintain that import restrictions are necessary to protect domestic industry and workers, most research has shown that import restrictions hurt not only exporting countries but importing countries as well.

*Effects of the  
MFA on  
Importing  
Countries*

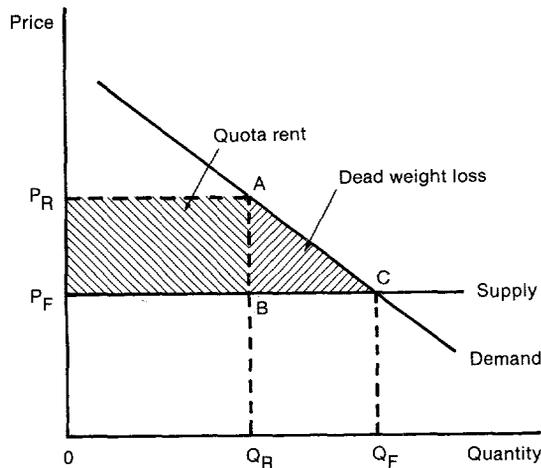
*Cost to Consumers and Domestic Job Creation*

Some studies that examine the MFA's cost to consumers also consider domestic job creation as a result of import quotas. Most of these studies agree that, although consumers in importing countries incur huge costs from MFA quotas, the number of domestic jobs saved or created by the quotas is relatively small; therefore, MFA quotas are a poor way to protect workers from foreign competition.

Studies on the cost to consumers have been conducted by, among others, Cline (1987), Hufbauer, Berliner, and Elliott (1986), and Tarr and Morkre (1984) for the U.S. market; Jenkins (1980) for the

Canadian market; and Spinanger and Zietz (1986a) for the German market. These and other studies differ in their underlying assumptions about elasticities and other variables and in their coverage of

**Figure 1**



(a) types of restrictions (for example, quota only, or quota and tariff), (b) exporters (for example, all foreign suppliers or Hong Kong alone), and (c) products. Even so, the basic framework of most analyses is the same. This framework is presented schematically in figure 1, which shows the relation between price and quantity, assuming an infinite elasticity of foreign supply (the following argument also holds if the supply curve slopes upward). Under free trade conditions, equilibrium is obtained at point C,

where quantity  $Q_F$  is supplied at price  $P_F$ . When a quota is imposed to limit the supply of imports to  $Q_R$ , there is an excess demand for imports at the price  $P_F$ . The price must then be increased to eliminate the excess demand. The new equilibrium is obtained at A, where quantity  $Q_R$  is supplied at price  $P_R$ . The shaded area  $P_R P_F B A$  represents quota rent. It is usually assumed that this quota rent is transferred to the exporting countries because the MFA quota is administered by the exporting countries. In addition to the quota rent they pay, consumers in the importing countries incur another loss from the restrictions. This additional loss, represented by the shaded triangle ABC, is often called a dead weight loss because it cannot be captured either by the consumer or by the producer. The quota protection of T&C from the exporting countries also affects the price of domestically produced T&C in the importing countries because the domestic T&C is produced to substitute for the foreign T&C that cannot be imported owing to the quota restrictions.

Using this approach, the studies just cited reported various consumer costs to importing countries. These estimated costs are included in the data presented in table 9. Estimated values of the consumer costs differ depending on coverage and underlying assumptions, but the cost to consumers of restrictions on T&C imports is high.

Some studies also estimate the number of domestic jobs created or saved by restrictions. Their technique is straightforward. First, the value of increased domestic production, dependent partly on the elasticity of substitution between domestic and imported products,

**Table 9. Data from Studies on the Effects of Protection on T&C Imports**

Category	Cline 1987	Hufbauer, Berliner, & Elliott 1986	Tarr & Morkre 1984	Jenkins 1980	Spinanger & Zietz 1986a
Year	1985	1986	1983	1979	MFA II period
Coverage	U.S. T&C imports	U.S. T&C imports	U.S. imports of selected clothing from Hong Kong	Canadian clothing imports	German T&C imports
Method of protection	Tariffs and quotas	Tariffs and quotas	Quotas	Tariffs and quotas	Quotas
Consumer cost	\$20.3 billion	\$27 billion	\$0.38 million–\$0.5 million	\$400 million	DM 600 million–700 million
Jobs saved	434,200	640,000	9,000	n.a.	n.a.
Cost per job saved	\$47,000	\$42,000	\$42,000–\$57,000	n.a.	n.a.

n.a. Not available.  
Source: See references.

is estimated. Second, the average value of domestic shipments per worker is determined. Then, the number of jobs created is calculated by dividing changed production by average production per worker. As shown in table 9, the number of jobs saved is relatively small, but the cost to consumers per job saved is \$42,000–\$57,000, which far exceeds the average wage of T&C workers in the United States. Consumers incur this cost each year that restrictions continue, while workers displaced in the absence of import restrictions might be able to find new jobs elsewhere.

#### *Profits and Income Distribution*

MFA restrictions have a big impact on profits of domestic producers in the importing country—because of import restrictions they can sell more products at higher prices. Jenkins (1980) reported that as a result of tariffs and quotas imposed on T&C imports, domestic producers in Canada gained by US\$240 million in 1979, equivalent to about half the cost to consumers.

One of the arguments in favor of protection is that because the T&C industry often employs relatively low-wage workers, protection might encourage more equitable income distribution by increasing the employment of these workers. To test this argument, Cline (1987) estimated the impact of MFA protection on five income groups. For each group, he compared the cost of increased prices of T&C with the benefits that result from increased employment and

the increased transfers to producers. Contrary to popular belief, the cost of the price increase exceeded the benefit for all incomes except the top 20 percent. Thus it appears that the protection on T&C imports widens rather than narrows the inequality in income distribution.

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***Effects of the  
MFA on  
Exporting  
Developing  
Countries***

Because the MFA imposes discriminatory restrictions on the exports from developing countries, and because the MFA seems eternal, it has a strong impact on developing countries both in the short run and in the long run. First, the MFA has a direct impact on restricted exporters in the form of forgone export revenue and quota rents. Second, the MFA affects trade patterns. Because individual quotas under the MFA are imposed on selected exporting countries, unrestricted (often inefficient) countries may be able to increase their shipments at the expense of restricted (often efficient) countries. Third, because the MFA puts a cap on the quantity (not the value) of shipments, it encourages the upgrading of exports. Fourth, foreign investments by restricted suppliers (such as Hong Kong) are stimulated by the desire to evade MFA quotas. Investments in less restricted regions have helped economic development of countries in Asia, Latin America, and the Caribbean. Fifth, the MFA discourages new T&C exporters from becoming major T&C suppliers.

Following is a review of existing studies on the effects of the MFA on developing countries.

*Forgone Exports and Rent Transfer*

The framework of the analysis of forgone exports and accrued rent in the exporting country is essentially the same as that used to analyze the effects on importing countries. In figure 1, the value of the export shipment before the quota is the area  $P_F O Q_F C$  and the value after the quota is the area  $P_R O Q_R A$ ; total decline in export revenue is the difference between the two. Although the value of shipments can decrease or increase, empirical studies show that export revenues tend to decrease after the MFA quota.

Most empirical studies show that the magnitude of forgone exports by exporting developing countries is substantial. UNCTAD (1986) reported that if all restrictions on T&C trade were removed, T&C exports from developing countries to the EC, Japan, and the United States would increase by \$15 billion, an increase of 96 percent, which is almost equal to the actual level of exports. Of this increase, 60 percent can be attributed to the removal of NTBs, of which the MFA restrictions are the most important. Similarly, Kir-

mani, Molajoni, and Mayer (1984) reported that the removal of both tariff and nontariff barriers would increase developing country exports to the main countries of the Organisation for Economic Cooperation and Development (OECD) by 82 percent for textiles and 93 percent for clothing. Whalley and Trela (1988), using a general equilibrium approach, estimated that developing countries as an aggregate are losing around \$11 billion a year from the MFA because the value of forgone shipments as a result of quantity restrictions exceeds the transferred rent by that amount.

However, some doubt has been cast on the effectiveness of restrictions on developing country exports since the early 1970s.

There is a widespread perception that protectionist pressures increased significantly in the 1970s, and that those pressures resulted in a pronounced increase in protection in the form of NTBs against manufactured imports from developing countries . . . [but] the incidence of protection against manufactured exports from the developing countries was probably considerably less than is generally believed (Hughes and Krueger 1984, p. 390).

As evidence of their argument, Hughes and Krueger noted that the market penetration of developing countries continued to grow faster than total imports despite protectionist measures. They also conceded that the rapid increase in developing country exports does not necessarily mean that protection was costless, because "unrestricted markets could have led to even faster export growth because prices would have been lower without distorting rents" (p. 413).

There are also estimates of the transferred quota rent to the exporting developing country. Most studies of the cost to consumers in the importing country deal with the quota rent. Virtually all assume that quota rent is transferred to the exporting country because the MFA quota is administered by the exporting countries. Using that assumption, Tarr and Morkre (1984) wrote that the rent transferred to Hong Kong from the U.S. restrictions on certain T&C items amounted to \$218.3 million, or one-half to two-thirds the cost to U.S. consumers. Similarly, Hamilton (1986a) estimated that Hong Kong acquired as quota rent \$320 million from shipments to the EC in the three years from 1981 to 1983 and \$730 million from shipment to the United States in the three years from 1982 to 1984. This rent income amounted to 0.7 and 1.7 percent of Hong Kong's gross domestic product (GDP) in 1982 and 1983, respectively, and just over 10 percent of the value added in Hong Kong's apparel industry in 1982. From his estimates of tariff equivalency of quota rents in many categories of T&C products, Pelzman

(1988) reported that the amount of the transferred quota rent from the United States to exporting countries is “in the millions.”

Many of the studies cited show that quota rents are large; the value of the exports forgone, however, is generally much larger. Balassa and Michalopoulos (1985) reported that the value of the lost exports exceeded the quota rent ninefold for the United States and sevenfold for the EC. These two values, however, cannot readily be compared to yield a net gain or loss to an exporting country. Generally speaking, not all the quota rent is transferred to the exporting countries. Although governments of exporting countries under the MFA often allocate export licenses in a manner that helps exporters capture the quota rent, many of these exporters face large importing enterprises that can negotiate prices that capture some of the rent for themselves.

### *Trade Diversion*

The MFA also affects trade patterns. Because the MFA consists of discriminatory quotas, it can divert trade from more restricted to less restricted countries. As Keasing and Wolf (1980) point out, such trade diversion occurs in favor of the exports from industrial countries because the MFA restrictions are applied only to developing countries. Such diversion can occur among developing countries, however, because they are not restricted equally.

Although the number of member countries of the MFA is large (forty-two for MFA III), the number of restricted countries is far smaller because restrictions are set by the individual bilateral agreement between each exporting and importing country. The targets of restrictions are major T&C exporting countries, and many countries—especially in Latin America—are restricted very little by MFA quotas. As table 10 indicates, the superstars of T&C exports—Hong Kong and Korea—are severely restricted by the MFA, but the restrictions imposed on some of the Latin American countries are far less severe.<sup>4</sup> In addition, although the quotas imposed on Hong Kong and Korea are almost filled, the utilization rates of Colombia and Mexico are less than 50 percent. Under the Lomé Convention, ACP (African, Caribbean, and Pacific) countries are exempt from MFA quotas imposed by the EC as long as the inputs used are produced in their own countries or imported from the EC. Under the newly adopted “super 807” program, some Caribbean countries are exempt from MFA quotas imposed by the United States; that is, clothing made entirely of U.S. material can be imported without regard to bilateral MFA quotas.

**Table 10. Coverage and Utilization Rate of MFA Quotas of Selected Economies, 1982**

(percent)

Exporter	MFA coverage <sup>a</sup>		Utilization rate <sup>b</sup>	
	To United States	To EC	To United States	To EC
Colombia	40.1	63.5	43.5	35.5
Hong Kong	75.7	94.7	100.0	79.0
Korea	76.4	95.1	96.2	89.4
Mexico	45.4	6.4	38.6	9.8

a. The ratio of shipments subject to MFA restrictions to total shipments.

b. The ratio of actual shipments to MFA quota amounts.

Source: GATT 1984.

Because of the discriminatory nature of MFA quotas, which are different from global quotas permitted under GATT article 19, some developing countries benefit from the MFA. Cable states that “some of the less competitive Latin American and Eastern European exporters saw the MFA as providing a guaranteed market share” (1981, p. 183). Similarly, Wolf points out that “any discriminatory quotas allow unrestricted exporters to share the benefits of protection with the domestic producers” (1987, p. 17).

Keesing and Wolf (1980) present data from the late 1950s and 1960s as evidence of the trade diversion. Immediately after Japan announced a VER on shipments to the United States, Hong Kong dramatically increased shipments to fill the gap (refer to table 8). According to Wolf (1987), in 1981–85 U.S. imports of T&C from the Asian Big Three grew at an annual rate of less than 10 percent, whereas those from other developing countries and from Europe grew by 22 and 33 percent, respectively.

A growth rate of the Asian Big Three that is lower than that of other developing countries, however, does not necessarily mean that the trade diversion is caused by the MFA. A difference in the growth rates may result from the shift in comparative advantage toward newcomers. Erzan, Goto, and Holmes (1989) present an estimate on the trade diversion due to the MFA. According to the study, unrestricted developing countries could increase their shipment of clothing only by 10 percent at the expense of restricted developing countries. The MFA sometimes discourages a shift in comparative advantage because it tends to maintain current distribution of T&C trade among developing countries. These effects and trade diversion as a result of foreign investment will be discussed later under “Long-Term Effects on Economic Development.”

### *Incentive for Upgrading*

Many authors contend that quantitative restrictions like the MFA encourage product upgrading.<sup>5</sup> Theoretically, quantitative restrictions can result in either upgrading or downgrading, as Leffler (1982) has shown. But many authors present arguments and data in support of the upgrading theory.

Because the MFA controls the physical volume of imports rather than their value, it introduces an incentive to upgrade products. In one dimension, this process has occurred from a shift of textiles . . . to finished apparel. . . . While controlled suppliers have had an incentive to upgrade by moving up the ladder of processing stages, they have also faced an inducement to upgrade the quality of their exports within each product category (Cline 1987, pp. 173–74).

Cline presents data showing that the real value of imports grew more slowly than the physical volume in 1961–72 (before the MFA), while the real value of imports grew considerably more rapidly in the initial years of the MFA (1972–77).

Similarly, it has been argued:

One important respect in which quantitative restrictions are almost inevitably porous is that they permit upgrading. The principal reason for upgrading is that the quota premium, whether explicit or implicit, acts like a specific tax, so having a greater proportionate effect on lower valued than on higher valued items. This, in turn, would be expected to shift both supply and demand away from the lower valued items (Wolf 1987, p. 16).

Wolf asserts that in 1981–84, when U.S. restrictions on major suppliers of foreign T&C became stricter, the unit value of American T&C imports from heavily restricted economies such as Hong Kong, Korea, and Taiwan increased, although those from Japan, Europe, and most developing countries declined because of the appreciation of the U.S. dollar.

Some cast doubts on arguments for upgrading. Tarr and Morkre state that “over time, quality may improve, as technology advances and labor skills increase, in the absence of the quotas” (1984, p. 111). A quality improvement over time, particularly from East Asian exporters, does not necessarily mean that the upgrading was caused only by the quantitative restrictions.

What kind of effect, then, does upgrading have on developing countries? Developing countries could learn how to export more

sophisticated products through upgrading induced by the quantitative restrictions.

[Upgrading] may have been very favorable for the economies' long-term development compared with specializing in turning out larger quantities of cheap sweaters, shorts or slacks. In addition, learning to get the most out of quotas must have been very demanding and has probably greatly strengthened entrepreneurship, management and technical versatility, especially in Hong Kong, South Korea and Taiwan where quotas have had the most restrictive impact (Keesing and Wolf 1980, p. 124).

Nonetheless, neither upgrading nor any other form of evading the effects of the restrictions is achieved without costs to exporting countries.

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Almost thirty years have passed since the multilateral restriction was imposed on T&C trade in 1961, and there is little chance that the MFA will be abolished in the near future. Because of its ongoing nature, the MFA has a profound impact on economic development.

*Long-Term  
Effects on  
Economic  
Development*

#### *Foreign Direct Investment*

Kumar and McLeod (1981) affirm that the MFA encourages foreign direct investment in nonrestricted and less restricted developing countries. When major T&C exporters (Hong Kong and Korea, for example) realized that MFA restrictions imposed on them would continue for years, they tried to set up plants in other countries. T&C firms in Hong Kong invested in other Asian countries, including China. Some of these investments were made mainly to circumvent tariffs and quotas imposed by developed countries. More recently, government officials and business people in Caribbean countries (Dominican Republic and Jamaica, for example) have pointed out that firms in the Asian Big Three have been investing in and establishing clothing factories in their countries, and that without the MFA the increase in the inflow of Asian capital would have been slower.

It should be noted, however, that although foreign direct investment (as well as technological transfers) from major T&C exporters will encourage economic development of host countries, the MFA tends to discourage host countries from becoming too successful. For example, when Bangladesh showed dramatic success in clothing exports with the help of a Korean company, industrial countries successfully negotiated bilateral restrictions on its exports.

### *Deterrence to New Entry*

In one sense, the MFA tends to maintain the present configuration of T&C trade by discouraging shifts in the trade pattern based on comparative advantage. T&C production was a catalyst to industrialization in many countries. The economic development of Japan was spurred by its exports of silk and cotton products some decades ago. As Japan accumulated capital and wage rates rose, production shifted toward more capital-intensive goods, and Hong Kong and Korea acquired the comparative advantage in T&C production. As Keesing and Wolf argue, "in the absence of [MFA] restrictions on their suppliers, shifts toward new sources of supply could be expected. . . . If MFA quotas did not exist, these countries [developing countries other than the Asian Big Three] would have the opportunity to follow much the same path to industrialization that Hong Kong, South Korea, and Taiwan have been taking, and supplant them as leading clothing exporters" (1980, pp. 129, 131).

A long-lasting MFA delays the shift in the location of T&C production for two reasons. First, quota rents enable Hong Kong and others to maintain international competitiveness even after their comparative advantage in T&C production has shifted toward less developed countries. Second, the MFA tends to discourage new T&C exporters from becoming major suppliers because MFA quotas have been imposed on even the smallest and poorest countries when they begin to show a rapid increase in their shipments of T&C products. Spinanger (1987) summarized the experience of Bangladesh in the early 1980s. Bangladesh is one of the world's poorest and most heavily aided countries. But, with the help of Korea and a local entrepreneur, its garment exports increased from almost nothing in 1979 to \$500 million in 1987. Late in 1985 the United States successfully negotiated the MFA quota with Bangladesh. As a result, out of 700 garment factories then operating, 300 were shut down. There are other examples of the imposition of an MFA quota on small and poor countries whose exports are insignificant in the total T&C imports of industrial countries.<sup>6</sup>

On this harmful impact of the MFA on economic development, Keesing and Wolf noted, "What are almost certainly the most harmful consequences of textile quotas will come over the long run, therefore, in relatively poor developing countries that have the potential to expand their industrial base and manufactured exports by specializing at first in labor-intensive products such as clothing" (1980, p. 131). Thus trade restriction is harmful in most cases. A long-lasting restriction like the MFA is all the more harmful because it discourages change in the international division of labor.

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The MFA has four important short-term effects on exporting developing countries: (a) the forgoing of exports, (b) the transfer of quota rents, (c) the shift to unrestricted exporters, and (d) the upgrading of products. Most studies on the effects of the MFA on exporting developing countries cover the transferred quota rent and the change in export revenue under the MFA quota. These studies show that the forgone exports revenue and transferred quota rents are huge.

*Concluding  
Remarks*

The MFA also has important long-term effects on economic development. Because it encourages foreign investment in nonrestricted developing countries, the MFA can have a favorable effect on poorer countries; in most cases, however, the MFA has been used to restrict development.

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The MFA has been extended three times, by attaching new protocols and leaving the main text intact.

*Appendix:  
Major  
Provisions of  
the MFA*

*Stated Objectives (Article 1)*

The stated objectives of the MFA are “to achieve the expansion of trade, the reduction of barriers to such trade and the progressive liberalization of world trade in textile products, while at the same time ensuring the orderly and equitable development of this trade and avoidance of disruptive effects in individual markets and on individual lines of production in both importing and exporting countries.” Import restrictions are supposed to be imposed only to avoid disruptive effects. In industrial countries, where the T&C industry has lost comparative advantage, it is supposed to adjust to the new trend by either shrinking or regaining competitiveness. However, developments of T&C trade under the MFA are far from the stated objectives.

*Restrictive Measures (Articles 3 and 4)*

The MFA provides that importing countries can take unilateral or bilaterally agreed restrictive measures to avoid “disruptive effects in individual markets and on individual lines of production.” Article 3 provides for measures taken when market disruption occurs, and article 4 provides for measures when there is only the risk of disruption. During MFA I, many unilateral measures were taken after un-

successful consultations; recently almost all restrictions have been made under bilateral agreements between the importing and exporting countries.

#### *Definition of Market Disruption (Annex A)*

Market disruption can exist where there is serious damage to domestic producers or the threat of damage. Either way, it must be demonstrably caused by (a) a sharp and substantial increase, or imminent increase, of imports from particular sources and (b) the pricing of products substantially below the prevailing price in the importing country. Under the MFA, the importing country cannot impose trade restrictions for damages caused by "factors such as technological changes or changes in consumer preference." Thus, according to the letter of the MFA, market disruption is narrowly defined; in reality, it has been broadly interpreted.

#### *Requirements for Individual Restrictions (Annex B)*

To protect the exporting country restricted by the MFA quota, the MFA stipulates the minimum standards on the base year, growth rate, and flexibility of the quota, although such standards are often ignored in individual quota restrictions. The MFA states that new quotas must not be less than actual trade levels during the previous year. With continuing quotas, the annual growth rate should not be less than 6 percent. In "exceptional" circumstances, however, when a recurrence or worsening of disruption is anticipated, the annual growth rate can be reduced below 6 percent. The 6 percent growth rate is higher than that under the LTA, in which the required annual rate was 5 percent. As Wolf pointed out, "the 6 percent growth rate of restraint levels implies the 'withering away' of textile restraints" (1987, p. 4) because the growth rate of 6 percent in volume exceeds the growth of the market by a substantial margin. However, the actual growth rates in quota amount imposed on superstars have been below 6 percent.

The MFA provides some flexibility in quota administration. First, where restraint is exercised for more than one product, a particular quota can be exceeded by 7 percent provided there is a corresponding reduction in another quota ("swing provision"). Second, where restraints are established for more than one year, up to 10 percent of the unused portion of the preceding year's quota can be carried over, and up to 5 percent of the following year's quota can be carried forward, as long as the combined use of carry-over and carry-forward does not exceed 10 percent.

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## Abstract

The MFA provides for bilateral quotas against textile and clothing exports from developing countries. Thus, although it is administered under the auspices of GATT, the MFA derogates two GATT principles: nondiscrimination and the avoidance of quantitative restrictions. The impact of the MFA on developing countries is examined in the article. Four important short-term effects of the MFA on exporting developing countries are (a) the forgoing of exports, (b) the transfer of quota rents, (c) the shift to unrestricted exporters, and (d) the upgrading of products. In the long term the MFA discourages newcomers from becoming successful exporters of textile and clothing products. Although it also encourages foreign investment in unrestricted developing countries, in general the MFA is harmful to current and potential exporters of textiles and clothing in developing countries, and it benefits domestic producers of textiles and clothing in the importing industrial countries.

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1. There is an important exception to this statement. Because the production of synthetic fiber is fairly capital-intensive, industrial countries have recently regained comparative advantage in the production of textile products. See the next section in this article for further details.
2. As described in the appendix, the MFA text provides that the annual growth rate of continuing quotas should not be less than 6 percent.
3. This assumption is not warranted in many cases because importers who have some market power capture the quota rents, at least in part.
4. Note that Taiwan is not a member of the MFA.
5. Feenstra (1984), for example, presented an excellent study on the upgrading of the Japanese shipment of automobiles under the VER.
6. For example, when the EC imposed a quota against Sri Lanka in 1977, the share of Sri Lanka in total EC imports of T&C was only 0.22 percent.

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